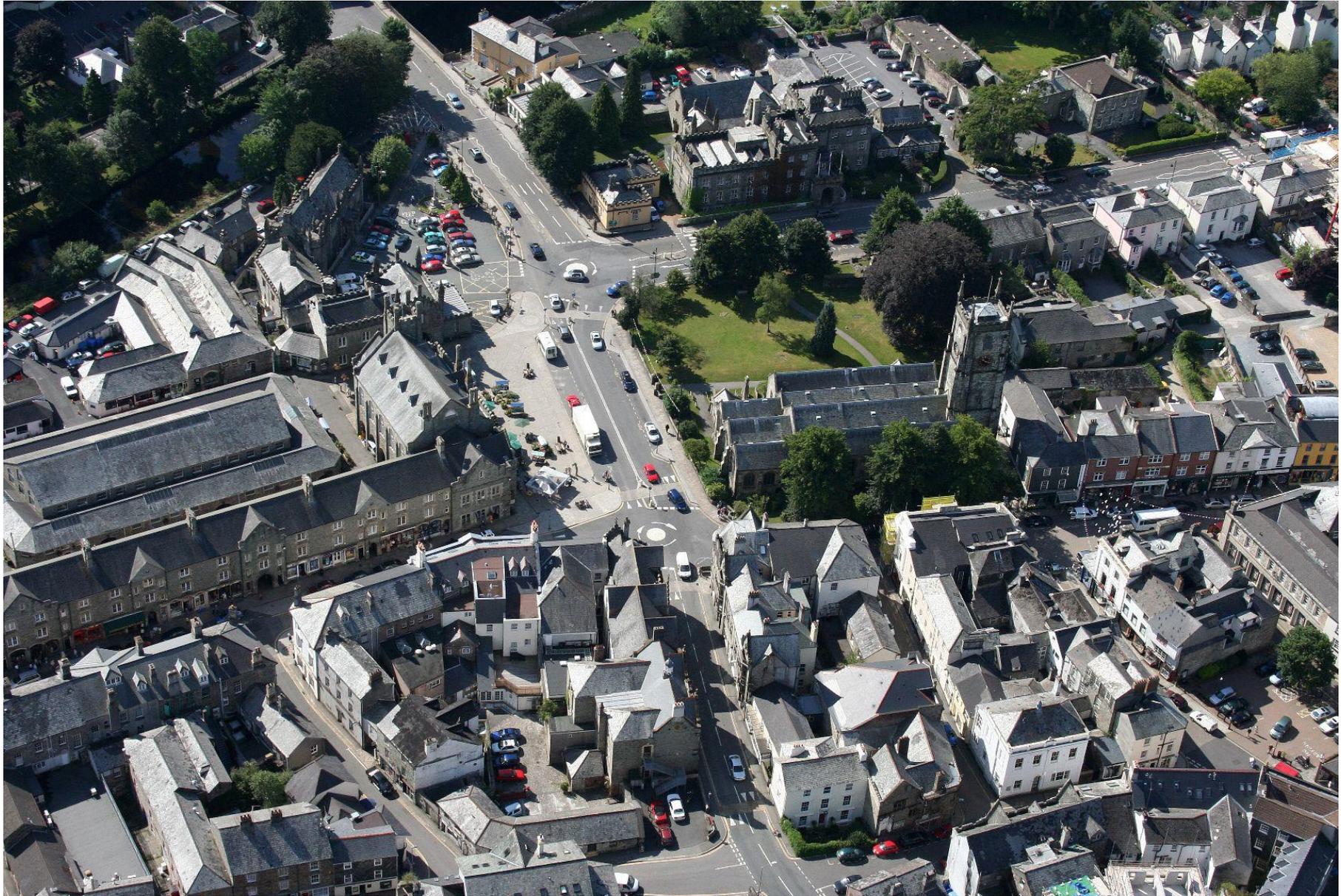


Tavistock
World Heritage Site
Key Centre Steering Group
Interpretation Strategy

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Tavistock Town Centre © Barry Gamble

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Introduction

This strategy sets out a framework and action plan for improving interpretation in Tavistock and for enabling the town to fulfil the requirements of a Key Centre within the Cornwall and West Devon Mining Landscape World Heritage Site (WHS). It is intended to complement the *Tavistock World Heritage Site Key Centre Learning Strategy* (Kell 2013) which concentrates on learning activities and people. Consequently the focus here is primarily on interpretive content and infrastructure rather than personnel.

Aims and objectives

The brief set by the Tavistock World Heritage Site Key Centre Steering Group was to identify a consistent, integrated approach to presenting the full range of themes arising from the Outstanding Universal Value of WHS Areas 8, 9 and 10 and to respond to the specific recommendations arising from the *WHS Interpretation Strategy* (WHS 2005). We were asked to:

- Address interpretation priorities in the context of the Cornish Mining WHS
- Identify and prioritise target audiences
- Set out a clearly articulated framework and action plan for the development of interpretation provision in WHS Area 10, including recommendations which address
 - Product development (i.e. the services that should be provided)
 - Staff development and infrastructure
 - Audience development
 - Marketing and communication
 - Development and implementation of quality measures
 - Sustainability
 - Key partners
- Identify how learning provision in Tavistock/Tamar Valley can provide leadership and support for and add value to that in WHS Areas 8 & 9
- Provide costs and timescales for implementation
- Address issues in relation to perceived displacement/competition between mining heritage sites, and mitigation measures if necessary.

Methodology

The following methods were used.

Desk based analysis of strategy documents and report, archaeology reports, books and journals, websites etc.

Site visits where it was felt necessary to augment desk based analysis. These included visits to Charlestown and Luxulyan Valley and discussions with staff at Geevor Tin Mine and Heartlands.

Consultation conducted through face to face meetings, email and telephone with representatives of:

Cornish Mining Attractions Marketing Association
Devon Historic Buildings Trust
Independent/freelance archaeologists, local historians and writers
Moorland Guides
Tavistock BID
Tavistock Business Association
Tavistock Chamber of Commerce
Tavistock and District Local History Society
Tavistock Forward
Tavistock Museum
TaVi Network
Tavistock Subscription Library
Tavistock Townscape Heritage Partnership
Tavistock Town Council
U3A groups
West Devon Borough Council
Writers' groups

A half day consultative workshop was attended by representatives of West Devon Borough Council, Tavistock Town Council and a range of local community groups.

Progress reports and drafts of this document were discussed at Tavistock Key Centre Area Steering Group meetings on 6 June 2013, 29 August 2013 and 28 November 2013.

What Is Interpretation?

The purpose of interpretation is to reveal the meaning and significance of cultural heritage. It has been defined as

*An educational activity which aims to reveal meaning and relationships through the use of original objects, by first-hand experience, and by illustrative media, rather than simply to communicate factual information. (Freeman Tilden, *Interpreting Our Heritage* 1957)*

or as

the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage site (sic). These can include print and electronic publications, public lectures, on-site and directly related off-site installations, educational programmes, community activities, and ongoing research, training, and evaluation of the interpretation process itself. (Ename Charter 2008)

The Role of A Key Centre

The Cornish Mining WHS is an unusually complex one comprising 10 separate Areas. Consequently the *WHS Management Plan 2005-10* identified the need for an hierarchical framework for coordinating interpretation across the Site. This framework was developed in the *WHS Interpretation Strategy* (2005) and consists (in ascending order of importance) of:

- Individual attractions/sites where interpretation reveals their specific significance.
- Area Centres which present a theme or themes relating to the wider WHS statement of significance and Thematic Centres focussing on a single theme e.g. mineralogy.
- Key Centres covering a cluster of Areas whose role is to explain WHS significance and all the Site wide themes, signpost other attractions/centres and act as focal points for education.

The *WHS Interpretation Strategy* sets out the current criteria that Key Centres must fulfil. These are:

- **High authenticity and integrity** in the Key Centre's tangible heritage.
- **Orientation** that locates the Key Centre within the WHS and identifies principal Site-wide and Area-based WHS facilities.
- **Signposting** that guides visitors to the appropriate network of local interpretation facilities.

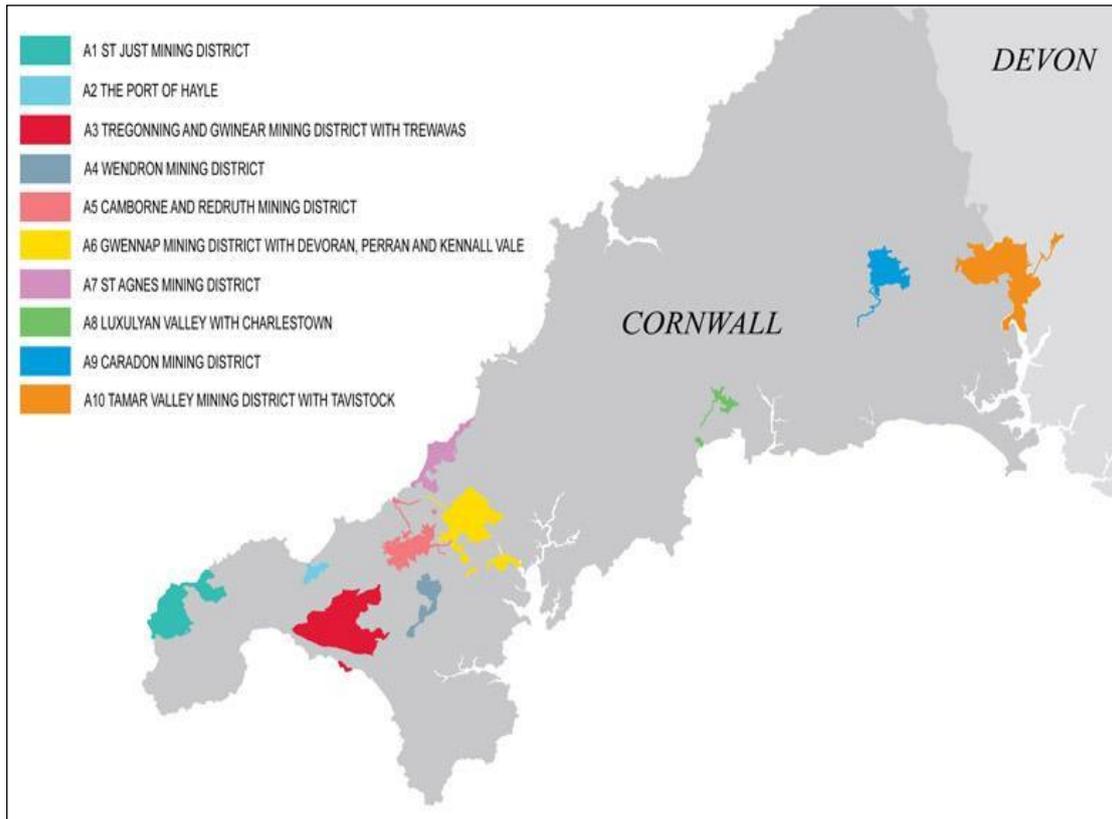
- **WHS Significance.** Key Centres should possess multiple historical and contemporary significances and relate to a number of the mining landscape components that give physical expression to Site values.
- **Authentic Experience** that is supported by above-ground and, if available, below-ground interpretive resources.
- **Intellectual Access** that is appropriate for the intended audiences and is available in DDA compliant formats and other languages as necessary. Interpretation tools and techniques that enable people to experience mining heritage without physical access to sites, e.g. via the internet or publications, should also be employed where appropriate.
- **Physical Access** - Key Centres should have access policies, be DDA compliant and/or be audited for access, with access plans that will deliver DDA compliance.
- **Interpretation Planning** - Key Centres should have interpretation strategies and plans in place that are consistent with the *WHS Interpretation Strategy*.
- **Targeted Interpretation.** Key Centre interpretation should be focused on the needs of actual and well-represented users and new target audiences.
- **Interpretive Scope.** Key Centre interpretation should reveal the WHS Site-wide significances, and those of the Area or WHS sub-region, whilst preserving and enhancing the cultural distinctiveness of the Key Centre site itself. Each of the Key Centres should reflect their different and distinctive strengths.
- **Layered Interpretation.** Key Centres should present a hierarchy of interpretation in line with the *WHS Interpretation Strategy* (see Section 4: Interpretive Themes below).

To date two Key Centres have been confirmed, at Geevor Tin Mine in the west and Morwellham in the east. It seems likely that the newly developed Heartlands will play this role in the central area along with East Pool Mine and other partners.

The context for improving interpretive provision in Tavistock and considering designating the town as a Key Centre is set out in the *WHS Management Plan 2013-18* which states that:

There should be a periodic review of the Key Centre criteria, with a re-evaluation of whether the designated sites continue to meet these, in the context of updating the Interpretation Framework to take account of progress to date and identifying future development priorities. There is a need to examine the role that some towns or communities may have as first points of entry to the WHS, and also to enhance those WHS related sites or attractions recognised in the hierarchy of interpretation but which have not yet received substantial investment.

The anticipated Tavistock Key Centre cluster would comprise Area 8 Luxulyan Valley and Charlestown, Area 9 Caradon Mining District, Area 10 (i) Tavistock and Area 10 (ii) Tamar Valley. It is important, therefore, that interpretive planning for Tavistock reflects existing interpretation in all these Areas.



Cornwall and West Devon Mining Landscape WHS © Cornish Mining WHS

1. Statement of Significance

Assessing Significance

The purpose of interpretation is to communicate the meaning and value of cultural and natural heritage. The starting point for this is to document a site's significance. This involves evaluating such elements as natural setting, social context and tangible and intangible heritage values. By tangible heritage we mean the material remains of the past such as landscapes, sites and buildings and artefacts. Intangible heritage refers to cultural traditions and events.

Assessing significance is a complex and subjective process. Different parties attach different types of value to heritage (e.g. aesthetic, economic, archaeological, historical, social, community, social) and these may be, and often are, contradictory. Good interpretive practice should not seek to collapse contradictory heritage values into the lowest common denominator. Instead it should celebrate the fact that heritage has multiple significances and meanings which need to be communicated through multivocal interpretation where different perspectives are presented. For example, the significance of the Bedfords' architecture in Tavistock can be represented as reflecting an aesthetic interest in medieval architecture, enlightened paternalism or a desire to impose order and social control on the lower orders.

UNESCO is guided by the International Cultural Tourism Charter, section 1.2 of which states: *Individual aspects of natural and cultural heritage have differing levels of significance, some with universal values, and others of national, regional or local importance.*

World Heritage Sites are deemed to possess Outstanding Universal Value which means that they have significances(s) which transcend national and cultural boundaries. The OUV of the Cornwall and West Devon Mining Landscape Cornish Mining WHS is

The Cornwall and West Devon Mining Landscape was transformed during the period 1700-1914 by early industrial development that made a key contribution to the evolution of an industrialised economy and society in the United Kingdom, and throughout the world. Its outstanding survival, in a coherent series of highly distinctive cultural landscapes, is testimony to this achievement.

(WHS Interpretation Strategy p12)

This Site-wide OUV is said to be physically expressed in landscape components or attributes found across the 10 Areas. It is important to note that not all components need to be found in each Area.

The attributes of the WHS are:

- **Mine sites** including engine houses and other mine buildings, chimneys, dressing floors, mine dumps and infrastructure, tin salvage works and significant underground access.
- **Mine transport** including ports, harbours, wharfs and quays, mine tramways and industrial railways, mine roadways, tracks and paths, mining-related canals.
- **Ancillary industries** including foundries and engineering works, smelting works, fuse and explosive works, arsenic and chemical works.
- **Mining settlements and social infrastructure** including mining towns, villages and hamlets, public buildings, Methodist chapels, preaching pits and new Anglican churches.
- **Mineworkers' smallholdings** comprising mineworkers' farms and their buildings.
- **Great houses, estates and gardens** including great houses and other substantial residences, lodge houses and other related buildings, estates, parkland and gardens, villas and embellished town houses.
- **Mineralogical and other related sites of particular scientific importance** comprising internationally and nationally-important type sites for minerals, important mining-related ecological sites.

Tavistock - Significance

One of the recommendations of this report is that interpretive planning for Tavistock should be holistic. Consequently the town's heritage has been assessed for its attributes of OUV and its national, regional and local significances. A full statement of significance which informs the interpretive themes proposed in this report is presented in the Appendix and summarised here.

Tavistock's OUV

A former stannary town, Tavistock is the most extensively re-modelled metal mining town in Britain. During the 19th century the Dukes of Bedford invested some of the revenues from Devon Great Consols and other mines on their estate to re-plan the town centre and provide model dwellings for industrial workers.

The town's attributes of Outstanding Universal Value are:

- 19th century town centre urban planning in Bedford Square, Duke Street and the Pannier Market; fine public and commercial buildings including the Cornmarket, the Guildhall, Town Hall, Fitzford church, Bedford Hotel and Tavistock Bank.
- Model industrial workers' cottages built by the Bedford estate at Dolvin Road, Fitzford, Parkwood Road, Trelawney Road and Westbridge. Between 1845 and 1866 some 300 cottages were built across the Bedford estate, often to a standard design of two up two down with outbuildings for a privy and a pigsty.

- Three foundries which rank among the most significant examples of ancillary industry in the WHS. As well as testifying to Tavistock's technological prowess, by exporting mining equipment to foreign markets, including South Australia and South America, they contributed to the formation of characteristic 'transferred' mining landscapes throughout the world.
- The Tavistock Canal built between 1803 and 1817 provided a commercial artery linking West Devon's communities, mines, quarries, foundries and farms to the wider world. The engineer, John Taylor, established his reputation and overcame formidable geographical obstacles by constructing an aqueduct above the river Lumburn, a 1½ mile tunnel under Morwell Down and an inclined railway down to Morwellham.

Tavistock's national, regional and local significance

Tavistock is significant as an estate town where economy, society, cultural traditions and physical fabric were shaped for 1000 years by just two landowners, the Benedictine medieval abbey and the Earls and Dukes of Bedford.

Its key attributes are:

- Nationally significant standing and buried remains of the wealthiest and most powerful medieval abbey in Devon and Cornwall. These include a still tower, an excellent example of a pseudo-defensive precinct wall, two gatehouses (Court Gate and Betsy Grimbal's tower), the Abbey Chapel, which was probably the abbot's lodging with battlemented porch, and Trowte's House which is rare surviving example of a monastic outer court building. The abbey site is a Scheduled Monument.
- Medieval parish church including a 19th century window designed by William Morris whose family had interests in Devon Great Consols.
- A medieval street pattern with a commercial core preserved in Market Street and King Street with Bannawell Street to the north and West Street providing main routes into the town which are lined with burgage plots as is Old Exeter Road. There are fine 16th and 17th century timber framed buildings in Market Street notably Taylor's Restaurant and Book Stop which has been described as the finest town house of its period in Devon.
- Guildhall Square which was remodelled in 1848 to contain the Guildhall comprising a magistrates' court with police station and cells below, police accommodation and a fire station. These buildings are nationally significant as one of England's earliest combined police station/court rooms and as a commentary on the history of the police and the legal system.

OUV of Areas 8, 9 and 10 (ii)

As a WHS Key Centre it is important that interpretive planning in Tavistock also recognises the OUV of the other Areas in its cluster. The *WHS Management Plan 2013-18 Appendix 8.1* contains OUV descriptions for each Area and these are summarised here.

Area 8 Luxulyan Valley and Charlestown

This Area exemplifies late 18th and early 19th century industrial entrepreneurship which is reflected in an important concentration of industrial transport infrastructure and an industrial water supply network. The single estate ownership of both Luxulyan Valley and Charlestown help to account for their survival.

The Area's attributes are:

- Charlestown, which was built for Charles Rashleigh, is one of Britain's finest late 18th and early 19th century industrial harbours and the best preserved china clay and copper ore port from this period in the world.
- Charlestown Foundry was an important producer of beam engines, including the last pumping engine made in Cornwall, and other mining equipment.
- The engine house at Fowey Consols testifies to Cornish steam engine efficiency. In the early 19th century Joseph Treffry used profits from the mine, which was Cornwall's fourth largest, and support from a fellow investor to finance an industrial empire.
- The magnificent Treffry viaduct/aqueduct which spans the Luxulyan Valley is the earliest granite construction of its kind in the south west.
- Treffry's Par Canal linked the Fowey Consols inclined plane railway to a new industrial port at Par. Treffry also constructed a complex leat system to service his mining and quarrying interests.

Area 9 Caradon Mining District

This rural upland area on the south east edge of Bodmin Moor represents a copper mining landscape from the 1840s to 1890s. It exemplifies the 'boom to bust' nature of Cornish mining as the whole process from discovery to final closure lasted barely 50 years.

The district's principal attributes are:

- Internationally significant mineralogy and an unusual example of a copper deposit located in the granite of Caradon Hill.
- The district's remote location and lack of subsequent development has ensured that exceptionally high quality archaeological remains have survived including rare ore floors.

- Phoenix United was one of the most important 'eastern' tin mines. Exceptional remains include an early 20th century complex including the engine house of the last large pumping engine to be erected in Cornwall.
- Significant evidence for medieval and modern tin extraction in streamworks at Witheybrook and openworks works at Stowe's Hill.
- The Liskeard & Caradon Mineral Railway was constructed primarily to transport copper ore to the port of Looe.
- Rare copper dumpscapes encircling Caradon Hill.
- A landscape of dispersed mining settlements. There are well preserved mineworkers' smallholdings around Pensilva while Minions has the atmosphere of a rugged frontier settlement.
- A distinctive migration pattern of men from the declining mines around St Austell, Gwennap and Breage moving into the district. Until housing was built they were initially accommodated in huge temporary camps.
- Notable copper-rich substrates supporting rare lower plants. Two sites at Phoenix United and Crow's Nest (South Caradon and West Caradon) have been designated SSSIs.

Area 10 (ii) The Tamar Valley Mining District

Lying inside the Tamar Valley Area of Outstanding Natural Beauty, this district comprises both valley and upland settings for tin, copper, silver-lead and arsenic mining, ore-processing and smelting.

The attributes are:

- A mineral transport network that connects to and includes the river Tamar. This includes industrial mineral river quays (e.g. Morwellham), a mine railway (Devon Great Consols), a mineral railway (East Cornwall Mineral Railway), a mineral canal (Tavistock Canal) and an ancillary industries canal (Tamar Manure Navigation).
- The most important and extensive survivals of arsenic refineries and calciners in the WHS (e.g. Devon Great Consols and Okel Tor).
- Industrial housing, principally Bedford cottages at various locations, many of them associated with Devon Great Consols which possesses a remarkable assemblage of mine housing at the greatest copper mine in the WHS.
- A greater scale, size, number and significance of water-powered sites than anywhere in the WHS.
- Well preserved and diverse smelting remains including silver-lead refining (at West Harrowbarrow and Weir Quay) and tin smelting (at Weir Quay, one of the best three surviving reverberatory furnaces in Britain).

- An important range of ancillary industries such as brick works, which are integral to the cultural mining landscape of the Tamar Valley.
- Significant archaeological evidence of medieval silver mining on the Bere peninsula includes shafts, the Lumburn leat which powered drainage systems, and probably the country's first planned mining settlement at Bere Alston.
- Market gardening is a unique and distinctive element of the cultural mining history of the landscape. The group of Tamar lime kilns, which are ubiquitous on the river quays, are exceptional with three having inclined planes.
- Mines situated on the steep valley sides sited where lodes outcropped and where adits could provide drainage.
- Miners' settlements grew haphazardly among the mines as at Gunnislake and Lockett.
- Some of the only true silver mines in Britain.
- Internationally significant mineralogy.

2. Interpretation Audit

This section summarises existing heritage interpretation provision in Tavistock, the Tamar Valley, Areas 8 and 9 and on Dartmoor. The recently completed *Learning Strategy* (Kell 2013) for Tavistock includes a summary of learning activities and events across the area. To avoid duplication this section concentrates largely on fixed interpretive infrastructure and its content. The findings inform the recommendations made at the end of this report.

Interpretation in Tavistock

Signage

Outside Tavistock there are no road signs, such as brown tourist signs, that indicate the town's World Heritage status. New signs which include the UNESCO logo and reference to the WHS have recently been erected at the entrances into Tavistock. A signage strategy is being implemented to reduce the confusing and sometimes unappealing appearance of signage within the town. Black and gold 'Victorian style' finger posts provide directional signage for pedestrians to key locations and amenities. Black and gold signs have also been used by Tavistock Town Council for all signs and notices which relate to business activity while heritage signage and notices use a blue background which can also be seen in the Tavistock coat of arms and in heritage plaques.

Fixed interpretation

Four new visitor orientation boards were erected in 2013 as part of the Tamar Valley Mining Heritage Project. Located at the bus station, St John's Walk, Bedford car park and the Wharf car park, they contain an historical introduction and a 3D map showing points of historical interest and amenities.

Four new interpretation boards are being currently being completed:

- Bank Square - Tavistock's historic commercial core
- Guildhall Square - the abbey and the police station, fire station and Guildhall complex
- Pannier Market - the Bedford's urban planning including the Town Hall
- Tavistock canal – history, route, technical innovation and introduction to John Taylor.

The Town Council has installed blue heritage plaques on 28 significant buildings. The Community Mosaic on the west end of the Pannier Market depicts 17 of these buildings; a leaflet with map is available in the TIC.

At Abbey Bridge an interpretation panel introduces a Tavistock Canal poetry trail created by pupils at Tavistock College, as part of the Tamar Valley Mining Heritage Project. Other installations on this trail are in poor condition.

On the north wall of the present TIC there is a heritage tree, made of ceramic tiles and portraying scenes from the town's history, which was put up to commemorate the 900th anniversary of Tavistock's first market charter. The tree is now exhibiting some wear and tear and periodically leaves fall off.

Tavistock Museum is housed in Court Gate and adjacent buildings. The museum is a registered charity run by trustees and a management committee and staffed entirely by volunteers. It is fully accredited by the Arts Council. Entry is by donation, the museum is open from Easter to October and in 2013 there were some 7500 visitors. The museum is a member of the Cornish Mining Attractions Marketing Association. It has recently been extensively refurbished with support from the WHS Discover the Extraordinary project and a Biffa Award.

The museum contains:

- Permanent exhibitions including architectural fragments from the abbey, miners' equipment and a significant mineral collection. Interpretation boards cover the abbey, the stannaries' and early tin working, Sir Francis Drake, the Tavistock Canal, John Taylor, local mines, foundries, and the Bedford cottages.
- Temporary exhibitions organised by community groups or the museum.
- An archive with an extremely important collection of Bedford estate plans and drawings.
- A large collection of photographs under the management of the Local History Society which is running a long term digitisation project.
- A WHS information room with a screen displaying DVDs including Cornish Mining, the Bedford cottages and Tavistock Abbey and leaflets about other WHS sites and Areas. The museum is a WHS Area Centre.

Tavistock TIC has panels about the town and locality including one on the WHS. West Devon Borough Council has withdrawn funding from 1 April 2014 and the TIC is currently predicted to close.

The parish church displays a collection of tiles from the abbey church.

Tavistock Library occasionally hosts temporary exhibitions. It has a local studies section plus significant material in store which has not been catalogued.

Tavistock Subscription Library has a collection of books and journals about the local area which are available to members.

Guided walks

Occasional guided walks are provided by freelance guides and specialists and on a voluntary basis by members of the Tavistock and District Local History Society in response to requests from other organisations. In 2013 regular walks have been provided by Moorland Guides covering themes such as the World Heritage Site, abbey and Dukes of Bedford; a promotional leaflet is being supported by the WHS 'Discover the Extraordinary' initiative.

Audio tours

The Duke's Grand Plan, which focuses on Bedford buildings, is downloadable as a leaflet or audio tour from the WHS website.

A Drake's Trail audio tour is available as a download from the website (www.drakestrail.co.uk) and on MP3 players which may be hired at the TIC.

Events

Two new developments are:

- Heritage Open Days which were held for the first time in Tavistock in 2013.
- A Tavistock Heritage Festival is being organised for October 2014 by a steering group which includes representatives from a wide range of community groups including Tavistock Rotary Club, Tavistock Museum, Robey Trust, Tavistock Local History Society, Tavistock Forward and the Friends of the Wharf.

Tourist Leaflets

Three leaflets are currently available:

- *Tavistock Town Guide* produced by the Chamber of Commerce contains a map, adverts and a short historical overview.
- *Tavistock Town Guide* published by the Town Council includes a history of the town.
- *Tavistock Town Trail* created by West Devon Borough Council some years ago is available in French and German with a colour photocopy version in English.

Of these leaflets only the Town Council guide refers to the World Heritage Site.

A free WHS welcome/orientation leaflet is being produced which is funded by the WHS Discover the Extraordinary programme for the first year.

Publications

The Tavistock Local History Society publishes *About Tavistock: A Brief History of Tavistock and Seven Town Walks* with routes covering an overview of the town centre, the abbey, churches and chapels, the Bedfords, industrial heritage, drinking houses and communications. Now in its third edition, the booklet is aimed at people who want a guide they can use and take home to read. The format is rather dated and it is probably unlikely to be reprinted.

The society also publishes and sells:

Walking Around Tavistock

Whitchurch Parish

Whitchurch Down

Tavistock's Methodist Chapels

We Will Remember Them - The Men of Tavistock who died in the First World War

Lest We Forget - The Tavistock Fallen of the Second World War

Tavistock Museum sells double sided A4 leaflets on aspects of the town's history:

Abbey Chapel

Tavistock Abbey

Court Gate

Judge Glanville and his family

Leats

Model cottages

Ordulf

Tavistock foundries (3 leaflets)

Wool trade

The best known books about Tavistock's history are those by Gerry Woodcock who has published 22 volumes of *Tavistock's Yesterdays*, *Tavistock: A History* and *Homage to St Eustachius: A History of Tavistock Parish Church*.

The Bedford Hotel has recently published two volumes by Alex Mettler: *Tavistock – A Photographic Portrait of England's Premier Market Town* (2005) and *A Devon Gem – The Bedford Hotel Tavistock* (2013).

Locally based archaeologist Tom Greeves has published a number of articles and book chapters about the stannaries and early tin working plus several short books on Dartmoor tin mining and 19th century farms. Accounts of recent archaeological excavations and surveys by Stead (1999) on

the abbey and Trevarthen (2009) on Tavistock Iron Works have been published in the *Journal of the Devon Archaeological Society* and recent grey literature has been deposited in Tavistock Library by the Devon Historic Environment Service. There is an article on the archaeology of Tavistock Canal by Waterhouse (2012) in a recent edition of *Current Archaeology* and a new study of Devon Great Consols by Rick Stewart (2013) has recently been published by the Trevithick Society. Full details of all these works are listed in the bibliography.

Devon and Cornwall Tamar Trails (2012) published by the Tamar Valley AONB contains 9 walks including Tavistock town, Devon Great Consols and the Tavistock Canal.

Websites

The official WHS website (<http://www.cornish-mining.org.uk>) contains a downloadable audio tour of Tavistock titled *The Duke's Grand Plan*, a brief introduction to the town and nearby sites, and signposts the museum. The Tamar Valley AONB website provides a brief introduction to mining heritage and a link to the WHS site.

Internet coverage of Tavistock's heritage is generally very thin, fragmented and generally found on websites which are primarily intended for other purposes. This suggests that there remains limited awareness of the position of Tavistock, and to a lesser extent the Tamar Valley, within the WHS.

Several local websites refer to Tavistock as a gateway to the WHS including the Town Council, Golf Club and Rotary. Some tourist accommodation providers refer to the WHS. Visit Tavistock, which is produced by the Business Improvement District, has a section containing material provided by the WHS office: a video about the Bedford cottages, *The Duke's Grand Plan* audio tour and text about the Tamar Valley. The Tamar Valley Tourism Association website devotes two pages to the WHS and the Tamar Valley Mining District.

However, many local, regional and national tourism websites which contain some historical information about Tavistock refer to the abbey, stannaries and sometimes copper mining but do not mention the WHS. This includes the official tourism website produced by the Dartmoor Partnership. A survey of the first 10 pages of responses to Google searches for 'visit Tavistock', 'Tavistock heritage' and 'Tavistock Devon' revealed that almost none associated Tavistock with World Heritage.

The exception to the general paucity of information are a few specialist sites focussing primarily on industrial archaeology. The Industrial Archaeology of the Tamar Valley (<http://www.tvia.org.uk>) by archaeologist Robert Waterhouse showcases his research and fieldwork including surveys of the

Tavistock Canal and excavations at Morwellham. Sites produced by organisations such as the Dartmoor Tinworking Research Group contain some information and often signpost users to offline resources such as newsletters and reports.

Interpretation at Other Sites

Buckland Abbey	Interactive displays - Drake & Grenville, Tudor life, seafaring & discovery; film; stage settings for role play and storytelling.
Brimpts Farm	Tin mine trail & guide by Dartmoor Tinworking Research Group; display about the Brimpts mines.
Burrator Historic and Natural Environment Project	Awaiting HLF decision on stage 2 funding to include interpretation of prehistoric and industrial archaeology including mining.
Callington Museum	Small volunteer run museum with a few local mining artefacts.
Caradon Hill Area Heritage Project	Funded by the HLF includes review & improvement of outdoor interpretation panels & themed walking routes.
Charlestown Shipwreck Museum	Focuses on shipwrecks but also brief introduction to Charles Rashleigh & foundation of Charlestown. Part of site is china clay building & tunnel to quayside. Small display of minerals & mining artefacts
Charlestown	WHS interpretation panels. The WHS website has a downloadable audio trail with information sheet and a downloadable guide <i>Charlestown: Perfect Port for Travelling Back in Time</i> .
Cotehele	Excellent new guidebook on architecture, estate & Edgcumbes. Quay interactive displays on social history of estate and locality including mining. The only stately home in WHS Areas 8, 9 & 10.
Dartmoor National Park Visitor Centres at Haytor, Princetown and Postbridge	Displays introducing the moor's cultural and natural heritage. The National Park website has downloadable factsheets on archaeology, history, geology, geography including one on the tin industry.
Dartmoor National Park 'Moor Than Meets the Eye' Project	Supported by the HLF's Landscape Partnership Scheme. Includes substantial investment in interpretation covering all historical periods on the eastern moor from Postbridge to Widecombe. Currently in stage 1.
Drake's Trail	21 mile cycling and walking route Tavistock to Plymouth. Includes Drake's leat, Buckland Abbey and Tavistock Canal to Crowndale where Drake was reputedly born. Downloadable historical information & children's podcast on website and MP3 player on hire from Tavistock TIC.
Kit Hill	Information panel and a leaflet, including mining heritage, which is downloadable from the Cornwall County Council website.
Lawrence House Museum, Launceston	Exhibition on convict transportation to Australia and Launceston, Tasmania, adds another dimension to the story of Cornish emigration.
Liskeard Museum	Information point for WHS Area 9. Focuses on Liskeard area during the 19 th century copper boom. Collection includes silver tray presented to mine manager Peter Clymo

	by adventurers of Wheal Mary Anne and telescope presented to him by adventurers of West Caradon Mine. Museum aspires to develop its geology collection. Area Centre for Area 9 supporting Minions Heritage Centre.
Luxulyan station	WHS information panels promote a circular walks leaflet jointly produced with Devon and Cornwall Rail Partnership from whose website the leaflet is downloadable.
Lydford Castle & Saxon burgh	English Heritage interpretation boards; downloadable audio tour and further information on the English Heritage website.
Minions Heritage Centre	Located in restored Houseman's Shaft engine house at South Phoenix mine. Interpretation boards & low tech interactives include geology, engine houses, copper mining & the WHS. Area Centre for Area 9 supported by Liskeard Museum.
Morwellham Chapel	Recently renovated. Display boards & video relate the story of Methodism in the Tamar Valley.
Morwellham Quay	Open air museum conserved & reconstructed since 1970s & now privately owned visitor attraction. Tamar port with quays and buildings including Bedford cottages, inn, cooperage, smithy George & Charlotte Mine has underground railway tour giving good insight into mining techniques. Area Centre for A10.
Museum of Dartmoor Life, Okehampton	Permanent displays include mining and quarrying. Recent temporary displays have included Quarry Voices based on oral testimonies from quarry workers in Cornwall & Devon.
Plymouth Museum	Important mineral collections.
Robey Trust, Tavistock	Collection of restored steam traction engines and other working machinery. Located within the Crelake Mine sett.
Tamar Trails Centre & Tamar Valley Trails	The centre has a small interpretation area; it is managed by an outdoor activity provider. WHS panels. Trails for walkers, cyclists & horse riders follow former mineral tramways and railways. Trail leaflet with maps & historical notes which is downloadable from AONB website.
Tamar Valley Centre	Has WHS orientation and information boards.
Wheal Friendship	Identified in the Dartmoor National Park <i>Development Management and Delivery Plan 2013</i> as a site where public access could be improved and provision made for interpretation.
Wheal Martyn	Museum & trails showing china clay processing including waterwheel and flatrod system. Linked to mining in that china clay industry periodically used second hand beam engines. Area Centre for Area 8.
Weir Quay	New interpretation board on mining heritage.

Key Centres

Visits to Geevor and Heartlands provided an opportunity to view and discuss with senior managers how these two sites perform their Key Centre roles.

Heartlands is a 19 acre site with free entry which was developed by Cornwall County Council as part of a community regeneration scheme in Pool and is now run by a charitable trust. As well as industrial heritage the site includes art and craft studios and residential apartments. Heartlands' USP is probably its reputation for hosting large scale free events. Recent examples include a Holistic Health & Spiritual Weekend, a Jazz Picnic and a car show. A flavour of the site can be gleaned from the marketing slogan on large billboards near the entrance which read '19 Acres of Cultural Candy'. WHS facilities include Robinson's Shaft engine house, Diaspora Botanical Garden, former mine buildings and a visitor centre which includes interactive geology displays, miners' oral testimonies, winding gear and boilers. Heartlands also functions as a gateway to the WHS in central Cornwall including East Pool and King Edward mines. Site wide interpretation highlights WHS themes and signposts other places to visit through an interactive map and timeline, a 270° film projection titled *Frame of Mined*, and interpretation panels including one which invites visitors to plan trips to other sites.

Geevor Tin Mine is the Key Centre for the western part of the WHS including Botallack, Levant Mine, Godolphin and Hayle. It is managed by the Pendeen Community Trust who lease the site from Cornwall County Council. Geevor's USP is an underground tour which accounts for 98.4% of ticket sales. The site retains something of the atmosphere of a working mine and visitors are expected to wear hard hats. Above ground interpretation includes the miners' dry, where Geevor's workforce are movingly commemorated, mine buildings, tin processing plant and the Hard Rock museum which includes displays on geology, the uses of tin, mining techniques, tin processing and Geevor's history. Geevor also has rooms devoted to its Key Centre role where interpretation panels, for example on the Levant disaster, and museum artefacts, such as a 19th century pewter dinner service from the Botallack Count House, introduce visitors to Site wide themes and other attractions. A map shows all the WHS Areas and includes an image of Tavistock under the heading 'Explore the Urban Legacy'.

Conclusion

There are a diverse range of interpretation techniques and approaches to be found within and close to the Tavistock Key Centre Area. In recent years there has been considerable investment in mining heritage interpretation through initiatives such as the Caradon Hill Area Heritage Project, Tamar Valley Mining Heritage Project and the WHS Discover the Extraordinary programme. Within Tavistock itself there has been significant funding to develop the museum as a WHS Area Centre and support for audio trails and new interpretation panels.

Nevertheless, interpretation in Tavistock is often the haphazard result of different initiatives at various times and is generally rather conventional and static. Delivery is increasingly more varied

at other sites within the Key Centre Area where carefully layered experiential interpretation is being developed. There is a need for more structured, varied and interactive interpretation in the town.

Moreover, current provision does not enable Tavistock to fulfil the Key Centre role across a cluster of Areas in a way which is comparable to either Geevor or Heartlands. Although these two sites are very different in style, content and context, they both perform similar functions in that they explain WHS status, introduce the overall Site OUV, focus on the OUV of their respective Areas and signpost visitors to other Areas and sites in their cluster. Tavistock Museum lacks the facilities to adequately fulfil these functions and the town needs a new and substantial hub for WHS interpretation to enable it to meet the requirements of a Key Centre.

3. Audience Research

Evidence

Effective interpretation requires communication with clearly defined audiences. Heritage organisations are using increasingly sophisticated marketing segmentation techniques to identify and tailor interpretation to the needs and requirements of these audiences.

There is robust recent data for the WHS in research on the potential market for Cornish Mining (Arkenford 2010) and on attitudes towards World Heritage Sites across the South West (Arkenford 2012). This updates the analysis in the *WHS Marketing Strategy* (2005 and revised 2007), which in turn informs the key audiences identified for the *WHS Interpretation Strategy* (2005). The new data can be regarded as applying to Areas 8 and 9 and much of it is probably applicable to Tavistock and the Tamar Valley.

Unfortunately, however, there is little comparable specific and up to date information about either heritage users or visitors more generally in Tavistock and West Devon. The most relevant evidence comes from the Tamar Valley AONB's *Sense of Place Strategy* (2009) but data for this is now five years old and was collected only two years after WHS inscription. The county as a whole does not have an equivalent of the Cornwall Visitor Survey which has been collecting detailed data since 1987. Locally, West Devon Borough Council collates monthly visitor numbers to Tavistock Tourist Information Centre but does not gather more detailed information and even this inadequate data collection is likely to end when TIC funding ceases 2014. This lack of evidence is problematic because it is widely recognised that the tourist markets in Devon and Cornwall differ, for example in the proportions of day visitors and long stay holidays. We also have little knowledge of how Tavistock is perceived by visitors. Greater understanding of the heritage market in the town and West Devon is required as this will be the hub of the Key Stage Area whereas relatively discreet promotion is intended for Areas 8 and 9 which reflects both community aspirations and sites' limited carrying capacity. More robust market research will also be required for a new interpretation centre in Tavistock, which is one of the main recommendations of this report.

Existing Audiences

Recent research for the Tavistock *Learning Strategy* (Kell 2013) identifies the main existing audiences for heritage learning in the Key Centre Area as:

- Special interest groups
- Family/ local historians
- Adults.

The same groups appear to be the main audiences for interpretation more generally within the area. The audit in the previous section suggests that while interpretive delivery is becoming more varied and interactive in some places (e.g. Buckland Abbey and Cotehele), in many others it remains static, conventional and most likely to appeal to older and specialist audiences. As both the *Sense of Place Strategy* and the *Tavistock Learning Strategy* point out, there is often a strong correlation between an interest in heritage and an older demographic profile among residents and visitors. Mosaic data shows that 'independent older people with relatively active lifestyles' comprise 18% of the population in the Tavistock area. According to the 2011 census 55% of the local population are aged 45 and above. In Cornwall Arkenford's (2012) data shows that the WHS appeals particularly to older people.

A large proportion of the audience for heritage in Tavistock appears to be local. The most recent available figures from Tavistock Museum's visitors' book suggest that 50% of users come from Devon and Cornwall.

Geographical breakdown of visitors to Tavistock Museum 2009 (source: Alex Mettler analysis of Tavistock Museum Visitors Book)

Tavistock	17.7%
Plymouth	12.2%
Rest of Devon	12.5%
All Devon	42.4%
Cornwall	8.0%
Other UK	40.6%
Overseas	6.9%
No response	2.1%

(The total sample was 4316 people)

The Tamar Valley AONB *Sense of Place Strategy* (2009) suggests the profile of a typical visitor to the Valley (including Tavistock) is:

- A person living within or close to the AONB boundary (or nearby), or a day-tripper from a neighbouring urban area such as Plymouth.
- Aged between 30-50 years (younger: most likely employed and with children, older: most likely retired), of white ethnicity and able bodied.
- Interested in quiet enjoyment of the AONB, such as walking, exploring local heritage, arts and crafts, or shopping in the villages.

These findings are reflected in Cornish data (Arkenford 2010, 2012) which suggests that Cornish Mining has greatest appeal for older age groups, 'empty nesters', some families and people resident in the South West.

It is important that the needs of these existing audiences continue to be met, not least because they are a significant proportion of the resident population and their numbers are set to expand.

The Market for Interpretation

Tourism is an important contributor to the West Devon economy. In numerical terms day visitors are especially important, outnumbering visitor nights by some 2:1. The total number of day visits are 1,937,000 of which 590,000 are urban visits and 1,347,000 are countryside visits. However, it is worth noting that the area ranks joint 7th out of 10 districts in Devon for day visitor numbers and last for day visitor spend so there may be considerable scope for improvement. According to the Dartmoor Partnership's Tourism Strategy 2009-15 most visitors to the moor are day visitors.

Tavistock is a visitor destination in its own right. The museum receives some 7500 visitors per year and according to West Devon Borough Council's Economy Manager the TIC had 25,000 visitors in 2012. A number of coach operators combine Tavistock with Dartmoor and Princetown. There is also strong anecdotal evidence to suggest that the town attracts significant numbers of day visits from people resident in Cornwall and Devon, including for events such as Goose Fair and Dickensian evening. Other parts of the Key Centre Area also attract significant numbers of visitors, particularly Charlestown, Cotehele, Wheal Martyn, while smaller villages such as Calstock and Minions are also relatively popular. Nevertheless, it is important to recognise that much of the Key Centre Area ranks among the least popular destinations in the WHS with the former Caradon district council area and West Devon accounting for just 10 and 6 % of visits respectively (*WHS Marketing Strategy 2007*).

The Tamar Valley AONB's *Sense of Place Strategy* reveals that among visitors and local residents heritage is the core attraction both as a focus for activity in the Tamar Valley (including Tavistock) and as a backdrop to other activities such as walking and exploring villages. Respondents were highly aware of the range of heritage available, particularly mining, stately homes, market gardening and religious sites such as Buckland Abbey. The report also suggested that while visitors 'knew about the mining heritage, they were not generally aware of the WHS designation.' By contrast Arkenford data (2010) reveals over 54% of people are aware of WHS status. This suggests either that WHS marketing campaigns since inscription have had an impact or that low awareness is an issue specific to the Tamar Valley (and Tavistock). Given that in the same survey

Tavistock Museum, along with Poldark Mine, recorded the highest awareness ratings among Cornish Mining attractions, there are grounds for concluding the former is most likely.

West Devon

Key Facts	
272,200	Staying visitor trips
1,101,400	Staying visitor nights
£57,146,000	Staying visitor spend
1,937,000	Day visits
£52,199,000	Day visitor spend
£109,345,000	Direct visitor spend
£3,692,000	Other related spend
£113,037,000	TOTAL VISITOR RELATED SPEND
2,884	Estimated actual employment
2,049	FTE employment
11%	Proportion of all employment

Source: Value of Tourism 2011, SW Research Company

The Arkenford surveys (2010, 2012) reveal that:

- Cornwall, followed by Devon and London, are the most popular destinations in the UK that people are likely to visit for their history and heritage.
- Cornwall is strongly associated with natural history followed by walking and mining but not with industrial history.
- Overall, industrial history is not popular even with market segments expressing an interest in history and heritage generally.
- Industrial heritage is of interest to people in segments characterised as independent minded but it is perceived as something interesting to visit on holiday rather than as a driving force in attracting them to a destination.
- The value-based segments most likely to visit Cornish mining attractions are Cosmopolitans followed by Traditionals (defined in the next section).
- 1 in 5 people have visited or would visit an industrial heritage attraction when on holiday in Cornwall.

- People are more interested in towns, villages, ports, estates and social history than in technology and the impact of mining overseas. Towns which have been uniquely shaped by industrial history appeal because they are perceived as different.
- The main things people would do on a short (3 day) break in Cornwall are exploring by car, visiting an AONB and exploring areas on foot.

Taken together the Tamar Valley and Cornish data suggest that there is considerable potential for the Key Centre Area to address the audience's expressed interests in combining natural and cultural heritage, exploring estates, towns and villages, and walking. The combination of Tavistock town, villages like Charlestown and Minions, attractions such as Wheal Martyn, moorland scenery and walking trails as in the Tamar and Luxulyan valleys, offers the Area an opportunity to develop WHS themes in ways which create an identity focused on landscapes, country estates, market towns and villages which distinguish it markedly from the existing Key Centres.

The WHS requires that Key Centres do not achieve visitor growth at the expense of neighbouring WHS attractions. It seems most likely that if Tavistock raised its profile as a Key Centre and signposted other attractions and sites within its cluster, this would increase market share across the whole Area. Moreover, by acting as an eastern gateway for residents and visitors from Devon, especially Plymouth and Torbay, Tavistock could play an important role in raising awareness of those WHS Areas further west.

Target Audiences

The *WHS Interpretation Strategy* (2005) followed the *Marketing Strategy* (2005) in identifying the following primary target groups:

- Local residents
- Cultural tourists
- Ancestral tourists descended from migrant miners;
- Education and lifelong learning
- Walkers

This list requires modification to take account of the more recent market research, which adopts value-based market segmentation, and the specific characteristics of the Key Centre Area. It is suggested that the target audiences should be segmented in different ways according to the purpose of the segmentation. For example targeting residents and day visitors helps to give a geographical focus to marketing campaigns and identifies people interested in their own local heritage whereas Arkenford's value based segmentation is probably more applicable to tourists.

The recommended target audiences are:

Local residents and day visitors are already an important segment. Mosaic data indicates a high proportion of local residents in categories which are likely to have a propensity for engaging with heritage. 25% are ‘career professionals living in sought after locations’ or ‘older families living in suburbia’, the highest percentage in Devon. Local residents provide a year round audience. They also act as hosts for the important VFR segment, that is people visiting friends and family. Residents and day visitors are likely to be attracted to walking and cycle trails and animation of social history through live interpreters, audio-visual, events such as Heritage Open Day and themed activities.

Value-based segments derived from the ArkLeisure model used in recent WHS research. The two key segments for the Tavistock Key Centre Area are:

Cosmopolitans are the value based segment who are most interested in history and heritage and are by far the most likely to visit Cornish mining attractions.

Traditionals are also interested in heritage and are the second most likely group to visit industrial heritage. Local demographic evidence would also suggest they are well represented among local residents.

Value-Based Segments

Cosmopolitans	Traditionals
<ul style="list-style-type: none"> • Do what they want rather than follow any particular fashion • Comfortable trying new things that are out of the ordinary • Happy to adopt traditional values when appropriate • High-spending market • Find it easy to justify buying expensive alternatives • Risk takers - a desire for things that are new and different • They like new challenges, both physical and intellectual • Life for this group is full and active, but with an appreciation of art and culture 	<ul style="list-style-type: none"> • Self reliant and independent • Hold traditional values • Unlikely to justify spending on expensive alternatives. • Value more traditional established brands • Functionality is far more important than style and individuality • Value, and will pay for, good service, which for them means recognition and individual attention • Relaxed pace of life • Enjoy intellectual challenges, arts and culture

Education and lifelong learning is detailed in the *Tavistock Learning Strategy* which highlights schools, teachers, families and tourists as target audiences. Organisations like National Trust divide families into different segments, such as active families, kids go first and explorers. Explorer Families should be a particularly important target audience for interpretation in the Key Centre Area, not least because they are well represented among local residents and day visitors and to a lesser extent walkers.

Walkers are a significant potential audience for guided and self guided walks. Walking is both the most popular activity as part of a holiday in the UK as well as being the most popular type of activity holiday. The Key Centre Area is well suited to this segment as it offers opportunities to combine experiencing heritage with a range of walking levels in widely diverse scenery.

Ancestral tourism is increasingly popular globally and there is an important potential audience especially from the US and Australia. However, they are difficult and costly to reach without collaboration with other organisations who already target overseas markets. Anecdotal evidence suggests that this group are already represented among current users but the Key Centre Area currently lacks the family history research infrastructure to cater effectively for larger numbers, especially in West Devon although collaboration with the Devon Family History Society could mitigate this. It is suggested that this segment has growth potential but as part of wider WHS initiatives rather than as a Key Centre Area priority per se.

Conclusion

There is considerable scope to expand the scope of heritage interpretation to cater for the following primary target audiences:

- Local residents and day visitors
- Education and lifelong learning especially Explorer Families, schools, teachers and tourists
- Cosmopolitan and Traditional value based segments
- Walkers

Ancestral tourists should be catered for but regarded as a secondary or WHS wide segment.

Commissioning an audience development strategy underpinned by new market research on Tavistock and West Devon is needed both to inform a marketing strategy and the development of a new interpretation centre.

4. Interpretive Themes

Themes and Topics

The significance of Tavistock's heritage can be conveyed through a framework of interpretive themes. Themes should communicate with the target audience in ways which provoke intellectual or emotional responses, reveal the meanings of heritage and connect it to people's own experience.

A theme helps to convey a message or major points by combining a number of topics in ways which engage the selected audience. A topic is a specific subject matter. Several topics might support a single theme. For example the theme of *Power and Patronage: the Dukes of Bedford* might be supported by topics on 'the great sale of 1911' and 'the duke's architects'. However, a theme does not have to have topics and may serve as a topic itself.

Themes may be connected to tangible or intangible heritage and often to both. Usually a theme is strongest when it is related to tangible heritage. For example, the theme of *Radical Businessmen: Gill and Rundle* is supported by the Tavistock Bank and Tavistock Iron Works.

Themes should link rather than compartmentalise the key elements in Tavistock's story. Moreover, as the World Heritage Site's eastern Key Centre it is important that Tavistock's themes connect the town to other components within the Tamar Valley and also in Areas 8 and 9. At the same time, however, Tavistock's themes should reflect local distinctiveness, particularly as many key aspects of the town's heritage are very different from those found in Cornwall. This can be done in ways which do not compromise the World Heritage Site's overall interpretive coherence. Indeed, pinpointing the significant differences between *English West Devon* and specifically *Cornish* experience, for example in settlement patterns and fieldscapes, serves to highlight the extent to which the concept of Cornish Mining embodies a unique cultural landscape.

It is also important that the selection and presentation of themes should allow for and encourage multivocal interpretation in which different voices and views, from the past and the present, may be heard. For example, the Bedfords' role in Tavistock is interpreted by different people as that of benevolent landowner or exploitative aristocrat.

Tavistock's themes and how they fit into the World Heritage Site interpretive framework

Earth Treasures	Mining the Resource	Organised for Industry	Mining Society	Technology	Mining Overseas	Landscape
Geography & setting	'The Old Men' – early tinworking	Coining tin: stannary town	Tavistock Abbey	Tavistock Canal	Overseas adventures: global migration	Tavistock town
Geology	Dartmoor mines	Monks, markets and merchants	Power & patronage: the Dukes of Bedford	Casting for Industry		Reading the landscape
Tin	Canal mines	Tavistock Canal	Company town; Tavistock & Devon Great Consols			
Copper & arsenic	Stone working & quarrying	Engineer & entrepreneur; John Taylor	Radical Businessmen Gill & Rundle			
Other minerals: silver- lead and manganese			Religion			
Mineral collectors & scientific enquiry			Housing the labouring classes			

The World Heritage Site Interpretive Framework

The interpretive framework devised for Tavistock needs to be consistent with the hierarchy of themes which has been devised for the Cornish Mining WHS as a whole in the *WHS Interpretation Strategy* (2005).

The master theme is the statement of Outstanding Universal Value:

The Cornwall and West Devon Mining Landscape was transformed during the period 1700-1914 by early industrial development that made a key contribution to the evolution of an industrialised economy and society in the United Kingdom, and throughout the world. Its outstanding survival, in a coherent series of highly distinctive cultural landscapes, is testimony to this achievement.

Below this there are 7 overarching themes:

- Earth treasures
- Mining the resource
- Organised for industry
- Cornish mining society
- Innovation and cutting edge technology
- Cornish mining overseas
- The Cornwall and West Devon Mining Landscape

Themes developed for Tavistock should fit within these. A slight difficulty here is where to place Tavistock Abbey which merits being a theme in its own right and which is as significant as the Bedford estate if a holistic understanding of Tavistock's heritage is to be developed. It seems most appropriate to place the abbey as an institution within the 'Mining Society' theme because so much of the abbey's legacy was cultural and social, for example its influence on the dukes' architecture and the layout of the town. The abbey's economic significance is tackled through the theme 'Monks, Markets and Merchants' within the overarching theme of 'Organising for Industry'.

Earth Treasures

Geography and Setting

Tavistock's location between the Tamar Valley and Dartmoor has been a major influence on its historical development. Since the Middle Ages the moor has provided raw materials, such as tin, granite and peat, and been used for transhumance, that is moving grazing animals to summer pastures. The lower undulating countryside of West Devon has sheltered pastoral and arable agriculture producing meat, wool, dairy products, cereals and a few vegetables. Steeply incised

river valleys have made communications by land difficult and increased West Devon's relative isolation from the rest of England. For centuries this meant the river Tamar acted as the main highway connecting the area to the sea and so to the wider world.

Geology

West Devon's mineral wealth derives from the Cornubian granite batholith, which connects it geologically to Cornwall, and the metamorphic aureole. Dartmoor granite produces almost exclusively tin. The metamorphic aureole produces a far wider variety of mineral ores including arsenic, copper, silver-lead, manganese, iron, wolfram, uranium and zinc. In the Tamar Valley minerals are found in a metamorphic aureole associated with the granites outcrops of Hingston Down, Kit Hill and a small outcrop near Blanchdown on the Devon side. Tavistock and Mary Tavy mines also sit on metamorphosed zones.

Interpretive resources: the mining landscape accessible through the Tamar Valley trails network; geological collections at Tavistock and Plymouth museums; books and journals.

Tin

Tin oxide called cassiterite was first exploited on the uplands of Bodmin Moor and Dartmoor where erosion broke up lodes (or veins) in the granite and redeposited them as alluvial or stream tin. In the Middle Ages Dartmoor was a major producer of tin which was used to make pewter tableware. Industrialisation in the later 18th century created a new market for tinplate manufacture which in turn contributed to the development of the canning industry. Leading tin producers included Eylesbarrow on western Dartmoor, Bedford United on the Devon bank of the Tamar and Drakewalls near Gunnislake which was one of Cornwall's largest producers. There was a smelter in Tavistock and at Weir Quay the last one to operate in Devon remained operational until 1891. Until the 1870s Cornwall and West Devon extracted more tin than any country in the world.

Interpretive resources: the mining landscape accessible through the Tamar Valley trails network, Dartmoor tin working sites close to Tavistock including Eylesbarrow, Minions Moor, Tavistock Museum, Morwellham Quay.

Copper and Arsenic

During the industrial revolution it was copper rather than tin which had the greatest impact on the landscape and society of Tavistock and the Tamar Valley. Ores, the most important of which was chalcopyrite, were transported to South Wales for smelting. Copper was used to sheath the hulls of ships, mint coins, make boilers, vats and pipes for the sugar and dyeing industries and as the main component of brass for manufacturing a wide range of goods including steam engine fittings and

gun cartridges. By far the most important mine was Devon Great Consols which opened at Blanchdown on the Duke of Bedford's estate in 1844. The mine dominated the world's copper supply producing 742,000 tons of ore between 1845 and 1903. When copper prices fell catastrophically and ore deposits began to run out from the 1860s many mines gained a new lease of life by working arsenic for which new uses were being found for dyes and pigments in the Lancashire cotton industry and as an insecticide against the colorado beetle on potatoes and bol weevil on cotton for which it was exported to North America. Arsenic was refined in calciners such as those at Devon Great Consols. In the last decades of the 19th century 50% of the world's arsenic was supplied by Devon Great Consols and other Tamar Valley mines.

Interpretive resources: internationally important components of the copper and arsenic processes are accessible through the Tamar Valley trails network. Other resources include the landscape of Caradon Mining District, Tavistock Museum, Minions Heritage Centre, Morwellham Quay.

Other minerals: silver- lead and manganese

Silver-Lead

In 1292 mines were opened in the previously obscure parish of Bere Ferrers to meet a national shortage of silver for minting coins. They were the first in England to be controlled directly by the Crown and were run as centralised capital intensive operations which ranked among the foremost in Europe. After 1349 they were rented out to lessees who included merchants from Genoa, Venice and Utrecht. Production ceased in the mid 16th century in the face of competition from central Europe and because the most accessible silver deposits had been exhausted. In the 19th century new technologies allowing deep mining enabled significant quantities of silver-lead to be mined at Wheal Betsy on Dartmoor and in the Bere peninsula where it was smelted at Weir Quay.

Manganese

The properties of manganese were discovered in the 18th century. It was initially used mainly for glass manufacture and later for making steel and chlorine gas for bleaching cotton. For much of the 19th century most of Britain's manganese was supplied by several small mines in the Brentor - Chillaton – Milton Abbot area. Much of it was transported by wagon to Morwellham where it was crushed in a water powered mill and shipped in casks from a special dock to prevent contamination by contact with arsenic.

Mineral Collectors and Scientific Enquiry

During the 18th and 19th centuries mineral collecting became fashionable among the intellectually curious landed and middle classes as part of a more general interest in collecting, cataloguing and

classifying specimens from the natural world as steps towards understanding it. The diversity of minerals made Cornwall and West Devon an exciting prospecting ground where many new and globally rare species were first discovered, described, drawn and analysed for their chemical properties. The iron ore childrenite was discovered when the Tavistock Canal tunnel was being excavated and some of the world's finest specimens were found in George and Charlotte mine at Morwellham. Several important copper secondary minerals were found at Bedford United and Old and East Gunnislake mines including olivenite and chalcophyllite which for a time was called Tamarite.

Interpretive resources: George and Charlotte mine. There is a good mineral collection in Tavistock Museum, where in most cases the mine from which they originated is catalogued, and in Plymouth Museum. Other sources include illustrations, book and journals.

Mining the Resource

The overarching purpose of the themes in this section should be to reveal the range of mines which impacted on Tavistock and their key significance. They should also aim to orientate people towards those mining sites which are accessible to the public and where mining processes are already or could be best interpreted, notably Morwellham Quay, the Tamar Valley trails and Minions Heritage Centre.

The 'Old Men': Early Tinworking

Western Dartmoor, which was in the Tavistock stannary district, has the best preserved medieval and early modern tinworking landscapes in Britain. The range of early mining techniques can be demonstrated: alluvial streamworks (Meavy Valley above Burrator), eluvial streamworks (Beckamoore Combe), open works or beams (Hart Tor) and lode-back pits (Black Tor). Elsewhere within the WHS there are good examples of early tinning landscapes on Minions Moor and Kit Hill. The tin was crushed in stamping mills, which are usually identifiable by their mortar stones (Black Tor Falls), and smelted before being transported to a stannary town for coinage (assaying and taxing) before being sold. On the river Walkham at Merrivale there are three smelting mills (or blowing houses), one of which has been excavated, and the remains include furnaces, mould stones and a float stone for collecting the molten metal. Early tinworking can be contrasted with the capital intensive and Crown controlled medieval silver mines in the Bere peninsula which were already using extraction and ventilation shafts by the 13th century and taking water from the 10 mile Lumburn leat in the 15th century.

Themes: tin working techniques, Merrivale's excavated blowing house, Bere Alston silver mines.

Interpretive resources: Dartmoor archaeological sites (all of those listed above are visible or easily accessible from a road), Minions Moor, Kit Hill, Heritage Gateway, Dartmoor Tinworking Research Group archive, Dartmoor National Park records, archaeological reports, books and journals, photographs.

Dartmoor mines

Important mines on the western side of Dartmoor and which had links to Tavistock included:

Wheal Betsy (zinc, lead and considerable quantities of silver). The engine house, which drove the pumps, is a famous landmark as one of the few to survive in Devon and the only one on Dartmoor.

Wheal Friendship (copper, arsenic lead and iron) was the most important mine on western Dartmoor operating for 130 years. John Taylor began his career as mine manager there in 1798 and the need to improve transportation from the Mary Tavy mines to Morwellham inspired him to propose the Tavistock Canal. In the 1840s 17 waterwheels at Wheals Friendship and Betsy were powered by two leats, one of which, the Reddaford leat, flows 4½miles from Tavy Cleave on the high moor.

Wheal Jewell (tin) was also supplied by the Reddaford leat which now feeds a 16 million gallon reservoir for a hydro-electric station.

Eylesbarrow was by far the most important mine to open on the granite of western Dartmoor. Substantial remains include upright granite posts to support a flatrod system, an unprecedented six stamping mills with dressing floors and six shafts with whim plats. The last smelting on Dartmoor occurred at Eylesbarrow in 1831 and tin from the mine was coined in Tavistock.

Canal Mines

Mines which used the Tavistock Canal either to transport their ores or to harness its water supply included:

Bedford United highlights the variety of ores mined (arsenic, copper, iron, tin, uranium & wolfram) and was powered by a leat from the Tavistock Canal.

Wheal Crowndale (arsenic, copper, iron and tin) had water wheels powered by water from the canal. In the 1830s the Tavistock Smelting Company at Crowndale processed ores from this and other mines.

Wheal Crebor (arsenic, copper, iron and tin) was opened after copper was discovered at the north entrance to the Tavistock Canal tunnel. The mine operated the world's second underground inclined railway.

George and Charlotte at Morwellham was bought by the Tavistock Canal Company in 1806.

Other mines in and around Tavistock and the Tavy and Walkham valleys transported their ore via the Tavistock Canal including Anderton, Wheal Crelake and Wheal Franco.

Stone working and quarrying

Hurdwick stone has been quarried north of Tavistock for over 900 years by the abbey and then the Bedford estate. Mill Hill slate was quarried for some 400 years until the mid 19th century. Granite moorstone was used for building until quarrying developed in the 19th century. For example, at Pew Tor and Staple Tors surface working produced paving and building material for buildings in Tavistock and Plymouth for most of the 19th century. Heckwood Quarry granite was shipped via the Tavistock Canal for the construction of Plymouth breakwater while stone from Merrivale Quarry was transported by road to Tavistock railway station from where it was sent to Plymouth and more distant markets. Elsewhere in the WHS there are important granite quarries at Kit Hill and Minions.

Interpretive resources: Quarry Voices oral history project archive, Tavistock Museum, Museum of Dartmoor Life, High Moorland Centre, Dartmoor sites, Kit Hill, Mill Hill and Minions, books and journals, correspondence, reports and photographs.

Organised for Industry

Coining Tin: Stannary Town

In 1305 Tavistock became one of Devon's three original stannary towns where tin was coined. Tavistock stannary covered western Dartmoor and the Devon side of the Tamar Valley and included the stannary gaol at Lydford. Tavistock's share of Dartmoor production rose from under 20% in the 1380s-90s to nearly 50% in the early 1600s and over 80% by 1642. The stannary Great Courts or parliaments usually met at Crockern Tor although occasionally they adjourned to Tavistock. Dartmoor tin was coined in the town until 1831 when the last smelting took place on the moor at Eylesbarrow. The last coinage in Devon took place at Morwellham in 1838 and later that year coinage duties were abolished by act of parliament.

The stannary system codified medieval tin miners' customary and communal rights as individual producers, such as the rights of bounding which entitled them to prospect wherever they wished and to channel water for this purpose. It can be contrasted with the centralised system operated on

the Crown's silver mines at Bere Alston where, as on the Continent, miners were employees managed by salaried royal officials. Unlike the self-governing stannaries, silver mining was controlled through an administrative centre called the curia which was located at various times at Calstock and Marystow.

Topics: Bere Alston silver mines, Lydford Castle, stannary law and the Strode case, Crockern Tor and the Great Courts, Tavistock jurates, Tavistock abbey's printing press and the *Statutes of the Stannary*.

Interpretive resources: Bere Alston silver mines, Crockern Tor, Lydford Castle, Tavistock Museum, High Moorland Centre, books and journals, manuscripts, archaeological reports.

Monks, Markets & Merchants

Tavistock's economy was always diverse and never depended exclusively on mining. It has been an important market town since the first charter was granted in 1105 serving a wide rural hinterland and trading agricultural products to feed the local population and for sale further afield. From the later Middle Ages to the 18th century Tavistock was a centre of the woollen cloth industry, specialising in coarse cloth called Tavistocks which were exported through Morwellham. The abbey had flocks of some 1000 sheep on its estates, managed a balanced arable and pastoral regime, produced dairy produce such as cream and cheese, and granted leases for corn and woollen mills. The Duke of Bedford established model farms and rationalised Tavistock's markets in the 19th century. When mining declined and the population shrank between 1861 and 1901 Tavistock's identity as a market town was reasserted.

Topics: woollen industry, fairs and markets, turnpikes and toll houses, medieval & 19th century farming.

Interpretive resources: Morwellham medieval dock, turnpike roads, bridges & toll houses, Market Street, the Cornmarket, Pannier Market & Duke Street, Parkwood Road foundry (later woollen mill), Kilworthy farm, books and journals, manuscripts, Bedford papers, newspapers, maps, illustrations and photographs.

Tavistock Canal

The canal was the vital link between West Devon and the wider world and a central element in a complex and interdependent web of connections between mines, smelters, foundries, quarries and agricultural producers. It served as an artery down which travelled the area's primary products (e.g. ores, building stone, agricultural produce) and up which came raw materials West Devon lacked

(e.g. coal, timber, limestone) and manufactured and luxury goods it could not produce for itself (e.g. wines and spirits, pottery, chinaware and fabrics). West Devon's communications network can be compared with that developed by Treffry in the Luxulyan Valley.

Engineer and entrepreneur: John Taylor

John Taylor epitomised the entrepreneurship and technological inventiveness of his age. He was born into a Unitarian family and like so many middle class religious Dissenters who were barred from attending Oxbridge he served an apprenticeship, in his case as a civil engineer. Although born in Norfolk John Taylor's early experiences of mining and mineral extraction were learnt in West Devon where he began his career as the manager at Wheal Friendship where his innovative use of leats and water power increased productivity. He was the main initiator of the Tavistock Canal for which he acted as surveyor and main engineer. Taylor became a national figure whose achievements included establishing an international mining company, helping to set up two mining schools and serving as an administrator at University College London.

Interpretive resources: biographies, books and journals, maps and plans, Bedford papers, illustrations and portraits.

Mining Society

Tavistock Abbey

For 600 years Tavistock's medieval Benedictine abbey was the dominant influence over the town which developed outside the precinct walls. As lords of the manor the abbots controlled the justice system, appointments, markets, fairs and the abbey mill. The abbey provided alms, education and medical assistance. In the countryside the abbey estate was run as a commercial enterprise generating revenues which established Tavistock as the most powerful abbey west of Glastonbury and its abbots as figures of national importance on a par with bishops.

Topics could include life in a Benedictine monastery, Tavistock's abbots, the Dissolution, the abbey estates.

Interpretive resources –abbey remains, artefacts, archaeological reports, illustrations, manuscripts; maps, books and journals.

Power and Patronage - The Dukes of Bedford

From the Dissolution to the 'sale of the century' in 1911 the Russell family ran Tavistock as their personal fiefdom. As largely absentee landlords they exercised their authority and control through their stewards and other estate officials. The dukes' power and patronage were based on a social

compact in which they honoured their obligations in areas such as education, health, employment, leisure and housing in return for which they expected the townspeople to defer to their authority, recognise their rights as landlords and accept their nominees for public office. In the 19th century the Bedfords remodelled the former abbey site to create an administrative quarter in Guildhall Square and a trading centre around the Pannier Market and built some 300 'model' cottages within the town and neighbouring settlements for mining and agricultural workers. Beyond the town the dukes' rural estate management can be seen in model farms such as Kilworthy and village architecture as at Milton Abbot.

Tavistock could be contrasted with the other main locations within the WHS where single individuals have had so much influence such as the Luxulyan Valley, where the entrepreneur Joseph Treffry created a copper mine, quarries, a canal, industrial railway and harbours, and Charlestown where Charles Rashleigh redeveloped the tiny fishing village of West Polmear into a purpose built industrial harbour and settlement.

Topics could include: Earls and Dukes of Bedford, the great sale of 1911; estate officials; the duke's architects, pocket and rotten boroughs, model farms, the Bedford cottages.

Interpretive resources: Buckland Abbey, Crowndale Farm, Kilworthy Farm, Tavistock architecture, illustrations and photographs, maps and plans, books and journals newspapers. Tavistock Museum has an excellent collection of 19th century plans and drawings relating to the Bedford buildings and the voluminous Bedford archive is held at the Devon Heritage Centre in Exeter and the Bedford estate archive at Woburn Abbey.

Company Town: Tavistock and Devon Great Consols

In the mid 19th century Devon Great Consols ranked second only to the Duke of Bedford in its influence on Tavistock society. Dues from the mine financed the 7th duke's urban planning and the building of workers' cottages. The company employed over 1200 people in 1861, many of whom lived in Tavistock. By 1861 23% of the town's working population were miners. Migration, population growth and the influx of miners transformed the town leading to overcrowding, poor sanitation, occasional disorder especially during hard times such as depression or industrial disputes, and support for radical causes such as Chartism and advanced Liberalism. At the other end of the social scale the mine manager, William Morris, lived at Abbotsfield House and his nephew, the revolutionary socialist and pioneer of the Arts and Crafts Movement, William Morris, designed a window in the parish church.

Topics: Chartism and Radicalism, disputes and lockouts, the Morris connection, adventurers and the cost book system, social conditions, public houses and temperance.

Interpretive resources: Tavistock buildings, Tavistock Museum, Tamar Valley trails, Bedford papers, newspapers, illustrations and photographs, books and journals.

Radical Businessmen: Gill and Rundle

The Bedford estate's dominance over the town was never absolute. Political and economic opposition came from an influential element within the commercial and professional middle class. Led by John Gill and John Rundle they epitomised the Victoria middle class - Nonconformist – Radical/Liberal movement which campaigned against the power and privileges of the aristocracy and Church of England. Rundle was Radical MP for Tavistock from 1835 to 1843 and supported the main Liberal causes of free trade, civil equality for Nonconformists and temperance reform. With his father-in-law John Gill he headed a business empire which included the Tavistock Iron Works, the Tavistock Bank, mining interests, and a leading share in the Tavistock Canal. In the 1830s-40s they vociferously lobbied the Bedford estate to take more steps to transform Tavistock from a market town to an industrial and commercial centre and for improved facilities including a library, public baths, improved sanitation and better housing.

Topics: banking, Nonconformity, Radicalism and Liberalism, temperance reform, sanitary reports, rise and fall of John Rundle.

Interpretive resources: Tavistock Bank, Tavistock Canal and Wharf, Tavistock Iron Works, Bedford papers, illustrations and portraits, books and journals.

Religion

From the medieval Benedictines to Methodist hostility towards the Roman Catholics' purchase of Fitzford Church in the 1950s, religion has played a central role in Tavistock society. The Bedfords rose to prominence and acquired estates in Tavistock, London and Woburn during the Reformation and their Puritan and Whig sympathies were reflected in their commitment to religious equality and tolerance of Dissent from the 17th century onwards. In the 19th century Nonconformists were a majority but Methodism never enjoyed the numerical and cultural superiority over the Anglican church that it did in Cornwall's mining societies.

Topics: churches and chapels, Nonconformity, the Church of England and the Reformation, Tavistock clergy, temperance, 19th century elementary schooling.

Interpretive resources: Buckland Abbey, early Christian inscribed stones in Vicarage garden, Tavistock Abbey remains, Tavistock churches & chapels, elementary schools, Morwellham chapel, Bedford papers, newspapers, illustrations and photographs, books and journals, denominational records.

Housing the 'Labouring Classes'

The Bedford cottages are some of the country's most significant examples of mid 19th century model dwellings. They were the duke's response to a housing crisis which was becoming a scandal and to a growing chorus of complaints from his Radical critics. The cottages reveal a great deal about Victorian ideas and attitudes across a wide range of areas including housing, sanitation, paternalism, class, gender, morality and aesthetics. This is an ideal topic for multi vocal interpretation which considers the conflicting voices at the time and since about the meanings and discourses of model housing and draws on exciting interpretive approaches such as archaeologies of space as well as more conventional histories to bring the cottages to life.

Interpretive resources: cottages, Bedford papers, census returns, maps and plans, books and journals, illustrations and photographs.

Innovation and Cutting Edge Technology

Tavistock Canal

The Tavistock Canal was one of the technological wonders of its age. Its 4½ mile route surveyed by the young engineer John Taylor overcame formidable geographical obstacles. The canal also pioneered a number of global 'firsts' including a wrought iron barge, tunnel ventilation system and containerised transport. Many of the original wharf buildings still survive.

Interpretive resources: Tavistock Canal and path to Lumburn, Tavistock Wharf, Morwellham Quay, Tavistock Museum, books and journals, maps and plans, Bedford papers, newspapers, photographs only from after the canal closed..

Casting for Industry: Tavistock Foundries

Tavistock's three 19th century foundries are excellent examples of the interdependence between mining and ancillary industries. They also testify to the significant technological knowledge and skills of small town foundry masters and engineers who are often obscured by the attention paid to the small number of more famous engineers. By exporting mining machinery such as beam engines the foundries contributed to global industrialisation and the formation of characteristic mining landscapes across the world.

Interpretive resources: three foundry sites; steam hammers from Tavistock Iron Works preserved at Finch Foundry in Sticklepath, Tavistock Museum, Robey Trust, Tavistock street ironware, books and journals, maps and plans, Bedford papers, newspapers, photographs.

Mining Overseas

Overseas Adventures; Global Migration

Tavistock's population rose dramatically with the mining boom from 3420 in 1801 to 8912 in 1861 before falling as mining declined to 5239 in 1901. Migrants accounted for about 50% of this population growth of whom the overwhelming majority were born elsewhere in Devon. During periods of depression and when the mines began to close for good many miners moved elsewhere in Britain to seek work or emigrated to areas such as North America, Australia and New Zealand, South Africa and South America. There is considerable scope for tracing the movement and stories of emigrants from the Tavistock area who contributed so significantly to the global spread of West Devon's mining culture.

Interpretive resources: newspapers, books and journals, correspondence, diaries, biographies and autobiographies, pictures and photographs.

The Cornwall and West Devon Mining Landscape

Tavistock Town

The main elements of settlement in Tavistock can be traced through the Romano- British site at the Trendle, medieval street pattern and burgage plots, the abbey layout, the dukes' urban planning and post Bedford developments. The legacy of the abbey layout and the Bedfords' orderly use of this heritage can be contrasted with the sprawling unplanned development in Gunnislake, which was originally known as 'Williamstown' after the mineral lord, John Williams of Scorrier, who bought estate land and opened important mines in the area after 1800. In 1911 the Bedford estate's housing was sold to private owners while civic buildings and abbey ruins were purchased by the Urban District Council and are now managed by the Tavistock Town Council. The management of this property portfolio within the UK's conservation framework, including designation as a World Heritage Site, is the latest chapter in the 2000 year history of Tavistock's heritage.

Reading the Landscape

The outlines of the abbey's medieval estate, land use, dispersed farms, medieval and post medieval enclosure and 'Barton fields', and are preserved in West Devon's modern settlement pattern, place names, lanes and relatively large fields. Transport infrastructure is evident in turnpike roads and the Tavistock Canal. The Bedfords' estate management and Victorian high

farming can be seen at Milton Abbot, the model farm at Kilworthy and 19th century enclosure fields around Heathfield. The dukes controlled the impact of mining and settlement on their estate and when Devon Great Consols closed in 1901 most buildings were levelled and shafts covered. The Edgcumbes exercised similar controls over their lands on the Bere peninsula and at Cotehele. By contrast much of East Cornwall around Calstock, Lockett and Gunnislake was acquired from the Duchy of Cornwall by mineral barons like John Williams whose haphazard development created a landscape of miners' smallholdings, scattered mining villages and hamlets, isolated terraces and individual miners' cottages. Similar developments can be seen around the Caradon Mining District such as Pensilva and Minions.

5. Standards for Interpretation

It is essential that as a Key Centre Tavistock develops interpretation in ways which conform to the highest standards required by UNESCO and which set an example to other sites within the WHS. These standards are expressed through five key principles which are explained in the *WHS Interpretation Strategy* (2005) and summarised below:

- Accessibility
- Authenticity
- Appropriateness
- Effectiveness
- Sustainability

Accessibility

Interpretation must be designed and presented in ways which minimise obstacles that prevent existing or potential audiences from engaging heritage and deriving the maximum possible benefit from their experience. It is essential that the provision of interpretation complies with the Equality Act 2010.

Barriers to participating in heritage interpretation may be:

- Organisational e.g. lack of staff awareness of all visitors' needs; information being unavailable in appropriate formats.
- Physical e.g. lack of provision for wheel chair users to access spaces or view artefacts.
- Sensory e.g. lack of text available in large print or audio format; limited opportunities to engage all the senses when experiencing heritage.
- Intellectual e.g. interpretation which uses technical language or assumes the user has pre-existing knowledge and understanding. Users' linguistic diversity should also be taken into account.

Avoiding or removing all physical barriers may not always be possible or desirable, for example for health and safety or conservation reasons. This may also occasionally be the case because Tavistock, unlike most World Heritage Key Centres, is an urban community rather than an attraction and consequently not under the management of a single organisation. For example some parts of the abbey are in buildings under private ownership.

Appropriately used, ICT increasingly offers innovative ways to provide remote access, either through a central facility such as a visitors' interpretation centre, or using digital media and

websites. However, ICT should only be used to supplement interpretation in the landscape. Digitised content also facilitates multilingual interpretation.

Authenticity and Integrity

Tavistock has generally high levels of integrity and authenticity in its architecture relating to both the abbey and the mining industry. To preserve this interpretation should not adversely impact on Tavistock's physical fabric or character.

Interpretation must be based on information which has integrity and authenticity. This means it must be based on sound research carried out in accordance with accepted, multidisciplinary scholarly methods. It should involve all aspects of significance and the successive phases and influences in the development of a site should be clearly distinguished and dated.

Both tangible and intangible heritage values should be protected when designing interpretation.

Appropriateness

Interpretive content should be appropriate to communicate significances and be presented in a form appropriate to local standards and resources. It should also be seen as an educational resource.

The form of interpretive media should be easily identifiable and guided by a respect for the cultural significance and context of sites. Its potential effect on the overall aesthetics of the landscape must be considered. Interpretive infrastructure should be flexible enough to be updated periodically and should, if necessary, be reversible.

Interpretive infrastructure means the entire range of interpretive media, such as panels, leaflets and guidebooks, ICT and people (first-person interpreters and interpretation staff). ICT in particular has exciting new potential indoors and outside providing it is used appropriately, for example ensuring its accessibility.

Effectiveness

To be effective interpretation should establish an emotional or intellectual connection with the user. It should reveal meaning, increase understanding, provoke thought and emotions and encourage respect and awareness of the need to conserve Tavistock's heritage.

The interpretation of Tavistock's heritage should not be a one off exercise, but a continuous process of research leading to changing understanding and the communication of newly understood significances to users.

To be effective interpretation planning should be designed around the order in which users experience a site: pre-arrival, arrival, moving into, moving through and concluding the experience.

There is a need to develop a hierarchy of interpretation presented in layers. While interpretation should be designed in a way that does not overwhelm the user, it should provide a holistic account of Tavistock's development.

Sustainability

Sustainable development has the goal of meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Interpretation plans and programmes should be environmentally, financially and socially viable and sustainable.

The scale, cost and technology of interpretive programmes should be appropriate to the location and associated facilities and be both economically and technically feasible.

Interpretive infrastructure can be used to increase or decrease visitor footfall and to determine visitor routes. The effects of infrastructure design upon the site must therefore be considered in the planning stage and any necessary impact assessments undertaken. An example of this would be making the first floor of Betsy Grimbal's tower accessible to the public.

Interpretive infrastructure should be safe, well designed, use appropriate technical specifications, be responsibly maintained and kept in good repair. Economic activities that safeguard conservation and ensure the long-term maintenance and updating of interpretation should be encouraged.

6. Recommendations

Coordination

Tavistock is unusual as a Key Centre in that it is not an attraction under unified management. Moreover, the Tamar Valley and Areas 8 and 9 have a considerable number of disparate heritage providers and an even greater range of sites dispersed across a wide area. For Tavistock to work as a Key Centre strong coordination is essential. At present this role is performed by the Key Centre Steering Group comprising local authority officers, representatives of community organisations and WHS staff. It is proposed that the Steering Group should be reconfigured and formalised in order to create a single accountable body which would be responsible for achieving Key Centre status, the effective monitoring and maintenance of Key Centre standards and for liaison with the WHS Office. Members should be selected fundamentally for their ability to contribute towards achieving these objectives. The new body must include members of the local community, without whose continuing involvement the Key Centre will lack local support and legitimacy. An effective and exciting model would be to establish what, in museum parlance, would be described as an ecomuseum, a concept which is well established on the Continent but is still relatively new in the UK. The website of Flodden 1513, an ecomuseum on the English-Scottish border with 12 members and a further 27 additional potential members, defines an ecomuseum as: *'a community driven venture that links together existing and new attractions to help preserve the heritage and traditions of local communities around a central theme.'* To achieve this a fit for purpose governance structure is required and it is recommended that expert advice is sought as to the most appropriate model.

Partnership working

An important function of the expanded Steering Group should be to foster partnership working. In an increasingly competitive environment funders expect this and the recent success of the Townscape Heritage Initiative bid to the HLF demonstrates that this requirement is now widely appreciated in Tavistock. Nevertheless, the duplication of leaflets and creation of rival town brands indicates that there is still a limited awareness or scepticism about the potential strength and appeal of Tavistock's WHS brand identity, especially among influential elements in the business community. It is recommended that a familiarisation programme should be organised for businesses, and if resources permit the wider community, as a prelude to encouraging and training heritage champions as has been achieved by the WHS in Cornwall. This could be linked to the tourism ambassador training scheme being contemplated by the Tavistock BID but the heritage familiarisation events need to be run to WHS standards. There is also great potential for partnership working to develop new products such as the BID's new promotion to coach drivers which might benefit from links with suitably trained local guides and experts. It is also highly

desirable that agreement to produce a single welcome/orientation leaflet for Tavistock using the WHS brand should be reached although attempts to achieve this have been unsuccessful in the past.

Engaging the community

Community involvement is encouraged by UNESCO. It is critically important if Tavistock's Key Centre role is to be developed in sustainable ways in the context of the government's austerity programme and localism agenda. Among community organisations already engaged with heritage in the town there is considerable enthusiasm for developing provision for interpretation and heritage learning. Their support, including financial assistance for producing interpretation and learning strategies, has been an important factor in Tavistock's development as a potential Key Centre.

However, among the community more generally there is limited knowledge or understanding of why Tavistock is designated. There must be serious concern that if this widespread lack of interest or (more probably) awareness is not overcome, attempts to establish the Key Centre will founder. For example, it would be difficult to recruit volunteers to run events or staff a visitors' centre. A programme of events is required with the specific aim of raising awareness and enthusiasm about the WHS designation among local people.

Cornish Mining in Devon

The *Tavistock Learning Strategy* (Kell 2013) notes that there 'is evidence that the dominant Cornish brand is alienating some local people' and recommends that marketing to raise awareness of the WHS brand in Devon 'needs to avoid reference to Cornish mining and should focus on local relevance.' We concur unreservedly with this view. The *WHS Signage Strategy* contains an approved brand for West Devon which needs to be used consistently by all the Devon



partners. This could be more actively and consistently promoted as the main brand for Tavistock without compromising WHS values. Indeed, it could enhance them as placing too much emphasis on Cornish cultural influences in West Devon detracts from authenticity and integrity given the area's distinctiveness within the WHS, for example the differences in landscape characteristics. At the same time it has to be recognised that as a Key Centre Tavistock has responsibilities to the rest of the Site and that standard branding would be applicable throughout the rest of the Key Centre Area.

A Holistic Approach

Effective interpretation communicates significance through themes and topics which are connected rather than fragmented. Tavistock is a world heritage town with 1000 years of history. Interpreting it requires a holistic approach which relates the 18th and 19th century mining heritage and the role of the Bedford estate to (a) the medieval abbey and stannary town which preceded it and (b) developments after the 1911 sale when the Bedford estate became heritage which the community had to manage. Themes and topics need to be organised within a framework which enables the audience to make connections between chronology, people, events and places. As a Key Centre interpretation planning for Tavistock should also reflect that in the other Areas so that it links the town to the Tamar Valley, Areas 8 and 9, the wider WHS and also to relevant non-WHS areas especially Dartmoor.

A holistic approach would also enable the Key Centre to develop an interpretive identity which both distinguishes it from and complements the existing Key Centres. Although Key Centres have a responsibility to introduce the Site-wide interpretive themes, both Geevor and Heartlands do so in ways which create very distinctive experiences. The Tavistock Key Centre area is characterised by the town, mining villages and ports; canals, leats and railways; estate landscapes and townscapes; and diverse moorland, agricultural and wooded valley scenery. It would seem appropriate that particular emphasis should be given to the themes of (a) mining society including urban planning and the roles of landlords such as the Bedfords, Treffry and Rashleigh; (b) industrial organisation including the Tavistock and Par canals and Charlestown; (c) landscapes including contrasting settlement patterns. This would allow a balance to be struck between connecting, comparing and contrasting diverse sites in a way which would be ideally suited to the development of the Area as an ecomuseum. As with many ecomuseums the main vehicles for communicating this overall identity and signposting the different components would need to be a visitor centre and website (see below).

Research

To have authenticity and integrity interpretation must be based on multidisciplinary research conducted in accordance with accepted scholarly practice. A considerable amount of archaeological and historical information is available to inform interpretation of the abbey. Local historians have produced some important work on 19th and 20th century Tavistock including the foundries, Bedford Hotel and other buildings. Paradoxically given its importance to the WHS very little referenced, and therefore verifiable and contestable, research has been published on the Bedford estate's urban planning in the town centre or the cottages and that which exists is often outdated. We need more, and more interesting, insights into the motivations, consequences and narratives of the estate's role in Tavistock which draw on current academic ideas such as

phenomenology in landscape archaeology, the uses of social space, and architecture and identity if the town's architecture is really going to be brought to life. The Key Centre should work with the WHS Office and other partners to draw up a research agenda for Tavistock and the Tamar Valley.

Audience development

To be effective and appropriate interpretation needs to be tailored to specific audiences. At present data about Tavistock's actual and potential audiences is inadequate. An audience development strategy should be commissioned with a brief to conduct quantitative and qualitative research and use market segmentation techniques:

- To identify current audiences and their motivations for visiting.
- To identify new audiences and their expectations.
- To identify how those audiences might be targeted.
- To produce a costed action plan for developing new audiences.

A potential source of funding for this work might be the Plymouth University Community Fund or it may be appropriate for a well supervised student project, for example in relation to a dissertation for a Masters degree.

Interpretation and Visitor Information Centre

To fulfil its role as a Key Centre Tavistock requires an interpretation and visitor centre which would complement and substantially augment existing interpretive facilities within the town and provide an eastern gateway to the WHS.

Building a new interpretation centre is a complex project and raises issues, such as ownership/governance, management, staffing, finance and design, which go far beyond the scope of this report. There has been much debate in Tavistock over recent years about the possible site for some form of centre. The location is clearly significant because it could impact on the facilities offered, such as whether it is feasible to include a catering facility, which could both enhance the visitor experience and contribute to income generation. However, there has perhaps been a tendency to overlook the fact that the starting point should be to consider the role of such a centre and this should then play an important part in determining an appropriate location.

Purpose

The centre's primary role should be interpretation and orientation. Its purpose should be:

- To explain WHS status
- To convey the overall Site OUV
- To focus on the significance of Tavistock's heritage

- To signpost the Tamar Valley, Areas 8 and 9 and other sites and attractions within the WHS

Functions

The centre's specific functions should be:

- To act as a focal starting point for structured self guided learning and exploration of Tavistock and the wider Key Centre Area through interactive exhibitions using innovative interpretation including information technology. The centre should focus on sites and narratives and so complement Tavistock Museum which could concentrate on displays from its collections.
- To provide an all year, all weather facility with opportunities for 'virtual' exploration which would serve to improve physical and intellectual access.
- To provide a learning zone for visiting schools and other groups, with facilities including adequate coat and bag storage, toilets and space to eat packed lunches.
- To support and provide a base for the delivery of heritage activities, events and festivals in Tavistock and the Key Centre Area.
- To provide a focus for training accredited guides and offering awareness training for local tourism providers to act as local heritage champions.
- To provide an archive storage and research facility for materials relating to WHS Areas 8, 9 and 10.
- To offer opportunities to involve the local community, volunteers and young people in the WHS and local heritage.
- To encourage and promote sustainable heritage tourism initiatives such as assisting networks of accommodation providers to offer 'package deals' for specialist breaks.
- To act as a showcase for local products and producers through its retail offer and by promoting local food outlets.
- To contribute towards enhancing sustainability though promoting public transport, activities such as walking and cycling and the use and conservation of resources within the centre.
- To provide a visitor information and booking service including accommodation, activities and events.

Location

Realistically, there have until recently been two main options for locating an interpretation centre in Tavistock, the Guildhall and the New Wharf project.

Other sites were raised during consultation for this report but are not considered suitable. Briefly, these were:

- Former foundry site, Stannary Bridge Road which includes an old foundry building. The site is in poor condition, is considered too distant from the town's main heritage sites and is identified as being on a flood risk zone.
- Tavistock Library may have surplus space and was proposed as a possible site for a tourist information point but it is too small for a Key Centre interpretation facility.
- Butchers' Hall is included for renovation in the town's Townscape Heritage Initiative Scheme and there is sufficient space for a large facility. However, the site is probably better suited for retail and commercial functions in conjunction with the Pannier Market.

New Wharf Project

The aim of the New Wharf project is to establish a centre of excellence for the performing and visual arts for local schools and the community in Tavistock. Initial proposals included extending the Wharf to accommodate a restaurant, studio for workshops, education room, and exhibition space, as well as a WHS information centre inside the reception area. A Community Interest Company has been established with a project steering group which includes representatives from the town and borough councils and the Tavistock Area Learning Community. However, the project is now unlikely to proceed as previously envisaged and any revised proposal is unlikely to involve the Wharf. It is therefore no longer under active consideration as a location for the WHS Gateway Centre.

Guildhall and Police Station

The Victorian Guildhall and police cells below, Trowte's House and former police station are owned by the Devon Historic Buildings Trust (DHBT) who acquired them from the local police authority in 2010. An options appraisal commissioned by DHBT recommended converting the buildings into 3 residential units including Trowte's House, a police reception/museum space, and using the Guildhall and cells to accommodate hybrid space for use as a 'gateway' to local sites including the WHS and Dartmoor, a 'cell experience', community use, café and retail. DHBT have undertaken remedial works on the building and have been in negotiations with various parties but to date no purchaser has been identified for the site. Tavistock Town Council have expressed a preference for the buildings to be retained for community use and both the Tavistock WHS Key Centre Steering Group and the Tavistock Townscape Heritage Partnership, which between them include representatives of all the local authorities and the main heritage and business community groups, have identified the Guildhall as their preferred option for a WHS interpretation centre.

Recommendation

While the New Wharf provides a possible opportunity, depending on the views of the occupiers, the Guildhall project has much to recommend it. In both cases mixed use could provide opportunities

to benefit the community as well as visitors and contribute towards financial sustainability. However, if the two locations are judged against the criteria for high quality interpretation and conservation needs there are strong arguments for favouring the Guildhall with, ideally, the inclusion of the former magistrates' robing room in Trowte's House to provide additional space:

- The Guildhall and the adjacent buildings are key attributes of Tavistock's OUV and have high authenticity and integrity. As part of the abbey site they provide a link between the WHS and Tavistock's earlier medieval heritage. The Wharf's contribution to the OUV of the Tavistock Canal is far less important although the site of which it forms a part is of great significance.
- The survival of the magistrates' court and the police cells makes the Guildhall more than a container for interpretation. Along with the exterior they provide highly significant material for interpretation (e.g. on the history of policing and justice) and for providing a first hand visitor experience which would be particularly appealing to target audiences such as families and schools.
- An interpretive facility in the Guildhall would contribute towards conserving and enhancing the attributes which justified WHS and other protective designations. Without a heritage centre on the site there is a real danger that public access to the cells and court could be lost.
- The primary purpose of the heritage centre should be interpretation and orientation. The Guildhall would be a new scheme with the potential for this to be a primary purpose even allowing for a mixed use facility. In contrast the Wharf's primary purpose is to be an arts venue and the scheme and its business plan have been designed largely with this in mind. For example, the space currently allocated for heritage interpretation is comparatively small at 4.5m x 8.25m. The purpose and functions of a heritage centre as envisaged by this report require a purpose built facility with professional heritage management.
- Good interpretive planning considers visitor management issues such as arrival, orientation and movement through a site. The Wharf has the advantage of proximity to car parking and so could play an important role in directing visitors to the town centre. However, this function can be performed by good signage. The Guildhall is far more advantageously located for drawing visitors into the town centre and effectively orientating them around the key heritage sites which surround it including Bedford Square, the Pannier Market, and the abbey. It is only a short walk from the main car parks and is also close to coach drop off points so is in a better position for schools and other groups to begin and end their visit.

The development of a centre with greater capacity than that currently available in Tavistock is essential for providing structured and layered interpretation with the scope required of a Key

Centre. In view of the recent developments in connection with the New Wharf project and the clear advantages the Guildhall has in terms of meeting WHS interpretation standards, the Guildhall has become the preferred location for this facility. Funding should be sought from the Heritage Lottery Fund's Heritage Grant scheme which provides between £100,000 and £5 million towards such schemes.

Website and social media

Tavistock needs a designated world heritage website which would act as a virtual interpretation centre. The website should provide more detail than the WHS site, to which it should be linked, and project the Key Centre Area's identity in a way comparable with Geevor's website (www.geevor.com). This would enhance intellectual access, serve as an effective marketing tool and provide signposting and orientation to other sites within the Tamar Valley and Areas 8 and 9. Another potential model is the website for Blaenavon at <http://www.visitblaenavon.co.uk>. The Area's online presence should also be improved through the deployment of social media.

Directional signs

Distinctive destinations which are of historical, natural or recreational interest may be classified as 'tourist attractions' for which the highways authority is permitted to install brown directional signs. Tavistock is not currently signposted in this way. As a Key Centre it would seem appropriate that the town should be signposted even before a specific visitor centre is provided. There are precedents for this including Exmoor, St Just Mining District and North Molton 'historic mining village'. The *WHS Signage Strategy* Appendix 1 recommends locations where signs to Tavistock from major roads would be appropriate and it is recommended that these be adopted:

Interpretation boards and blue plaques

There seems to be a consensus in Tavistock that blue should be used as the heritage colour and black and gold for commercial and directional signage and it is recommended that this be adopted.

Together the new orientation boards in car parks and the bus station, planned interpretation boards (for the canal, Guildhall Square, Pannier Market and Bank Square), and blue plaques have begun to offer layered interpretation. It is important not to litter the town with obtrusive fixtures but it is suggested that a small number of additions should be made.

An interpretation board should be installed towards the east end of the Meadows near the canal containing information about the Meadows, river Tavy, Drake statue, Fitzford church and Fitzford and Westbridge cottages.

Blue plaques should be put up on West Bridge, Vigo Bridge, Abbey Bridge and the site of the Great Bridge in Market Road and old plaques removed. The owners of Fitzford gatehouse and residents of Russell Court should be approached for permission to install plaques which were made and never used. Consideration should be given to putting a plaque in Market Street highlighting its historic role or on one of the timber framed buildings in the street.

Tavistock Canal

There is considerable scope for improving interpretation along the canal. Crowndale bridge and farm are identified as nodal points in planning for cycle routes and in relation to proposals for a railway station. As these plans develop further evaluation will be needed to determine whether fixed or portable interpretation is most appropriate.

A new DVD should be produced about the history and construction of the canal based on recently shot film footage tracing the journey from Tavistock to Morwellham. In the first instance it could be shown in the museum.

Betsey Grimal's Tower

There may be opportunities to facilitate public access while ensuring that this Grade 1 listed building and Scheduled Monument is properly conserved. Previous discussions with English Heritage and other interested parties about the feasibility of safely and appropriately opening access to the upper storey via the medieval stairway in the south turret should be developed and acted upon. With its garderobes and narrow staircase Betsy Grimal's tower would lend itself particularly well to interpretation aimed at children. Interpretation here should also include reference to the early Christian inscribed stones in the Vicarage garden.

UNESCO commemorative sculpture

Public art has been commissioned at a number of sites to commemorate their WHS inscription. This serves as an effective way of celebrating world heritage status and raising awareness among residents and visitors. It is suggested that a sculpture constructed of granite, copper and tin with the UNESCO logo would be appropriate for Tavistock and that Bedford Square might be a suitable location.

Interpretive Trails

New interpretive trails should be devised to augment those already available. They should be in print and digital formats designed to maximise intellectual access including the use of large text,

audio and translation into selected European languages. Interpretation through portable personal devices saves the capital costs of conventional audio tour equipment and are more likely to appeal to younger audiences such as families provided that interpretive content is designed with a specific audience in mind. It is recommended that at least one trail is designed specifically for Explorer Families.

The following themes are proposed as priorities:

- Tavistock: 1000 years of history - using some of the buildings marked by blue plaques and bringing them alive by telling the stories of people associated with them, rather than simply rehashing information on the plaques.
- Tavistock Abbey trail – the abbey is probably the aspect of Tavistock’s heritage most in need of modern interpretation. The trail should relate the visible remains and underground archaeology to life and work in the medieval monastery.
- Tavistock Canal – focussing on John Taylor, engineering/technological achievement and the canal’s landscape setting and natural heritage.
- Bedford urban planning – the existing audio trail is overly simplistic and should be revised to give a more sophisticated and multi vocal account of urban planning from the 1820s to the 1860s.

Guided walks

An embryonic regular guided walks programme has been started by Moorland Guides. Several local people with varying degrees of expertise also provide walks on a voluntary or paid basis. Guided walks, like any other interpretation, should be marketed and delivered in accordance with WHS standards. A simple procedure for training and approving WHS accredited Tavistock guides should be devised in partnership with Moorland Guides and other providers such as the Local History Society. In the first instance training for accredited guides and the provision of WHS branded walks should be piloted, marketed and evaluated for one season.

Animation

A 4-5 minute 3D animation with narration revealing the building of Tavistock from the Romano British round at the Trendle to the present day WHS would be an excellent holistic introduction to the town. It could move through a series of sequences where buildings and structures from the Trendle, abbey, Wynne map period, Bedford estate and post 1911 are built up and faded away to be replaced by the next era. Ideally the animation would form an introduction to a visitor centre, although as an alternative it could be shown in the museum.

Events

A more coordinated, diversified and experiential programme of heritage related activities and events is needed in Tavistock. The town's capacity for hosting large events is limited but there is scope for developing programmes of family and lifelong learning activities. As noted above this would be an important role for an interpretation centre. As the *Tavistock Learning Strategy* (Kell 2013) recommends, in the first instance existing regular and ad hoc activities should be coordinated and promoted more effectively. An annual World Heritage Day organised as a major event for residents and day visitors would be an excellent vehicle for promoting the Key Centre. An ideal date would be late June or September although several community organisations are planning an annual Tavistock Heritage Festival starting in October 2014 and another option would be to make World Heritage Day a part of this.

Guide book

A guide book should be produced that conveys the main themes for Tavistock and the Tamar Valley. It should be a full colour, well illustrated publication written in an accessible style, for example with a similar design to the travel guides published by Dorling Kindersley.

Staff Resources

The development of Tavistock as a Key Centre and the implementation of this interpretation strategy will require the appointment of additional professional staff and consultants, either directly by the governing partnership or by the constituent elements. Different skill sets will be required at different times as the strategy develops, particularly for the planning, implementation and management of a visitor interpretation centre. In the period before a visitor centre opens many aspects of this strategy could be implemented, assuming funding can be found, and it is important that momentum is developed particularly in such areas as research, website, activities and events (including awareness raising, guided walks and lifelong learning which overlaps considerably with interpretation), and the production of a guidebook and interpretive trails. Although many of these developments will involve partner organisations and external consultants, it is suggested they will require coordination, management and monitoring to ensure that WHS standards are met.

Therefore, it is proposed that in the first instance a full time position for an Heritage Interpretation Officer, with a sound knowledge and understanding of the Key Centre Area and the WHS, is needed to work with the Steering Group to take those aspects of this strategy forward. Funding or part funding for this post and the associated projects could be sought from the HLF's Our Heritage programme (for grants of £10,000-100,000) or Heritage Grants programme (for grants over £100,000).

Volunteers will be an essential resource for implementing this strategy. Members of the local community already volunteer considerable amounts of time, for example to serve on the Key Centre Steering Group and to run the museum. Creating opportunities for volunteering should be integral to this strategy as it develops, not merely to offset the staffing limitations imposed by what is likely to be continuing public sector austerity, but as an important goal in its own right. Many funders, including the HLF, expect volunteering to be an important element in heritage projects they support. The demography of the Key Centre area means that the older age groups from whom volunteers have traditionally been recruited are sizeable and West Devon has recently been declared the country's leading area for per capita volunteering hours. However, Key Centre volunteering programmes should also reflect the changing nature of volunteering, for example as younger people use it as a means to acquire new skills and experience. The corollary of this is that volunteering programmes should aspire to the highest standards of volunteer management such as Volunteering England's Investors in Volunteering.

Action Plan

Short Term (6 – 12 months)

	<£5k	£5-10k	£10-50k	£50k-100k	£100-1m	>£1m
Establish a Key Centre governance structure The structure should reflect the goal of achieving an ecomuseum-type model for the Key Centre Area. Expert advice will be required to achieve this.						
Identify funding sources including partnership opportunities Acquiring funding is critical to implementing this strategy. This requires partnership bids across the Key Centre and co ordination with other WHS related initiatives.						
Preparatory work for an interpretation and visitor centre Confirm a location, establish project management structures and commence preparation of a stage 1 funding bid to HLF.						
Heritage Interpretation Officer Identify and apply for funding with the aim to appoint within 12 months						
Familiarisation programme Implement a familiarisation and awareness raising programme of activities for businesses and the local community.						
Trial programme for accredited guided walks This should include piloting and evaluating a simple accreditation system and a guided walks programme for the 2014 season including marketing.						
Blue plaques and interpretation panels Research, design and install new interpretation panel in the Meadows and new blue plaques on selected buildings and bridges.						

Medium Term (1-2 years)

	<£5k	£5-10k	£10-50k	£50k-100k	£100-1m	>£1m
Interpretation and visitor centre Preparation and submission of funding applications for stage 1. Complete development phase and apply for and begin work on stage 2.						
Preparation of an audience development/marketing plan This should be linked to the stage 1 application for an interpretation centre						
Website and social media Website design and development based on self management system. Development and implementation of social media campaign.						
Tavistock Canal DVD Tracing the history and construction and using recently shot material of journey from Tavistock to Morwellham						
Interpretive trails 3 new trails produced (and existing WHS audio tour revised). In various formats with foreign language translations						
Animation Research, design and produce 3D animation on the building of Tavistock for use initially in the museum and later the interpretation centre						
Guidebook Research, write and publish guidebook covering the Key Centre Area						

Long term (2-5 years)

	<£5k	£5-10k	£10-50k	£50k-100k	£100-1m	>£1m
Interpretation and visitor centre Stage 2 completion and opening and management of this facility						
Tavistock Canal Interpretation planning related to development of nodal point for cycling routes and Tavistock railway station						
Betsy Grimbal's tower Plan and implement works to improve access and interpretation including the pre Saxon inscribed stones						
UNECO commemorative sculpture Commissioning and erection of sculpture in a selected location e.g. Bedford Square						
Programme of events and activities Launch of lifelong learning and interpretation programmes based on the new interpretation centre						

Appendix: Tavistock Statement of Significance

Section 1 outlined the attributes of Outstanding Universal Value across the Tavistock Key Centre Area. This appendix provides a full statement of the significance of the heritage in Tavistock.

Minerals and Mining Output

Tavistock's location between Dartmoor and the Tamar Valley and western Dartmoor places it at the centre of a region where for centuries the scale and range of non-ferrous metal mining has been, at different times, of global, European and national significance. In particular mining for tin and silver in the Middle Ages and copper and arsenic in the 18th and 19th centuries have produced characteristic landscapes from Callington to western Dartmoor and significantly shaped Tavistock's form and architecture.

Tin

Tin was first extracted from alluvial deposits on the South West's granite moorlands. The Dartmoor industry was first documented in the 12th century when, for a short period, it led Cornwall as Europe's largest producer. The moor's output was significant throughout the Middle Ages, rising steeply between the mid 13th and early 16th centuries after which it rapidly declined. West Dartmoor contains Europe's best preserved evidence for early tin working and there are particularly good examples of streamworks, openworks, stamping mills, blowing mills and associated leats and reservoirs on the western side of the moor. The industry was regulated by the stannaries whose Great Court or parliament met at Crockern Tor and whose gaol can be seen at Lydford Castle. Tavistock was one of Devon's original three stannary towns where coinage (the assaying and taxing of tin) took place. The industrial revolution stimulated new productivity and until the 1870s Cornwall and West Devon produced more tin than any country in the world.

Copper and arsenic

During the industrial revolution copper mining had the greatest impact on Tavistock and the Tamar Valley. Between 1750 and 1870 the landscape was transformed by the many mines, and their transport infrastructure, whose archaeological remains are a feature of the landscape. Mining was on an unprecedented scale following the discovery of Devon Great Consols which in the mid 19th century was Europe's richest copper producer. From the mid-1860s, a combination of the exhaustion of copper deposits and a catastrophic decline in the price of copper prompted many mines to switch to arsenic production (as new uses were found for this semi-metal). By the late 19th century Devon Great Consols and other West Devon mines were producing half the world's supply. The refinery and calciners at Devon Great Consols are among the best preserved in the WHS.

Silver-Lead

From the late 13th to the last quarter of the 15th century the Bere peninsula silver mines ranked among the foremost in Europe. They were the first in England to be run directly by the Crown as a centralised, capital-intensive operation. Significant archaeological evidence includes some of the country's earliest shaft mining, the 10 mile Lumburn Leat to power drainage pumps and, arguably, Britain's earliest purpose built mining town at Bere Alston. In the 19th century there were notable lead-silver mines at Wheal Betsy near Mary Tavy and in the Bere peninsula where there was a refinery at Weir Quay; substantial archaeology remaining at both these important sites.

Manganese

Small but significant quantities of manganese were mined in the parishes of Milton Abbot, Marystow, Coryton and Brentor north of Tavistock. Much of it was sent to Morwellham for milling and shipping. In the first half of the 19th century, and again in the 1870s/80s, the area supplied most of the nation's needs.

Mineralogical Diversity and Scientific Value

The Tavistock and Tamar Valley mines played an internationally significant role in the development of mineralogy. Globally rare copper species such as chalcophyllite (at one stage called Tamarite), clinoclase, libethenite and olivenite were taken from mines including Bedford United and Old Gunnislake and East Gunnislake. The tunnel of the Tavistock Canal is the type site for childrenite, a globally rare iron species, and some of the world's finest specimens were taken from George and Charlotte mine at Morwellham.

Tavistock Abbey

An early Christian inscribed stone, which was found in West Street in the 19th century, suggests the later medieval abbey may have been preceded by a Celtic Christian monastery in the 5th or 6th centuries. Established in 974 by King Edgar's brother in law, Ordulf, and given its charter in 981, Tavistock Abbey was essentially a royal foundation and one of the earliest medieval religious houses in Britain. The 10th century abbey was originally dedicated to the Virgin Mary and later also to the 6th century Celtic saint Rumon whose bones were transferred to Tavistock from Ruan Lanihorne in Cornwall in the 12th century and housed in a richly decorated shrine. The abbey was run by the Benedictine Order and was intended to be primarily a centre of worship and learning. However, its strategic position close to the Cornish border reflected the king's political policy of establishing a network of Benedictine monasteries who depended closely on the Crown for their landed estates and so had a vested interest in helping to unify England which had only recently been created as a single entity from rival Saxon kingdoms. The abbey enjoyed close links with the

Benedictine house at Buckfastleigh and the pilgrim route between them across Dartmoor is still commemorated as the Abbot's Way.

In 997 the abbey was sacked by Danish raiders but was rapidly rebuilt and accumulated new riches under two powerful abbots, Lyfing, who was a confidante of King Cnut, and his successor Ealdred who went on to become Archbishop of York. Throughout the Middle Ages it was the richest monastery in Devon and Cornwall with estates scattered from Dorset to most of the Isles of Scilly and economic interests ranging across fisheries, mines, fairs, markets, woollen cloth and agriculture. The abbey reached the height of its wealth and power towards the end of its life when the abbots were granted mitred status putting them on a par with bishops in 1459 and a seat in parliament in 1514. Tavistock's prosperity and importance were further demonstrated when it established the first printing press in the south west in 1525. Only two books printed in the abbey survive, a translation of Boethius which is in the British Museum and *The Statutes of the Stannary* published in 1534 which is held at Exeter College Oxford. The abbey was dissolved during Henry VIII's Reformation on 3 March 1539.

For nearly 600 years the abbey was the most important influence on the medieval town which developed around it. It was the main provider of charity, education and medical assistance. As lords of the manor of Tavistock the abbots collected tolls and fines for markets, fairs and use of the town mill, approved all important appointments such as the portreeve and administered justice. The abbey's main estate, the manor of Hurdwick, extended across 18 square miles between the rivers Tamar and the Tavy. Its economic activities centred on managing a well balanced arable and pastoral agricultural regime, raising income from rents and leases, and benefiting indirectly from the wool cloth and tin industries for which it acted as lobbyist and facilitator rather than innovator. West Devon was connected to the outside world by access to the abbey port at Morwellham on the river Tamar.

The abbey, which was reputedly the most impressive monastery west of Glastonbury, survives as significant standing ruins and below ground archaeology under Bedford Square and Abbey Place. The Tavistock Abbey buildings, and many of their successors, are distinguished by the use of local stone. The green-grey hurdwick stone was unusual in being used in all periods both for rubble cores and facework and as dressed stone such as quoins and ashlar. Granite was used for ashlar, door and window surrounds and vaulting and its presence is regarded as indicating construction some time after 1400. Metamorphosed shale, known locally as shillet, was used for cores and rubble facework.

Court Gate

Court Gate, which was almost certainly the main abbey gateway, is essentially a 12th century gatehouse encased within a later medieval building. The original structure survives as a pair of round Romanesque arches, a wide one for wagons and a narrow one for pedestrians. A hatch in the north west corner and a round doorway in the same wall suggests the gatehouse may have been flanked by an almonry from which food and charity was distributed to the poor. The later medieval addition has pointed arches and includes a doorway, which is now blocked, in the south east corner which gave access to a stair turret leading to an upper storey. Records show the gatehouse accommodated the abbey's lay pensioners. From the 18th century buildings to the west of Court Gate were occupied by Tavistock's main inn, the Bedford Arms, until it was demolished in 1821. Between 1824 and 1829 Court Gate was restored by John Foulston who remodelled the upstairs room, replaced the stair turret with a new door in the east wall and altered adjacent buildings to the east to provide a subscription library. In 1831 a librarian's cottage with turret was built on the site of the abbey corn mill. The building extending from the west side of Court Gate was added as the Weights and Measures Office in the 1850s.

Trowte's House

Trowte's House derives its name from a late 17th century tenant, the clothier John Trowte. It is rectangular with a polygonal stair tower and medieval crenellated parapets and 5 crocketed pinnacles which can be distinguished from the 19th century copies in the buildings around them by the slightly higher relief of the crenellations and the amount of weathering on the pinnacles. Trowte's House dates from the late 15th century and probably served as guest accommodation. It is a rare survival of a monastic outer court building. The abbey's Great Court was a more public and secular space than the secluded cloisters which would have been reserved exclusively for the monks' study and prayer. The abbey was laid out on a conventional Benedictine plan with cloisters and chapter house south of the church. However, the standard layout was reversed in that the main gate and outer court were located to the east rather than west of the claustral range. This was probably due to the topography with the Fishlake stream, which flows into Tavistock from the north and seems originally to have looped east and then south to meet the river Tavy, forming the eastern monastic boundary. The abbey guesthouse was flanked by a range of domestic and industrial buildings and workshops which curved along the west side of the Fishlake to the Watergate which stood near the site of the present West Devon Club below the modern Abbey Bridge. At different times after the dissolution these buildings accommodated stables, a dyehouse, malshouses and mills.

West Gate (Betsy Grimbal's Tower)

The West Gate was probably approached through fields and orchards. It has a single entrance passage, which gave access into the abbey grounds until it was blocked in the 19th century, and is flanked by two turrets, one housing a staircase for access to the upper levels. The southern turret has an arrow slit overlooking the gate which suggests it may have housed a gatekeeper's lodge. The northern turret contains two garderobe chutes, one serving the first floor and the other the ground floor where there are traces of a setting for a wooden seat. Both shafts empty into a drain which probably ran into the river Tavy. The monks appear to have employed a sophisticated water distribution system using the Fishlake to power the abbey mill and channelling it to supply fishponds in the area which is now Plymouth Road and to flush the drains. Court Gate's ruined condition may be attributable to damage by Cavalier troops during the Civil War. It is popularly known as Betsy Grimbal's Tower which is probably a distortion of the Blessed Grimwald, a saint who was revered by the medieval Benedictines. Inside the gate passage is a sarcophagus which was dug up in the 18th century when the Bedford Hotel was being built and found to contain two unusually long thigh bones which tradition associates with Childe Ordulf, an 11th century benefactor of the abbey.

Fragment of Cloister and Abbey Church

The surviving fragment from the cloisters is a mid 13th century Early English arch and a wall with a doorway which led into the west range. The south range with the Frater or main Refectory was probably on the site now occupied by the Bedford Hotel. Close by was the Chapter House, which was described in the 18th century as octagonal with 'thirty-six Stalls most beautifully arched overhead'. The remains of the cloisters and Chapter House were demolished in the 1720s when the Abbey House (later to become part of the Bedford Hotel) was built. The surviving cloister arch backs onto the wall of the abbey church which lay to the north. In 1914 excavations revealed plaster on the church wall with ornamentation stencilled in black, red & yellow. They also uncovered the foundations of the north wall, which are marked in the modern churchyard by an inscribed stone, and early 14th century red and white floor tiles with motifs, including a lion inside a ring surrounded by swimming fish and a bishop in vestments with hand raised in benediction. The tiles are displayed in the parish church. The precise layout and size of the church remain unclear but archaeology and a description by William of Worcestre, who paced out the dimensions in 1478, suggest it was about 67 metres long and some 11 metres wide. In 1997 excavations for trench in Bedford Square uncovered three high status monastic graves towards the east end of the church, two of which included a pewter chalice and paten. One of these also contained fragments of high quality clothing including a gold band and the mark of a staff which suggests a mitred abbot with status equivalent to a bishop. The remains of the church were dismantled c1670.

Abbey Chapel

The building known as Abbey Chapel has the characteristics of a high status medieval open hall. In the past it has been suggested that it was the abbey Infirmary or Misericord but the current consensus is that it was part of the abbot's lodging set slightly apart from the main cloisters. A chimney breast visible from the adjacent Post Office car park suggests there was heating for a dais at the west end and arches in the boundary wall indicate the hall was once considerably longer. The possible remains of a service range are incorporated into the later fabric of the Bedford Hotel from which direction the hall was originally entered. A porch was added in the late 15th or early 16th century and probably reflects the abbey's rising status at this time. The porch interior has an interesting set of bosses carved in Caen limestone. It is not entirely clear when the hall was reduced and the main entrance moved to its present position but extensive rebuilding is recorded in 1572 and pictorial evidence shows it happened before the 1740s. There were further alterations in the 19th century if, as is widely believed, the main doorway arch came from the abbey's Water Gate which was dismantled in 1845. In 1690 the 1st Duke of Bedford gave Abbey chapel to the congregation who remained loyal to the vicar, Thomas Larkham, who was one of 100 Devon clergy expelled from the Church of England after the Restoration for espousing puritan theology. The congregation split in 1794 when more traditional members formed a separate Congregational Church leaving the chapel to adherents of Unitarianism who held it until 1959 when it was sold to the Christian Brethren (now the Evangelical Christians).

South Precinct Wall

A significant length of the precinct wall survives along the river Tavy. It is a fine example of a pseudo-defensive monastic boundary, 1 metre thick with a wall walk which is visible from the Bedford Hotel garden, and a crenellated parapet which is medieval with some 19th century restoration. There is a further section running north from the Still Tower before it joins a 19th century wall on a different alignment which joins to the West Gate. The granite crenellations have a standardised form which is replicated in the 19th century gothic architecture which is so characteristic of Tavistock.

Still Tower

The Still Tower is believed to be where the monks distilled herbs to produce medicines. The granite doorway suggests it was started no earlier than the 15th century although it could be a later insertion. The crenellations appear to be original on the west face, those on the south being rather crude 19th replicas. The tower was converted into a gazebo in the 18th century and restored in 1884.

Parish Church of St Eustachius

A parish church for the townsfolk was first built north of the abbey church in the mid 13th century. A new church was dedicated in 1318 and subsequently underwent further substantial alteration. The last major addition was the Perpendicular south aisle. It is known as the Clothworkers Aisle which reflects the prosperity of the woollen cloth industry although in fact it was a gift from a Constance Coffyn in exchange for prayers for her soul and that of her deceased relatives. The tower, which stands on 4 arches which were originally open, served as the fourth abbey gate and was known as Cemetery Gate or Church Bow as it gave access to the parish churchyard between the parish and abbey churches. The church is dedicated to Eustachius, a Roman soldier who was martyred in the 2nd century. One of the roof bosses has a carving of three hares, which is often interpreted as the symbol of medieval tanners, and there is a fine stained glass window designed by William Morris whose family were shareholders in Devon Great Consols.

Medieval townscape

Tavistock's medieval core, which developed under the abbey's influence, is preserved in the street pattern north of the church with a commercial area focussed on Market Street and King Street and with Bannawell Street to the north and West Street providing main routes into the town which are lined with burgage plots as is Old Exeter Road. Medieval fabric may be preserved in some buildings, especially in some private houses in Bannawell Street. There are fine timber framed buildings in Market Street which date from the 16th and 17th centuries and possible earlier, notably Taylor's Restaurant and Book Stop which has been described as the finest town house of its period in Devon.

The Duke of Bedford's Town

After the Dissolution most of the abbey's assets were given to Lord John Russell whose family held the Tavistock estate until the 11th Duke of Bedford sold most of his property at auction in 1911. In the 19th century the 6th and 7th dukes used revenues from mines on their estate, particularly Devon Great Consols, to finance a rebuilding programme which made Tavistock the UK's finest example of a planned metal mining town. The dukes employed leading architects including Edward Blore, Frederick Bligh Bond, Henry Clutton, John Foulston, Charles Fowler, and Jeffry Wyatt (later Wyattville) and commissioned nationally and internationally recognised sculptors Edward Browning Stephens and Joseph Edgar Boehm for public art works. The Bedfords' developments were incremental rather than conceived as a single grand design and the early works of the 1820s to 1840s were constrained and influenced by Tavistock's monastic heritage which survived as ruined buildings or had become fossilised in land boundaries defined by post Dissolution leases. Tavistock's 19th century architecture is also significant in testifying to both the Bedford estate's

power and patronage and its complex and at times contested relationship with the town and its inhabitants.

Plymouth Road

Originally called New Road, Plymouth Road was constructed as a wide boulevard leading into the town centre c1820. The road is flanked by genteel villas built for the merchant and professional classes in the 1830s and 1840s. The earliest of these were designed by Edward Blore whose career as special architect to William IV and the young Queen Victoria included work on Windsor Castle, Hampton Court and Buckingham Palace. Ducal patronage is reflected in Plymouth Road's Victorian school architecture: the British School (now a doctor's surgery), the old Grammar School on the junction with Russell St and the school which replaced it in the 1890s and now houses the Alexander Centre. In the side streets the Wesleyan Chapel (1857) and United Reformed Church which was originally built for the Wesleyan Association in 1838 reflect both the strength and fragmentation of 19th century Methodism in particular and Nonconformity in general.

Police Station, Fire Station and Guildhall

After Plymouth Road the buildings in Guildhall Square represent a second phase in the Bedfords' redevelopment of Tavistock. Work began in the 1820s when the regionally acclaimed architect John Foulston seems to have built a gothic screen across a range of utilitarian buildings on either side of Trowte's House. In 1847-8 the Bedford estate's surveyor and architect, Theophilus Jones, retained the façade behind which he built the Guildhall comprising a new magistrate's court and meeting room with cells and a police station below, a magistrate's room in Trowte's House, a fire station and police accommodation. The Guildhall Square buildings are nationally significant as one of England's earliest combined police station/court rooms and as a commentary on the history of the police and the legal system. They reflect a complex interplay between the Russells' attachment to medieval architecture, a local and national climate of reform in policing and the courts and a desire for greater social control over the lower orders. The guildhall was used as a court until 2000 and the internal fittings remain largely intact. The other buildings were occupied by the police service until 2011 when the whole complex was sold to the Devon Historic Buildings Trust.

The Pannier Market

The Pannier Market and its surroundings represent the most ambitious stage of urban planning in Tavistock. The market was opened in October 1862 with a supper attended by 160 people employed during its construction. It was built of hurdwick stone with a slate roof and granite floor with three internal aisles divided by rows of arches. Outside the perimeter was lined on three sides with shops which were double fronted on the north side with the outer ones opening onto what became known as Duke Street. The market area was serviced by the new Market Road which ran

alongside the river and also gave access to a new Butcher's Hall. Space for these developments was created by clearing what have often been characterised as slums, and filling in a substantial section of the river Tavy. The aim was to replace existing butter, meat and poultry markets, with a central facility and end other unauthorised stalls and markets which, according to the 1859 Tavistock Markets Act operated 'to the great inconvenience and danger of the inhabitants'. One of the consequences was to speed up the economic decline of the Market Street – King Street area which had been Tavistock's commercial centre since the Middle Ages. Other facilities were provided by moving the cattle market from Guildhall Square to a new site near the railway station.

Town Hall

The original plans for the Pannier Market were amended to include the Town Hall in response to a vociferous public campaign for what the local newspaper described as 'a spacious and decent room for the social gatherings of the people'. The Bedford estate's decision appears to have been influenced by the Mechanics Institute's call for a venue for holding suitably educational and morally improving exhibitions and lectures for the populace. The project was managed by Theophilus Jones and the estate architect, Edward Rundle, and financed by a lease renewal 'fine' on Devon Great Consols mine. The 7th duke died before it was completed and was commemorated in an inscription on the front of the hall and a statue in Guildhall Square paid for by public subscription. The New Hall, as it was known for many years, was first used to celebrate the Prince of Wales' wedding in 1863 and officially opened the following year with three days of celebrations including an 'Exhibition of Rare and Valuable Works of Science and Art'. Subsequently the interior was decorated with portraits of men associated with the town and armorial shields of local families & places. The hall opens onto Bedford Square which was substantially cleared of buildings in the 1820s. The last major change to the layout of the town centre was the opening of Drake Road to the north of the square in 1890 to provide access to the London and South Western Railway Company's station.

Bedford Hotel

The hotel originated as a private residence called Abbey House which was built c.1725 for Jacob Saunders on the site of the south cloister at a cost of £3000. It reverted to the Bedford estate in 1752 and provided a home for its agents before being transformed into a hotel in 1822. For this purpose the house, which comprised the five most eastern bays, was enlarged in gothic style and the porch added from 1822-29 by the celebrated architect Sir Jeffrey Wyatt (later Wyattville) who is best known for his work at Windsor Castle. Further modifications were made by Foulston in 1830 including a new ballroom. The Bedford estate sold the hotel to Trust House Forte for £19,000 in 1955. It is now owned by Warm Welcome Hotels. The most recent addition to the hotel's heritage is Gallery 26 which opened in 2009 and combines contemporary and medieval architecture.

Estate Office

The Russells' main seat was at Woburn and they were largely absentee landlords in Tavistock although in 1810 they did build themselves a *cottage orné* lodge at Endsleigh on the Tamar for occasional visitations. Consequently the estate office was the centre of power and patronage in Tavistock from where the steward wielded the duke's authority. The office was centrally located opposite Guildhall Square in what amounted to the Tavistock's administrative quarter. The office was also responsible for managing the wider estate. The 7th duke was an enthusiastic agricultural improver who invested heavily in modernisation as exemplified at Kilworthy in 1851-3, an excellently preserved industrial model farm, which aimed to rationalise production with water powered machinery for preparing feed close to cow houses with an undercroft for collecting dung. The estate office closed in the 1960s.

Cornmarket

The Cornmarket was opened in 1835 and was designed by the architect Charles Fowler. The massive granite columns supported assembly rooms above. The duke's decision to open the building reflected the prosperity and optimism of Victorian 'high' farming before confidence was eroded in the face of foreign competition and the agricultural depression of the late 19th century. From 1913 to 1957 the building was used as a cinema and later as a grocery and a hardware store.

Fitzford Church

The church at Fitzford, which was funded by the duke and designed by Henry Clutton in an Italianate style, opened in 1867. It was intended to serve the mining community but as mining was already on the decline it struggled to gain a congregation and closed in 1914. It was briefly re-opened in 1936-47 and then closed again until it was acquired by the Roman Catholic church in 1952.

The Tavistock Canal

The Tavistock Canal was built between 1803 and 1817. It was conceived by the engineer, John Taylor, as a quick and cheap method of carrying ores from the Mary Tavy and Tavistock copper mines the 4½ miles from Tavistock to Morwellham from where vessels carrying cargoes up to 200 tons could access the sea at Plymouth Sound. Copper was transported to South Wales where there were abundant supplies of the necessary coal and limestone for smelting. A separate two mile cut connecting the canal to slate quarries at Mill Hill opened in 1819. The canal was also used to import materials needed to develop local industry and agriculture. Cargoes included coal, lime, limestone, timber, iron, dung, bones, guano, artificial fertilizers, luxury goods such as Continental

wines and spirits, pottery, chinaware and fabrics. For over 40 years the canal was the commercial artery that linked West Devon's communities, mines, quarries, foundries and farms to the wider world.

Success in overcoming formidable natural barriers and the introduction of pioneering technology made the canal one of the wonders of its age. The Lumburn Valley is crossed by an aqueduct 60 ft above the river beyond which a 1½ mile tunnel, the longest in England when completed, cuts through Morwell Down. It took two or three hours to pass through the tunnel using iron shod poles. In the 1850s the canal company experimented with galvanised wire to pull barges but this was abandoned as the cable wore rapidly on the tunnel sides. At Morwellham cargoes were loaded from barges into trucks, and vice-versa, and lowered/raised via an inclined plane railway to the quays 237 ft below using cables powered by a waterwheel. Unusually the canal was designed to flow, dropping approximately 1 foot per mile, which speeded up the journey time from Tavistock to Morwellham and provided power at various times to up to 35 waterwheels via a network of leats which extended some 3 miles beyond the Morwellham terminus. The canal employed the world's first wrought iron boats which were pulled downstream by one horse with two being used for the return journey. Another innovation was the 'air exhauster', a mechanised tunnel ventilation system to clear dust caused by blasting during construction. At Wheal Crebor, the most important of several mines along the tunnel, which produced copper, tin, iron and some arsenic in various periods from 1803 to 1902, the world's second underground inclined railway hauled ore to the surface.

When the Tavistock Canal Company was launched in 1803 copper prices were high due to the Napoleonic war and shareholders anticipated substantial profits from tolls and the exploitation of mineral reserves. However, the cost of building rose from an estimated £40,000 to around £68,000 and by the time the canal opened prices had slumped in a peacetime depression. While the annual tonnage of cargoes reached five figures every year except one between 1819 and 1865 profits were always modest. By the late 1860s the decline of mining and competition from the Great Western Railway, which had reached Tavistock in 1859, made the canal unprofitable and maintenance was increasingly neglected. Traffic stopped by the end of the decade and the canal officially closed in 1873 when it was transferred to the Bedford estate. Since 1933 water from the canal has powered a hydro-electric power station at Morwellham that continues to supply the national grid.

The canal takes water from the Tavy below Abbey Bridge and the first wharf was built close by. In 1816-1818 Gill and Company, the canal's main promoters, developed their own wharf with a new limekiln and railway for moving coal and lime. Initially this was fiercely opposed by the Bedford

estate as a public nuisance but later the duke sponsored a public wharf on the opposite side of the canal basin on the site of the current library. Surviving buildings around the Wharf include a granary which had a removable floor so that barges could be unloaded directly into the building, a coal store, the slate hung former offices of the Canal Company and the Quaker Meeting House which originally accommodated the Gill and Company Offices.

Tavistock Iron Foundries

Tavistock's three foundries are among the most significant examples of ancillary industry in the WHS. Moreover, by supplying machinery such as beam engines to export markets including South Australia and South America, they contributed to the formation of characteristic 'transferred' mining landscapes throughout the world.

Tavistock Iron Works

Tavistock's first foundry was established in 1800 near Vigo Mews with the duke's agent, William Bray, as a major shareholder. A weir, still visible upstream from Stannary Bridge, took water from the river Tavy near woollen mills called Hawkins Shop to feed a leat which powered the foundry. In 1803 this Lower Foundry was sold to Gill and Co. who expanded the operation by erecting a Higher Foundry and subsequently it became known as the Tavistock Iron Works. The site included Gill's house, workers' cottages, workshops, furnaces and a water supply from the medieval Millbrook. The foundry supplied the domestic market and the mining industry including ore crushers for Wheal Crowndale and Wheal Friendship, a water wheel for the entrance to the Tavistock Canal tunnel and an iron canal barge designed to carry eight tons which was launched on Easter Monday 1811. The business was sold in 1864 to an ordnance company but this short lived enterprise was followed by sale to the former owners of the rival Bedford Iron Works in 1868. The foundry closed in 1891 but reopened a few years later as a wool factory which used the Millbrook to power a turbine and remained open until 1965. Nothing remains of the Lower Foundry which was sold off in 1861 although in 2007 a major excavation revealed the foundations of the early foundry's casting shop and hammer mill. Three sheds survive on the Higher Foundry site, one of which is a Gill building, as does Gill's family house Brooklands (originally called Ferrum House), the former company offices and a brick built wool factory office with bell tower from 1919. All are now private houses or apartments. The bed of the Millbrook can be seen in front gardens in Parkwood Road.

Bedford Iron Works

Tavistock's second foundry was started in 1841 by Thomas Nichols and John Williams. In 1846 the partnership was joined by Joseph Mathews, clerk to the Tavistock Canal Company and son of the engineer responsible for steam machinery at Devon Great Consols. The foundry specialised in

mine machinery, especially steam engines. The decline of mining in the 1860s led to closure in 1866. Two years later the partners took over the Tavistock Iron Works. By the turn of the century the site was occupied by Morris Brothers coachbuilders and the same family occupy it today as long established undertakers.

Tavy Iron Works

The Tavy Iron Works was opened on the south bank of the river Tavy by John and Henry Pearce in 1852 on the site of a former woollen mill. As there was no room for expansion the brothers leased land on the northern bank in 1869 for new workshops included a casting shop. To link this with the pattern shops and office an iron footbridge was built. It was dismantled in 1995 when Stannary Bridge was built but a pier is still visible in the river bed. The foundry's main business was producing domestic fireplaces and cooking stoves. After the Pearce brothers' deaths in the 1880s the Tavy Iron Works continued under different managements until it was bought in 1905 by the Budge family from Lumburn whose foundry had closed as demand from the few remaining mines fell. After WW1 the Budges confined themselves to the northern site where products included castings for stoves, laundry bars and manhole covers until they closed in the 1930s. In November 1886 the foundry turbine powered a dynamo to generate Tavistock's first electricity which lit seven lamps between Mount Tavy Road and Duke Street. Permanent power generation began in 1914 and continued until a hydro-electric power station was opened at Mary Tavy in 1932. The northern site was retained by the Electricity Board and its privatised successors until the early 21st century and is now for sale for redevelopment. A building from the southern foundry site survives as residential accommodation as do houses on the south side of Mount Tavy Road built in the 1850s by the Pearces.

Bedford Cottages

The Bedford estate's model cottages are a significant feature of the landscape of Tavistock and rural West Devon and a unique element of the WHS. Between 1845 and 1866 the 7th and 8th dukes built some 300 cottages, mainly in the town but with clusters elsewhere including Morwellham, Mill Hill and Wheal Maria, and isolated pairs and terraces scattered across the estate. In 1871 the cottages were accommodating 18% of the population in Tavistock parish which rose to 20% in 1911 as the overall population declined.

After 1846 cottages were built to a standardised design although there were variations in detail. The exteriors had rubble walls and dressed granite quoins, window sills and porches, slate roofs, lead lined gutters and cast iron downpipes. There was little ornamentation except for a ducal crest or letter B, to remind the inhabitants of their patron's largesse, or a metal date plate. Most had two downstairs rooms, with a cast iron range in one and a copper in the other, and two or three

upstairs bedrooms of which one had a fireplace. There were outbuildings for wood, a privy and a pigsty. The cottages often had generous gardens and each pair had a standpipe for water. The cottages cost £70-90 to build. Rents varied from 1s 6d to 2s 6d per week, which represented an annual return of 5-7%. In Tavistock the estate reserved cottages for natives but elsewhere this rule was relaxed on occasions.

Dolvin Road Cottages built 1845-8 were built of locally produced brick. Three blocks of six were completed and work on another, whose foundations are visible in a garden wall, was abandoned because the bricks were required to line the town's sewers. After 1846 the Bedford estate authorised only the use of rubble stone for cottage building.

The 64 Westbridge Cottages built in 1850 formed the estate showpiece that was copied elsewhere as at Gulworthy and Lumburn. Each cottage had a kitchen, living room, scullery, three bedrooms and large front and back gardens.

There were other large groups in Parkwood Rd, Fitzford and Kilworthy Hill. The Kilworthy group were the last to be built, in 1866, and the end cottages of each terrace had yellow brick quoins and a bay window on the ground floor.

The cottages were the Bedford estate's belated response to appalling poor sanitation and overcrowding in the town centre which had become a scandal as Tavistock's population rose from 3420 in 1801 to a peak of 8912 in 1861. From 1830-60 there were four enquiries driven mainly by the town's business, nonconformist, radical/liberal interest led by John Gill and John Rundle. The 1846 Sanitary Report found 5035 people comprising 1129 families living in 600 houses with 908 people in Barley Market St and Exeter St sharing 30 privies. The 7th duke's determination to limit expenditure combined with his insistence on showing off high design standards meant the number of cottages built eased the housing crisis but fell far short of resolving it. The proportion of the population living in the most overcrowded central streets barely changed between 1841 and 1861 and only markedly decreased when Tavistock's population fell as mining declined. The cottages' real significance lies in their visual impact, their contribution towards the development of urban planning and in what they reveal about the 19th century aristocracy's paternalism with its blend of limited humanitarianism and concern for social control when designing homes which they thought 'fit' for the labouring classes.

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