

hayle harbour :: regeneration

South Quay

Development Proposal for South Quay/Foundry Yard Hayle Harbour

December 2010



Heritage of Hayle and Assessment of Significance

This heritage statement has been prepared for ING RED UK (Hayle Harbour) Ltd. to support applications for Planning Permission and Listed Building Consent for development proposals for South Quay/ Foundry Yard Car Park (here after "South Quay") Hayle

This paper examines the significance of heritage assets in Hayle, the application site at South Quay and the neighbouring former Foundry Yard Car Park in Carnsew Road. It presents a statement of the values and significance of heritage assets around South Quay. It looks at the impact of the proposals on the significance of the heritage assets.

ING RED (UK) commissioned an archaeological investigation of the retaining wall to the slipways. This report is summarised here in an Appendix.

Factual material is presented in appendices to support statements made in the report.

Other documents support the planning application and these include a Design and Access Statement, a Landscape Design Statement, a Planning Statement addressing the planning context and an Environmental Impact Analysis. These include helpful sections referring to heritage matters and addressing a visual analysis of the site.

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Objectives of this paper

To set out the significance of those Heritage Assets in and around South Quay that are affected by development proposals for the quay.

To introduce the approach that has been taken to handle and analyse abstract or narrative values of the World Heritage Site.

To discuss the relevance and significance of the Outstanding Universal Value of the Cornwall and West Devon World Heritage Site to the significance of South Quay.

To assess the implications of the proposed development for South Quay on the significance of relevant Heritage Assets namely part of the World Heritage Site, part of the Conservation Area South Quay as a listed building and the settings of nearby listed buildings.

To balance the impact of the proposed development on the significance of the relevant heritage assets with public and heritage benefits resulting from the development.

The approach

Assessing significance has had regard to national and local policies on heritage assets. The assessment has been informed also with discussions with English Heritage, Cornwall Council and people of Hayle.

The statement has informed the design of the proposals so that the scheme responds to nearby heritage assets to ensure the impact of the proposals on the significance of the assets is acceptable and environmental benefits are brought forward

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The proposals on South Quay are for mixed uses and take the form of a hybrid planning application where part of the development is promoted in detail and part in outline.

The detailed element is for:- a food store, two retail units/restaurants and a cinema with associated access, car parking, services and landscaping arrangements.

A pedestrian promenade will be provided to the whole quayside with flood prevention measures (including the raising of the existing ground level).

At the Foundry Yard Car Park, three non-food retail units will be provided with associated car parking and a revised access from Carnsew Road.

The outline element is for:- residential accommodation, a restaurant at the north end of South Quay, associated parking and a new pedestrian footbridge over Penpol Creek.

Outline permission is also sought for improvements to Isis Garden. Space is made available for the relocation of the Goonvean steam engine.

The Listed Building application is for:- mitigation and repair to the Grade II listed South Quay and this includes repairs to the breach of the harbour wall and flood protection measures involving raising existing ground levels.

The proposals for South Quay and Foundry Yard Car Park

1 This paper

PPS 5 defines a heritage asset as:- 'A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include designated heritage assets (as defined in this PPS) and assets identified by the local planning authority during the process of decision-making or through the plan-making process (including local listing)'.

PPS5 'Planning for the Historic Environment', p.13

Design and the World Heritage Site

There is an expectation that new buildings introduced into a World Heritage Site should be of high quality and generally have a resonance with the character of the area. Nevertheless, there is no direct relationship between Outstanding Universal Value and the design of new buildings. However, UNESCO has recognised the role of new buildings and contemporary architecture in complementing the values of cities.

The nomination documents for the inscription of the site on the World Heritage List recognised the intention to bring forward the regeneration of Hayle and in particular new buildings on South Quay. In 2009, the Council resolved to approve a master plan for Hayle Harbour and related legal agreements were completed in July 2010.

- 1.1 The PPS5 'Planning for the Historic Environment' requires the significance of heritage assets to be established so that planning decisions can be based on an understanding of the nature, extent and significance of the heritage asset.
- 1.2 This paper examines and describes the significance of heritage assets in the Cornwall and West Devon Mining Landscape World Heritage Site, the Hayle Conservation Area, South Quay and other Listed Buildings near it.
- 1.3 This paper distinguishes the component values of the heritage assets as narrative values, visual values and values of the surviving fabric. These are interrelated but the implications of development proposals are different for each of these values and their significance.
- 1.4 The Outstanding Universal Value (OUV) of the World Heritage Site has been agreed by UNESCO. The relationship of the OUV to Hayle is germane to establishing the significance of the heritage of the town. With this in mind, the paper examines the relationship of South Quay to the World Heritage Site and its OUV.
- 1.5 The paper analyses the OUV with South Quay. The paper shows that the significance of the quay relies in part on the history of the town where buildings have now gone. These values are described below as narrative values.

World Heritage Site

- 1.6 Hayle is one of ten parts of the Cornwall and West Devon Mining Landscape World Heritage Site. It is a site of international importance because it has been inscribed on the UNESCO List of World Heritage Sites.
- 1.7 The values and significance of Hayle are consistent with the Outstanding Universal Value for the Site. Most of the values of Hayle are narrative values addressing the history of the place and reputation of the Cornwall and West Devon mining industry. These values are not changed by the proposed development.
- 1.8 Only part of the World Heritage Site is affected by the proposals. The setting of the World Heritage Site is not harmed by the proposals because the proposals present no unacceptable intrusion here. At the same time, they introduce heritage and public benefits.
- 1.9 Hayle Harbour was an important and busy place in the nineteenth century supporting both a fishing fleet and trading fleets. Some activities and features of the harbour such as the graving dock, slipways, ferries and channel markers are normal features of a harbour and not included expressly as part of the Outstanding Universal Value of the World Heritage Site.

Hayle Conservation Area

- 1.10 Most of the visual values of the World Heritage Site are contained within the Hayle Conservation Area. This was designated by the then Penwith Council as the part of the town where the Council sought to preserve or enhance its character or appearance. These matters mostly concern visual values.
- 1.11 The paper discusses character zones in the Hayle Conservation Area. It notes only part of it is affected by the development proposals. These enhance the appearance of this part of the Hayle Conservation Area by bringing a large and derelict structure into use. It also introduces other public benefits.
- 1.12 There is no harm to the character and appearance of the conservation area because there is a resonance between the design of the proposals and the maritime character of the harbour and appearance of nearby housing.
- 1.13 The development will attract other investment in the Conservation Area and the town thereby bringing forward other benefits to the town and enhancement of the area.

Listed Buildings

- 1.14 South Quay represents one of the more significant elements within the World Heritage Site and this reflects the narrative, visual and values of the surviving fabric.

- 1.15 South Quay and other nearby quays have been listed for their 'group value'. The proposals do not change nearby listed buildings and do not harm their settings because they introduce no unacceptable intrusion here.
- 1.16 The proposals bring forward repairs to the walls of South Quay and improvements to areas that will be used by the public including a quayside promenade.
- 1.17 There are other public benefits in the setting of the Listed Building and these include a new footbridge linking the quay to Penpol Terrace, improvements to Isis Gardens and space for the relocation of the Goonvean Engine near to the railway viaduct.
- 1.18 Provision has been made for the future introduction of a second footbridge to link South Quay with East Quay.

Railway viaduct

- 1.19 The railway viaduct is not a listed structure but has a considerable influence on the character and appearance of this part of the town. This is an undesignated heritage asset. Landscape proposals for the south end of South Quay and Isis Garden improve the setting of the viaduct and reinforce a sense of place.

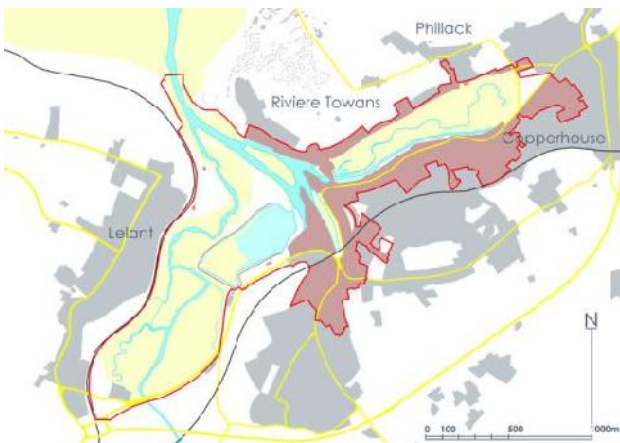
'Hayle's industrial past was sustained by Victorian tin and copper mining, a fact reflected in local names as Coppertown and Foundry. Unfortunately, it is Hayle's rather straggling extent and its general decline that have denied it picturesque appeal; but awareness of the town's industrial past makes a visit rewarding for those looking for history under the skin. A brisk walk along the eastern side of the harbour and along the northern side of the large tidal pond, Coppertown Pool, although not entirely scenic, is worthwhile. The contrast between the dereliction of Hayle's harbour area and the spaciousness and brightness of its nearby beaches is quite startling.'

AA Leisure Guides:- Cornwall' 2007, p.130

2 On World Heritage



Hayle and the Cornwall and West Devon Mining Landscape World Heritage Site



Hayle and the World Heritage Site boundary

2.1 Hayle is one of ten areas that make up the Cornwall and West Devon Mining Landscape World Heritage Site. The UNESCO World Heritage Committee agreed to inscribe the Site on the List of World Heritage Sites in 2006. **Appendix A** The Outstanding Universal Value (OUV) sets out their reasons for inscribing this site on the List. The OUV shows that the whole site meets three of the UNESCO criteria. How these relate to Hayle is discussed below.

2.2 The Outstanding Universal Value applies to the whole World Heritage Site of which Hayle is a part. The values of the UNESCO statement relate to the importance of the Cornish and West Devon mining industry and especially innovative advances in technology of particularly steam boilers and beam engines.

2.3 Hayle has a range of values concerned with supporting the former mining industry that have a resonance with the UNESCO OUV statement. These have been analysed and are set out in the table in **Appendix B**.

2.4 Cornwall Council is bringing forward a statement of values for Hayle. This statement supports the view that the merits of the town are consistent with the status of being part of the World Heritage Site. These values have been noted in the table in **Appendix C**.

2.5 There is no primary legislation supporting World Heritage matters and no adopted Local Plan policies address the protection of the World Heritage Site. The Cornwall County Structure Plan of 2004 anticipated the inscription of the World Heritage Site on the UNESCO World Heritage List. **Appendix D**

2.6 Circular 07/2009 sets out measures to protect World Heritage Sites and PPS5 'Planning for the Historic Environment' discusses World Heritage Sites as heritage assets. Both documents are material considerations for a Local Planning Authority when dealing with a planning application. **Appendix E**

UNESCO World Heritage criteria

2.7 The three criteria referred to in the OUV of the World Heritage Site discussed below address different themes. Correlating these themes with features in, and qualities of, Hayle illustrates how the town meets the tests in the criteria. However, the values concern the role of the town, its history and reputation of the activities that took place as part of a wider industrial adventure.

2.8 The 'important interchange' of human values in criterion (ii) is related to the influence of an activity, culture or place has had on other cultures. This is closely associated with trade, the transfer or spread of knowledge or beliefs.

The test is the importance of this 'interchange'. For example, the development of beam engines and smelting techniques had a considerable and vital influence on mining technology in Cornwall and West Devon and the industrialisation of the rest of the world.

- 2.9 The test in criterion (iii) is the extent to which the town and its surviving fabric is a unique or exceptional testimony to a cultural tradition. The mining industry which flourished then in the two counties, contributed to the triumph of the Industrial Revolution in Britain in the eighteenth and nineteenth centuries. The development of steam engine technology is an exceptional contribution to the cultural climate of Great Britain and Europe in the Nineteenth Century
- 2.10 In criterion (iv), the test is whether the buildings or in the case of Hayle, technological ensembles, are outstanding examples of their kind and illustrate a unique or exceptional testimony to a stage in human history.
- 2.11 Of the surviving buildings, the remains of the foundries and some buildings are associated directly with the smelting and engineering activities. They illustrate a significant stage in human history related to the Cornish and West Devon mining industry.
- 2.12 There are other structures in the harbour associated with the operation of Hayle harbour as a port and these are incidental to mining

activity. These are not cited as part of the Outstanding Universal Value.

On authenticity and integrity

- 2.13 The Outstanding Universal Value of a property is when it meets one or more of the criteria agreed by the UNESCO World Heritage Committee.¹ However, when a property is put forward and inscribed on the World Heritage List, the nomination must include statements on the authenticity and integrity of the place.
- 2.14 Authenticity and integrity of a World Heritage Site are held to be as at the time of the nomination in 2006. South Quay was then a cleared space from which buildings had been demolished. The absence of surviving buildings has implications when assessing the significance of a place where the original activity has gone. Derelict land diminishes the significance of a place and so the narrative values become more important to explain the merits of the site.
- 2.15 Paragraph 12 of the Circular 07/2009 draws attention to the effective management of World Heritage Sites and in particular identifying and promoting change that will conserve and enhance their Outstanding Universal Value, authenticity and integrity. It states that World Heritage Status is a key material consideration.² Here authenticity and integrity are expressed

¹ UNESCO, 2008, Operational Guidelines for the Implementation of the World Heritage Convention, para.77
² Circular 07/2009, para.12

The relevant UNESCO Criteria 2008

Criterion (ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

Criterion (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

Criterion (iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

Authenticity

para. 82 '..... properties may be understood to meet conditions of authenticity if their cultural values ... are truthfully and credibly expressed through a variety of attributes: (including)

form and design;
 materials and substance;
 use and function;
 traditions techniques and management systems;

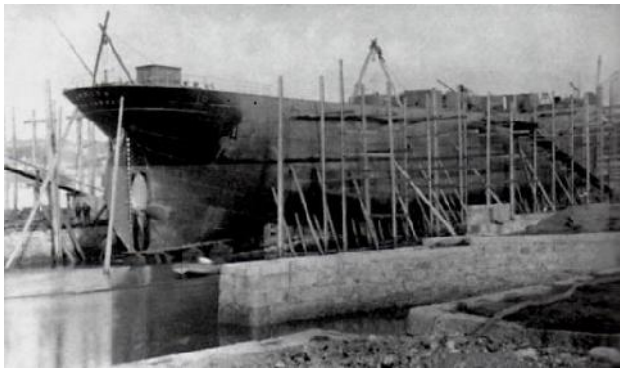
location and setting;
 language and other forms of intangible heritage

spirit and feeling; and
 other internal and external factors.'

Integrity

para. 87 'Integrity is a measure of the wholeness and intactness of the natural and/ or cultural heritage and its attributes.'

From:- UNESCO Operational Guidelines 2005



SS Ramleh under construction on a weigh at Carnsew Dock. Note the quay walls at the slipway behind the ship. These were rebuilt by 1908 and again by 1936. (Source:- Edmund Vale, 2009, p.230)



Wall on the west of South Quay and the end of the former slipways have been filled in.

separately from Outstanding Universal Value. This assessment takes the same approach.

2.16 The Nomination Document explains the authenticity and integrity of the whole site but Hayle is not mentioned expressly. **Appendix F** Authenticity and integrity is more problematic to assess in Hayle because the town is a complex industrial port from which some of the former historic fabric has gone.

2.17 Furthermore, the assessment of authenticity for this site is challenging because the Outstanding Universal Value for the site identifies a specific period from 1700 to 1914 and some buildings were removed after that period.

2.18 The complexity of the town is in part a function of the different activities of the place but it is also the result of many changes made throughout the height of the industrial activity and particularly in the nineteenth century. Some of these changes removed buildings, smelters, smelters and early infrastructure.

2.19 For example, the weighs or slipways at Carnsew Dock were rebuilt several times to enable larger ships to be constructed and finally they were filled in the 1960s.³ **Appendices H and L** Similarly, the Hayle Railway was built in 1837 to link the port to the mines around the town. This early railway is lost.

³ The slipway ensemble is discussed as part of the assessment of the listed building below and in **Appendices H and L**



South Quay and Carnsew Dock in 1931. Note the remains of the Hayle Railway in front of Penpol Terrace. (Source:- Harry Pascoe, 2005, p.120)

2.20 Authenticity as part of the World Heritage Site is marked by surviving buildings and structures. One hundred and twenty nine buildings and structures in the World Heritage Site of Hayle are included on the List of Buildings of Architectural and Historic Interest.

2.21 The tidal pools at Carnsew and Coppertown survive more or less in their original state and the quay walls survive. Other port related structures survive on the North and East Quays.

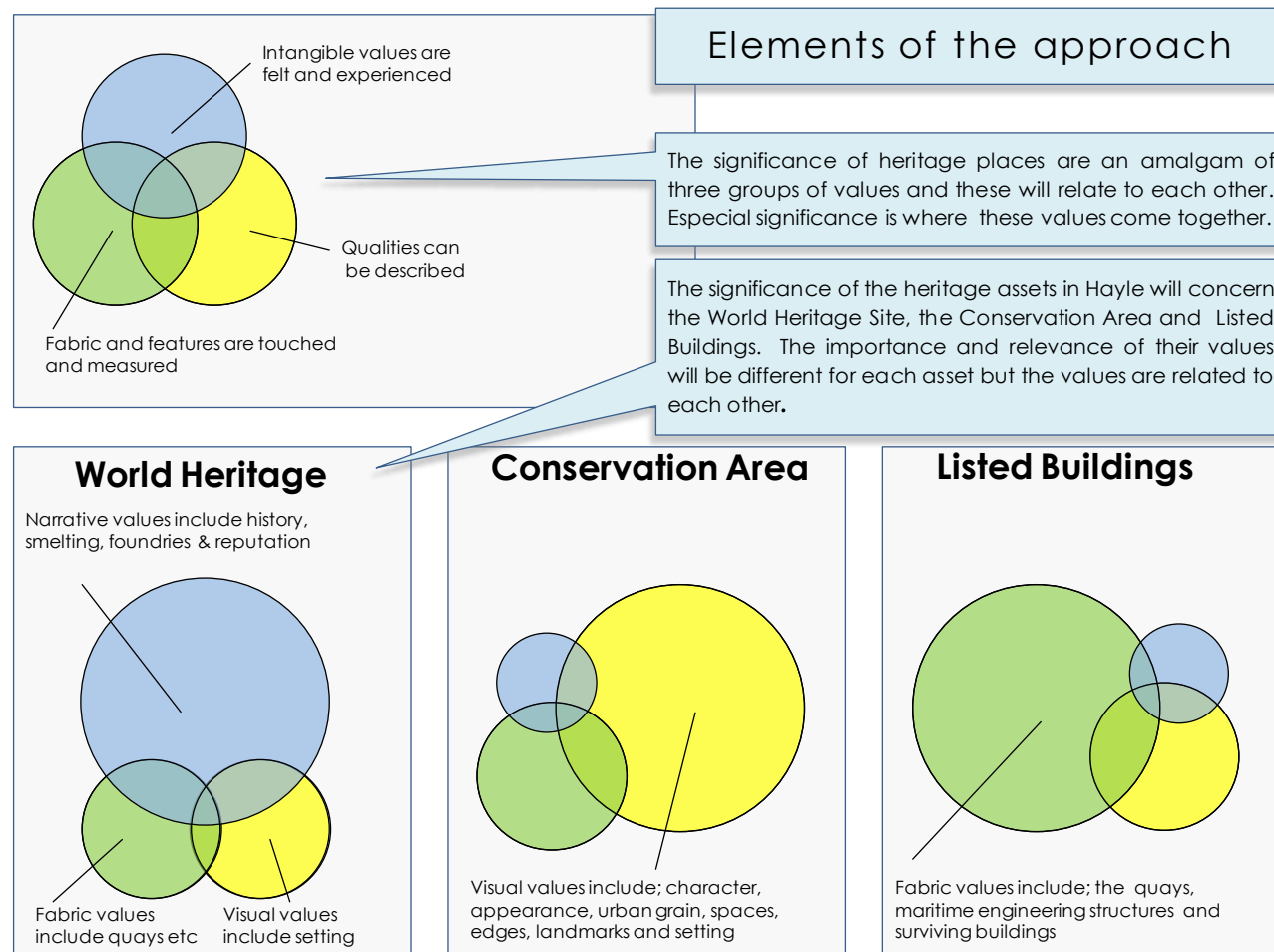
2.22 South Quay and the nearby car park were cleared of buildings before 1968. The condition of the quay was noted in the World Heritage Nomination as well as the intention to bring forward development proposals.⁴ With this in mind, the application proposals will change but

⁴ Cornwall County Council, 2005b, p.118, p.133.

not detract from the integrity and authenticity of this part of the World Heritage Site because this was accepted when the Nomination was submitted.

2.23 In August 2010, the UNESCO World Heritage Committee made a retrospective change to

the Statement of Outstanding Universal Value for the Cornwall and West Devon Mining Landscape World Heritage Site. This revised statement is set out in **Appendices A and F**. The statement has not been the subject of public consultation or been adopted for planning purposes by Cornwall Council.



Assessing significance

PPS5 seeks an assessment of the significance of heritage assets as the heritage interest of a place. This may be:-

- ☐ Archaeological
- ☐ Architectural
- ☐ Artistic, or
- ☐ Historic.

These may be subdivided as the public's interest in:-

- ☐ Aesthetic
- ☐ Evidential
- ☐ Historic, and
- ☐ Communal values.

The approach adopted here in assessing the heritage of Hayle takes on board these values, but set out in three groups.

- ☐ **Fabric values** embrace architectural and archaeological matters with relevant evidence.
- ☐ **Visual values** embrace what can be seen as well as the related aesthetic experience. This includes intangible dimensions such as a response to what is seen.
- ☐ **Narrative values** include experiences of an observer, the meanings and story of a place.

3 Approach

The PPS5 defines significance as - *'the value of a heritage asset to this and future generations because it is of heritage interest. That interest may be archaeological, architectural, artistic or historic'*.

PPS5 'Planning for the Historic Environment' p.14

- 3.1 The PPS5 'Planning for the Historic Environment' introduces new concepts. Matters of interest in the historic environment are referred to as 'heritage assets'. New procedures are in place to assess the significance of these and the impact of development proposals on them. **See Appendix E**
- 3.2 This paper sets out the significance of the World Heritage Site and Hayle as a component or part of the inscribed Site. It sets out how the proposals will affect the significance of the World Heritage Site, Conservation Area and relevant listed buildings.
- 3.3 These assets have different values and they are illustrated in Venn Diagrams opposite. Accordingly, implications of the proposals on each asset will be different. The analysis of the World Heritage Site centres on 'narrative values' which embrace the history and reputation of the World Heritage Site and the role Hayle played. These are intangible or abstract values or the emotional texture of the place.
- 3.4 The analysis sets out 'visual values' which, inter alia, here address the setting of the World Heritage Site and the town. These values correlate closely with judgements made on changes in the conservation area. However, this designated area has a different boundary from the World Heritage Site. It was designated for different reasons that relate to the character and appearance of the town with the intention of providing especial control over development proposals. These are discussed separately.
- 3.5 The analysis also examines values of the fabric and features of the Site generally. The fabric concerns the built form, structures, and spaces. These correlate closely with judgements made on changes affecting listed buildings as well as the normal assessment of proposals in the planning process. These structures are discussed below in more detail.
- 3.6 A great deal of the significance of the World Heritage Site is supported by the narrative values. These provide much of the heritage context for the proposals and the design of the application proposals respects this. At the same time, enhancement and preservation of the character and appearance of the conservation area and the desirability of preserving the listed building have influenced the scale, massing and design of the proposals.
- 3.7 The application proposals have implications for heritage assets in Hayle. These include part of the World Heritage Site, part of the Hayle Conservation Area and the ensemble of Listed Buildings. The proposed new buildings on South Quay and the car park site lie in the setting of other Listed Buildings.



'The Port of Hayle is situated on the eastern side of the river where a great trade is carried on with Wales for timber, coals, iron, and limestone; and with Bristol, for earthen-ware, groceries, &c. It is also one of the principal places of export for the copper ore of the western mines. In the former edition of this work we described the processes by which the smelting and refining of Copper were conducted at this place, but as it was acknowledged to be much cheaper to carry the ore to the coal, than to bring the coal to the ore, the proprietors found themselves compelled to abandon the speculation. The buildings in the neighbourhood, however, still continue as memorials to the former existence of such works.....'

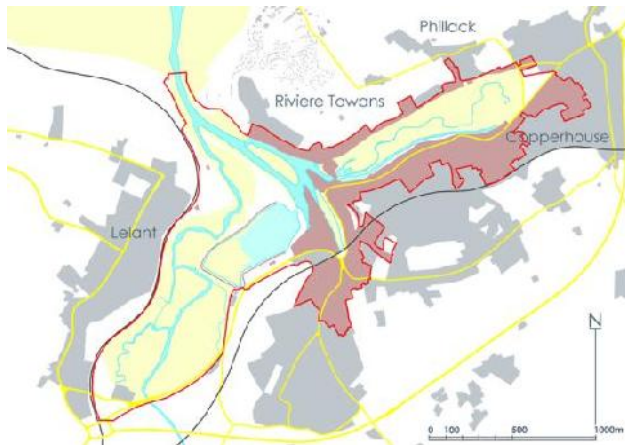
John Ayrton Paris, 1824, pp.159-160

'Hayle once renowned for its copper smelting, which has been abandoned, now possesses iron works in which the largest steam engines are manufactured, with a degree of good workmanship equal to that in any other place of the like manufacture in England.'

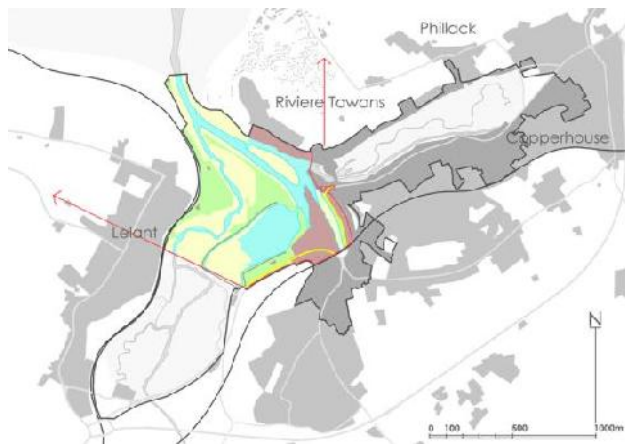
Cyrus Redding, 1842, p.185

Extract from 1813 OS map drawn before South Quay was built not to scale

4 Values of the World Heritage Site



Hayle and the World Heritage Site boundary



The coloured area illustrates parts of the World Heritage Site from which South Quay may be seen.

4.1 The Outstanding Universal Value of the Site includes reasons that relate directly to surviving fabric and monuments in mining areas. Other reasons are abstract and these include the history and reputation of the Cornwall and West Devon mining industry. These are discussed below as 'narrative values'.

4.2 'Visual' values concern what is seen in the landscape and town. These are seen as a complete 'landscape' picture embracing a view of much of the town or values seen in evidence of a feature that is testimony to a former activity.

4.3 Some buildings in the town and the impressive civil engineering works of the tidal pools survive as testimony to the iron founding and heavy engineering that took place in the town. These have values as surviving fabric and are features that can be touched and measured.

4.4 The significance of the World Heritage Site is an amalgam of these three sets of values as shown in the Venn diagram discussed above. The proposals affect the values in different ways.

World Heritage Site boundary

4.5 The boundary of the World Heritage Site does not include all of the present town of Hayle. In the main, the Site includes an area east of the estuary channel and along the River

Angarrack. This is the settlement of Coppertown built around the activities of the Cornish Copper Company.⁵ Included south of the railway viaduct is an ensemble of buildings of the former Harvey Foundry around Foundry Square.

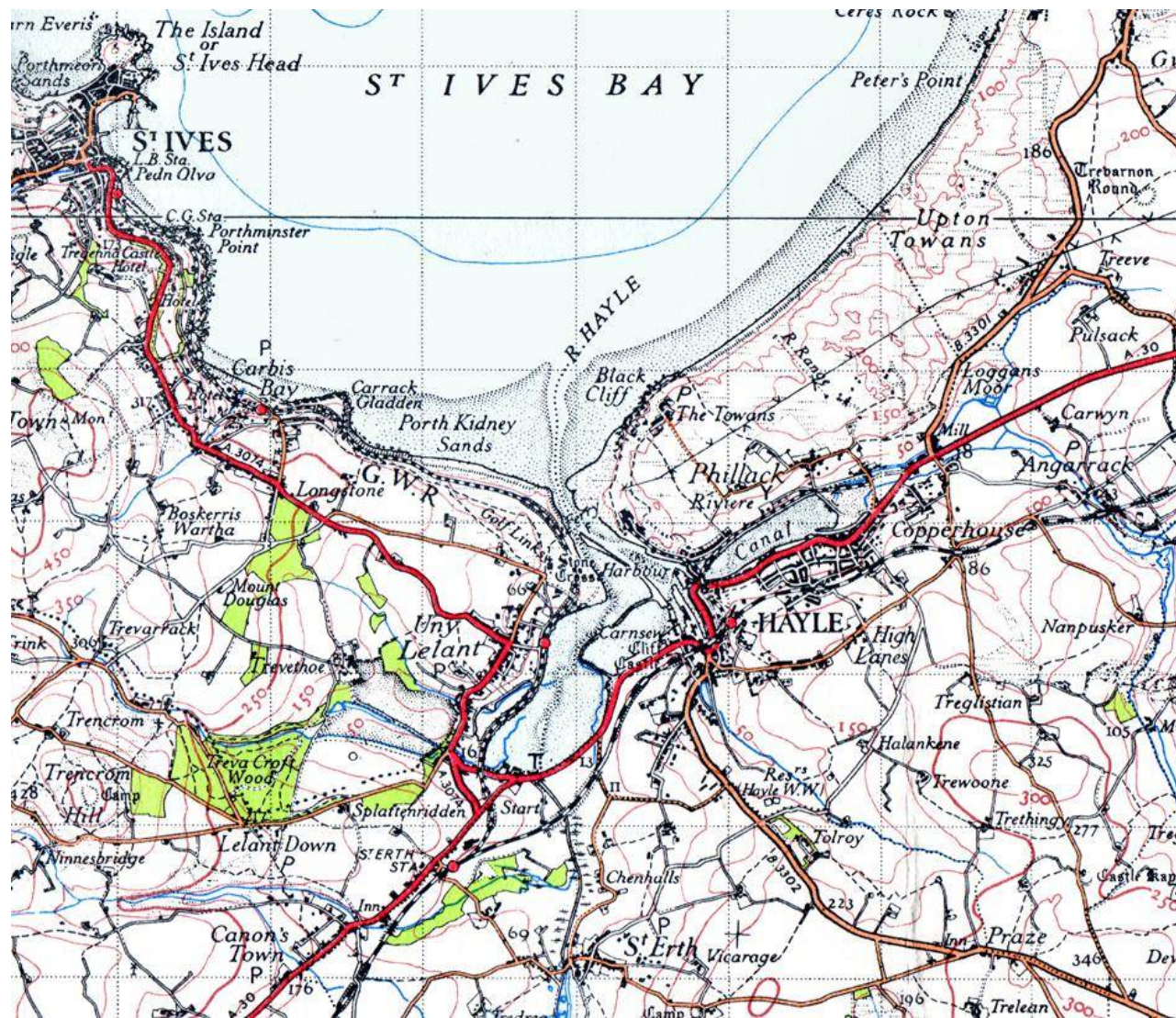
4.6 West of the town is an estuarine area around the River Hayle. Here are quays at Levant Towans on the main estuary channel and the extensive engineering works of Carnsew Pool.

4.7 The estuary joins two rivers and Penpol Stream. To the west, the Hayle River loops around an extensive shallow and wide space. In the centre (north south) is the valley of the Penpol Stream leading to Penpol Creek.

4.8 Penpol Creek extends northwards from the old Foundry area of Hayle into the estuary away from the old centre of the town. North and east of this creek, the River Angarrack flows to the estuary between the company town of Coppertown and the village of Phillack after rising east of the town.

4.9 South Quay is in the centre of the three waterways and lies below hills on the east and west sides of the town. The railway viaduct introduces a visual barrier, albeit a perforate

⁵ The settlement is referred to as Coppertown and Copperhouse.



Extract from the 1931 OS map showing two settlements not to scale

'While passing the long embankment of the Hayle estuary you will have another characteristic Cornish picture before you. On one side Lelant dotting the wood-sprinkled slopes; on the other, the busy town , making room for its famous foundries on the hill-side; and between, a broad surface of sand furrowed by a sluggish river, and the harbour with its ships. Hayle produced the largest cylinders in the world. Fifty years ago copper was smelted here, and you may still see the greenish yellow discoloration on some of the windows.'

Walter White, 1861, p.203

'The fumes arising from the furnaces of Copper-house, though less comprehensive in the extent of their influence than the sands ... are scarcely less pernicious to vegetation in their effects and consequences. Some grounds in the vicinity have nearly been ruined, and the glass placed in the windows of the habitations, after a while, loses nearly all its transparency. No bees can live in the polluted atmosphere, and in the gardens many valuable vegetables will not thrive.....when the wind blows in an unfavourable direction, the smoke, impregnated with deleterious qualities, spreads desolation over the gardens, and blasts in a few hours, the promises of more auspicious breezes and an inviting spring.'

Fortesque Hitchins, 1824, p.558

screen, between the town on its south side and South Quay.

- 4.10 The high ground on the east and west screen the Quay from much of the World Heritage Site. This means that South Quay and development on it cannot be seen from much of the Site and so the proposals do not intrude in views from these parts.
- 4.11 The application proposals have no affect on or relationship with the much of the World Heritage Site and its setting. Accordingly, a tranche of the Site along the main estuary channel and north of the viaduct is the area most relevant to this assessment.

Narrative values

- 4.12 The narrative values of Hayle set out briefly the history, genesis, and reputation of the town. This includes Coppertown and the area around Harvey's foundry. However, the relevant part of the town concerns the area around South Quay and this is addressed in more detail. The Coppertown area is not affected by the proposals.
- 4.13 Hayle is different from most of the other nine components of the Cornwall and West Devon World Heritage Site. There are few former mines just outside the World Heritage Site boundary, but the importance of the town concerns its essential role in the manufacture of steam engines and as a port sustaining the mining industry.

- 4.14 'Heyl' is Cornish for 'estuary'. The genesis of the town and its importance is due in part to its location on the north coast of Cornwall. Here towans (sand dunes) around the estuary afforded protection from Atlantic storms for the small ships.

- 4.15 Evidence from the Iron Age and Roman occupation suggest that the estuary served as a haven from earliest times. An early haven was likely to have been on the strand below Lelant on the west side of the estuary channel and a strand below Carnsew Hill on which is an Iron Age Fort. ⁶ A local fishing fleet was, and is based still in Hayle.

- 4.16 Hayle is really two 'company towns' with houses, shops and churches built by and for the employees of each of the two main engineering and smelting businesses. The two settlements of Coppertown on the east and Foundry in the centre survive with different identities. The Ordnance Survey map of 1931 shows these two settlements separated but post war development has introduced buildings in between.

- 4.17 The town became first a centre for smelting non-ferrous metals and especially tin and copper. Then it became renowned for two iron foundries and the construction of boilers, engines, pumps, and ore stamps. ⁷ Some of the

⁶ Edward Wigley, 1972, p.87

⁷ Some ships were built by Harvey & Co. In the second half of the 19th century, some vessels were built to support its trading activity. Ferguson notes that shipbuilding was common in most suitable harbours and estuaries around the Cornish Coast. This shipbuilding

largest steam engines in the world were built here.

Narrative:- the Cornish Engine

4.18 As the mines grew deeper, the task of removing water became more critical and this required more effective pumps. At the same time, more powerful hoists were necessary to remove ore and waste rock from the deeper mines.

4.19 Early atmospheric steam engines were introduced into Cornwall to replace horse-powered whims. This technology brought a fundamental change to mining in the County and the rest of the World. However, the early Newcomen-type atmospheric engines were particularly inefficient and effective to only 'fifty fathoms'. (300ft = 91.2 metres) ⁸ At the same time, they consumed a considerable amount of imported coal.

4.20 These limitations and the high costs of bringing coal to the engines motivated further development of more efficient and powerful steam engines. The more efficient Boulton Watt engines were imported through Hayle from 1777. However, after 1801, the patents on these engines expired and the company left Cornwall. This allowed local engineers free to bring forward their improved engines. ⁹

was not a function of the mining industry. [Ferguson, 2000, p.63] See also Appendix H

⁸ Harry Pascoe, 1981, p.36

⁹ Harry Pascoe 1981, p.66
William Rosen, 2010, pp.296-297

4.21 These were built by local engineers and especially Jonathon Hornblower and Arthur and John Woolf. A Camborne man, Richard Trevithick, developed here his first steam engines and the first steam locomotives. ¹⁰ Because of the reputation of these Cornish Engines and the town where they were manufactured made Hayle important.

Narrative:- Hayle as a port

4.22 Up and until the end of the nineteenth century and the arrival of railways, goods were moved on trains of packhorses on roads that were impassable in the winter and poor for the rest of the year. Accordingly, the most efficient means of transport was by sea so that the importance of Hayle in part is because of its vital role in serving the mining industry in the Cornubian Orefield from a safe haven convenient to South Wales and Bristol.

4.23 Courtney points out that Hayle acted as a 'northern port' for Penzance. ¹¹ Trade in the Hayle centred on bringing timber, limestone, coal and 'Bristol wares' to Cornwall and exporting copper and tin ores then later refined tin and copper. After the introduction of the Bristol Packet, vegetables, fish and wine were shipped to Bristol.

4.24 Trading in Hayle was established on a large scale first by a trading company John Curnow

¹⁰ Anthony Burton, 2000, pp.68-74

¹¹ J.S. Courtney, 1845, p.196

'Hayle is one of the most flourishing towns in Cornwall; here are two very extensive foundries, from where some of the largest steam engines in the world have been produced: it is now the terminus of the Hayle and Redruth Railroad; and besides this, steam vessels leave for Bristol two or three times in the week: such is the quantity of goods brought by them for Penzance, and so great is the intercourse between the two places, that this may be styled the northern port of that town.'

J.S. Courtney, 1845 , p.196

'A graving dock at Hayle can admit a vessel 250 feet long and 14 feet draft at high water ordinary springs; there are sheers for lifting boilers, and a foundry noted throughout the west of England for producing the largest description of steam engines, and pumping gear, for the mines.'

John King, R.N.1863, p.29

Entry in James William's 'Commercial Directory for Principal Market Towns in Cornwall' 1847

'Harvey & Co., Millers, Engineers, Iron Founders, Iron and Coal Merchants, Shipbuilders, Ship-owners, Ironmongers, Wholesale Grocers, Tea-dealers, and General Merchants and Ropemakers.'

formed in or near 1740. This company occupied an existing dock at Carnsew.^{12 13}

- 4.25 The continued growth in trade supported the two other main and rival companies in the town. These started by smelting non-ferrous metals but also undertook coastal trade and built quays for their own businesses.¹⁴
- 4.26 The extent of the quays had to be sufficient to allow samples of ore to be laid out for prospective customers and at the same time to receive incoming shipments of coal. There had to be space for the horses necessary¹⁵ to move the coal, timber and limestone from the port and bring the ore to the waiting ships.
- 4.27 Maton notes that a 'prodigious' number of horses were required to move goods in 1789.¹⁶ A generation later, in 1824, Fortesque Hitchins estimated 'oftentimes a thousand horses' were brought in to move goods six days a week.¹⁷
- 4.28 By all contemporary accounts, the port was a busy place. In 1859, some 763 vessels arrived in the port and this was compared to 144 in the neighbouring port of St Ives.¹⁸ An Admiralty

report of 1863 refers to the port including a graving dock capable of taking ships of '250 feet' [250ft = 76.200 m].¹⁹

Narrative:- Coppertown & Harvey & Co.

- 4.29 The Cornish Copper Company arrived in the town in 1756. **Appendix G** Ten years later, the company developed its own quays and a canal alongside the River Angarrack on the east side of Hayle.
- 4.30 The company started by smelting tin and copper and later extended their business with iron founding and the manufacture of boilers and engines. Around these activities, the town of Coppertown became established south of the River Angarrack and the much older village of Phillack.
- 4.31 On the south side of the estuary along the Penpol Stream, a rival company started a generation later in 1779, by a local blacksmith, John Harvey. His company started with a blacksmith's shop then became a mine merchant trading initially exporting ores and importing coal and the materials and equipment necessary to operate a mine.²⁰

- 4.32 The company used first an old quay on the Lelant shore or sandbanks and later Carnsew Quay.²¹ By 1780, he had permission to build a canal along the Penpol Stream and this was

¹² Harry Pascoe, 1981, p.35

¹³ Edmund Vale, 1966 (2009), p.40

¹⁴ At the end of the 19C, Harvey & Co. ran a steam packet service to Bristol thereby enabling fish and vegetables to be sent from Cornwall to markets in Bristol and London. The company also traded further afield to Portugal and Spain importing inter alia, wines. The company gave its name to the sherry known as 'Harvey's Bristol Cream'. [Keith Harris 1983, p.59 Harry Pascoe, 2005]

¹⁵ William George Maton, 1797, p.229

¹⁶ William George Maton, 1797, p.229

¹⁷ Fortesque Hitchins, 1824, p.524

¹⁸ Report of the Commissioners, 1859, p.224

¹⁹ John King, 1863, p.29

²⁰ Edmund Vale, 1966 (2009), p.59

²¹ Edmund Vale, 1966 (2009), p.57

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'There is a large dam for scouring the sand out of the harbour. Hayle is a populous place, boasts an excellent hotel, and carries on a considerable trade, standing in the parish of Phillack; the old copper works being at the east end, and the iron works at the west. In 1825 a causeway was made over the river here, which we crossed.'

Cyrus Redding, 1842, p.185

'Here there are two very extensive Iron Foundries and the Water Dam, which was constructed some years ago for clearing the sand from the bottom of the river, is well entitled to notice.'

F.W.L. Stockdale, 1824, pp. 90-91.

completed by 1787.²² In 1819, Henry Harvey built a wharf alongside existing slipways and the west bank of Penpol Creek.²³ **Appendix H** The new wharf extended across an existing ford so that a tunnel was built here to allow access through and then passage across the sands.²⁴

4.33 Harvey set up a foundry to make iron pipes to replace the wooden pipes then used in the mines.²⁵ The company built a smelter for non-ferrous metals but with the demise of copper smelting and after 1800, the iron foundry became important for casting the components for large boilers and beam engines.

4.34 The company made also a range of other cast iron products including architectural fittings.²⁶ The iron foundry closed in 1904.²⁷ In the nineteenth century, the company commissioned coastal ships for its own fleet and other clients and later constructed ships on slipways at Carnsew.

Narrative:- Maritime engineering

4.35 The Hayle estuary is bounded on the north by the strand and sand dunes along St Ives Bay and these sheltered the haven. The windblown sand and tidal action regularly reduced the estuary channel. So that shipping could make best use of the water and for larger ships to ride

over the bar at the mouth of the channel, both companies invested heavily in extensive maritime engineering works.

4.36 The Cornish Copper Company built a canal to Coppertown, sluices and an extensive tidal pool. Carnsew Pool was opened in 1834, and it survives as a remarkable and impressive undertaking filling with water at high tide, which flushes sand from the channel as the tide ebbs.

Narrative:- Hayle Railway

4.37 An Act of Parliament of 1834 enabled a railway from Hayle to Redruth and the Hayle Railway was built in 1837. The early line ran from Foundry Square around Penpol Creek and across to the north side Coppertown Pool on a swing bridge. This limited large vessels entering the pool and so quays in the main estuary became more important. The line extended eastwards to Camborne via an inclined plane.

4.38 The West Cornwall Railway Company took over the line in 1846. It built a new line to link with Penzance and this crossed the town on a viaduct.²⁸ The Great Western Railway took over the line in 1888 and linked Hayle to Truro and London. **Appendix I**

Narrative:- Changes in ownership

4.39 Harvey and Co. bought the quays and other property of the Cornish Copper Company at auction in 1868 and then bought the assets of the company outright in 1875. The slipway near

²² Harry Pascoe, 1981, p.60

²³ Edmund Vale, 1966 (2009) p.135

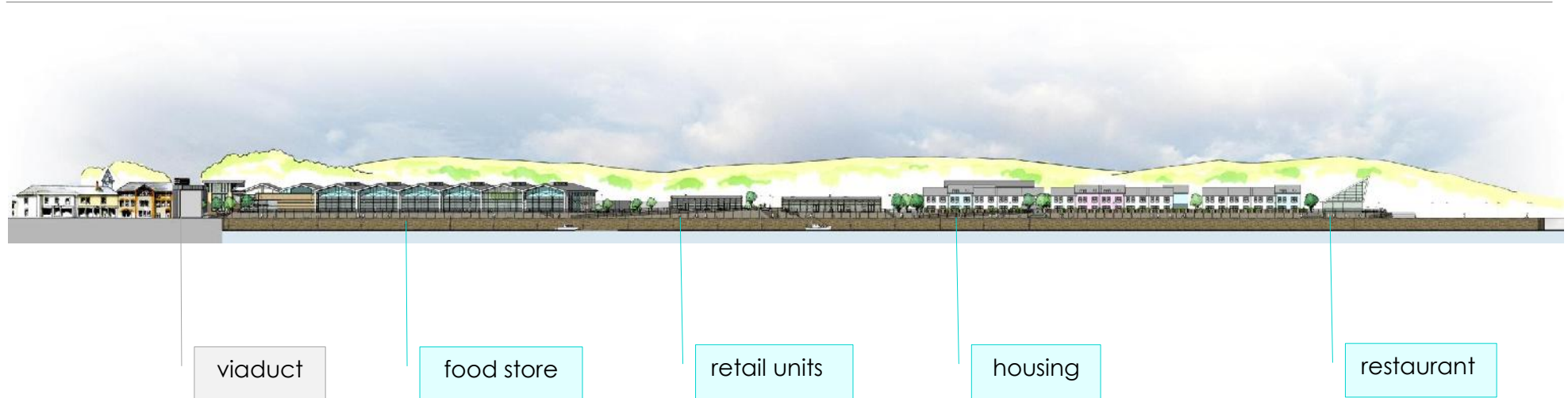
²⁴ Edmund Vale, 1966 (2009) p.128. The Causeway Road was built later in 1824.

²⁵ Harry Pascoe, 1981, p.45

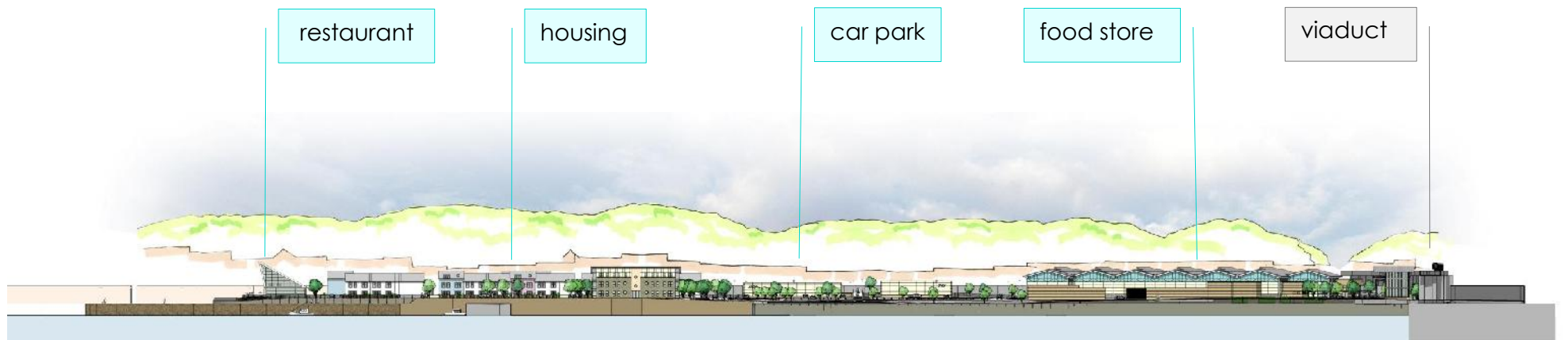
²⁶ John Ferguson, 2000, p.125

²⁷ Edmund Vale, 2009, pp. 320-324

²⁸ Edward Wigley, 1972, pp.98-100



East elevation of proposals for South Quay



West elevation of proposals for South Quay

'A dirtier, squalider, less interesting town than Hayle is not to be found in all Cornwall. Its population is composed of fisherman and miners, of labourers in its two iron foundries or tin smelting works, and its only claim to consideration is its position with respect to some magnificent coast scenery,'

Blacks Guide to the South-Western Counties of England..etc., 1862, p.356

South Quay was rebuilt and deepened three times and was filled in finally by 1968. **See Appendices H & L** Buildings along the west edge of South Quay changed several times from 1819 and were demolished eventually in the 1960s.

- 4.40 For fifty years from the 1920s to the 1970s, Carnsew Dock and South Quay were used for ship breaking with the scrap metal being exported to South Wales.²⁹ Sluicing of the harbour ceased in 1972 and commercial traffic in the port finished in 1977. Harvey and Co. became part of a national builder's merchant in 1969.³⁰ The port of Hayle was put up for sale in 1983.³¹

Visual Values

- 4.41 Visual values of the estuarine part of the World Heritage Site reflect the contrast between the remarkable open landscape of the Towans, St Ives Bay and the estuary with the cluttered arrangement of buildings in the town. The application site is on unused and cleared land and for some people this openness has an appeal because of its undeveloped character. However, the proposals will bring the land into use with new homes, shops and activity.
- 4.42 The proposals introduce new buildings onto a site that was cleared of buildings in the 1960s. The proposals are for a large store and cinema

close to the railway viaduct and close to where there had been an accumulation of former industrial buildings. The proposed housing is lower and spreads north towards the end of the quay. A space is left at the far end of the quay and there are breaks in the buildings allowing views across the car park and between housing terraces.

- 4.43 These new buildings are introduced into the wider landscape context of the harbour and part of this is the setting of the World Heritage Site and some other heritage assets.
- 4.44 We can be forgiven for seeing a landscape through a lens of Romantic landscape values. This is part of the cultural heritage of Western Europe and it has influenced Town and Country Planning since 1947. The challenge for the observer is judge the impact of the proposals in views across the World Heritage Site objectively.
- 4.45 Hayle has never been a 'picturesque' town. The legacy of copper smelting destroyed vegetation in the area around the settlement, Foundry chimneys rose from the centre of the town and a set of sheers for lifting boilers were higher than the railway viaduct. On South Quay was a line of utilitarian and robust buildings along its west side adjacent to the slipways ensemble. [See photograph on Page 28] The harbour was full of ships and activity.
- 4.46 Nevertheless, the estuary and the dunes are impressive and always attractive and the proposals do not affect them. The setting for

²⁹ Harry Pascoe, 2005, p.119

³⁰ Edmund Vale, 2009, p.331

³¹ Edmund Vale, 2009, p.331



Long view looking south from the Towans



View looking south from North Quay



Long view looking from the dyke of Carnsew Pool



Long view looking north from Carnsew Hill



Long view looking north east from Carnsew Hill



Long view looking north west from railway station

Views towards South Quay

'Cornwall possesses little of the highest aesthetic quality though much that is lovable and much that is moving. Nearly always, however, in analysing one's emotions, one will find that what is remembered is more of the setting of architecture than architecture itself.'

Nikolaus Pevsner, 1951, p.11

the World Heritage Site is the estuary on the west and north, the Towans on the north and high ground around the estuary on all sides. Of these Coppertown, Coppertown Pool and the Angarrack Valley play no part in the setting of South Quay.

- 4.47 The estuary and the protection offered by the Towans created a natural safe haven and a rare natural harbour in North Cornwall and this contributed to the genesis of the town and the significance of the port of Hayle. The development at South Quay does not change the surrounding setting. New buildings introduce a change to views looking into the harbour from surrounding high ground but this change does not harm the setting.
- 4.48 The Coppertown settlement is a company town on the east of Hayle and is read as a separate place. Post-war development generally has extended the town to the south of Foundry Square and some post-war buildings are on high ground east of the station and out of sight of South Quay.
- 4.49 The form of the shallow Penpol Valley contains much of the small town and this topography assists reading the eighteenth and nineteenth century town contained along this valley floor.

Views from the south

- 4.50 Some long views of the town can be secured from the southern end of the World Heritage Site from high ground. However, most views

from the valley floor in and out of this space are obscured by buildings but there are occasional glimpses of high ground through gaps in streets. Views through the viaduct proffer glimpses of the quays, the estuary beyond and with glimpses of houses along Penpol Terrace.

Views from the west

- 4.51 High ground to the west of Hayle River proffers views east and south east to the town up to the railway viaduct. These views are across open low estuarine land and the dykes on the north side of Carnsew Pool. Views towards Coppertown are screened by high ground and a range of buildings on North and East Quays. From these viewpoints, distance diminishes the size of buildings in the views of the area of South and Carnsew Quays.

Views from the north

- 4.52 High ground to the north along the Towans and at each end of the railway viaduct proffers opportunities for long views across the town. The railway viaduct interrupts views in and out of the town so that the area around and south of Foundry Square can be regarded as a space separate from the quays and Hayle Harbour.
- 4.53 High ground on the north side of the World Heritage Site at Riviere Towans proffers views across Coppertown Pool towards Copper House (Coppertown). Views are also south towards Penpol Terrace and Penpol Creek and the quays ensemble. Closer to the quays are



View looking north east from Carnsew Hill



View of Foundry Car park from Carnsew Hill



View of Foundry Car Park from Carnsew Hill



View of viaduct from Foundry Square looking north

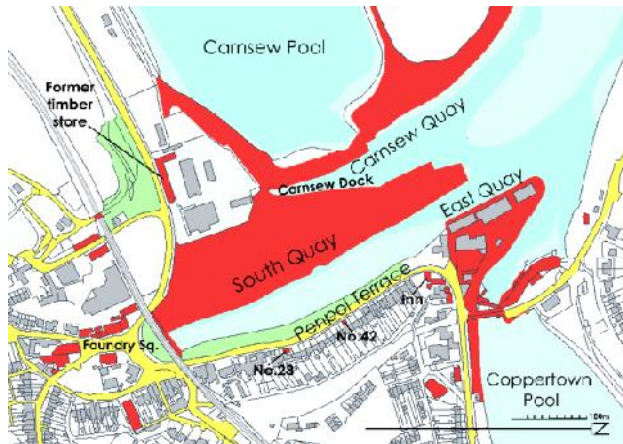


Viaduct from Carnsew Road looking south



Viaduct from Penpol Terrace looking south west

Foundry Car Park and railway viaduct



Listed buildings immediately around South Quay



An example of scoria blocks in the Black Road Bridge

the edges of the docks at North Quay and from here views south towards the centre of the town are possible.

4.54 In views from the Towans, the perceived size and impact of the proposed buildings are diminished through distance. At the same time, the high ground above Carnsew Road and the railway viaduct provide a backcloth to the area on the quays. These coulisses frame the activity and buildings north of them around South Quay and Penpol Creek.

4.55 Buildings around South Quay are generally built from a limited palette of materials and these are mostly granite, elvan³² and scoria.³³ Walls of houses and small buildings generally have been rendered and some are coloured with a limited range of muted colours. Grey slate is used on most roofs.

4.56 The significance of the visual values seen from across the estuary and from the Towans relate to a view of much of the town with estuary, maritime structures and South Quay in the foreground. There is no high building apart from St Elwyn Church and most existing buildings are generally subordinate to the railway viaduct. This structure screens much of the town from the estuary.

Values of fabric and features

4.57 South Quay is a listed building and is nationally important. The list description refers particularly to the granite walls and the structure is listed because of its Group Value as part of an ensemble of docks and quay. See **Appendix J**. Nevertheless, the whole structure is an impressive engineering achievement. Its position and size was dictated by the killas reef below and on which the structure is founded.

4.58 The significance of the surviving fabric concerns three separate groups of buildings and structures in the town. There are 129 Listed Buildings in the World Heritage Site and these are of national significance. The Listed Buildings immediately around South Quay are shown on the plan below and these are of national significance.

4.59 The Coppertown settlement with its quay, tidal pool and weir lie to the east of the town but these do not relate to the South Quay and this area is not affected by the proposals. Most of the surviving buildings and structures related to Harvey and Co. are south of the railway viaduct and are not affected by the proposals for South Quay. These surviving buildings are important and those that are listed are nationally significant but none is affected by the proposals.

4.60 Maritime structures around the estuary that form much of the port and the civil engineering works including the Carnsew Dock, Carnsew Pool and its sluices are nationally important and

³² Elvan is the local name for microgranitic stone occurring in veins and dykes in granite.

³³ Scoria is the waste, dross or slag from copper smelting.



East side of South Quay and Penpol Creek



East side of South Quay and Carnsew Hill behind



West side of South Quay across Carnsew Creek



Quay walls looking west



Breach in east side of quay wall



West side of quay and part of the filled slipway

Condition of the walls of South Quay

'A busy scene of commercial bustle, however occurred at Phillack and Heyl; and the church of the former village, seen across the creek, nestling itself in trees, and accompanied with a few cottages, recalled the associations with the picturesque. This quiet scene was agreeably opposed by the animation of the creek, which contained a pretty considerable fleet of trading ships from Bristol and Wales which bring iron and coal for the mines, and limestone for flux and load back with copper; as many of the proprietors find it less expensive to export the ore to Wales for smelting, than to manufacture it on the spot. This is however, not the case with all the ore; a part of which is smelted at Heyl.'

Rev Richard Warner, 1801, p.136

are listed buildings. The nearby former timber store used by Harvey and Co. on Carnsew Road is a listed building but this is not part of the harbour ensemble. South Quay and the Foundry Yard Car Park site are in the setting of these structures and this is affected by the proposals. This is discussed below.

- 4.61 On the east side of Penpol Creek is East Quay and this structure is a listed building. This is not affected by the application proposals but South Quay lies in its setting. In Penpol Terrace are three listed buildings and these are nationally significant. Whilst they are not affected directly by the proposals, South Quay lies in their settings. The proposals do not harm the settings of these listed buildings.
- 4.62 Southwest of the application site is the Carnsew hillfort. This is a Scheduled Monument because of its Iron Age remains. However, the cliff was reduced when the causeway road was constructed in 1824.¹ Then the remains of the fort were drastically altered by Harvey who created a park on the hill and this was severed later by the introduction of the railway line. Because of these changes, the significance of this monument is diminished. The proposals lie in the setting of the hillfort but they do not affect the fabric of the monument or harm its setting.
- 4.61 The application proposals allow for the provision of a future bridge to link South Quay to Penpol Terrace and change to Isis Gardens. These changes are on the line of part of the former

Hayle Railway. This feature is of some local significance and part of the history of the town. The line shapes the space around the foot of the viaduct and the gardens along Penpol Terrace. However, the railway exists no longer and so its significance is diminished. **Appendix I**

Significance of Hayle

- 4.63 Hayle is a complex town. The town played an essential role in supporting the Cornwall mining industry and the development of Cornish beam engines. These activities transformed the estuarine landscape but made an important contribution to the mining industry and the Industrial Revolution in the United Kingdom and elsewhere in the world.³⁴
- 4.64 The significance of the town is primarily a function of activities in the latter half of the eighteenth century and the nineteenth century. Those activities that brought the town into being have gone but the surviving fabric is testimony to them.
- 4.65 The values of the World Heritage Site and the surviving fabric have informed the design of the proposals. The retail store, the retail units on the Foundry Yard Car Park are urban buildings and form a centre of gravity of the proposed buildings close to the centre of Hayle around Foundry Square. Here there is a resonance with the accumulation of former industrial buildings at the south end of the quay

³⁴ William Rosen, 2010, p.xx1-xxii



Hayle Harbour in 1986

Para 23 'Spatial structure in and around historic cities are to be enhanced through urban design and art as they are key elements of the renaissance of historic cities: urban design and art express their specific historical, social and economic components and transmit them to forthcoming generations.'

Para.26 'Special care should be taken to ensure that the development of contemporary architecture in World Heritage cities is complementary to the values of the historic urban landscape and remains within limits in order not to compromise the historic nature of the City'.

UNESCO Vienna Memorandum May 2005

Impact on setting

- 4.66 Views across the quay and the harbour will be maintained across the car park and the open area at the north end of the quay. The promenade provides public access for the first time to the quay and permits an observer to move around the quay and see the rest of the harbour and its setting.
- 4.67 The proposals introduce new buildings to South Quay and the nearby parcel of land of the former car park. The proposals will be an intervention in the centre of the World Heritage Site. The proposed buildings are sensitive to and complement the values of the Site.
- 4.63 The proposed buildings are generally lower than the viaduct that crosses this part of the town. The views to South Quay will look on buildings that have been designed to respect the heritage context of the area. The new buildings will be of contemporary design, which will have a resonance with industrial or warehouse buildings that are likely to be found on a quay or in an industrial area. The proposed houses will be at density commensurate with the centre of a town and

will incorporate materials and colours that reflect those on nearby 19th Century houses.

Contemporary architecture

- 4.64 The UNESCO World Heritage Committee has embraced the 2005 Vienna Memorandum, which addresses development in historic cities. The memorandum recognised the role of contemporary architecture in historic cities. It has sought to link the development of contemporary architecture to the values of the historic urban landscape and ensure development does not to compromise the historic nature of the city.
- 4.65 With this in mind, the proposals complement the values of the World Heritage Site and are consistent with the objectives of the UNESCO World Heritage Committee and the Vienna Memorandum.
- 4.70 Only part of the World Heritage Site is affected by the proposals. These do not harm views across the affected part of the World Heritage Site and do not disrupt the setting of the town or the World Heritage Site.

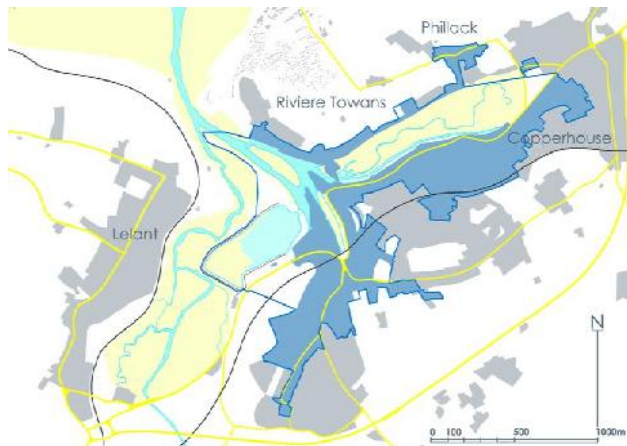


South Quay in 1989

5 Hayle Conservation Area

'....Herein lies the true character of Hayle –it relies less on the quality of individual buildings or set-pieces urban landscapes as on the understanding that a complex set of relationships created the town – in effect a series of systems. Just as the quays are an integrated system of tidal and dredging management, with a complex interrelated pattern of uses on the wharves themselves, so the houses around the quays should be seen as part of this interrelated complex.'

Cornwall Archaeological Unit, 2000, p.16



Hayle Conservation Area

- 5.1 At the end of the eighteenth century, Hayle was a busy industrial town and destined to become busier. The patents on Watt's steam engines ran out in 1800 allowing both companies in the town to develop and manufacture steam engines of their own. They built iron foundries to do this and the commensurate activity, noise and pollution will have followed.
- 5.2 At the same time, Hayle estuary was a busy place, the creeks harboured a considerable number of trading ships.³⁵ The foundries quays and activity were on land included in the Hayle Conservation Area.

Character and appearance

- 5.3 However, the overall appearance and character of the town today, is of a generally somnolent, clean seaside town with some interesting buildings in the centre and unused quays facing on to an attractive and open estuary. South Quay is used no longer for trading activities and is now an open quay with an intermittent use by local fishermen.
- 5.4 The purpose of the conservation area designation is to preserve or enhance the character or appearance of the designated area. The PPS5 defines a conservation area as a 'designated asset'. With this in mind, the

significance of the conservation area must be established but this is assessed primarily in visual terms.

- 5.5 In many respects, the significance of the conservation area is consistent with some of the significance of the World Heritage Site. However, the conservation area is a local matter and was designated by the then Penwith Council in 2003. The boundary and relevant policies are set out in the Penwith District Local Plan of 2004. **Appendix D** The Conservation Area is of local significance.

Relevant part of the Conservation area

- 5.6 The application proposals on and near South Quay have direct implications for only part of the conservation area. This is the area, generally within which, the proposed buildings can be seen or is in the setting of the new buildings. Nevertheless, the objective of the development is to direct investment into this part of the conservation area. This will bring benefits to the economy of the whole of the town and enhance the conservation area.
- 5.7 Other buildings in the area are not listed but some are of local significance and contribute to the shape, grain and colour of the fabric of the town. Of these, the railway viaduct may be held to be an 'undesigned heritage asset'.

³⁵ Richard Warner, 1801, p.136



South Quay looking north east



South Quay looking north east



View north through railway viaduct to South Quay



Filled area of South Quay on the left of Carnsew Dock



Seaward edge of the filled area of South Quay



Carnsew Dock looking north

Character and appearance of South Quay

'Reached Hayle at 9. Walked through the ugly town, half seaport, half manufacture, and crossed a dreary creek by a bridge over which runs a tramway for coal &c. The tide was low and the wastes of sand and mud festered and sweltered in the hot sun. Some colliers and other vessels lay at the wharves and piers along the creek. From the Phillack shore we looked back upon the long irregular town, with its scattered rows of white houses and buildings straggling out into the country or up and down the creek, the masts of the vessels and the lofty black timber viaducts soaring over the streets with their long stilted legs.'

Rev, Francis Kilvert, 1870, p.33



Visible tranche of the Hayle Conservation Area

- 5.8 This is not a listed building and has no special architectural or engineering merit. However, it is of local significance and makes a particular contribution to the character and appearance of the centre of Hayle. The proposals are generally no higher than this structure.
- 5.9 In some places, the proposed pitched roof of the food store will rise just above the viaduct but does not compete with it. The ridges of the food store and the non-food retail shops on the Foundry Yard Car Park are designed with elevations and gables that complement the rhythm of the viaduct.
- 5.10 At the north end of the quay, the restaurant rises to distinguish the building as a landmark but this does not compete with the height and form of the viaduct. The terraces of houses are low and gaps between them will allow views across the quay from Penpol Terrace.
- 5.11 The food store will bring back a built edge along the north side of Carnsew Road reinstating a frontage comparable to the 19th C industrial buildings that were lost in the 1960s.
- 5.12 Increase in activity on the quay is likely to increase traffic. The access to the proposed development will be through a new road junction arrangement in Carnsew Road a changed surface treatment here will identify an improved pedestrian area.
- 5.13 These traffic arrangements are addressed elsewhere in the application documents and

these show, inter alia, that changes in traffic movements will be acceptable and offset by the enhancement and expected benefits to the conservation area.

- 5.14 Carnsew Road will be realigned and a change of surface materials will reinforce the entrance to the town centre as well as improve the public realm at the entrance to South Quay and identify a new pedestrian crossing.

The visual impact

- 5.15 The application proposals can be seen from a limited area of the conservation area. This tranche is faces northwest and west with an apex generally at the viaduct and South Quay. Views from points into the quadrant and towards South Quay are generally from high ground on the perimeter and some points on the quays and edges to the estuary.

From the north

- 5.16 The key viewpoints are from the north and the Towans. From the same direction, closer views of South Quay can be seen from the North Quay area. However, both are distant views and these will show the proposals do not rise generally above the top level of the railway viaduct, which is the principal feature that closes these views.
- 5.17 These views are closed by high ground above and east of Penpol Creek and the town. The proposals do not harm these views because they are generally lower than the viaduct and complement other buildings.



Railway viaduct defines the north of Foundry Square



Railway viaduct defines the south of Penpol Creek



Penpol Terrace defines the east of Penpol Creek



Foundry Square looking west



Foundry Square looking south west



Foundry Square looking south east

Character and appearance of areas near South Quay

'The country around Hayle is entirely covered with sand which is blown about by every blast, and renders its appearance truly dismal. The immense volumes of smoke that roll over it, proceeding from the copper houses, increase its cheerless effect whilst the hollow jarring of the distant steam-engines remind us of the labours of the Cyclops in the entrails of Mount Aetna.'

William George Maton, 1797, p.235

From the northwest

- 5.18 Long views can be seen from high ground at Lelant. Views can be secured from the north dyke of Carnsew Pool on the north-west and, closer to the estuary, from the east dyke of Carnsew Pool. High ground and the railway viaduct in the background close the prospect in these views.
- 5.19 Generally, the proposed buildings will not rise above the railway viaduct or the background hills. These new buildings will be seen but they do not harm these views because they complement the character and scale of existing buildings.

From Carnsew Hill

- 5.20 Views across the application site can be secured from Carnsew Hill. This is high ground immediately above the former car park. There are views from here over this space and further to the north east across the road to the south end of South Quay. Both sites are cleared and vacant. The proposals will introduce change here with new buildings and near the south end of South Quay.
- 5.21 There are only limited views to the north end of the Quay from Carnsew Hill. These are over the roofs of existing buildings used by a builders' merchant, which intervene in this view. The proposed retail store on South Quay will introduce a new building and pitched roofs into the foreground of this view and so reduce the isolation of the builders' merchant.

- 5.22 The new store will repair the look of the street along Carnsew Road near the viaduct by bringing back a frontage of buildings where former industrial buildings and warehouses stood in the nineteenth century. The south edge of the building has been articulated to respond to the gradient and curve in the road presenting a finer scale that is commensurate with the public space between building and the road and viaduct.

From Penpol Terrace

- 5.23 The proposals will be seen from the east from Penpol Terrace and there will be change in these views. The present condition of the quay is cleared of buildings that formerly stood on the platform of this structure.
- 5.24 The new buildings are of a retail store close to the viaduct and beyond a car park are terraces of houses and a restaurant on the north end of the quay. New buildings here introduce a change and an increase in activity.
- 5.25 Views from the east to the existing buildings of the builders' merchant will be reduced. Some views will exist still across the car park between the two retail units sited either side of the footbridge. Views will be maintained across the quay through open vistas in the housing.
- 5.26 Replacing the open, underused and derelict space on the quay and the cleared space adjacent to the viaduct with buildings and activity will enhance this part of the conservation area.



Coppertown: the Canal



Coppertown: looking south across Coppertown Pool



Coppertown: houses in Commercial Road Hayle



Former Foundry buildings west of Foundry Square



Former Foundry buildings west of Foundry Square



Former Foundry buildings south of railway viaduct

Coppertown and Foundry Areas

'Hayle is a brisk modern little town, situated by the estuary of the River Hayle and guarded from the sea by the large sand dunes or 'towans'. It offers little in the way of 'picture card' beauty and to the visitor, hurrying along the A30 on his way to Land's End and St Ives, it probably passes unnoticed. To the discerning eye, however, it presents many fascinating features of an active industrial past.'

Edward Wigley 1972, p.86

From the station

5.27 Views to South Quay from high ground at the railway station are obscured by intervening roofs, buildings and structures.

From the south

5.28 Glimpses of the proposals will be seen through the gaps in the railway viaduct. There will be a change here that will close some glimpses from part of the north side of Foundry Square. There is no harm here because the area around Isis Gardens will be improved.

Character areas

5.29 The character and appearance of the conservation area is different across the designated area. Five neighbourhoods can be distinguished where each has a different character and appearance.

5.30 **1-The Foundry Square** extends from the site of the former Harvey's foundries just south of the railway viaduct. This part of the conservation area lies generally within the valley of the Penpol Stream with high ground on both sides. The viaduct forms a high perforate edge to the north of Foundry Square and around this space are streets with clusters of buildings of which some are high.

5.31 The character of this part of the conservation area is urban and not a planned layout. Here there is a variety of commercial and residential buildings. There are some open spaces including a former millpond and other smaller open areas. The character and appearance of

the area changes along Foundry Hill and Trellissick Road where there are trees, suburban villas with gardens.

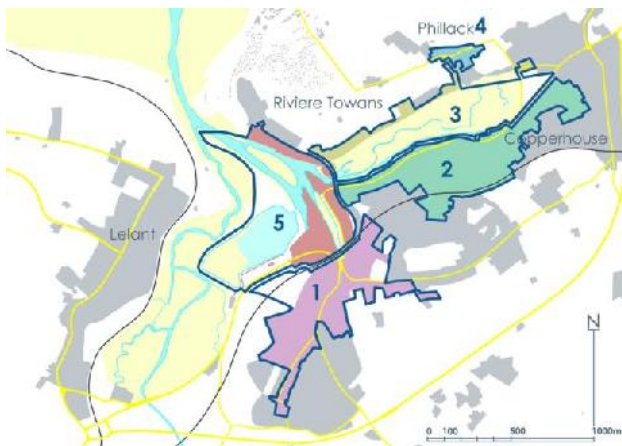
5.32 There will be an impact on the character and appearance of this part of the conservation area where some views through gaps in the viaduct will be closed and changes brought to Isis Gardens.

5.33 **2 The Coppertown** area is a close-knit urban area now mostly residential with rows of small houses, shops, churches and some surviving industrial buildings. The north boundary to this neighbourhood is the quay and canal and beyond this is the open space of the estuary of distinguished where each has a different character and appearance.

5.34 Angarrack River and the Coppertown Pool. Further south from this space the land rises markedly. The proposals have no impact on the character and appearance of this part of the conservation area.

5.35 **3 The Coppertown Pool** area is the low-lying estuarine valley of the Angarrack River. Its south edge is the Coppertown canal and quay. On the north side land rises to the High Towans. Here is a road, the line of the former Hayle Railway and a range of houses.

5.36 A cluster of bridges, structures and buildings close the west end of the space. The application proposals make no impact on the character and appearance of this part of the



Character areas of the Hayle Conservation Area



South Quay in 1879 (not to scale)

'Hayle has no pretensions as a town. It consists chiefly of mean cottages, a few poor shops, an inn, and a shabby. rly viaduct, and over all whitewash and coal dust seem to struggle for the mastery. It is however, a busy port, and the coast in the neighbourhood is most beautiful.'

T.C. Paris, 1865, p.291

conservation area. Investment associated with the proposals in the harbour area to the west, will generate enhancement of the conservation area and particularly the harbour.

5.37 **4 The Village of Phillack** is older than most of the town. Here there is a cluster of houses and farm buildings around the church. This nuclear settlement is different from the rest of the town. The proposals have no impact on the character and appearance of this part of the conservation area.

5.38 **5 The quays and harbour.** The character and appearance of the harbour area is from two components. The main estuary channel is lined on its east side with quays and harbour buildings. The east side of Penpol Creek is lined with a sloping foreshore, an open space with gardens and trees, a road and Penpol Terrace and these form an edge to this area.

5.39 A sloping foreshore defines also the west side of the estuary channel below Lelant although this village lies outside the conservation area. Part of this foreshore has been reinforced to support coal staithes and ore hutches and nearer Carnsew Dock form part of the Carnsew Pool.

5.40 This pool is an impressive and extensive structure supported by a dyke extending along its almost rectangular north and west sides. The southwest edge meets the former causeway of 1826 and this now is supporting part of Carnsew Road.

5.41 Closer to South Quay is Carnsew Quay with a nearby cluster of warehouse buildings and a builders' merchant. Sluices and channels lie between Carnsew Pool and Carnsew Quay.

5.42 The character and appearance of most of this quadrant is defined by quays and an urban edge on the east and south. However, much of this is part of the conservation area is on the west an estuarine, low-lying area and open across the harbour and the tidal pool.

5.43 This part of the conservation area is not affected markedly by the proposals apart from changes in some long views across the open spaces and estuary. Views are sustained across the car park and through the residential area.

5.44 The proposed promenade on the quay provides access to the harbour and views across the harbour. There is no harm to the character of this part of the conservation area because the proposed buildings complement the area.

5.45 Immediately around South Quay and Carnsew Road, the proposals introduce change to land that is derelict and cleared of former buildings. The new buildings are consistent with the scale of buildings in the centre of Hayle and are generally no higher than the railway viaduct.

5.46 The proposals will enhance the appearance of South Quay and former Foundry Yard Car Park. The proposed buildings will enhance the



Estuary looking north west



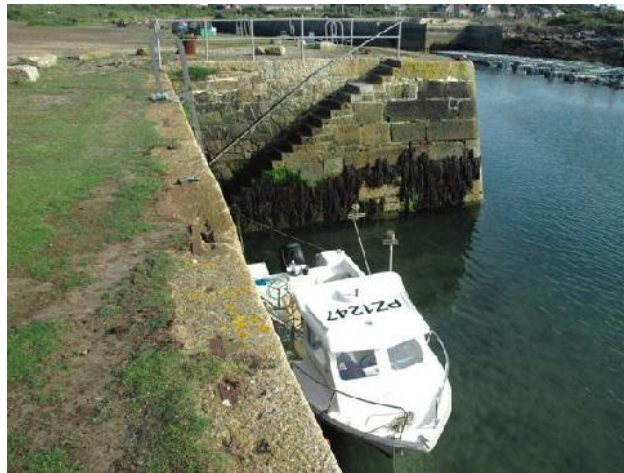
Estuary looking north



North Quay channel looking north



Carnsew Channel looking west



South Quay steps on west side



Penpol Creek looking north across collapsed area

Estuary and channels around South Quay

Scale of features in the harbour area

- ❑ South Quay is a very large structure. It is some 450 metres long and six metres high.
- ❑ The railway viaduct is 253.45m long and 10.37m above South Quay.
- ❑ Penpol Terrace is some 335m long.
- ❑ East Quay and North Quay are extensive structures some six metres high.
- ❑ The utilitarian warehouse buildings on East Quay are larger than domestic scale of buildings.
- ❑ Carnsew Dock and Carnsew Quay are large industrial scale structures.
- ❑ Carnsew Pool is an immense engineered structure of some 16 hectares with a massive retaining bund.
- ❑ Jewson builders' merchants in Carnsew Road and adjacent to the application site has large retail warehouse buildings which depart from the prevalent scale and grain within the town south of the viaduct.

character and appearance of this part of the conservation area.

Significance of the conservation area

5.47 Significance of the conservation area is of local importance but arguably of great importance because it has informed the design of the proposals.

5.48 There is a duty on the Planning Authority and decision maker to have regard to the impact of the proposals on the character or appearance of the conservation area. This is supported by policies in the Local Plan.

Enhancement of the conservation area

5.49 The proposals affect only part of the conservation area. The scale and massing of the neighbouring buildings and evidence of former buildings inform and influence the scale and massing of the proposed buildings.

5.50 The proposed buildings are generally lower than the viaduct that crosses this part of the town. The views to South Quay will look on buildings that have been designed to respect the heritage context of the area.

5.51 The new retail buildings will be of contemporary design. However these will have a resonance with industrial or warehouse buildings that are likely to be found on a quay or in an industrial area. The proposed houses will be low-rise terraces at density commensurate with the centre of a town and will incorporate materials

and colours, which respond to those of nearby 19th Century houses.

5.52 The proposed retail development is close to the railway viaduct, Carnsew Road and to the centre of the town. This investment and activity will reinforce the focal point of the centre of the town around Foundry Square.

5.53 The proposals will bring derelict land into use and so enhance the appearance of this part of the Conservation Area. The proposed promenade will improve public access around the perimeter of South Quay and open views into and across the Harbour.

5.54 The repairs to the walls of South Quay will enhance the appearance of this part of the conservation area.

5.55 The proposals will enhance the character and appearance of this part of the conservation area and the area around South Quay. The proposals bring investment into the town and this will be a catalyst for regeneration of Hayle.



No. 28 Penpol Terrace Hayle



No 42 Penpol Terrace, Hayle



The Royal Standard Inn



The setting of No. 28 Penpol Terrace



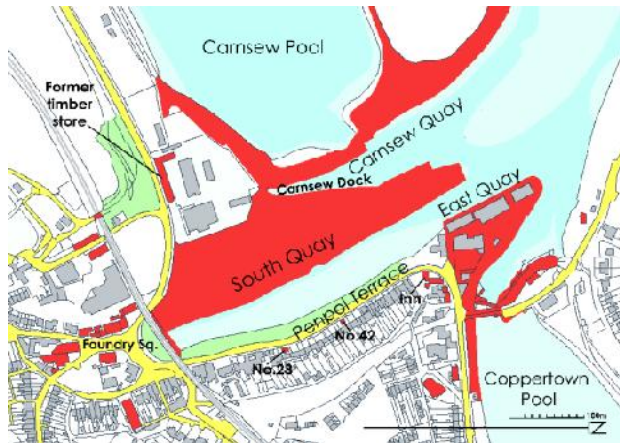
Setting of No 42 Penpol Terrace



Setting of Royal Standard Inn and East Quay

Listed Buildings east of South Quay

6 Buildings, fabric, and features



Listed buildings immediately around South Quay

Important buildings

- 6.1 Much of the character and appearance of the town is determined by buildings and features in the town. Particularly important are the quays and maritime structures along the three arms of the estuary. The railway viaduct is a prominent feature and severs much the town from the estuary. This structure informs decisions in the design and height of the proposed buildings. These generally do not rise above the viaduct.
- 6.2 To the east of the centre of Hayle is Coppertown and this is sufficiently remote from the area around Foundry Square for the built fabric have to be considered as a different place. The village of Phillack north of the Angarrack River has its own and different identity. The buildings and structures are affected by the development proposals lie along Penpol Creek.
- 6.3 The cluster of former industrial buildings of the former Harvey Foundry lying immediately south of the railway viaduct are important buildings. They are testimony to the engineering and smelting activities of the company but are separate from South Quay.
- 6.4 Proposed changes to Isis Garden at the foot of the viaduct lie in the settings of these buildings. There is no harm here because the changes will reinforce a sense of place in this part of Hayle.
- 6.5 North of Penpol Terrace is East Quay. This quay is a listed building and is nationally important. On it is a cluster of large utilitarian warehouses. These are not listed buildings but lie in the curtilage of the listed structure. In the past, they were home to dockside activities but are now used for industrial and storage uses.
- 6.6 The granite walls of the quay provide a well-defined edge to this part of the Penpol Creek. East Quay and its buildings lie in the setting of South Quay but have no relationship with it.
- 6.7 Away from and east of the dock is a cluster of a bridge, sluices and the Coppertown Pool. Here are listed buildings but these have no relationship with South Quay.
- 6.8 Closer to South Quay on the east side of Penpol Creek and in its setting is Penpol Terrace. This is a range of terraced houses with a variety of styles but generally of two stories with rendered walls and slate on the roofs. Two of these buildings have been listed and this is because of the qualities of the buildings as small nineteenth century shops.
- 6.9 At the north end of Penpol Terrace is a cluster of utilitarian buildings, some houses and a pub. South Quay lies in the settings of the pub and North Quay and these are listed buildings. Views to and from the listed buildings will be changed, but the settings are not harmed



Sluice at Carnsew Quay looking west



Carnsew Sluice at Carnsew Pool



Carnsew Dock looking to South Quay



Carnsew Pool looking east



Carnsew Pool looking west



Timber store in Carnsew Road

Listed Buildings west of South Quay

'There are now at Hayle two very extensive Iron Foundries, in which are cast the largest engines which have been hitherto erected on mines. They are wrought partly by water, and partly by Steam Engines. Near the Copperhouse the traveller will not fail to notice the fine back water dam, which was constructed about twenty years since, for the scouring out of the harbour. The effect has been a considerable reduction of the sand which forms its bottom so that ships of much greater burden may now enter it'

John Ayrton Paris, 1824, p.160

because there is no conspicuous intervention in the views or setting.

- 6.10 Penpol Terrace defines the east side of the space around Penpol Creek. In front of the terrace is a road and linear municipal garden alongside the sloping foreshore of the Creek.
- 6.11 West of South Quay is group of large but utilitarian buildings. These are used by a builders' merchant with associated space for car parking. Fronting onto Carnsew Road is a long low former timber store built and used by Harvey and Company. This is a Listed Building and so is nationally significant. **Appendix J**
- 6.12 The application proposals fall within the setting of this listed building but have little effect on it. Views of the former timber store from Carnsew will be unchanged. The new buildings will enhance the setting of the building by bringing nearby derelict land into use.

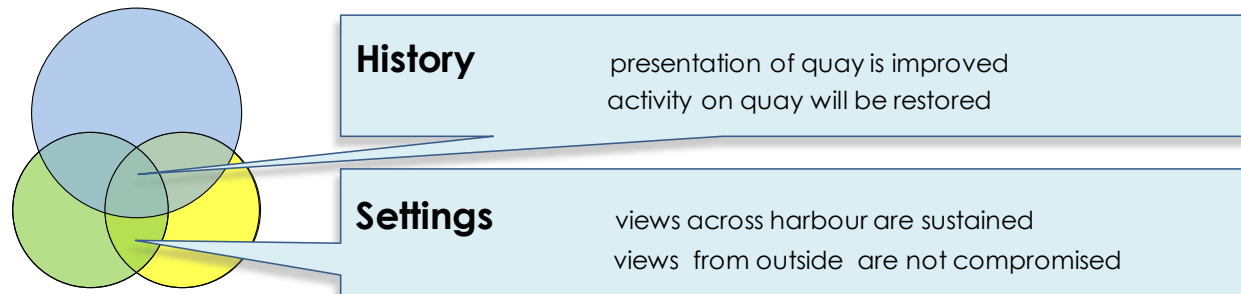
Significance of South Quay

- 6.13 South Quay is a listed building and so is of national significance. **Appendix J** The genesis of the Quay is described in **Appendix H**.
- 6.14 The walls are built from granite, scoria and other stones. These stone walls are the basis of the listing but the whole structure is a Listed Building. The Quay was listed because of its group value with other nearby harbour structures.
- 6.15 The Foundry Yard Car Park is a cleared site used in the 19th C as a gasworks and other foundry

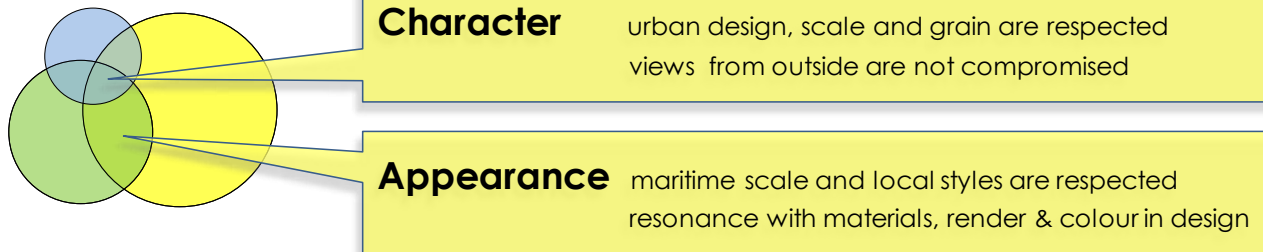
buildings. The proposed retail buildings avoid the position of the gasworks ensemble.

- 6.16 The proposals will bring forward the means to repair the fabric of the quay and particularly the stone walls. The condition of the walls varies. Parts need repair and a section on the east side has collapsed.
- 6.17 The quay is a structure built on top of a reef and alongside adjacent land where there were once slipways but these have been filled in. The earlier tunnel lies well below the proposed housing. Accordingly, the foundations of the new buildings will not intrude into ground of archaeological interest. On the west side of the quay is an area of fill over the ensemble of former slipways and graving dock.
- 6.18 The slipways were filled before 1968. The proposals introduce a new retaining wall across the north side of the filled area. The new wall will support and conceal the back fill in the slipways. The position of the slipways and graving dock will be presented in the hard landscape proposals.
- 6.19 Overall, the proposals will bring forward the repair and enhance the fabric of South Quay. The proposed promenade will introduce a public space around the perimeter of the quay thereby sustaining access into the harbour area and providing an opportunity for views across the harbour and estuary. Bollards, stairs and quayside fittings are to be retained, repaired and augmented.

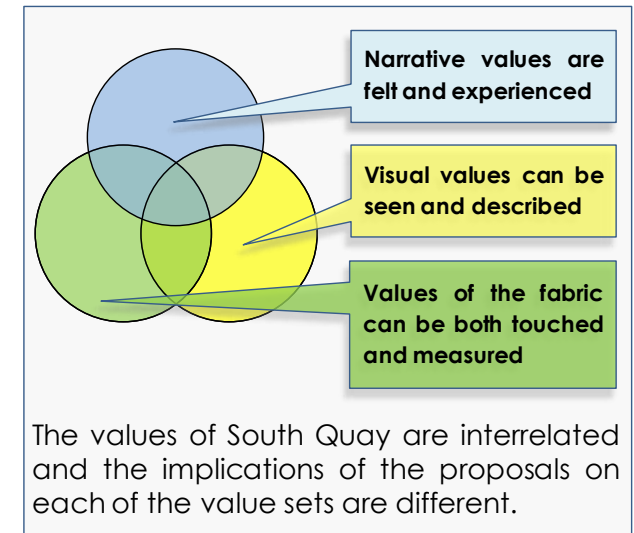
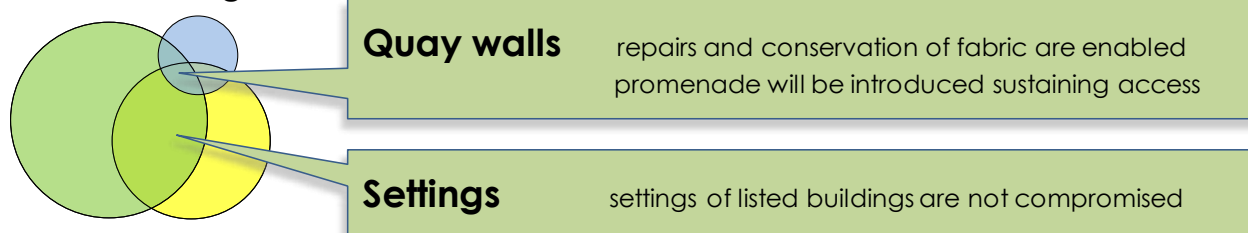
World Heritage



Conservation Area



Listed Buildings



Summary of the main implications for each of the groups of heritage assets

7 Heritage assets and findings

'On the North side of the estuary is Hayle, a small decayed town, and the ancient village and church of Phillack, and behind the village the sea and on either side miles and miles of towans.'

W.H. Hudson, 1908, pp.227 -228

- 7.1 The heritage assets in Hayle relevant to development proposals for South Quay are:
 - ❑ Part of the Cornwall and West of Devon Mining Landscape;
 - ❑ Part of the Hayle Conservation Area;
 - ❑ Nearby Listed Buildings and South Quay as a grade II Listed Building.
- 7.2 The values for each of these assets are different. The impact and implications of the proposals are different for each of the Heritage Assets and are illustrated on the diagram opposite.
- 7.5 Ship-building took place in suitable ports and estuaries in Cornwall and Devon, so that ship building at Hayle is not a part of the Outstanding Universal Value of the World Heritage Site.
- 7.6 The design of the proposals meets the expectation that an appropriate design of high quality will be forthcoming. The proposals respect the values of the site.
- 7.7 The new buildings will not intrude into the setting of the World Heritage Site and this is not compromised because there is no conspicuous intervention into views into or across the town. The proposals are generally below the height of the viaduct.

World Heritage Site

- 7.3 The World Heritage Site is of international importance. Hayle is one of the ten parts of this World Heritage Site. Most of the narrative values of the World Heritage Site concern the history of mining in Cornwall and the role Hayle played as a port in supporting the mining industry and undertaking heavy engineering and particularly steam engines.
- 7.4 This role concerns the history and reputation of the two foundries involved with the manufacture of steam engines destined for the mines. Development of the Cornish Engine assured the reputation of local engineers and much of this was centred on the foundries in Hayle. These values, history and reputation is not changed or harmed by the proposals.
- 7.8 The open car park spaces and open vistas through the proposed housing at the north end of the quay will permit views across South Quay to the estuary and the Towans beyond. Development will enhance the derelict quay and adjacent car park

Conservation Area

- 7.9 The Hayle Conservation is of local significance. The character and appearance of the area is different across parts the designated area. The proposals affect only a small part of the area and they enhance the appearance and

respect the character of this part of the conservation area.

- 7.10 The relevant neighbourhood is an area around the harbour. The maritime character of the quays and docks is on a large scale with robust details and materials in surviving bollards and granite walls. Similar features will be reinstated.
- 7.11 There are utilitarian buildings on the quay and plain rendered houses nearby. This character informs the architectural approach taken for the design of the retail store and the illustration of the houses at the north end of the quay.
- 7.12 The investment in, and regeneration of, South Quay will be the catalyst for attracting a wide range of benefits to Hayle. These will enhance the whole of the Conservation Area and the appearance of this part of the area.

Listed Buildings

- 7.13 South Quay is a listed building and there are other listed buildings nearby. These are of national significance because they are included on the List of Buildings of Architectural and Historic Importance. The proposals will bring forward repairs to the breach in the walls, and improvements to the top of walls of quay and stabilise the area of fill at Carnsew Quay.
- 7.14 The archaeological investigation of August 2010 has informed decisions on the state of the walls

of the former slipway ensemble. The position of the former slipways and graving dock ensemble will be respected in the proposals and marked on the ground in the landscaping scheme.

- 7.15 The proposals do not harm the setting of nearby listed buildings because they respect the character of buildings in the area and make no conspicuous intervention in these settings. The proposals will improve the outlook from nearby listed buildings by enhancing the derelict quay.

Other benefits

- 7.16 The proposals make provision for a pedestrian bridge to link Penpol Terrace to South Quay. The bridge will not harm the surviving fabric of the walls of the quay. However, the future bridge lies in the setting of a nearby listed building. This setting is not harmed by the introduction of the bridge because it is not a conspicuous and unacceptable intervention.
- 7.17 Provision is made for the future introduction of a second bridge to link the north end of South Quay with East Quay. The pedestrian bridges will improve accessibility to and within the harbour. Improvements to the Isis Gardens will be brought forward.
- 7.18 Space has been made available close to the viaduct and the former Harvey Foundry for the future return and reconstruction of the Goonvean Engine.

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hayle harbour :: regeneration

South Quay

Development Proposal for South Quay/Foundry Yard Hayle Harbour

December 2010



Heritage of Hayle and Assessment of Significance

APPENDICES

Appendix A Outstanding Universal Value

Inscribed 2006 against Criteria ii, iii, and iv

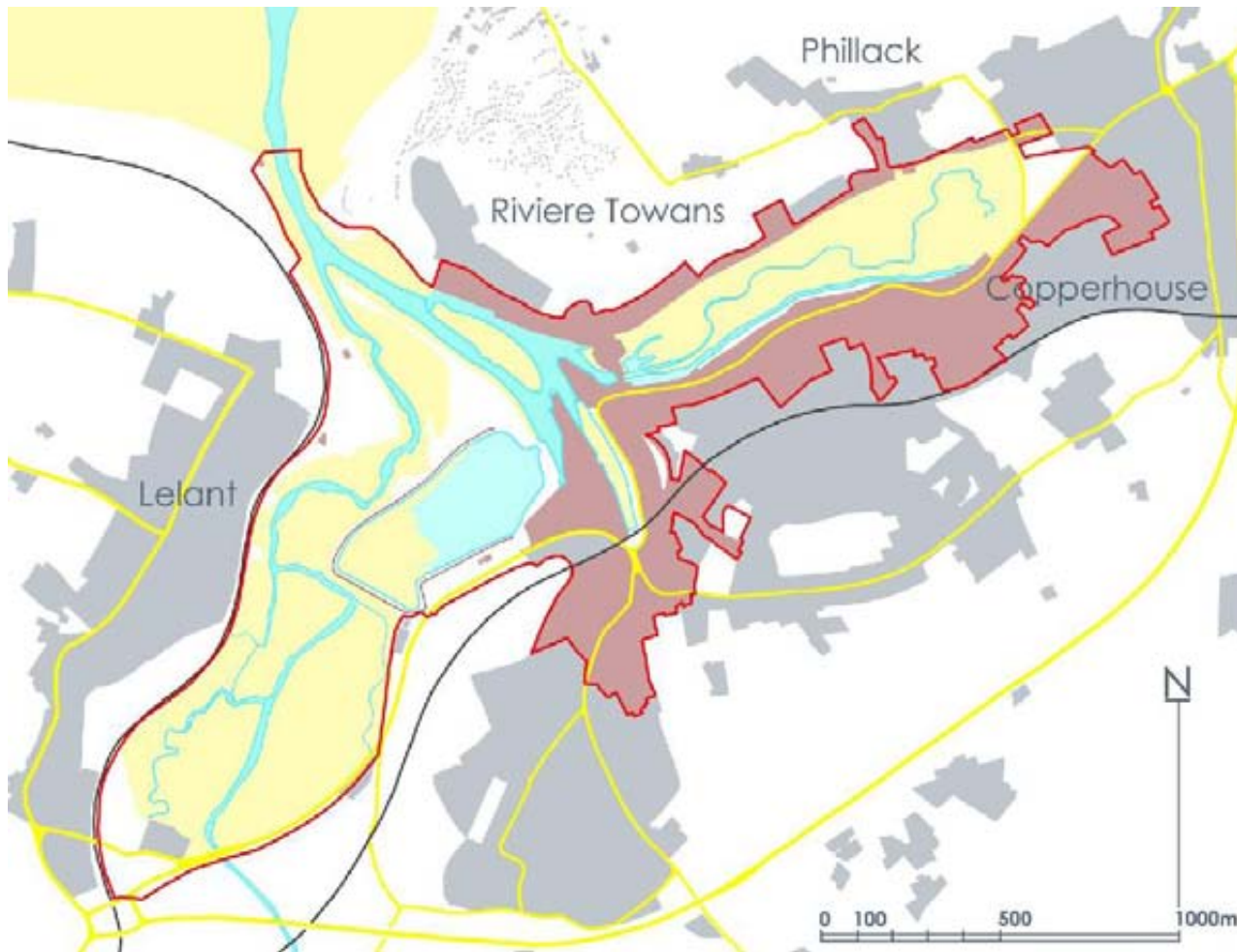
The World Heritage Committee inscribed the Cornwall and West Devon Mining Landscape on the World Heritage List under criteria (ii), (iii), and (iv):

Criterion (ii): the development of industrialised mining in Cornwall and West Devon between 1700 and 1914, and particularly the innovative use of the high pressure steam beam engine, led to the evolution of industrialised society manifest in the transformation of the landscape through the creation of smallholdings, railways, canals, docks and ports, and the creation or remodelling of towns and villages. Together these had an profound impact on the growth of industrialisation in the United Kingdom and consequently on industrialised mining around the world.

Criterion (iii): the extent and scope of the remains of copper and tin mining and the associated transformation of the urban and rural landscapes presents a vivid and legible testimony to the success of Cornish and west Devon industrialised mining when the area dominated the world's output of copper, tin and arsenic.

Criterion (vi): The mining landscape of Cornwall and West Devon, and particularly its characteristic engine houses and beam engines, as a technological ensemble is a landscape reflect the substantial contribution the area made to the Industrial Revolution and formative changes in mining practices around the world.

As amended by the UNESCO World Heritage Committee August 2010. The inscription of 2006 is set out below.



In 2006, the World Heritage Committee inscribed the Cornwall and West Devon Mining Landscape on the World Heritage List. The Outstanding Universal Value agreed by the then World Heritage Committee was:-

Criterion (ii): the development of industrialised mining in Cornwall and West Devon between 1700 and 1914, and particularly the innovative use of the beam engine, led to the evolution of industrialised society manifest in the transformation of the landscape through the creation of towns and villages, smallholdings, railways, canals docks and ports, and this had an impact on the growth of industrialisation in the United Kingdom and then on industrialised mining around the world.

Criterion (iii): the extent and scope of the remains of copper and tin mining and the transformation of the urban and rural landscapes, including the now distinctive plant communities of waste and spoil heaps and estuarine areas, presents a vivid and legible testimony to the success of Cornish and west Devon industrialised mining when the area dominated the world's output of copper, tin and arsenic.

Criterion (vi): The mining landscape of Cornwall and West Devon, and particularly its characteristic engine houses and beam engines, as a technological ensemble is a landscape that reflects the substantial contribution the area made to the industrial revolution and formative changes in mining practices around the world.

This Outstanding Universal Value is the wording that Cornwall Council examined with respect to Hayle and is discussed in Appendix B.

Appendix B

Analysis of Outstanding Universal Value

| Outstanding Universal Value of 2006 | Narrative history | Narrative reputation | Visual testimony | Visual landscape | fabric |
|--|--|--|--|-------------------------------------|--|
| Criterion (ii): the development of industrialised mining in Cornwall and West Devon between 1700 and 1914, and particularly the innovative use of the beam engine, | Development of mining in the area | Innovative solutions and techniques [CC -beam engines made in Hayle] | | | Foundry Surviving quays |
| led to the evolution of industrialised society manifest in the transformation of the landscape | Evolution of industrialised society | | Town introduced into estuarine area | Town introduced into estuarine area | |
| through the creation of towns and villages, smallholdings, railways, canals docks and ports, | [CC –Hayle Industrial new town principal mining port to south Wales smelters] | [CC – Unique example of twin company town] | Creation of towns and villages | | Canal, docks and quays ,tidal, pools [CC massive marine infrastructure] |
| and this had an impact on the growth of industrialisation in the United Kingdom and then on industrialised mining around the world. | [CC –Hayle Terminus of early railway] | Impact on :- Growth in UK and industrialised mining around world | | | |
| Criterion (iii): the extent and scope of the remains of copper and tin mining and the transformation of the urban and rural landscapes, | [CC –Hayle only major copper smelter] | | remains of mining Transformation of urban and rural fabric | Evidence in landscape | remains of copper and tin mines |
| including the now distinctive plant communities of waste and spoil heaps and estuarine areas, | | | | | omitted from OUV UNESCO July 2010 |
| presents a vivid and legible testimony to the success of Cornish and West Devon industrialised mining when the area dominated the world's output of copper, tin and arsenic. | success of Cornish and West Devon industrialised mining | dominated world's output of copper tin and arsenic | testimony to success of Cornwall & WDevon mining | | |
| Criterion (vi): The mining landscape of Cornwall and West Devon, and particularly its characteristic engine houses and beam engines, as a technological ensemble is a landscape reflect | | | engines houses and technological ensemble surviving in the landscape | | engines houses and technological ensemble surviving in the landscape [CC – use of Scoria in Copperhouse] |
| the substantial contribution the area made to the industrial revolution | substantial contribution to industrial revolution | substantial contribution to industrial revolution | | | |
| and formative changes in mining practices around the world. | changes in mining practices around the world | | | | |

Appendix C

Outstanding Universal Value and Hayle

**From Cornwall Council. [Work in progress]
This analysis is based on the UNESCO World
Heritage Committee inscription of 2006**

Hayle's Outstanding Universal Value (OUV)

- i. Hayle was Cornwall's principle mining port that exported copper ore to the South Wales smelters. Importing much of the Welsh coal that fuelled the Cornish steam revolution and was the means by which many of its beam engines were shipped to the far corners of the World.
- ii. The location of Cornwall's only major copper smelter.
- iii. Unique example of twin 'company' industry 'new towns' of Foundry and Copperhouse, these being wholly the product of their industrial past and maritime location, fringing the southern edge of the Hayle estuary in a distinctly linear character. They are characterised by rows, terraces, and villas at the back of the foundry.
- iv. Massive, landform-scale maritime infrastructure of extensive quays, wharves and massive sluicing ponds.
- v. The terminus of one of the most important of Cornwall's early railways (the Hayle Railway, 1834) serving a hinterland stretching eastwards as far as Redruth and Camborne, with their huge market for coal, timber and other materials.
- vi. Within Copperhouse, the use of copper slag (scoria) blocks for construction adds a distinctive 'vernacular' character to houses, boundary walls, bridges and other structures.

The extent to which South Quay contributes to OUV

- a. The OUV for Hayle is significantly related to the town's historical association with the Industrial Revolution and technological endeavour.
- b. Hayle harbour and South Quay particularly, played a key role in the transfer of the industrial revolution to the world and thus growth of a global industrial society.
- c. South Quay was the site of the construction of ships to transport Harvey's products, and the embarkation point for these products and technology across the World.
- d. The physical components of South Quay were the walls, the slips, mooring posts and loading bays, ore bins, rail tracks, and buildings along the Quay associated with shipbuilding.
- e. It is important to realise that the form and appearance of the harbour has changed considerably since 1914 at the end of the period for which OUV is inscribed.
- f. The current open and derelict form of the quay is not authentic.
- g. It is not possible to restore the authentic appearance of the quays at any point in time during period of active use, because of the series of alterations that were made in the early 20th century (see map regression), the demolition of buildings and the burying of slipways with part of the western quay wall.
- h. It is possible to conserve the surviving components, which include the east and northern sides of the quay wall, and individual features upon the surface such as mooring posts.

Appendix D

Relevant Local Plan Policies

Local Plan Policy TV-D 2004

PROPOSAL TV-D: South Quay / Foundry Yard (6.0 ha), North Quay (7.9 ha) and East Quay (1.0 ha) are proposed for redevelopment for uses within classes A1, A2, A3, B1, B2, B8, C1, C3, D1 and D2 of the Town and Country Planning (Use Classes) Order 1987 (as amended). Proposals for development will be required to:-

- (i) Make provision for improved port facilities;
- (ii) make provision for the maintenance of the existing level of industrial and storage facilities;
- (iii) ensure that town centre uses (a1, a2 and a3) are closely integrated with the adjacent town centre in terms of location, orientation and pedestrian movement;
- (iv) provide for at least 400 dwellings with a target for 25% of provision being "affordable" and meeting the requirements of policy h-14;
- (v) be of a scale and design that respects the maritime environment and heritage of these prominent locations in the harbour;
- (vi) retain existing buildings and traditional features which contribute to the character of the area;
- (vii) be compatible with their surroundings; and
- (viii) include provision for the improvement of the junction between Carnsew Road and Foundry Lane.

Local Plan Policy TV- 6 2004

POLICY TV-6: proposals for development which would affect a conservation area must not conflict

with the objective to preserve or enhance the character or appearance of the area in terms of scale, siting, design and materials. Developments which would have an adverse effect on the character, appearance or architectural and historic importance of a conservation area will not be permitted.

Local Plan Policy TV- 10 2004

POLICY TV-10: Proposals for development which would directly or indirectly affect a listed building will not be permitted unless they respect:-

- (i) its intrinsic architectural and historic value;
- (ii) its design and particular physical features, and
- (iii) its setting and contribution to the local scene.

Local Plan Policy TV- 14 2004

POLICY TV-14: Within historic settlements proposals for development will be required to respect their medieval origins as manifested in their layout and built fabric. Where development would be likely to affect buried layers of archaeological remains conditions will be imposed, or a planning obligation sought, to ensure that prior site investigations and recording are undertaken.

Local Plan Policy TV- 16 2004

POLICY TV-16 major retail, office, entertainment, leisure or community developments should be located in the town centres of Penzance, St. Ives and

Hayle, where the greatest benefits to the community can be provided in terms of:-

- (i) accessibility, without the use of the private car, to a significant proportion of the population and
- (ii) contribution to the vitality and viability of the town centres. Proposals for edge-of-centre sites will only be permitted where the development cannot be accommodated within the town centre.

Development on out-of-centre sites will not be permitted unless all potential town centre and edge-of-centre options have been demonstrated to be unsuitable.

In examining these options, flexibility will be required about the format, design and scale of the development in relation to local circumstances. The relevant saved policy from the Cornwall Council Structure Plan of 2004

Extract from Policy 2 Character areas, Design and Environmental protection

The quality, character, diversity, and local distinctiveness of the natural and built environment of Cornwall will be protected and enhanced.

Throughout Cornwall, development must respect local character and:

- ❑ retain important elements of the local landscape, including natural and semi-natural habitats, hedges, trees, and other natural and historic features that add to its distinctiveness;
- ❑ contribute to the regeneration, restoration, enhancement or conservation of the area;
- ❑ positively relate to townscape and landscape character through siting, design, use of materials and landscaping;
- ❑ create safe, aesthetically pleasing and understandable places;
- ❑ consider where appropriate, a mix of uses that create vibrant and active places, including tenure, size and densities.

Local plans should define Character Areas to inform planning decision taking into account Regional and Countywide landscape assessments.

The conservation and enhancement of sites, areas, or interests, of recognised international or national importance for their landscape, nature conservation, archaeological or historic importance, including the proposed World Heritage Site, should be given priority in the consideration of development proposals.

Appendix E

On PPS 5 Planning for the Historic Environment

Statutory context

The Planning (Listed Buildings and Conservation Areas Act) 1990 imposes a duty on the Secretary of State to compile lists of buildings of special architectural or historic interest. Section 7 of the Act requires applicants to obtain consent for the demolition of a listed building or for works of alteration or extension, which would affect its character as a listed building. In consideration of proposals within the setting of listed buildings, the Act establishes a requirement to have special regard to the desirability of preserving that setting.

Relevant PPS 5 Policies

PPS 5 – 'Planning for the Historic Environment' was published in March 2010 and this replaces former Planning Policy Guidance 15 and 16. It sets out a series of policies which are material considerations to be taken into account in development management decisions and in relation to those heritage consent regimes established in the Planning (Listed Buildings and Conservation Areas) Act 1990.

The PPS is intended as a single policy statement for all heritage assets, which are taken to be all those parts of the historic environment 'that have significance because of their historic, archaeological or artistic interest' (PPS 5, para. 5). A World Heritage Site is held to be a Heritage Asset. (PPS5 p.13)

On significance

The PPS sets out the importance of being able to identify and assess the significance of heritage assets and the emphasis of the PPS is on ensuring that planning decisions are based on an understanding the nature, extent and significance of a heritage asset. The assessment of significance should take account of any designation records, information in the historic environment and other similar sources of information, the heritage assets themselves, the outcome of consultation with interested parties and, where appropriate, expert advice from relevant specialists (PPS5 Policy HE7).

The PPS also states clearly that the effect of an application for development upon the significance of a heritage asset or its setting is a material consideration in determining that the application (PPS5, Policy HE8). It is further stated that there should be a presumption in favour of the conservation of the designated assets. The more significant the designated asset, the greater the presumption in favour of its conservation should be.

The PPS recognises the balance that needs to be struck between enhancing the significance of an asset and delivering public benefit. Policy HE9 sets out considerations to be taken into account when

determining the application which has a negative impact upon the significance of a heritage asset.

It states that the local planning authority should weigh the public benefits of the proposed development against any harm, and to recognise that the greater harm to the significance of the heritage asset the greater justification will be needed for any loss (PPS5, Policy HE9).

Policy HE9.6 recognises that there are many heritage assets of archaeological interest not currently protected by designation as a scheduled monument which are of equivalent significance. HE9.6 further notes that the absence of designation does not denote a lower significance and states that such assets should be considered subject to the policies set out within HE9 and HE10 (PPS 5, Policy HE9.6).

On setting

Consideration of development affecting the setting of heritage assets is outlined in policy HE10. It is stated that in considering applications for development within the setting of a heritage asset, local authorities should be favourable toward applications that preserve those elements of the setting that enhance the significance of the asset.

Opportunities for changes in the setting to enhance the significance of a heritage asset should also be identified by local planning authorities and taking such opportunities should be seen as a public benefit and part of the process of place shaping (PPS5, Policy HE10).

The recording of information relating to heritage assets is considered by Policy HE12. This recognises that a record of our past is not as valuable as retaining heritage assets. The policy sets out the need to record, to advance the understanding of the significance of heritage assets before they are lost, but recognises that the extent of the recording requirement should be proportionate to an asset's level of significance. It also establishes the requirement for developers to publish the evidence recorded and for local authorities to make the information publicly available, notably through the relevant historic environment record (PPS5, Policy HE12).

Circular 07 2009

The Circular on the Protection of World Heritage Sites sets out how World Heritage Sites in England will be protected and managed. The Circular states that the Outstanding Universal Value of a World Heritage Site indicates its importance as a key material consideration to be taken into account by relevant authorities in determining planning and related applications (Para 8).

The Circular sets out principles for, inter alia, the protection of the World Heritage Site and its setting, including any buffer zone from inappropriate development. It recognises the need to strike a balance between the needs of conservation, biodiversity, access, the interests of the local community and the sustainable economic use of the World Heritage Site in its setting. (para.12)

Appendix F

Extract from Nomination Document

Authenticity

The Cornwall and West Devon Mining Landscape fulfils all the criteria for authenticity in relation to World Heritage Sites set out in the declaration of the conference organised by UNESCO, ICCROM and ICOMOS at Nara, Japan in 1994.

The Areas that make up the nominated Site collectively represent one aspect of an important stage in human development, namely the industrialisation process of the eighteenth and the nineteenth centuries with their associated technical, scientific, cultural and landscape changes. It is a landscape that continues to evolve. It contains exceptional and varied evidence of past activities as well as the interaction of people with the natural world, in particular with the metalliferous resources of the Cornubian Orefield (see 3a).

Efforts to conserve elements within the site began more than seventy years ago. A Preservation Committee first emerged in 1935. From this evolved the Cornish Engines Preservation Society, which, in 1943, formally advocated the preservation of a number of Cornish beam engines as monuments to Britain's heritage in power and technology. This organisation is now the Trevithick Society that works closely with the National Trust on engine restoration. The success of this partnership was demonstrated recently by the successful re-steaming of the Levant Mine winding engine. These beam engines were not designed to be portable but were traditionally moved to new sites as part of their ongoing working life. The survival in situ of four mine engines is entirely authentic in this respect.

As far as the mining landscape is concerned, a major effort has been directed towards the conservation of the built mining heritage during the past fifteen years.

A further programme of work is planned for the next five years. A high priority is placed on retaining the authenticity of the structures. Best practices have been adhered to when conserving engine houses and their associated mineshafts which have often survived relatively unaltered. Reconstruction has been limited to the minimum required to achieve structural integrity and public safety. Not one of the key features of the Cornish Mining Landscape is a replica.

The nominated Site includes Camborne-Redruth that has, at times, when viewed as a single urban centre, contained one of the largest populations in Cornwall. The overall pattern and structure of this historic 'new town' survives remarkably well. Some of the smaller scale authentic elements have been damaged as most buildings have been refurbished.

Much of this is retrievable, however, and will constitute an issue within the Management Plan. Some of the nearby mining landscapes have experienced new development. Many buildings have been adapted for new uses and remain in occupation.

The nominated Site is exceptionally well documented. It has the longest and most continuous recorded history of any metal mining region. It is the subject of diverse research, extensive publication of Scientific and Learned Society Proceedings and Transactions, aerial mapping, measured survey, photography, written and oral records. A very extensive and still growing reference literature is based around the mines of the Cornubian Orefield. This high level of information and knowledge provides a database that has allowed the landscape to be tested for authenticity and integrity and to be monitored effectively so as to inform conservation strategies.

The Serial Nomination known as the Cornwall and West Devon Mining Landscape is an example of dispersed industrialisation. The ten areas are necessary to ensure that the geographical coverage and the overall size is sufficiently large to provide a complete representation of all the significant elements which together express outstanding universal value.

Table 6 shows the components C1-C7 (see page 50 et seq. for a description) which are essential to the distinctive character of the Cornish Mining landscape. Areas A1-A10 are the best examples of surviving mining cultural landscapes which also remain free from the adverse effects of development. They also represent the most significant areas in terms of industrial history. Though the evidence of industrialisation was dispersed across a wide area, the components were not evenly spread. An examination of Table 6 shows that each area possesses a different mix of components. It is the *sum* of the Areas rather than any individual Area, which demonstrates the full relationship between the components and leads to an holistic understanding of the Cornish mining landscape.

At its 34th meeting at Brasilia 25th July to 3rd August 2010, the UNESCO World Heritage Committee agreed retrospective changes to the Statements of Outstanding Universal Value of a number of World Heritage Sites. Amongst these are changes to the Outstanding Universal Value of the Cornwall and West Devon Mining Landscape. The Committee agreed:-

'Integrity (2010)

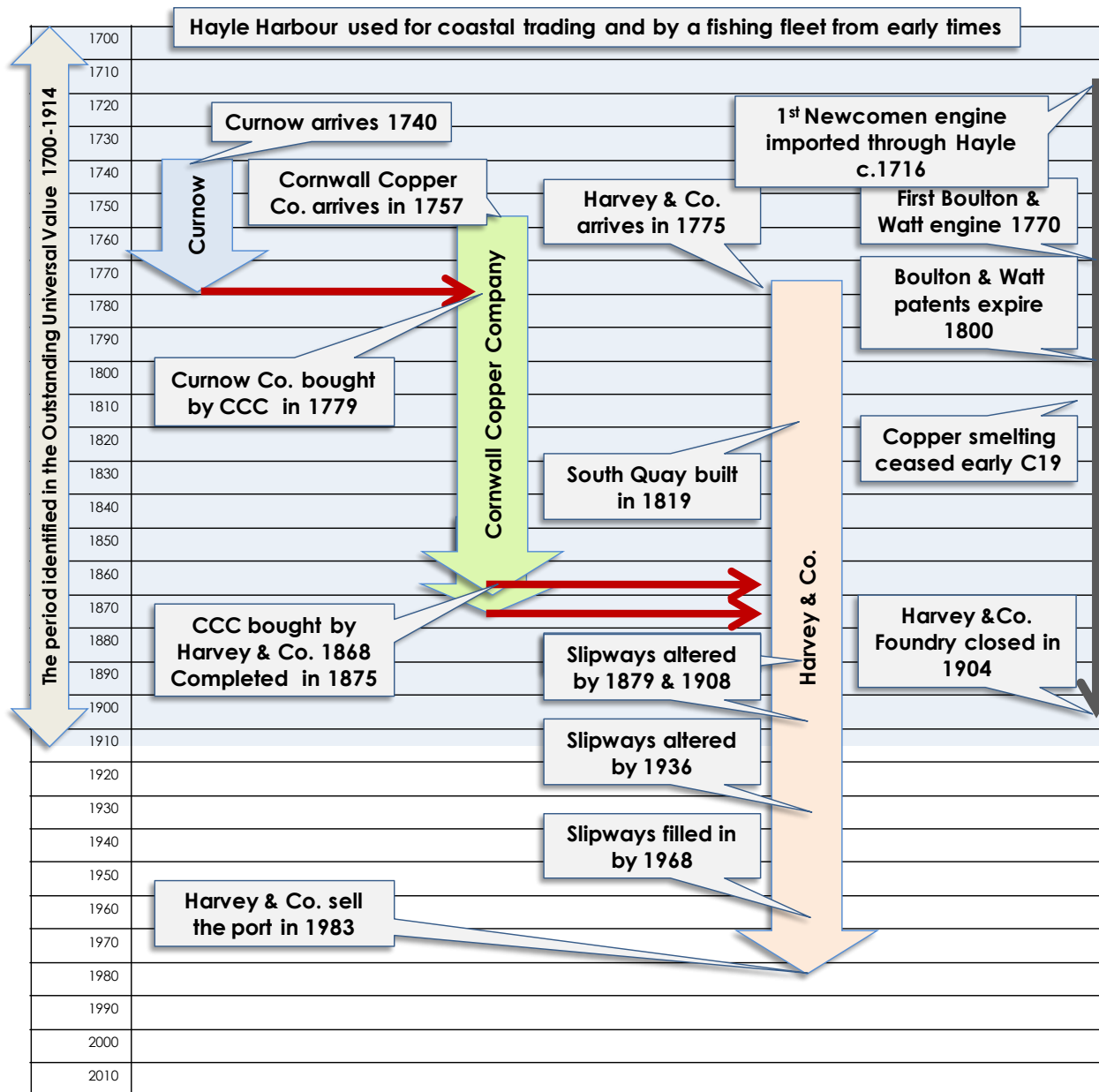
The areas enclosed within the property satisfactorily reflect the way prosperity derived from mining transformed the landscape both in urban and rural areas, and encapsulates the extent of those changes.

Some of the mining landscapes and towns within the property are within development zones and may be vulnerable to the possibility of incompatible development.

Authenticity (2010)

The property as a whole has high authenticity in terms of form, design and materials and, in general, the location and setting of the surviving features. The mines, engine houses, associated buildings and other features have either been consolidated or await work. In the villages and towns there has been some loss of architectural detail, particularly in the terraced housing, but it is considered that this is reversible.

The ability of features within the property to continue to express its Outstanding Universal Value may be reduced, however, if developments were to be permitted without sufficient regard to their historic character as constituent parts of the Site. The spatial arrangements of areas such as Hayle Harbour and the settings of Redruth and Camborne are of particular concern and these may be vulnerable unless planning policies and guidance are rigorously and consistently applied.'

Appendix G
Timelines

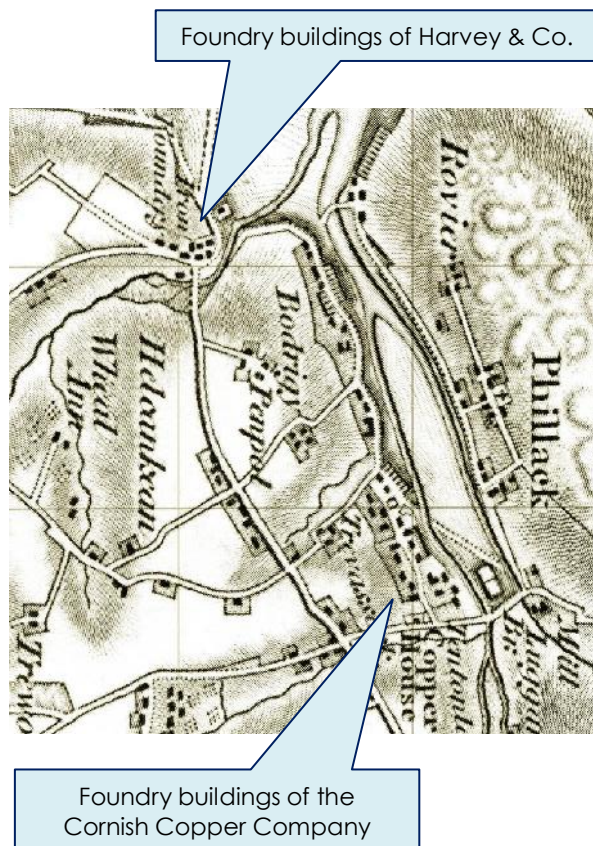
| | Very early use of the estuary and foreshore at Carnsew used by Roman and medieval trading ships and also as a start of a pilgrimage route to Santiago de Compostela. Early tin smelting in the Hayle area | Source |
|------|--|------------------------------|
| 1700 | | |
| 1710 | First Newcomen engine imported through Hayle | Pascoe1981 |
| 1720 | | |
| 1730 | | |
| 1740 | Existing Carnsew Quay occupied by Curnow Co. Quay built c 1740 ? | LB Description |
| 1750 | Cornish Copper Company founded 1756 moved to Hayle 1757 | Vale 2009 |
| 1760 | Coppertown canal excavated and dock built | |
| 1770 | Hayle Foundry founded by John Harvey 1779 | Vale 2009 |
| 1780 | | |
| 1790 | | |
| 1800 | Boulton and watts patents expire Copper smelting ceased early 19 th C | |
| 1810 | South Quay built 1819 | Vale 2009 |
| 1820 | Causeway built 1824 | LB Description |
| 1830 | Hayle made a Stannary Town. Carnsew pool and Sluices completed Hayle Railway built (Hayle Railway act 1834) | Vale 2009 Fairclough 2008 |
| 1840 | Harvey & Co Barn built | LB description |
| 1850 | West Cornwall Railway extends railway to Penzance | Wigley 1972 |
| 1860 | | |
| 1870 | Harvey & Co acquire Cornish Copper Company | |
| 1880 | Great Western Railway build present viaduct across the town | |
| 1890 | | |
| 1900 | Harvey & Co Foundry closed 1904 Former slipway altered | Vale 2009 |
| 1910 | | |
| 1920 | | |
| 1930 | Former slipway altered | OS maps |
| 1940 | | |
| 1950 | | |
| 1960 | Slipways filled by 1968 buildings demolished | OS maps |
| 1970 | Sluicing the harbour ceased 1972 Commercial traffic ceased 1977 | Vale 2009 |
| 1980 | Harvey & Co sell the port 1983 Harvey's Foundry demolished 1984 | Vale 2009 |

Appendix H Industrial genesis of South Quay

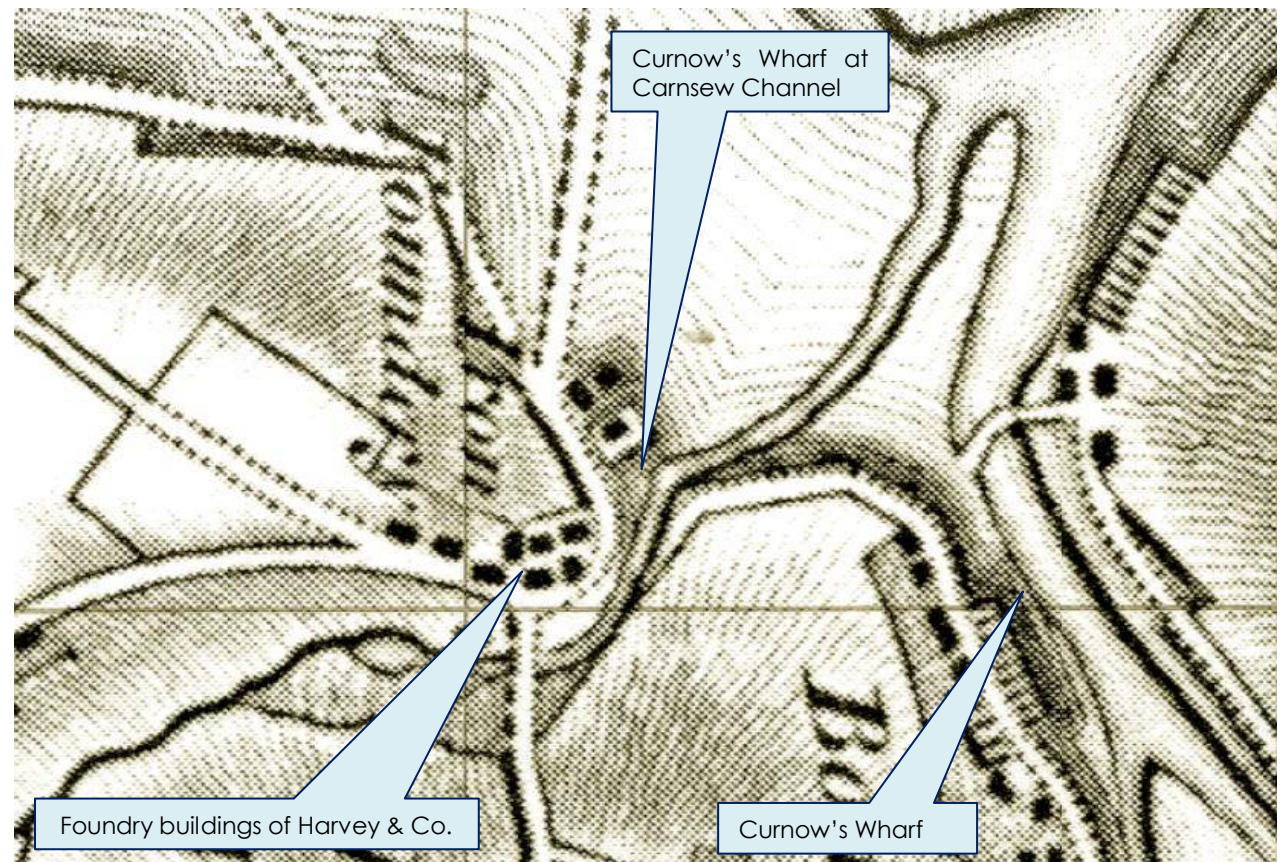
Background

The settlement of Hayle is of two parts. Copper House (or Copper Town) is on the east and the Foundry area is along Penpol Creek. Within the

Foundry area, Harvey & Co. had their iron foundry and built here an extensive ensemble of industrial buildings. A rope works was established further south. Harvey's Wharf extended north from the foundry



Above:- Two parts of Hayle shown on an OS Map of 1813
Right:- extract from Ordnance Survey Plan of 1813

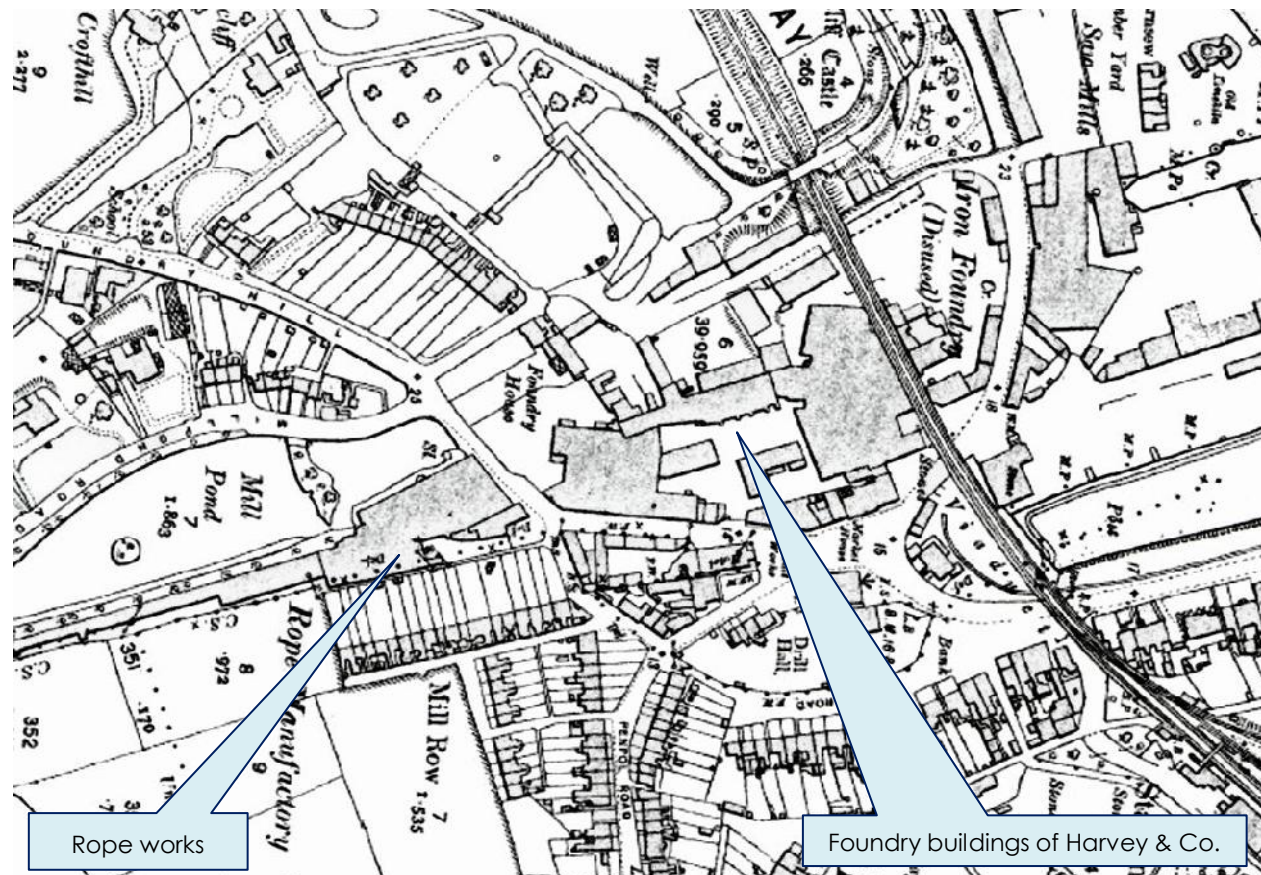


along the west side of Penpol Creek into the estuary. The Harvey's foundry was separated from its wharf, first in c.1824/6 by the construction of the Turnpike Road what is now Carnsew Road. Some ten years later, the foundry was divided again by the construction of the viaduct of the West Cornwall Railway.

At the time of the closure of Harvey's Foundry in

1904, the ensemble was an extensive collection of substantial industrial buildings. Some surviving foundry buildings spread some 200 metres south of the viaduct and west of Foundry Square.

To the east of the main road in the commercial centre of the Foundry area are a number of freestanding substantial commercial buildings, including banks, Post Office and an hotel. Further

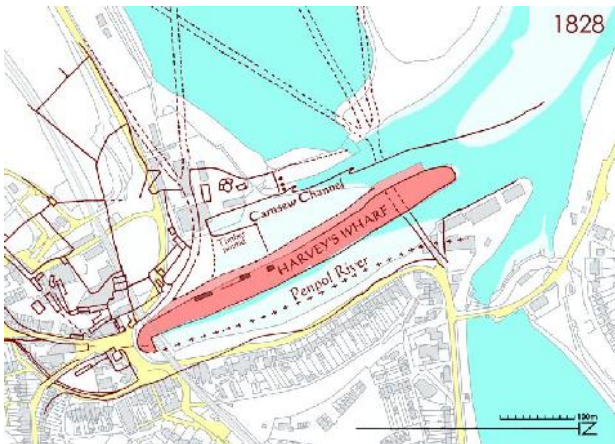


Above:- surviving foundry buildings near Foundry Square

Left:- extract from Ordnance Survey Plan of 1908

Entry in James William's 'Commercial Directory for Principal Market Towns in Cornwall' 1847

'Harvey & Co., Millers, Engineers, Iron Founders, Iron and Coal Merchants, Shipbuilders, Ship-owners, Ironmongers, Wholesale Grocers, Tea-dealers, and General Merchants and Ropemakers.'



Above far:- plan of 1828 showing Harvey's Wharf
Left:- plan of 1828 superimposed on a contemporary plan

east and south of the square are terraces of small houses. These can be seen on the Ordnance Survey maps of 1879 and 1908. More recently, high residential buildings have been built on the site of part of the former Foundry ensemble.

South Quay

Much of the present South Quay was built by the foundry and mine merchant, Harveys & Co. in 1819 after many years of obstruction by a rival company.

By 1780, Harvey & Co had built a canal to allow ships to reach their foundry by deepening and widening Penpol Creek.¹ The new wharf was built alongside the Creek and its shape was determined by a reef of Killas rock with a strike approximately north northwest. On this outcrop, the quay was founded.² The 1828 plan shows the quay was built across a track over the sands and this passed through a tunnel.³

An early plan of the centre of Hayle of 1828⁴ shows the quay in its original form extending from a point near Foundry Square into the deeper water of the estuary. The quay is an impressive structure of a quarter of a mile long (440 yards = 402.6 m) and some six metres above the bed of the estuary.

This structure was known first as Harvey's Wharf. Land on the west side of the wharf was owned by others. Harvey & Co had not been able to secure access on the land at the nearby and existing Carnsew Quay. This had been used by rival

companies until Harvey & Co. bought this property in 1868 and 1875.⁵ The present South Quay is an amalgam of Harvey's Wharf and some of the land around Carnsew Dock

On the west boundary of the Wharf and in the adjacent shipyard around Carnsew Channel and Dock was an imperforate range of industrial buildings and shipyard wall. This extended some 290 metres northwards from Carnsew Road down some two thirds of the centre of what is now South Quay.

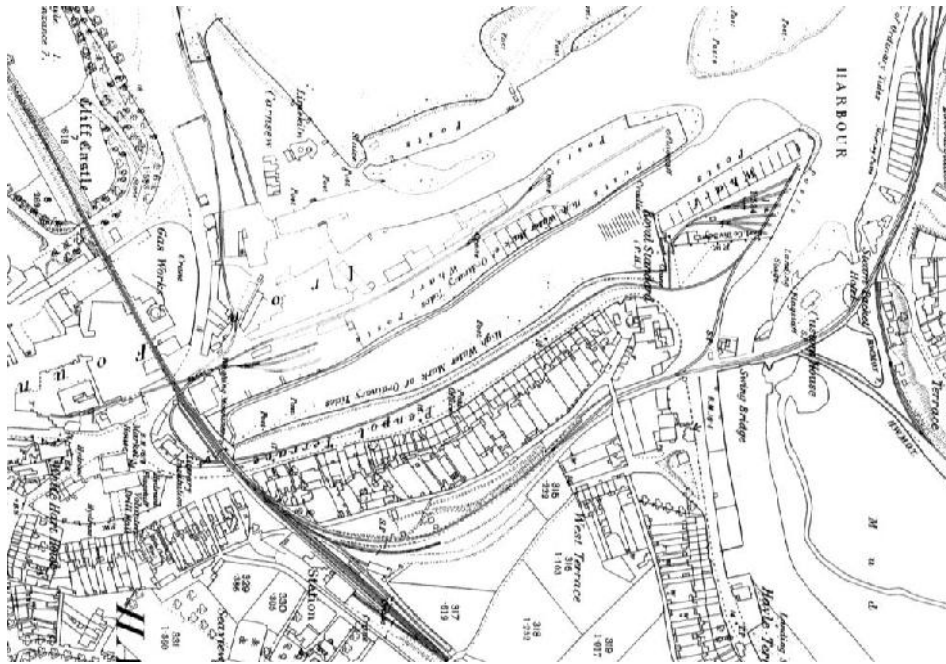
Early photographs show these buildings were generally substantial high two storey buildings and markedly higher than the short terrace of two storey cottages (now demolished) on what is now the property of Jewson Ltd.

Maps of 1879, 1908 and 1936 show a few small buildings on Harvey's Wharf. Close to the viaduct and the only entrance to the Wharf was a large building used by Harvey & Co. as a weighing house. A small building and flagstaff is shown at the north end of the quay.

The only entrance to the adjacent shipyard west of Harvey's Wharf was from Carnsew Road and to the west of the entrance to Harvey's Wharf. Around this entrance were a number of industrial buildings. Much of the east side of South Quay (Harvey's Wharf) was used for open storage. This was a mercantile quay where ore was loaded on ships and coal was discharged onto the quay. Conveyors and 'hutches'

¹ Edmund Vale . 2009, p.50
² Edmund Vale, 1966 (2009), pp.128 & 134
³ This was filled in during the 19th Century. Vale, 2009, p.128
⁴ Edmund Vale, 2009, p.129

⁵ Harry Pascoe, 1981, p.72



Above:- Extract from the 1879 OS Map. Note the curved retaining wall on the east side of Carnsew Channel

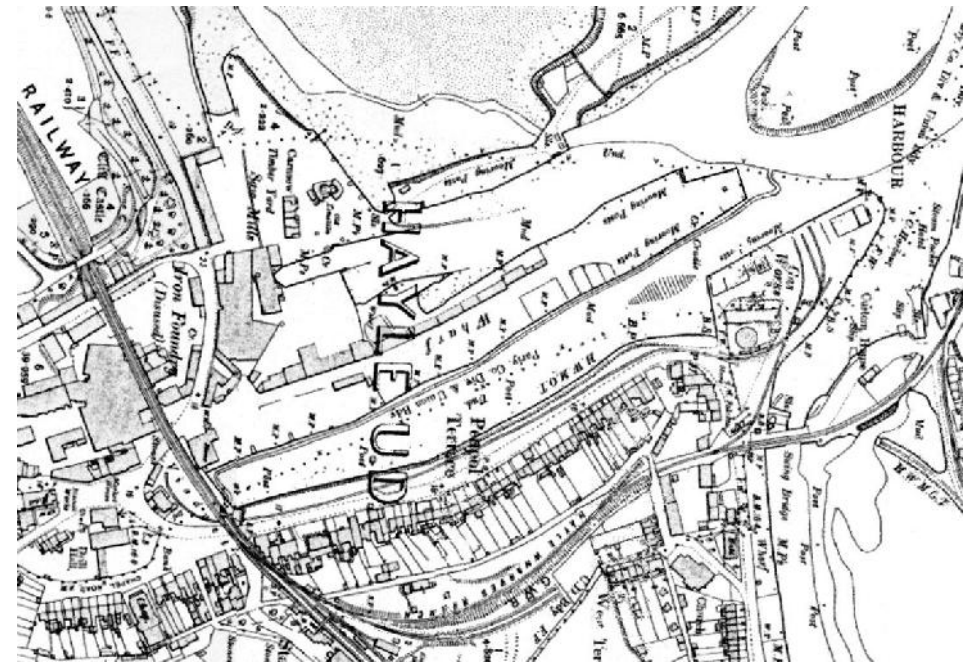
⁶ were used to handle and store the ore and coal. At the south end of the Quay was a set of 'sheer legs' to lift large boilers and heavy kit and this rose above the railway viaduct.

Up until the end of the 1960s, the only views over the quay were across the third of the structure at its north end but over high piles of ore, coal or scrap metal that were stored there. The line of buildings and

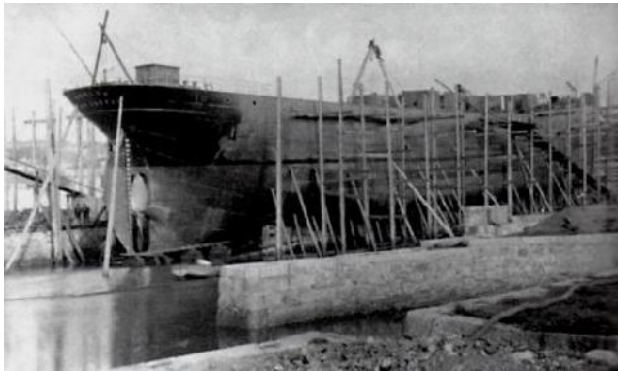
shipyard wall prevented most of the views across at the quay at its south end.

Some views west across the quay would have been possible from Penpol Terrace. However, this road was built after 1826 by the Cornish Copper Company and after Harvey's Wharf, the Causeway and the Turnpike road what is now Carnsew Road had been built. After 1837, a railway ran along the length of the wharf with additional sidings at the south end. A branch line extended to the west onto land at Carnsew Quay, which is owned now by Jewson Ltd.

⁶ Hutches were generally an open rectangular structure of retaining walls on the quay and within which ore or coal could be stored. These are shown on the Ordnance Survey Plans of 1879 and 1908



Above:- Extract from the 1908 OS Map. Note the retaining wall on the east side of Carnsew Channel has been revised and a additional weigh has been introduced.



Above:- The SS Ramleh under construction in 1891. In the foreground and on the right of the picture are the granite walls of Carnsew Quay and these survive. Source: Edmund Vale, 2009, p.230



Above:- A view of the harbour in 1931 shows HMS Bristol waiting to be broken up. Two slipways are visible. Source: Harry Pascoe, 2005, 'The Book of Hayle', p.120.

Carnsew Slipways

On the west side of 'Harvey's Quay', a footpath is shown, then a slipway and an area marked 'timber pound'.⁷ West of this pound is a dock marked 'Carnsew Channel'. The timber pound was a strand where rafts of timber could be floated ashore on a high tide.⁸ Harvey's Wharf was constructed alongside this then existing slipway ensemble.

South of Carnsew Channel and Carnsew Dock was a shipyard with slipways and a graving dock. These features are shown on the Ordnance Survey plan of 1879 and this records the quay a few years after Harvey & Co. had bought the Carnsew land adjacent to Harvey's Wharf. Shipbuilding had taken place here before Harvey built his wharf alongside.

Shipbuilding took place in all ports and suitable estuaries around the Cornwall coast.⁹¹⁰ A drawing of 1810 and discussed by Edmund Vale shows a 'Barge in Building' on the site of the slipway recorded on the 1828 plan. This indicates that shipbuilding was undertaken at Carnsew before the construction of South Quay.

The 'Channel Pilot', of 1865¹¹ refers to Hayle Harbour containing a graving dock that '*can admit a vessel of 250 long*' and because of its size, this must be part of the Carnsew ensemble. As well as shipbuilding, the weighs or slipways will have been used for graving, careening and repair of ships and then in the 20th Century for ship breaking. These weighs will have been used by the fleets of coastal trading

companies as well as the local fishing fleet and other visiting vessels. Vale notes 'much repair work' was being undertaken in the shipyard in 1886.¹² Accordingly, work in the Carnsew slipway ensemble was one of a number of activities in Hayle Harbour ensemble.¹³

Ordnance Survey Maps show a sequence of slipways of different shapes and sizes at Carnsew. The Ordnance Survey map of 1879 shows a short and narrow slipway. This was extended by 1908 when a second weigh had been introduced close to the west side of South Quay.¹⁴ However, none of these arrangements encroached into Harvey's Quay.

Photographs of 1891 show a timber-retaining wall on the east side of the slipway and these were in place still in 1931.¹⁵ The 1936 OS map shows no retaining walls and an apparent reduced slipway ensemble and by 1968, the Carnsew slipway ensemble had been filled in.

Changes to the slipways reflect an expansion of the activities of Harvey and Co. to include shipbuilding. However, Harvey's shipbuilding here was after 1875. The company wished then to keep the work force employed at a time when the manufacture of steam engines had practically ceased and after Harveys had bought the assets of the Cornish Copper Company and this included the land around Carnsew Dock.

7 Edmund Vale, 2009, p.318

8 Edmund Vale, 2009, p.129

9 John Ferguson, 2000, p.63

10 Edmund Vale, 2009, p.292

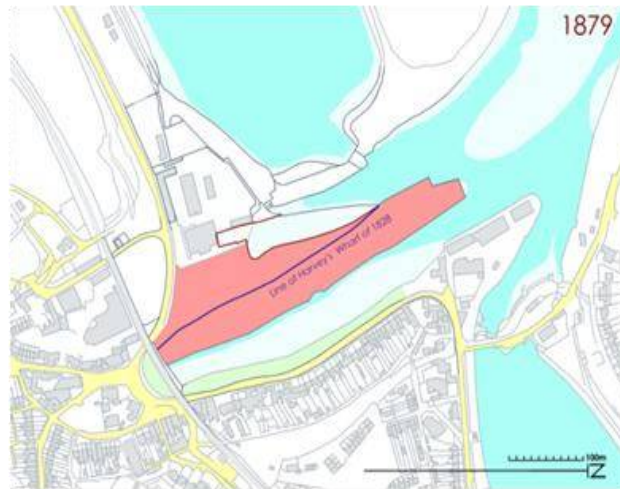
11 John King, R.N., 1863, p.29

12 Edmund Vale, 2009, 312

13 Another slipway was part of the Copperhouse Dock on which the Cornish Copper Company built a few vessels. The present slipway is near the Harbour Masters office.

14 Vale indicates that the new slipway was built about 1890. p.318

15 Northamptonshire Archaeology, 2010, p.12

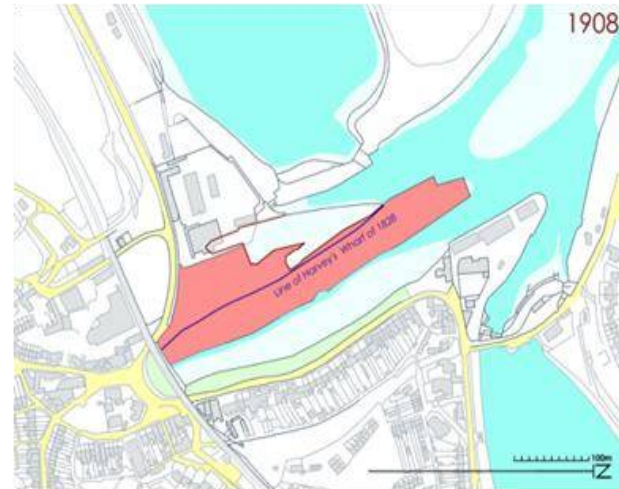


From the 1879 Ordnance Survey map. The slipway extended past Carnsew Dock.

Some of these ships were built for Harvey's own coastal trading fleet. However, ships were built for others. In 1876, the Company built a steam powered fishing vessel, the '*Patmos*' for an owner in St Ives.¹⁶ The '*SS Ramleh*' built in 1891 was the largest ship built by Harvey & Co. and the largest vessel from Cornwall and this was built for a client in Liverpool.¹⁷

Following the First World War, South Quay and Carnsew Dock were used for importing coal and timber.¹⁸ The adjacent Carnsew slipways were used for ship breaking and the scrap metal was taken to South Wales for recycling. This activity continued from the 1920s to the 1970s.¹⁹

¹⁶ Keith Harris, 2005, p.57
¹⁷ Harry Pascoe, 2005, p.109
¹⁸ Edmund Vale, 2009, p.325
¹⁹ Harry Pascoe, 2005, p. 119



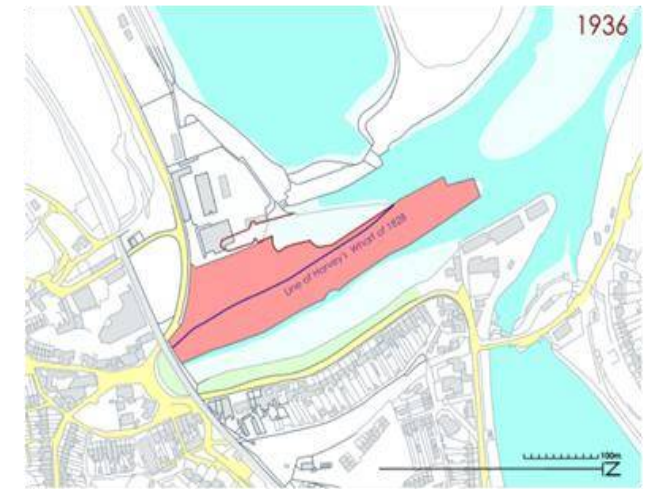
From the 1908 Ordnance Survey Map. All the slipways have been altered.

Whilst, the 1936 Ordnance Survey map appears to show a reduced ensemble of slipways the aerial photographs of 1942 and 1946 show two slipways were again in use.²⁰

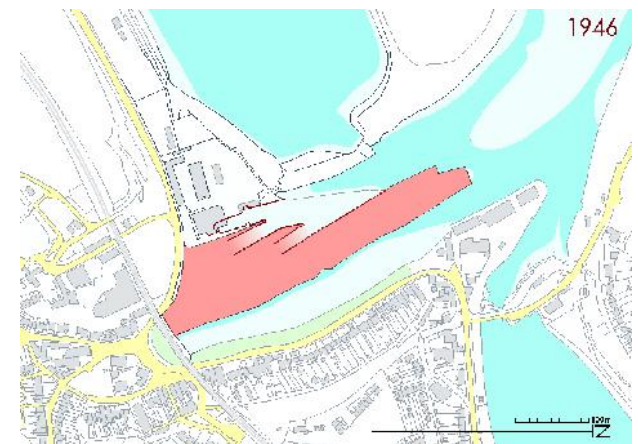
The aerial photograph of 1931 shows ships being broken up alongside South Quay. Buildings can be seen along the west side of the quay. These were removed by the 1970s. The slipways were generally filled before 1968 and by 1975, the fill extended to the line along the Carnsew Channel we see today.

The quay walls survive. They are built from scoria and stone from different sources. Granite is used on the coping on the walls. Parts of the quay walls are in

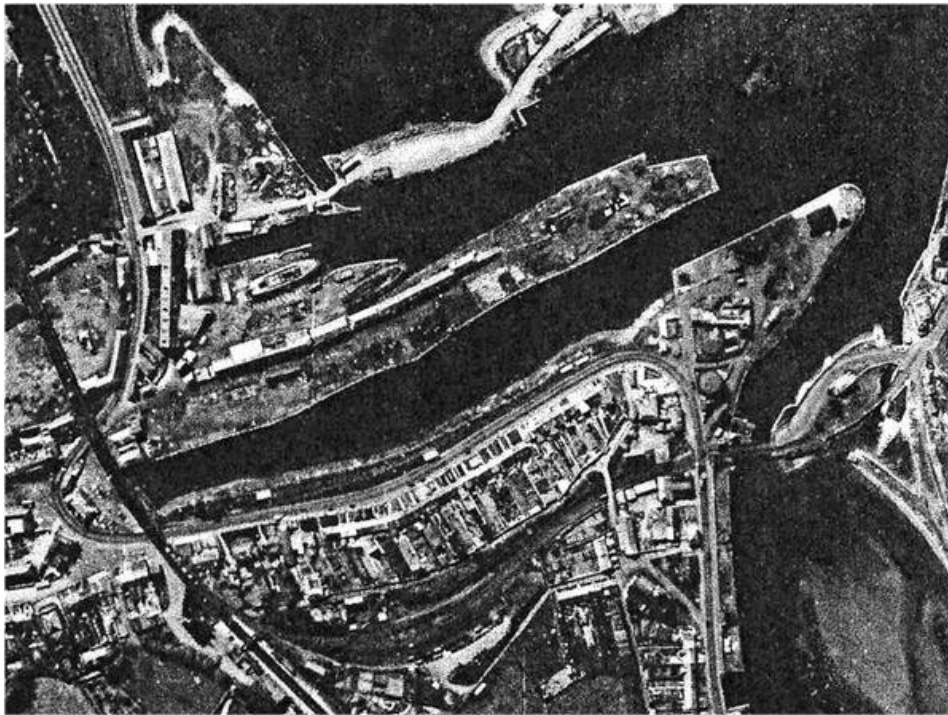
²⁰ A recent archaeological investigation shows retaining walls here to be of timber and the floor is sand and consolidated slag.



From the 1936 Ordnance Survey Map. The slipway ensemble appears to have been reduced.



From a photograph of 1946



South Quay in 1946 with weirs opened up again and shown below



South Quay in 1968 with new buildings built over earlier slipways

bad repair, a section over the former tunnel collapsed in 1963²¹ and a further collapse can be seen today.

Tradition and the listed building statement maintain the scalloped walls of South Quay enabled a greater number of boats to moor along the wall. Vale notes this idea, but records of an account from the former harbour master that the shape was defined by and depended on the form of the reef below. The present collapse has occurred where the curves of

the retaining wall meet and at the weakest point of the wall.²²

South Quay and the nearby Carnsew Dock are listed buildings. These structures are listed buildings because of their 'Group Value' as part of an ensemble of harbour structures that includes East Quay and Carnsew Quay. **Appendix F**

The whole of the South Quay including the land over the former slipways is considered here to part of the listed building because this lies in one curtilage.

²¹ Edmund Vale, 2009, p.134

²² Edmund Vale, 1996, (2009) p. 134.

However, the condition and position of the slipway ensemble was not known at the time of listing and the slipways are not referred to in the list description.

On land adjacent to South Quay, a range of activities took place. These included shipbuilding and ship repair by other companies until land was bought by Harvey and Co. For fifty years after 1920 ship breaking took place here. These marine activities are not reflected in the Outstanding Universal Value of the World Heritage Site.

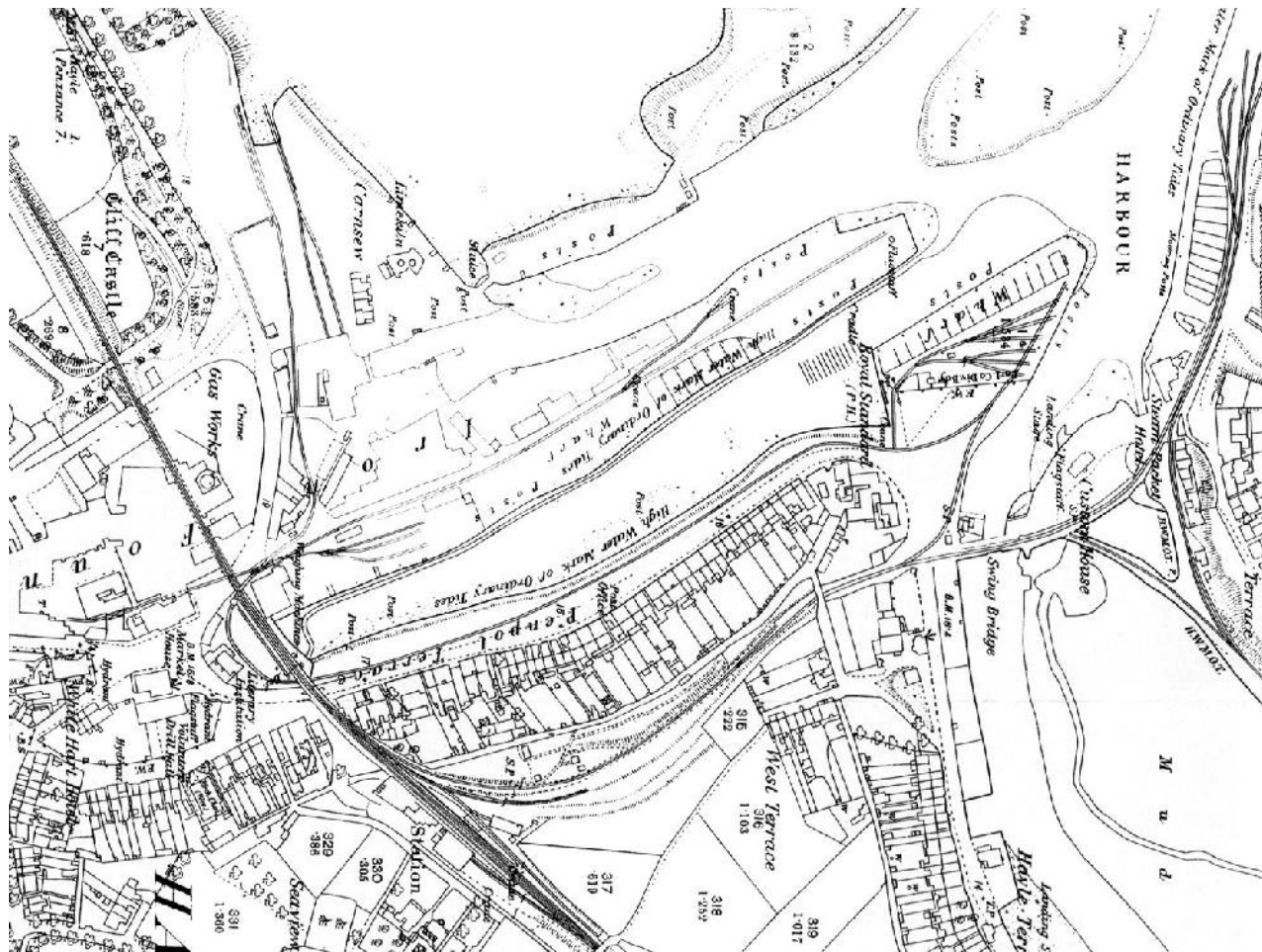
The history of South Quay concerns the use by its builder, Harvey & Co. as a mine merchant and manufacturer of steam engines. These activities are reflected in the Outstanding Universal Value World Heritage Site.



Appendix I The Hayle Railway

The application proposals include introducing a bridge to link South Quay to Penpol Terrace and change to Isis Gardens. These changes are on the line of part of the former Hayle Railway. This feature no longer exists. However, it is of some local significance and part of the history of the town. The line shapes the space around the foot of the viaduct and the gardens along Penpol Terrace.

An Act of Parliament of June 1834 incorporated the Hayle Railway Company and this enabled a railway to be constructed from Hayle to Redruth.²³ The result was the Hayle Railway was built in 1837. The railway provided access for both of the principal companies and linked the harbour with the mining region to the



Line of the Hayle Railway south of the present railway viaduct and along Penpol Terrace. OS map of 1876



Isis Gardens

²³ Tony Fairclough, 2008, p.11

east of Hayle. The line opened in stages and from 1837, a branch line was opened from Hayle to Portreath. Passengers were carried from 1841.²⁴

The line ran from Foundry Square around Penpol Creek along Penpol Terrace crossing the Copperhouse Sluice and along the north side of Copperhouse Pool. From here, the line extended eastwards to Camborne via a steam drawn inclined plane. Horses operated from the lower end of the Angarrack plane but by 1843 engines were allowed to negotiate this part.

The railway crossed the mouth of the Copperhouse Pool by means of a swing bridge and then across the mouth of the sluice alongside North Quay. This limited access to Copperhouse Pool to small lighters and other craft. Larger vessels used the quays in the main estuary.

Unlike other mineral lines, locomotives were used here from the beginning. In 1838, the Copperhouse Foundry built its first locomotive, '*The Cornubia*' and this was probably the first locomotive to be made in Cornwall.²⁵

In 1846, the Hayle Railway was taken over by the West Cornwall Railway and in 1852; its main line was built linking Hayle to Penzance across the town on a timber viaduct designed by Isambard Kingdom

Brunel.²⁶ This was 253.45m (831feet) long and 10.37m (34feet) high.²⁷

Seven years later the line was linked to the east with a connection to Truro and the Cornwall Railway. The Great Western Railway took over the line in 1888. The timber structure had been replaced two years earlier with stone piers.²⁸

Lines of the first Hayle Railway served the quays with horse drawn wagons on a narrow gauge track. From 1852, a steep spur line was introduced just west of the present station to descend steeply to the wharves in Hayle Harbour. This linked up with the original railway lines including the line opposite Penpol Terrace and later extending north of Copperhouse Creek to serve other industrial activities including a local gasworks and the later coal-fired power station and the explosives factory.²⁹

The original station was at Foundry Square. Proposals in 1852 to link the station to the new viaduct with a lift were abandoned in favour of a new station at the east end of the viaduct. The original station survived as an Institute up until the end of World War II.³⁰

Remnants of railway lines survive in roads at North Quay. However, the line along Penpol Terrace and at Foundry Square is gone and replaced by municipal gardens so the significance is diminished.



Line of Railway along Penpol Terrace looking north



Line of Railway along Penpol Terrace looking south

²⁴ John Vaughan, 2009, p.125

²⁵ Tony Fairclough, 2008, p.12

²⁶ Edward Wigley, 1972, pp.98-100

²⁷ Dr L.G.Booth, 1976, p.127

²⁸ Dr L.G.Booth, 1976, p.127

²⁹ John Vaughan, 2009, p.126

³⁰ Edward Wigley, 1972, p.100

Appendix J

Description of the Listed Buildings

HAYLE

SW 5437-5537 10/104

South Quay, including south-east - side of Carnsew Dock GV II

Quay walls. Circa 1819. Built for Harvey and Company (Henry Harvey). Granite and killas rubble, granite ashlar, copper slag blocks and granite dressings. Walls to 3 sides of a peninsular wharf, the long side facing north east and forming one side of a long narrow harbour. Walls are scalloped on plan possibly to allow boats to lie alongside. The north west wall is also part of Carnsew dock. This dock was designed so that accumulated silt could be sluiced out at intervals by releasing a large volume of dammed-up water. The walls are slightly battered and have dressed granite copings. On December the 27th 1834 there was a ceremonial opening of the sluices when the mine's adventurers and other customers and friends of the Company were invited to breakfast at The White Hart Hotel q.v. **Sources:** The Harveys of Hayle, by Edmund Vale; The Cornish Copper Company, by W.H. Pascoe; Hayle Town Trail by Brian Sullivan.



HAYLE HAYLE SW 5437-5537 10/105
Carnsew Quay - GV II

Quay walls. Circa 1740, extended early C19. Granite and elvan rubble with granite dressings, some granite ashlar ; iron cramps to copings. Plan: Causeway quay which forms a barrier damming water behind it between tides so that it could be released through sluices to remove silt from the estuary channels. One sluice between the neck of the quay Carnsew Dock and South Quay q.v. is now blocked ; the other sluice is fed by a 2-span bridge opening and the water flows under a projecting sluice quay through 4 openings. Quay walls opposite South Quay are scalloped on plan and have 2 loading bays. The walls are battered and on the estuary side have dressed granite copings. The walls surrounding the exit sluices are granite ashlar and the openings are spanned by granite lintels. The inner walls of the quay are random rubble. The entrance to the sluices is 2 spans of round arches with rubble voussoirs. On December the 27th 1834 there was a ceremonial opening of the sluices when the mines adventurers and other customers and friends of the Company were invited to a breakfast at the White Hart Hotel. Source: The Harveys of Hayle, by Edmund Vale; Hayle Town Trail by Brian Sullivan.

HAYLE HAYLE SW 5437-5537 10/103
East Quay - GV II

Quay walls. Early C19. Built for The Cornish Copper Company. Granite ashlar, copper slag blocks and granite dressings. Walls at the sides of a peninsular wharf projecting north west into the Hayle Estuary. The walls partly enclose 2 narrow harbours, one to the south west and one- to the north east. Flight of landing steps at the round north end. Walls are scalloped on plan probably to allow boats to lie alongside. The harbours enclosed by these walls and by South Quay q.v. were built in such a way that accumulated silt could be sluiced out at intervals by releasing a large volume of water. This quay was built shortly after Harveys quay (South Quay q.v.) following a bitter feud between the 2 rival companies of Harvey and Co. and The Cornish Copper Company. Sources: The Cornish Copper Company, by W.H. Pascoe; The Harveys of Hayle, by Edmund Vale; Hayle Town Trail, by Brian Sullivan.

HAYLE HAYLE SW 5537
Former Harvey's timber store and drying shed - II

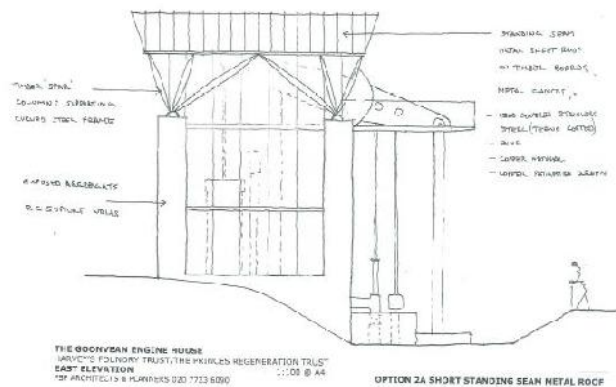
Timber store and drying shed. Built circa mid C19 for Harvey and Co; altered late C20. Granite and brick. Hipped and gable ended roof re-clad in corrugated asbestos. L-shaped on plan, the longer SE range 10 bays, the shorter NW range 4 bays; C20 glazed addition on east end.

Single storey. 10 and 4bay open and north east fronts with square dressed granite piers, the four bays at east end glazed in C20. The rear wall is stone rubble with brick superstructure above pierced by ventilation holes.

Listing NGR SW5563337214

Appendix K

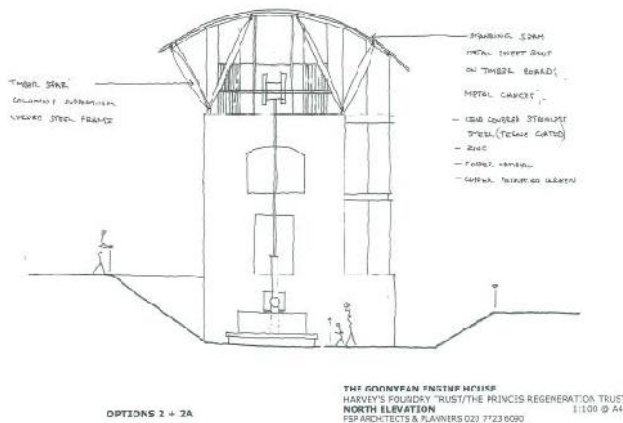
The Goonvean Engine



The Goonevan Engine is a Grade 11* listed Cornish Beam engine. The engine was built 1863 by Harvey & Co. in Hayle. It was last used at the Goonvean China Clay site near St Austell. But has been dismantled with a view to relocating to Hayle and rebuilding on a suitable site.

The application proposals for South Quay reserve a place to reconstruct the Goonvean Engine. The site is adjacent to the north side of the railway viaduct and close to the Harvey Foundry where it was made.

The sketches on the left illustrate a possible arrangement for the reconstructed structure.



From the listed building description:

'The beam engine was built in the 1860s by Harveys of Hayle and originally situated in an engine house in St Agnes. The engine was moved here from Goon Innis mine, St Agnes in 1910. The existing beam was cast in 1928 to replace one that broke. The new (1928) beam was cast by Holmans of Cambourne and it is reputedly the last in the world to be cast. The boilers have been removed. Only 6 Cornish beam engines survive and a few more exist outside the country. This is a rare early example.'

Source: SMR.- Trounson, J. H., 'Mining in Cornwall', Vol. II.



The Goonvean Engine in position at a quarry at Goonvean

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Appendix L

Archaeological Investigation

In August 2010, Northamptonshire Archaeology undertook an investigation of the east wall of the Carnsew slipway ensemble by excavating seven trenches. The objective of the exercise was to determine the position of the retaining wall and to assess its condition. The report of this excavation was submitted to ING RED in September 2010.

The investigation undertook the excavation of seven trenches across the anticipated line of the retaining wall. At the same time, the archaeologists undertook a desktop evaluation, a map regression analysis, examined evidence in old photographs and correlated this with information from earlier borehole investigations.



Photograph1:- aerial view of 1960

Background

South Quay includes the 1918 Harvey's Wharf and an area of adjacent land over the former slipways at Carnsew Dock. Part of the slipway ensemble lies outside of the land owned by ING and the application site. However, within this neighbouring property are two former slipways and these were not explored as part of the archaeological commission.

The sequence of available old Ordnance Survey Maps shows the extent and alignment of the slipways and their retaining walls have changed from time to time from 1879 to 1936. The OS map of 1807/8 shows the most extensive arrangement and after this, the

extent of the ensemble appears to have been reduced. The slipways were visible in an aerial photograph of 1960 (**Photograph 1**) and had begun to be filled by 1968.

Evidence from map regression

The 1879 OS map shows a curved retaining wall on the east side of Carnsew Channel extending south. At its southern end is a short graving /dry dock (now on adjacent land owned by Jessop Ltd.) This is likely to be a masonry structure because stairs are shown on the plan. Alongside this is a slipway shown on the plan with a dashed line and this suggests no retaining wall of any substance was found here.

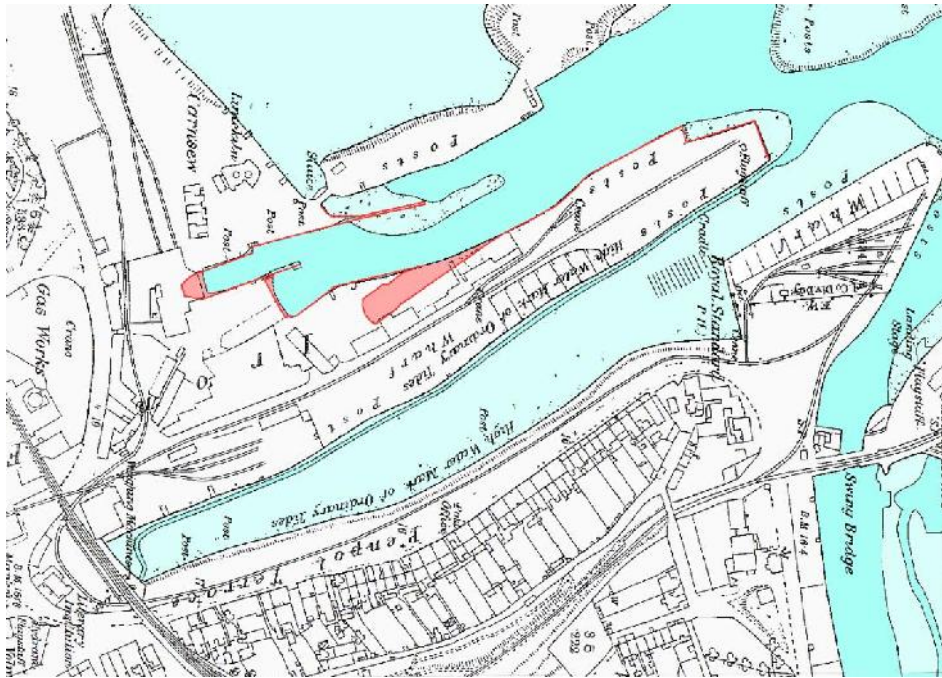
The 1907/1908 OS map shows a number of changes. The graving / dry dock which has a different shape and alongside is a rectangular open area has been created after the removal of some buildings. The earlier slipway shown with the dashed line is shown no longer.

However, a new slipway has been introduced on the east side of the ensemble and to achieve this length of the earlier wall has been removed and replaced with a new straighter wall. This new retaining wall is shown also in a series of photographs and is shown to have been constructed from timber. (**Photograph 2**)

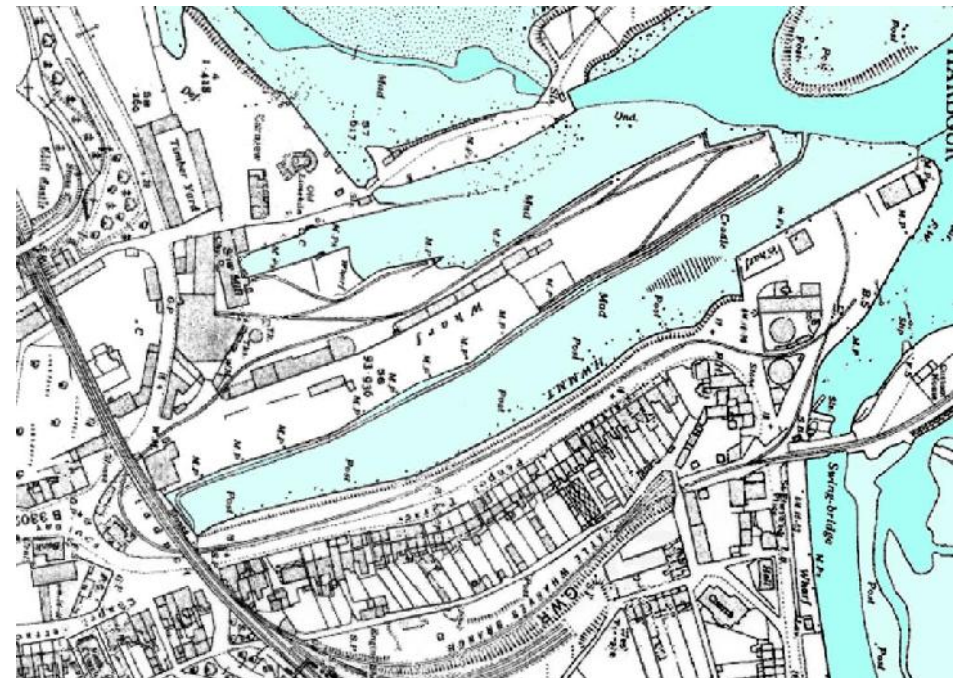
A black and white photograph showing a long, low industrial building with a flat roof, possibly a warehouse or a shipyard. The building has several windows and doors along its side. In the foreground, there is a body of water reflecting the sky, and some debris or structures are visible on the shore. The overall scene suggests a coastal or waterfront industrial area.

A photograph of 1931 show the timber was present then. **(Photograph 3)** ³¹ At the north end, a short length of the earlier (1879) stone wall remains unchanged. The present fill extends across the Carnsew Channel and conceals this short length of masonry wall. **(Photograph 4)**

518 v10 appendices 021210 © Christopher Pound 2010



Above:- Extract from the 1879 OS Map with the changes shown on the 1908 map superimposed



Above:- Extract from the 1936 1:2500 OS Map the eastern slipway is not shown here



Photograph4:- existing stone quay wall partly concealed by

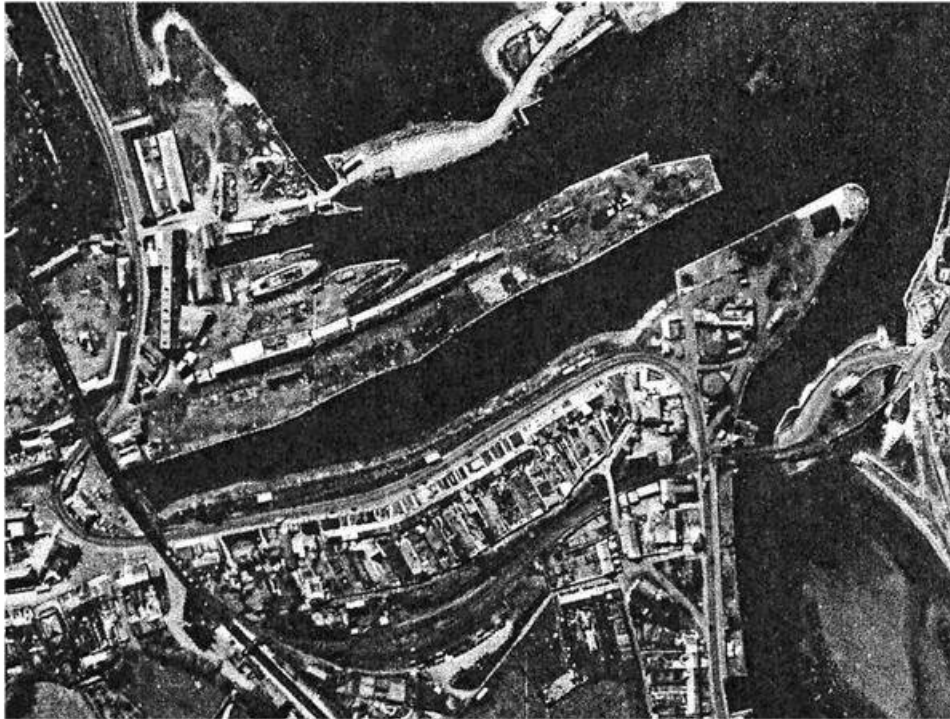
However, photographs of 1942 and 1946 show vessels being repaired where there had been earlier slipways. The aerial photograph of 1946 below shows vessels on the strand and on the site of one of the former slipways shown on the earlier OS maps. The photograph of 1968 shows the filling of the slipways underway.

Conclusions from Northampton Archaeology,³² A combination of desk-based assessment and trial trench evaluation has been used to establish, with some degree of accuracy, the character and extent

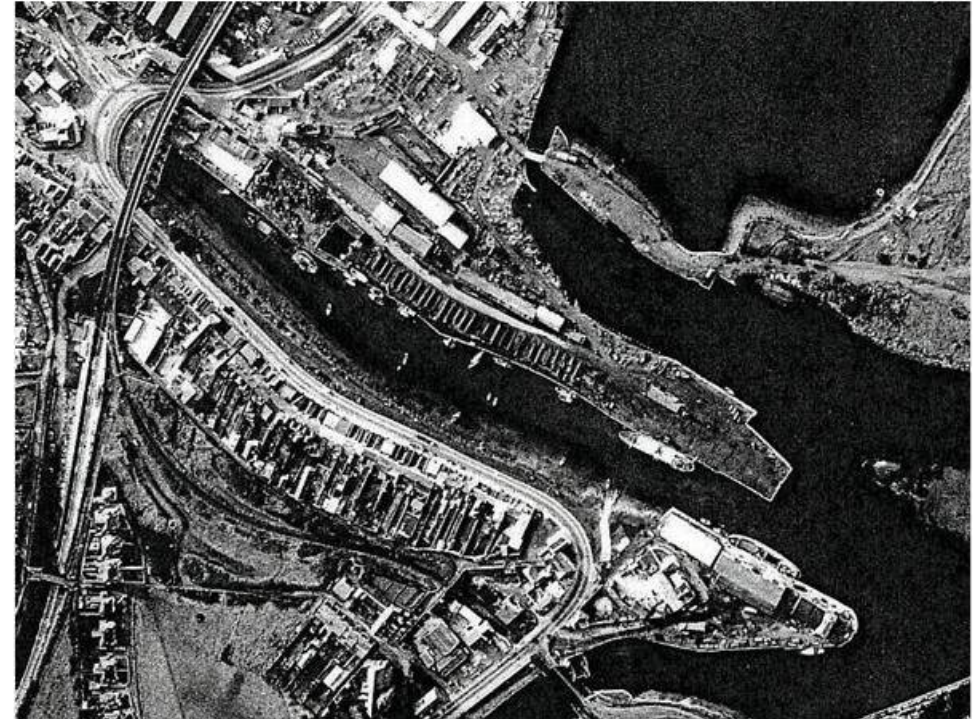
of the quaysides and slipways lying within the proposed development area. Particularly informative results were achieved in fulfilment of the principal aim of the fieldwork: to locate and characterise the walls buried beneath the modern in-fill along the western edge of South Quay.

Cartographic and documentary evidence indicates that South Quay was constructed in the period 1817-1818 by Harvey and Co and that three slipways were eventually located at the head of the Carnsew Channel. The most westerly of these, alongside South Quay, was constructed at a relatively late date, first appearing on Ordnance Survey maps of 1907/8. Some debate exists as to whether this slipway was

³² Northampton Archaeology, 2010, pp.30-31]



South Quay in 1946 with weirs opened up again and shown below



South Quay in 1968 with new buildings built over earlier slipways

temporarily in-filled as it is not depicted on the Ordnance Survey map of 1936 but is clearly rendered on that of 1938 as well as appearing on photographs of the 1940s and 1960s. Whilst the evidence for this temporary in-filling remains equivocal, the slipway had definitely been permanently buried by 1968.

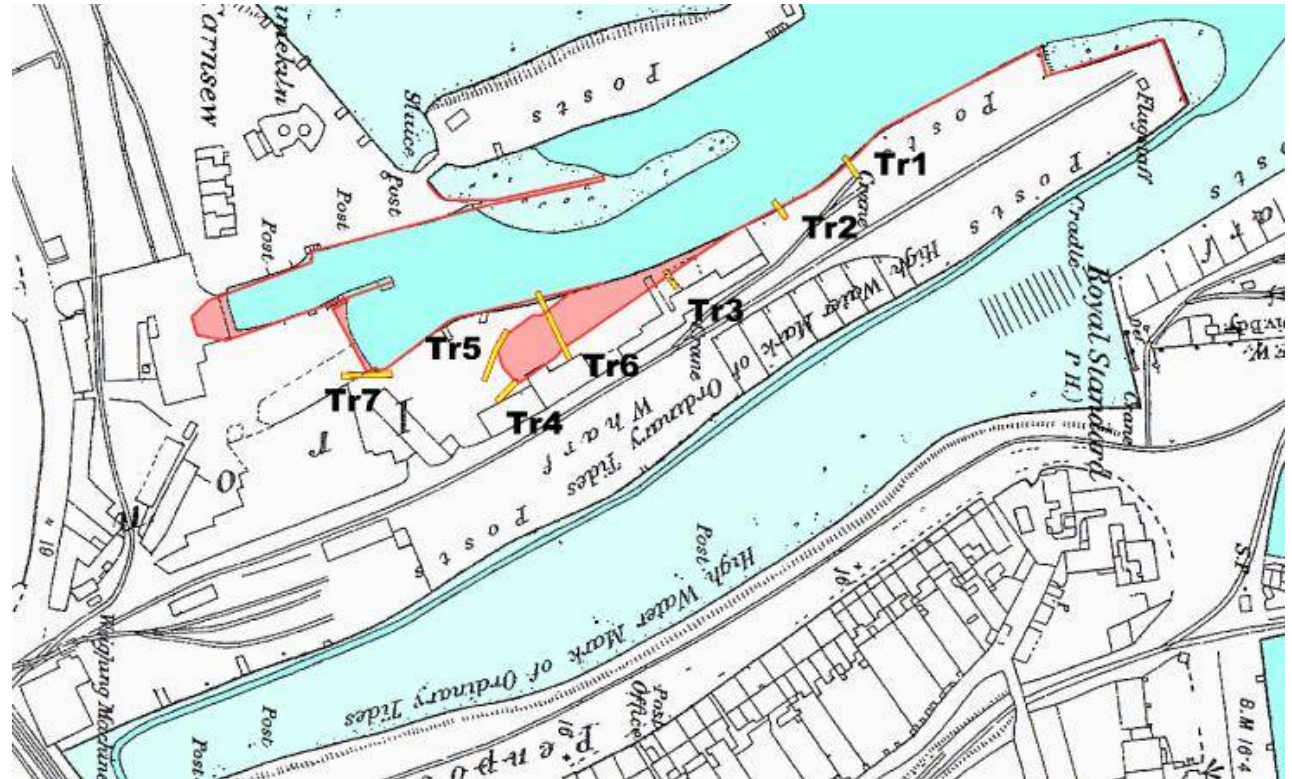
Trenches 1-6 of the evaluation successfully located elements of the buried quayside and slipway, demonstrating that while its northern reaches were

constructed in granite ashlar similar to the exposed fabric at the very end of the South Quay (observed in Trenches 1 and 2), a timber revetment was used further to the south (the change occurring somewhere between Trenches 2 and 3. This change from granite blocks to less expensive timber probably reflects Harvey and Co's weakened financial position when the 'new' slipway was inserted in the first decade of the 20th century.



Trench 1 revealed stone walls similar to the visible walls of the quay further to the north

Above right:- the location of the trenches superimposed on OS map of 1879 with outline of 1908 slipways added.



This timberwork observed in Trenches 3, 5 and 6, and clearly depicted on photographs of the early 19th century (see photographs 2 and 3), comprised planks retained by vertical posts, braced with cross-timbers and tied into the quayside with iron rods. In Trench 6 both sides of the c 15m-wide slipway were located together with a base comprised of compacted iron slag. The western side of the slipway was also located in Trench 5, together with an area of its base. The eastern revetment, however, was not located and, based on the excavated evidence, could exist either side of Trench 4.

The material used to in-fill the channel and former slipway, deposited post-1960, largely comprised brick and concrete building rubble, probably deriving from the demolition of nearby industrial buildings. Of the apocryphal ship buried in the slipway, there was no trace. Local residents claim it lies to the south-west of the proposed development, in the former slipway beneath Jewson's builder's yard.

The southernmost trench, Trench 7, was located to evaluate the projected south-east corner of the middle slipway whose defining walls were, on the

basis of photographic evidence, constructed in stone. The walls, however, were not present; instead concrete beams and probable machine bases were found which relate to industrial buildings built of the 1960s. As such the slipway fabric, if it survives, would appear to lie a short distance to the west of the trench.

For the most part the trenches were positioned too close to the edge of the quayside to pick up the buildings depicted by the historic maps of the period. Evidence for the construction of the quayside itself was, however, revealed in each of the trenches; clean sand was consistently observed at depth and the surface of the quay constructed over layers of clinker, slag, ash and stone.

The slipways adjacent to Carnsew Dock are part of a large number of slipways around Hayle Harbour including those at Coppertown and North Quay. These slipways were an essential part of a busy port and they supported the trading and fishing fleets that used the harbour. Whilst the wider mining landscape is a designated World Heritage Site, and the importance of transport is recognised in that designation, the shipbuilding industry is not included as an integral associated industry and the slipways' importance is more by association with the WHS than as a specific part of it."



Trench 2 exposed the stone quay wall which is similar to the visible wall further to the north



Trench 3 exposed the remains of the timber revetment



Trench 4 revealed no quay walls or the timber revetment



Trench 5 revealed slipway timbers and a base of compacted slag



Trench 6 revealed timber walls at east and west ends of the trench



Trench 7 revealed no walls or timber revetments

Appendix M Sources

- Leisure Guides, 2007, 'Cornwall', AA Publishing, Basingstoke.
- R.M. Barton, 1964, 'An Introduction to the Geology of Cornwall', D. Bradford Barton Ltd., Truro.
- E.E. Bicknell, 1902, 'A Guide to Southwest Cornwall', Gaunt Richards, London.
- Black's Guide, 1862, 'Guide to the South-Western Counties of England: Dorsetshire, Devon and Cornwall', Adam and Charles Black, Edinburgh.
- Dr. L.G. Booth, 1976, 'Timber Works', in:- Sir Alfred Pugsley, ed., 1976, 'The Works of Isambard Kingdom Brunel', Cambridge UP., Cambridge.
- Anthony Burton, 2000, 'Richard Trevithick: Giant of Steam', Aurum Press, London.
- Anthony Burton, 1974 (1975), 'Remains of a Revolution', Cardinal, London.
- Nick Cahill and Cornwall Archaeological Unit, 2000, 'Hayle Historical Assessment Cornwall', Cornwall Archaeological Unit, Truro.
- Reports from the Commissioners, 1859, 'Harbours of Refuge', vol. X Part 1', Admiralty, London.
- Cornwall County Council, 2001, 'Walks in and around Hayle', Cornwall County Council, Truro.
- Cornwall County Council et al, 2004, 'Nomination of the Cornwall and West Devon Mining Landscape for inclusion on the World Heritage List', Cornwall County Council, Truro.
- Cornwall County Council et al, 2004, 'The Cornwall and West Devon Mining Landscape: World Heritage Site Management Plan 2005-2010', Cornwall County Council, Truro.
- Cornwall County Council et al., 2005, 'Cornwall and Scilly Urban Survey: Historic characterisation for regeneration – Hayle', Cornwall County Council, Truro.
- J.S. Courtney, 1845, 'A Guide to Penzance and its Neighbourhood ...etc' E. Rowe, London.
- Daniel Defoe, 1724, 'A Tour through the Whole Island of Great Britain', Penguin English Library, Hamondsworth.
- Tony Fairclough, nd, 'The story of Cornwall's Railways', Tor Mark, Redruth.
- Tony Fairclough, 1990, (revised by Bernard Miles), 2008, 'Cornwall's Railways', Tor Mark, Redruth.
- John Ferguson, 2000, 'Forged and Founded in Cornwall', Cornish Hillside Publications, St Austell.
- A Guthrie, 'Cornwall in the Age of Steam', Tor Mark Press, Truro
- Peter Hancock, 2008, 'The Mining Heritage of Cornwall and West Devon: A Guide to the Region's World Heritage Site', Halsgrove, Wellington.
- Keith Harris, 1983, 'Hevva! Cornish Fishing in the Days of Sail', Dyllansow Truran, Redruth.
- Fortesque Hitchins, 1824, 'The History of Cornwall', Penluna, London.
- W.H. Hudson, 1908, 'The Land's End', Wildwood House, London.

- John W. King, Master R.N., 1863, 'The Channel Pilot, Part 1 South-West and South Coasts of England', Hydrographic Office, Admiralty, London.
- William George Maton, 1797, 'Observations relative chiefly to the Natural History of the western Counties of England', J. Robson, T. Payne, G & T. Wilkie, London.
- Northamptonshire Archaeology, 2010, 'Archaeological Evaluation at South Quay. Hayle Harbour, Cornwall,' Northampton.
- John Ayrton Paris, 1824, 'A Guide to Mounts Bay and the Land's End ... etc.', W. Phillips, London
- Thomas Clifton Paris, 1856, 'A Handbook for Travellers in Devon and Cornwall', John Murray, London.
- Harry Pascoe, 1981, 'CCC: the History of the Cornish Copper Company', Dyllansoe, Truran, Redruth.
- Harry Pascoe, 2005, 'The Book of Hayle', Halsgrove, Tiverton.
- Nikolaus Pevsner, 1951, 'Buildings of England: Cornwall' Penguin Books, Harmondsworth.
- Richard Pococke, 1750, ed. James Joel Cartwright, 1751, 'The Travel through England of Dr Richard Pococke' Camden Society, Bibliolife reprint.
- Cyrus Redding, 1842, 'Illustrated Itinerary of the County of Cornwall', How and Parsons.
- William Rosen, 2010, 'The Most Powerful Idea in the World: A Story of Steam, Industry and Invention', Jonathon Cape, London.
- Marlene and Martine Rew, 1998, 'Images of England: Hayle', Tempus, Stroud
- St Ives Trust Archive Study Centre and Hayle Community Archive, 2010, 'St Ives Bay Revisited', The History Press, Stroud.
- Arthur L. Salmon, 1903, (Revised H. Ronald Hicks, 1950), 'The Little Guide to Cornwall,' Methuen & Co Ltd London.
- Katharin Sather Associates, 2008, 'Conservation Management Plan, 2008', ING RED UK., London
- S.R. Thomas, 2008, 'Hayle, Cornwall: A brief History', Website.
- Barrie Trinder, 1997 (1982), 'The Making of the Industrial Landscape', J.M. Dent & Sons Ltd., London.
- UNESCO, 2005, 'Operational Guidelines for the Implementation of the World Heritage Convention', UNESCO, Paris
- UNESCO, 2005, 'The Vienna Memorandum', UNESCO, Paris
- Edmund Vale, 1966 (2009), 'The Harveys of Hayle', The Trevithick Society, Camborne.
- John Vaughan, 2009, 'Transport and Industrial Heritage: Cornwall', Ian Allen Publishing, Hinkley
- Richard Warner, 1808, 'A Tour through Cornwall in the Autumn of 1808', Richard Cruttwell, Bath.
- James Williams, 1847, 'Commercial Directory of Principal Market Towns in Cornwall.'
- Edward Wigley, 1972, 'Hayle – a new Industrial Town', in: - A.C. Todd and Peter Laws, 1972, 'Industrial Archaeology of Cornwall', David and Charles, Newton Abbot.

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