A Report for CCC Land Reclamation

Harvey's Foundry, Hayle, Cornwall an Archaeological Assessment

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CORNWALL ARCHAEOLOGICAL UNIT

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Abbre	eviations	
CAU	Cornwall Archaeological Unit	
CRO	Cornwall County Record Office	
EH	English Heritage	
LRF	Land Reclamation Fund	
NGR	National Grid Reference	

RCM Royal Cornwall Museum
PRN Primary Record Number in Cornwall SMR
SMR Cornwall and the Isles of Scilly Sites and Monuments Record

Summary

A Land Reclamation Fund (LRF) scheme has been approved in principle to acquire land and buildings once part of Harvey's Foundry. This application for funding is based on the need to address the public safety aspects of the buildings on the site, whilst at the same time following the planning and archaeological guidelines in relation to the future conservation and sympathetic redevelopment of the site. This Assessment survey attempts to identify the sites of all significant structures and areas, as well as those which have little historic importance and could (if required) be removed or redeveloped without having an adverse impact on the integrity of the site.

The study includes the identification of any areas of particular significance within which development should be resisted or should be accompanied by full archaeological consultation, as well as recommendations for any necessary future recording, evaluation and mitigation strategies. The assessment comprised two phases, a desk top study which gathered the existing documentary sources for the site together, and examination of the site and structures in the field. The project area straddles Foundry Lane in the heart of Hayle (Foundry), immediately to the south of the main Penzance to London railway and is centred on NGR SW 557 372. It comprises a small part of the total area of Harvey's Foundry, to the west of the original 18th century foundry of John Harvey. The area covered by the project is ca 5687 square metres.

The study area represents only a small part of the works of Harvey & Co, which covered many acres at this end of Hayle. Within this larger area surprisingly little survives of the Foundry as it was circa 1880. The structures which do exist are all the more precious as they represent a direct link to the time of Henry Harvey and Trevithick. Detailed recommendations for the conservation and management of the structures affected by the LRF proposals cannot be made in full until vegetation removal and a full condition survey have taken place. All the surviving structures included in the Inventory (Section 4) are of historic significance, with the exception of the Rowe building. All should at the very least be conserved and retained within the setting of Foundry Lane, and some are at the time of writing being considered for adaptive re-use.

1. Introduction

1.1 Project background

The project area straddles Foundry Lane in the heart of Hayle (Foundry), immediately to the south of the main Penzance to London railway and is centred on NGR SW 557 372. A Land Reclamation Fund (LRF) scheme has been approved in principle to acquire land and buildings once part of Harvey's Foundry. The basis of this application for funding is based on the need to address the public safety aspects of the buildings on the site, whilst at the same time following the planning and archaeological guidelines in relation to the future conservation and sympathetic redevelopment of the site.

The complex is particularly well covered by maps, plans and photographs held in a variety of collections and published sources.

1.2 Objectives

The Assessment survey attempts to identify the sites of all significant structures and areas, as well as those which have little historic importance and could (if required) be removed or redeveloped without having an adverse impact on the integrity of the site. Whilst the assessment inevitably stresses the important potential of the site for access and interpretation, the extent of amenity works which can be undertaken within the proposed LRF application will depend to a large degree on the proportion of safety, engineering and demolition works included within the project. This study includes the identification of any areas of particular significance within which development should be resisted or should be accompanied by full archaeological consultation, as well as recommendations for any necessary future recording, evaluation and mitigation strategies.

1.3 Methods

The assessment comprised two phases, a desk top study which gathered the existing documentary sources for the site together, and examination of the site and structures in the field.

1.3.1 Desk Top Assessment

During the desk-top assessment historical databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were likely to survive. The main sources consulted were as follows.

- Cornwall SMR
- Maps and plans at the County Record Office (see Section 5.1)
- Cornwall County Council's listed buildings database
- published histories (see Section 5.2)
- early maps and photographs (see Section 5.1)

From these sources a base map was prepared, identifying the surviving historic features. This base map was used in the field as a key to the inventory items in Section 4 of the report.

1.3.2 Fieldwork

Fieldwork was carried out on 27 August 1999. The base map for the site was taken into the field, and all mapped features were examined and described. Any unmapped features were added to the base by sketch-plotting. Field notes were made on condition, materials, survival, and function. It was not possible to examine the interior of several of the buildings. Photographs were taken for report illustration purposes only, and do not form part of the CAU archive.

1.3.3 Report Production

The material gathered during the fieldwork was used to prepare Section 4 of the report, the Site Inventory.

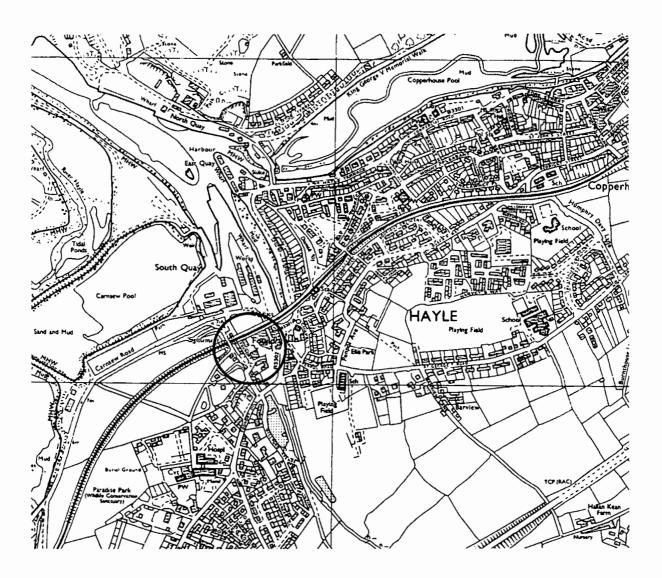


Fig 1 Location Map (not to scale)

Based upon the Ordnance Survey 1:10000 mapping with the permission of the controller of Her Majesty's Stationary Office © Crown Copyright CCC Licence No LA076538

2. Archaeological and Historical Summary

2.1 Location

The project area straddles Foundry Lane in the heart of Hayle (Foundry), immediately to the south of the main Penzance to London railway and is centred on NGR SW 557 372. It comprises a small part of the total area of Harvey's Foundry, to the west of the original 18th century foundry of John Harvey. It includes a former stores (4.1) (the Ford Spares building), a pattern store (4.6) and cart shed (4.5), two tunnels (4.3 and 4.4), two stable buildings (4.8 and 4.10) and a stable yard (4.9), the Foundry Barn and provender store (4.12), an engine house and boiler house (4.13), a boring mill (4.14), a reservoir (4.7), and a building used to store the foundry fire engine (4.11). The area covered by the project is ca 5687 square metres.



2.2 Brief history of Harvey's Foundry

John Harvey (1720-1803) was a blacksmith at Gwinear who moved to Hayle in 1779 (Barton, 1969). He had the vision and commercial instinct to realise that the Cornish mining industry would welcome and benefit from a county-based foundry and engineering works capable of supplying their needs. Although his business remained localised and small-scale for the first few years, by 1800 50 men were employed by Harvey. The

early years of the 19th century were characterised by the establishment of many Cornish industrial enterprises set up to serve mining and quarrying, where previously such services had of necessity been sought outside the county. Gunpowder manufacture, fuse-making, brick-making, engineering and iron-founding all flourished with the great expansion of hard-rock mining as the century progressed.

John Harvey's son, Henry Harvey (1775-1850), expanded the Foundry business and made Harvey's an international and greatly respected firm. Close family ties with Richard Trevithick and later professional partnerships with great engineers such as William West gave the firm a level of expertise unmatched by other engineering works in Cornwall. Their reputation was built on the design and manufacture of Cornish beam engines, but these machines were merely the most spectacular and visible portion of a great range of mining machinery and equipment. The bedrock of the business was not the great engines, splendid though they were, but the wholly mundane though essential import and sale of coal, timber, and building materials through the now rapidly expanding port of Hayle.

Harvey's influence and prosperity peaked from around 1820 to 1870 (Barton 1969, 150), and 460 were employed in the Foundry in 1841, with another 400 engaged in the wharves, building and coal trades. Engines were built for mines in Cornwall, many other metal and coal mines in Britain, Australia, South Africa, South America and Spain; engines were also supplied to waterworks in Britain and Holland (the Haarlem Mere engines). During this

period the works in Foundry Square was adapted and expanded to cope with an everincreasing volume of work; by the 1870s the Foundry included a forge and smithy, two machine shops, a boring mill, two fitting shops, hammer mills, pattern shops and stores, and the foundry itself with five cupolas and two air furnaces.

Harvey & Co's main competitors during this period were the Copperhouse Foundry of Hayle, and the Perran Foundry at Perran Wharf between Truro and Falmouth. By 1880 both of these had gone, victims of the decline in Cornish mining, and Harvey's was also forced to diversify in order to survive. A new shipbuilding yard was constructed with slipways and boilerworks, intended to compete on a national level with other yards producing vessels up to 4000 tons. This venture was not a success, and the foundry was gradually run down as the century ebbed; final closure came in 1903. The firm of Harvey & Co continued to act as builder's merchants, and merged with UBM in 1969.

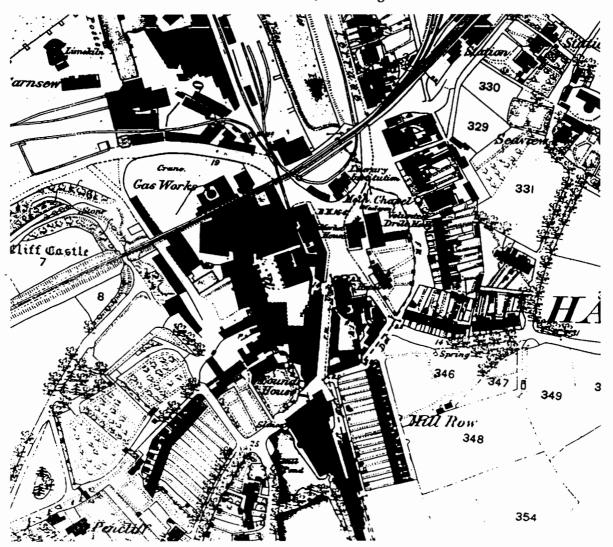


Fig 2 The Foundry ca 1880 from the 1st Edition OS 1:2500

2.3 Development of the Foundry site

The study area covers only a small part of a major 19th century industrial complex. Little is known of the early years of the Foundry, from 1779 to 1840. The place chosen by John Harvey for his enterprise was a greenfield site in the late 18th century; the earliest casting

foundry was sited in much the same locality as the later Casting Shops (immediately to the south of the later West Cornwall Railway (WCR) viaduct). The Hammer Mills and first Boring Mill also pre-date 1815 and were one of the first developments on the site, once John Harvey had decided to venture into the manufacture and erection of Cornish engines after 1800. John Phillip's map of 1841 (County Record Office (CRO) DDH 166/11) shows the Foundry in a developed state, before the building of the WCR. The site included the Casting Shops, Stores, Offices, Retail Stores, Pattern Shop, Erecting Shop, Boiler Works, Smith's Shops, Pattern Store, and Transport section (Foundry Farm); across the Helston road to the south were the Hammer Mills, Boring Mill, Grist Mill, and millpond; and to the east were the White Hart Hotel, stables and dwelling houses also owned by Harvey's.

By the 1880s the works had consolidated on the Foundry site, and expanded to the north with the new Gasworks, Shipyard, Boiler Works, and slipways. Virtually every building, yard and quay at this end of Hayle was either owned or controlled by Harvey & Co; Hayle's very existence centred around this concern now that the Copperhouse Company had closed. Within the study area some significant changes had taken place; the old Erecting Shop had been converted to a Boring Mill, and a new Erecting and Fitting Shop was built on the site of the Smith's Shop (the "Coliseum", now demolished). The function of some other buildings in this group had also altered to reflect changing demands on the works.

In 1903 the entire Foundry and engineering works was dismantled and the materials sold off or scrapped. During the succeeding years, the buildings were partly reused by Harvey's for the building trade, but gradually became more derelict. In the 1980s Harvey-UBM sold the site to a firm of developers who demolished many of the structures.

2.4 Significance of the Foundry Site

Until Boulton and Watt's patent expired in 1800, the Soho (Birmingham) foundry had a monopoly on the market for beam pumping and winding engines installed on Cornish Mines. As the 18th century came to an end, the new Cornish foundries such as Harvey's and Perran Foundry were poised to take advantage of a new period of free competition within the now rapidly expanding market for mining equipment. At first, however, there was neither the skill or experience available within the county for the building of complete beam engines, and a great deal of work was contracted out to foundries such as the Neath Abbey works in South Wales.

By 1830 the three leading Cornish foundries (Harvey's, Perran, and Copperhouse) were producing work equal to that anywhere in Britain (Barton 1969, 148), and in another ten years were pre-eminent in their field:

"Not only did they supply virtually every one of the very numerous engines used on the Cornish mines from about 1820 onwards, but they supplied collieries and ironworks in South Wales, the Midlands and the North, waterworks in London and elsewhere, metal mines in Ireland, Wales and Derbyshire as well as Spain, France, South America, Mexico, Australia, the West Indies, South Africa and all other countries abroad where deep mining was carried on." (Barton 1969, 149).

The Cornish foundries were known and respected by engineers and miners throughout the world; their stature was on a par with the great railway workshops of Swindon and Crewe, or the shipbuilding yards on the Clyde. Harvey's stood among the top three, and

was arguably the greatest, with its close association with Trevithick and other engineers such as William West. The decline and dissolution of the Cornish foundries was due solely to the collapse of Cornish mining in the later years of the century, and did not represent a loss of workmanship or skill. The scant remains of Harvey's in Foundry Square are thus doubly significant. They are a monument to Cornish skill and enterprise in the heat of the Industrial Revolution that was, for some fifty years, pre-eminent in the world; they also represent the very reason for Hayle's existence.

2.5 Modern Developments

After closure of the Foundry, many of the buildings continued in use as stores and warehouses. Even as late as the 1960s, the majority of the structures associated with Harveys were intact, although dilapidated and in some cases roofless. After 1970, there ensued a progressive episode of dereliction and demolition, ostensibly to clear areas of the site for re-development. The study area has suffered less from this process than other parts of the Foundry, and no features other than the Reservoir (4.7) have entirely disappeared. The only modern re-development has been the construction of the Rowe building (4.15), which stands on an area which had always previously been open space.

3. Summary Management Recommendations

3.1 Scope

Detailed recommendations for the conservation and management of the structures affected by the LRF proposals cannot be made in full until vegetation removal and a full condition survey have taken place. Many of the structures could not be inspected internally, also limiting the scope of this report.

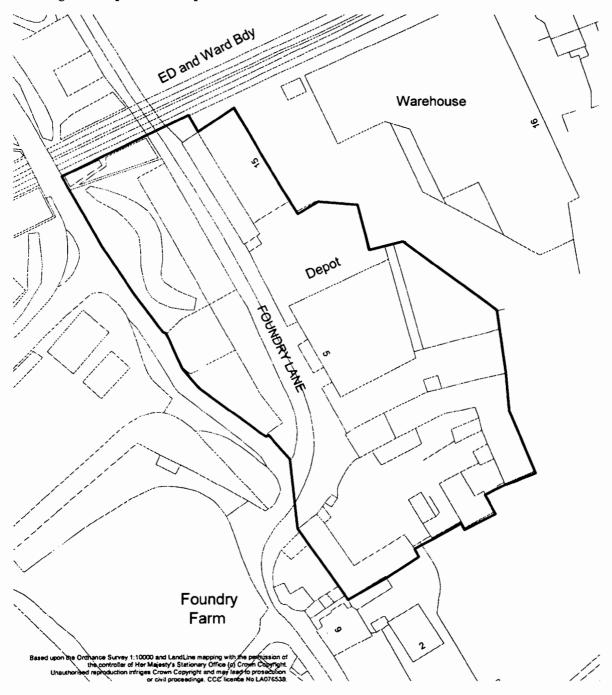


Fig 3 Study Area (not to scale)

3.2 The Site Today

The study area represents only a small part of the works of Harvey & Co, which covered many acres at this end of Hayle. Within this larger area surprisingly little survives of the Foundry as it was circa 1880. The structures which do exist are all the more precious as they represent a direct link to the time of Henry Harvey and Trevithick.

The Farm and its associated buildings are essentially intact, though they are abandoned and in poor repair: this group includes two Stable Blocks (4.8 and 4.10), a Wagon Shed (4.5) and access to the Granary on the top floors of the Foundry Barn (4.12), all grouped around a well-preserved cobbled Yard. This section is a purpose-built industrial complex, designed to house the teams of draught horse which each day would have made deliveries through West and Mid-Cornwall.

The Casting Shops and furnaces are all now overbuilt with recent industrial development (the Bookers building, outside the study area to the east). The Foundry Barn (4.12) is complete, and now re-pointed and consolidated as part of the Guinness Trust housing scheme. At the northern end of the Barn the Engine House and Boiler House (4.13) survive against the stub walls of the Boring Mill (4.14); at the rear of the Boiler House is a truncated Chimney Stack.

Immediately to the south of the railway viaduct, the Pattern Shed (4.6) with Cart Shed (4.5) at the rear is roofed and in fair condition; on the opposite side of the lane is another building identified on an 1864 plan as Trevithick's Stores (4.1), in good condition and occupied for industrial use.

3.3 Designations

There are no Scheduled Monuments within the study area. Structures 4.1, 4.5, 4.6, 4.8, 4.12, 4.13, and 4.14 are Listed Buildings, Grade II. The site is wholly within the Hayle town Conservation Area. Works which affect the character or appearance of any of the buildings will require consent from the Local Planning Authority (Penwith District Council).

3.4 Management Strategy

All the surviving structures included in the Inventory (Section 4) are of historic significance, with the exception of the Rowe building (4.15). All should at the very least be conserved and retained within the setting of Foundry Lane, and some are at the time of writing being considered for adaptive re-use.

- Structures which could be considered for adaptive re-use include the Foundry Barn and Engine House (4.12 and 4.13), the Stables (4.8 and 4.10), the Pattern Store and Cart Shed (4.6 and 4.5), and Trevithick's Store (4.1).
- The Fire Engine House should be conserved and re-roofed, but adaptive re-use may be problematic.
- Structures which should be consolidated include the Cattle House (4.2), the Tunnels (4.3 and 4.4), and possibly the Reservoir (4.7) if it survives.

Any scheme for conservation should adopt the following for its initial methodology:

- 1. Clear vegetation and debris from the structure
- 2. Produce a full condition assessment
- 3. Undertake any archaeological recording which may be required
- 4. Proceed with remedial works

Structures that should be the subject of archaeological recording work prior to conservation or adaptive re-use include the following:

- Photographic recording only: Fire Engine House (4.11).
- Photographic recording, full interior inspection and possible further recording work for interior: Stable (4.10), Trevithick's Store (4.1), Pattern Store and Cart Shed (4.6 and 4.5), Engine House and Boiler House (4.13), Foundry Barn (4.12).
- Photographic recording and interior photographic record: Stable (4.8).
- Photographic recording and measured ground survey: Cattle House (4.2) and both Tunnels (4.3 and 4.4).
- Investigative trenching: Reservoir (4.7).

The guiding maxim for all conservation work should be to retain and preserve as much of the original structure as is possible. Where the original structure is decayed, but there is clear evidence for its original form, it will be permissible (and desirable) to replicate it to a high standard.

3.5 Contaminated Land

CAU was asked by the Land Reclamation Section to assess the potential for contaminated land within the study area. No evidence was found during the desktop study for industrial processes that would result in contamination during the working history of the Foundry. However, subsequent re-use of the site could possibly have resulted in contamination from the tipping of hazardous waste or the dismantling of boilers lagged with asbestos. There is therefore potential for secondary contamination from this source. Nothing was observed during fieldwork to confirm the presence of hazardous material.

4. Site Inventory

All: Penwith District, Hayle CP

Names of structures and sites are taken from the 1864 plan of the foundry (CRO DDH 214)

NGR

Class

Designation

4.1 Trevithick's Stores

SW 5572 3711

storehouse



Listed Grade II 10/171

Now occupied as a garage and workshop by Ford Spares, Hayle. Map evidence shows that the building was in place by the 1850s, and is identified as a store on the plan of 1864. The structure is rectangular in plan, aligned roughly NW - SE, and is of rubble masonry under a hipped asbestos slate roof. Details include dressed granite quoins and a series of seven arches to the front at ground level. Of these, five are in-filled and two are open with wooden doors. A series of window openings at first floor level is

irregular in size and pattern, suggesting alterations in the past. The northern end of the building has a similar in-filled brick arch to those in the roadside elevation. The rear wall of the structure appears at one time to have continued to the north, but it is now truncated and represented by a ragged edge of unbonded masonry. The interior was not inspected. (Photo shows the eastern elevation, from the north).

<u>Recommendations</u>

The building appears to be in a sound basic condition. Conservation work should include repair and replacement of the fenestration. Consider adaptive re-use which would unblock all the arches in the front elevation. Produce photographic record of exterior and interior prior to remedial works.

4.2 Cattle Houses

SW 5573 3707

cow house



Identified from the plan of 1864 as cattle houses, the structure is now represented by roofless upstanding walls to a height of ca 2 to 3 metres. Construction is of rubble masonry, with evidence for door and window openings with brick detail on the eastern side. The interior of the structure is open to the lane on the west. (Photo shows the eastern elevation, from the south).

Recommendations

Remove vegetation and assess condition. Stabilise and re-point as required. Produce measured ground survey and photographic record before remedial works.

4.3 Tunnel

SW 5571 3710 tunnel

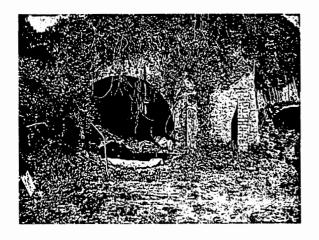
Encroaching vegetation prevented examination of the tunnel during the fieldwork and this description is therefore based on a previous site visit. At the rear of 4.1 a tunnel has been driven into the hillside. It has an impressive brick and masonry entrance, and is now obscured by debris and vegetation. Inside, the tunnel is clearly unfinished rather than blocked or collapsed and terminates in solid rock, with a heading continuing for a further few metres. Access to this feature would have been through the end arch of Trevithick's Store (4.1) and a similar blocked arch in the rear wall of the building. The intended purpose of the tunnel is unknown.

Recommendations

The tunnels associated with the Foundry site are still unexplained in terms of their intended function. They are one of the mysteries of Hayle. Clear vegetation at the rear of 4.1 and around the tunnel entrance to permit a full condition assessment. Produce measured ground survey and photographic record before remedial works.

4.4 Tunnel

SW 5574 3706 tunnel



This tunnel has been constructed beneath the cattle houses (4.2) but does not seem to be associated with it. A brick-arched entrance leads into a tunnel which descends on a gentle slope for ca 10 metres. The tunnel then levels out and increases in width; this chamber is terminated by an end wall containing two smaller tunnels which run on into blind ends. Again, there is no clear indication of an original function or purpose. (Photo shows the tunnel entrance from the south).

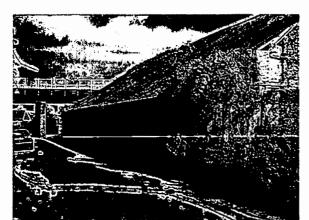
Recommendations

Clear vegetation from the portal and tipped rubbish from the interior. Assess condition and consolidate as required. Gate the entrance to prevent further fly-tipping. Produce measured ground survey and photographic record before remedial works.

4.5 Waggon Shed

SW 5572 3712

cart shed



Listed Grade II 10/172

Abuts 4.6 and shares its roof. Of rubble masonry with a corrugated asbestos roof. The elevation facing the road is open-fronted with the roof supported on octagonal wooden pillars, forming a series of bays where the carts were once stored. These openings are now closed by wooden doors which are a later addition and of modern design. Inside there is an upper floor, supported by wooden joists. (Photo shows the western elevation from the south).

Recommendations

The condition of the roof above this elevation is fair. The wooden pillars to the front have rotted at the base and their condition is suspect; as they support the roof, this must give cause for concern. Inside, there are decay problems at the ends of the joists and in the boarding of the upper floor. Remedial works should include vegetation removal, a thorough condition assessment, and conservation works which would preserve the character of the structure. In this regard it will be essential to safeguard the design and material of the supporting pillars. Produce photographic record of exterior and interior prior to remedial works.

4.6 Pattern Store

SW 5573 3713

pattern shop



Listed Grade II 10/172

A large hipped-roof structure, constructed of rubble masonry with granite quoins and brick detailing to some openings. The roof is covered in corrugated asbestos sheets, and at the southern end these have failed leaving the building open to the elements. The interior was not inspected. (Photo shows the eastern elevation).

Recommendations

Urgent remedial works are required to repair the roof. Vegetation should be

removed from the walls and a full condition survey will be required prior to re-pointing and consolidation. Produce photographic record of exterior and interior prior to remedial works.

4.7 Reservoir

SW 5575 3710

reservoir



A reservoir is shown on the mapping of 1853 and 1864, which presumably supplied the boilers of the engine working the Boring Mill in 4.13 and other steam engines on the Foundry site. This area is now occupied by abandoned vehicles and debris, and it is assumed that the reservoir was in-filled after the Foundry closed in 1903. The most substantial remains of the reservoir today are on the east, where a massive granite retaining wall defines the structure as it abuts Booker's yard.

Recommendations

Two evaluation trenches should be made under the supervision of a qualified archaeologist, to determine if the reservoir survives beneath the infill. If this is the case, consider excavation of the fill to reveal and display this feature. The retaining wall on the east should have vegetation removed and be re-pointed as necessary.

4.8 Stables

SW 5577 3706

stable



Listed Grade II 10/10001

This building abuts the Foundry Barn at right angles, and is of brick and stone construction, with a rag-slate hipped roof. It is a typical early 19th century purpose-built range for the accommodation of horses and displays some excellent architectural detailing to the south, with arched openings. Inside, the wooden partitions, mangers, cupboards and fittings survive. At the front, a crude wood and galvanised iron lean-to has been added. The buildings around the Yard would have accommodated the Foundry's

numerous draught horses, which each working day delivered goods from Harveys to the whole of West and Central Cornwall. Huge engine beams and boilers were transported in this fashion to mines in the area, and to the harbour for shipment overseas. (Photo shows the western end of the stable block).

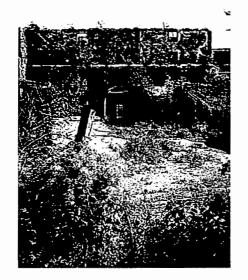
Recommendations

The building has suffered fire damage in the past, and as a result is mostly unroofed. Water penetration has led to further damage within the structure, and the wall facing onto the yard is close to collapse at the top. Clear vegetation, remove the lean-to, assess condition and produce a scheme for conservation which will preserve as much as possible of the interior fittings. Produce photographic record of exterior and interior prior to remedial works.

4.9 Farm Yard

SW 5576 3704

yard



The yard retains its cobbled surface in the western area and is enclosed on the south by a stone wall which incorporates some scoria block.

Recommendations

Preserve the cobbled surface in any scheme for adaptive re-use.

4.10 Stables

SW 5576 3702

stable



interior prior to remedial works.

Built of brick with granite quoins and galvanised iron roofs, these stables are L-shaped in plan and are pre-1841 in date. They are of lesser quality than (4.8) but nonetheless add character to and enclose the Yard space. The interior was not inspected. (Photo shows the northern elevation).

Recommendations

Condition appears reasonable at present. Remove vegetation and assess condition. Produce photographic record of exterior and

4.11 Fire Engine House

SW 5577 3704

fire engine house

A stone-built single-bay shed, with a slate roof and wood-boarded gable end. Post-1841 in date, but with great charm and contributing to the character of the yard. The building is now covered in ivy and other vegetation. The interior was not inspected.

Recommendations

Clear vegetation and produce a full condition assessment. The building is of great historic significance to the Harvey's site and merits a full restoration. Produce photographic record of exterior and interior prior to remedial works.

4.12 Granary

SW 5579 3706

barn



Listed Grade II 10/10001

This building is impressive for its height and typical late 18th or early 19th century industrial design. It is of rubble masonry construction, with dressed granite quoins and brick detailing to door and window openings. The building is now unroofed. At ground level there are two arched openings which lead into vaulted chambers, whose function is unclear at present. The structure appears from map evidence to date from ca 1825. The upper floors were used to store provender (oats, hay, and straw) for the

Foundry horse teams, and there is access from the Farm Yard and Stables at the rear. Lineshafts on the upper floors probably provided power for sack hoists.

Recommendations

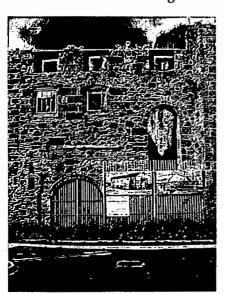
The building has recently been consolidated and re-pointed as part of the Guinness Trust housing scheme. Schemes for adaptive re-use of the structure are at the planning stage. Produce photographic record of exterior and interior prior to remedial works.

4.13 Engine and Boiler House

SW 5579 3708

engine house

Listed Grade II 10/10001



Now forms the northern end of the building known as the Foundry Barn. Originally this was part of the Boring Mill and former Erecting Shop, and should be interpreted as part of that structure. Construction is of rubble masonry with dressed granite quoins. There is a fine arched window to the front of the Engine House, another arch at ground level giving access to the boiler house and inside clear evidence of the flywheel position, supporting cross beam for the Bob, and the flue of the boiler house leading to an external chimney stack, of which the base survives at the rear. The floor above the boiler house may have provided office space; there are line-shafts to convey power from the engine on the upper floors. The power from the beam engine was transmitted from here directly to the Boring Mill

and via line-shafts to lathes, drills, and milling machines throughout the works. The engine

would appear to have been larger than was necessarily required for this purpose, and it is assumed that it formed a Foundry showpiece to be shown to potential customers.

Recommendations

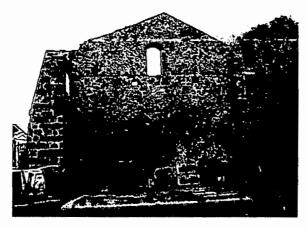
The structure has recently been consolidated and re-pointed as part of the Guinness Trust housing scheme and is currently in sound condition. Schemes for adaptive re-use are at the planning stage. Produce photographic record of exterior and interior prior to remedial works.

4.14 Boring Mill

SW 5578 3709

boring mill

Listed Grade II 10/10001



The south wall survives with one massive buttress representing the beginning of the eastern elevation, as does the stub of the rear wall. The walls are of rubble masonry with ashlar granite blocks in the quoins and openings. The floor space of the original building is now tarmac and in use as a carpark. This building was the second Boring Mill on the Foundry site, and replaced the earlier water-powered Boring Mill in the Hammer Mill complex. Here large cylinders (up to 144 inches) were bored to finished

size.

Recommendations

The upstanding remains of the Boring Mill have been consolidated and re-pointed as part of the Guinness Trust housing scheme. Schemes for adaptive re-use are at the planning stage.

4.15 Rowe Building

SW 5576 3709

warehouse



A post-1945 sectional building which has been inserted into an area of the site which was previously a yard. The structure is steel-framed and clad with corrugated asbestos, and is currently occupied by a firm of auctioneers and a car spares business.

Recommendations

The structure is not part of the Harvey's Foundry complex and has no historic significance. Map evidence suggests that this area was always an open space during the Foundry's operation, and there should

therefore be no archaeological constraints to re-development.

5. References

5.1 Primary sources

- 1. 1840 Tithe Apportionment Survey (microfiche at CAU)
- 2. 1880 OS 25 inch map (microfiche at CAU)
- 3. 1907 OS 25 inch map (microfiche at CAU)
- 4. CRO H 162/1 Article on early history of the Foundry
- 5. CRO H 165/5 Valuation 1841
- 6. CRO H 165/6-16 Valuations 1864-1897
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- 8. CRO H 215 Photographic Album 1897
- 9. CRO WH 2815-2819 Hayle Foundry 1793-1853
- 10. CRO H 217 Draft history of Hayle, TR Harris, ca 1950
- 11. CRO TM59/TMA 59 Tithe Map St Erth 1842
- 12. RIC MMP/51 Map ca 1790
- 13. CRO H 166/46 Map of 1815
- 14. CRO H 166/20 Map of 1828
- 15. CRO H 166/33 Map of 1835

5.2 Publications

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6. Project archive

The CAU project number is 1999060

The project's documentary, photographic and drawn archive is housed at the offices of Cornwall Archaeological Unit, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

- 1. An administrative file containing the project correspondence.
- 2. An information file containing copies of documentary/cartographic source material.
- 3. This report held in digital format as: G:\DOCUMENT\SITES\SITES.E-H\HARVEY'S FOUNDRY LRF 1999060\HARVEY'S ASSESSMENT.DOC

