# HISTORICAL PRESERVATION

# A Case Study on the World Heritage Status of Cornish Mining "WHO BENEFITS" by Travel & Tourism Students of Cornwall College Camborne

"Deep in the pitch-black bowels of a mountain where mines twist and turn, there are no stars or moon to light the way. *Jagged rock lines the tunnel walls waiting to trip shuffling feet –or crash down on unwary heads.* The belly of the mountain is a dangerous place for men, *but the lure of gold, silver, and valuable ores is strong.*

Without fail, the miners come"

## CASE STUDY

# TEACHER NOTES

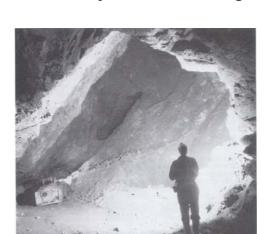Contents

# Cornwall

## Location







Cornwall is a rural and maritime county with a population of 492,600 in 1999. It is included within the South West Standard Region of England and has an area of 354,920 hectares. It is the second largest county in the region in terms of area but has the lowest population density. The County comprises the westernmost part of the south west peninsula, and has an estimated 697 kilometres of coastline including the lower reaches of the main estuaries, the longest of any English county. The sea forms the northern, southern and western boundaries. To the east, Cornwall's border with Devon is formed by the River Tamar, which forms a physical and cultural divide with the rest of Great Britain, for all but 18 km of its length. The Isles of Scilly lie 45 km off Lands End.

Its geographical position has ensured that Cornwall has remained until recently one of the more remote and isolated parts of Britain. The nearest major centre outside the county, Plymouth, is 125km from Penzance, while Bristol, the regional centre, is 290km from Penzance with London 450km away.

The distance between the north and south coasts varies from 72km at the eastern boundary to as little as 8km at the western end of the county between Hayle and Marazion. In length the county measures a maximum of 132km between Lands End and the north-eastern boundary at Morwenstow.

www,cornwall.gov.uk

## The History of Cornish Mining



The origins of tin production in Cornwall are so ancient that they are undocumented. Classical writers make reference to Cornwall as a source of tin. As early as the 1st century BC Diodorus Siculus wrote of tin streaming and lode mining taking place.

After the Romans left Britain there are few records of the industry, although its long establishment is mentioned in King John's charter to tinners in 1201. Through the medieval period, technical improvements continued, particularly with the smelting, dressing and crushing processes. The need to go underground tested the ingenuity of the Cornish and they responded accordingly. A water-stamps (to crush ore) was set up in Wendron in 1493. By the reign of Elizabeth I, there were important tin mines in west Cornwall, and the Truro and St. Austell areas.

Copper mining became more important than tin between the late 17th and the middle of the 19th century. By the late 18th century there were mines up to 300 feet deep. One may imagine the candle-lit labour needed to reach and work at these depths.

During the 200 years after the early 1700s there were hundreds of mines established in Cornwall. Adventurers (those who backed the enterprises) received vast dividends from the successful mines, copper and tin. Dolcoath in Camborne produced £1,000,000 of copper and then, from the mid-1800s, yielded up tin to even greater value.

The requirements of the industry made Cornwall home of some of Britain's greatest inventive triumphs:

- Sir Humphry Davy of Penzance devised the miner's safety lamp in 1808, saving thousands of miners lives
- William Murdoch, a Scotsman in Cornwall installing and maintaining mine engines for Boulton & Watt, experimented with coal gas for lighting at his house in Redruth in 1792, the beginnings of today's massive world-wide gas industry
- Richard Trevithick of Camborne used high-pressure steam power to enhance Boulton & Watt's mine engines and so gave birth to the steam railway systems of the world in 1801.

There are now no mines working, but the evidence of their existence is everywhere. The derelict engine houses and ancillary buildings remain. They are now a source of pride and growing interest for later generations.

**The Case Study Proposal**

Cornwall College Camborne
Travel & Tourism Department
Cornwall College Camborne
Cornwall

**Aldo Papone Award 2007**
**HISTORICAL PRESERVATION**
**Cornish Mining World Heritage – Who Benefits?**

## Proposal Background

Our college is situated between the mining towns of Camborne and Redruth.  Tin mining, once the main industry in Cornwall, finally came to an end in 1998 with the closure of the last working mine in South Crofty opposite the college.  South Crofty like many other mines had operated for over 400 years.  The sight of the engine houses and machinery are still visible for miles around. The countryside around West Cornwall is covered with the remains of old engine houses and mining ruins which give the county its unique and beautiful landscape.

In 2006 a bid to develop Cornwall's mining history into a World Heritage Site was successful and as a result many of the mining sites are being restored to their former glory and forming a major part of Cornwall's tourist attractions.

This has led to renewed activity in the historical preservation of the mining sites which

include not only the engine houses but also industrial harbours and tramways, foundry buildings, mining towns and villages, conformist chapels, the houses and gardens of the mineral lords, the smallholdings of the ordinary miners, the technical schools, miners' institutes and geological collections.

## Case Study

Our case study will focus on the benefits of the World Heritage status to the local community through the regeneration of the area itself and the development of the sites as an attraction for tourists from around the world.

We have planned visits to many of the areas (there are 10 recognised sites) and will interview the stakeholders who have been involved in the bid and the marketing of the sites. We will also interview people from the local community to find out how they think they will benefit from having World Heritage sites on their doorstep.  We will be given guided tours by historical experts and tourist guides.  We will try to answer the question "What are the benefits to Cornwall's tourists and the Cornish people of the World Heritage status for Cornish mining?"

We will include in the presentation sounds and images that will tell the story of the mining industry, its decline and its revival as a tourist attraction.  Some of the images of the engine houses clinging to sides of cliffs above the crashing waves of the Atlantic will show the audience the uniqueness of the county. We will show how the preservation of the sites can improve the experience of visitors to these unique areas of Cornwall.

We are studying First and National Diplomas in Travel and Tourism and are aged between 16 and 18.  The case study will fit with UK Destinations, Incoming and Domestic Tourism, Current Issues, Visitor Attractions and also link to short courses in Sustainable Tourism.  It will also enable us to learn and appreciate the history of our county and the need to preserve the unique historical heritage, not just the buildings but the stories and the culture of our mining ancestors.

We can build on the work of our Cornwall College university students who have already formed partners including the World Heritage Team, Mineral Tramways and CAVA (Cornwall Audio Visual Archive).  Our case study aims to show the importance of the history of Cornish Mining to ours and the next generation.  The case study is the start of a year long project aimed at promoting the World Heritage Status of Cornish Mining throughout schools in Cornwall.  We also plan to exchange our knowledge of the historical preservation of our County with other schools and colleges in the UK and those in Europe who also have World Heritage sites.  We are registered on an e-twinning project to enable us to do this.  We will be able to use the case study as a resource for other Leisure/Travel & Tourism departments in colleges and schools through the Cornwall Education and Business Partnership network that already exists in Cornwall. We will also be able to present our findings to local partners and businesses at the Cornwall Heritage and History Conference in February 2008.

The area has local regional, national and international importance.  World Heritage Status should bring about real socio-economic benefits to the region. It will draw down

conservation funding, develop the area as a major attraction for international tourism and assist the much needed regeneration of former mining communities by increasing employment and prosperity. The region's industrial remains now rank alongside world treasures such as Venice and Stonehenge and World Heritage Status should ensure that one of Britain's oldest industries does not vanish into the history books.

We hope that our case study will show how historical preservation of the sites can develop Cornish Mining into a major sustainable tourist attraction that will bring about benefits both to our visitors and to the local communities.



### The 'Cornwall and West Devon Mining Landscape' World Heritage Site bid project

In 1972 the United Nations Educational, Scientific and Cultural Organisation (UNESCO) adopted a special convention concerning the protection of the World Cultural and National Heritage in order to provide international support and protection for important sites. The World Heritage Convention aims to protect heritage sites which are of such "outstanding universal value" that their conservation is of concern for all people. The UNESCO World Heritage Committee is made up of 21 countries elected from among the member states of the Convention.

In 1999 a bid was prepared to obtain World Heritage Status and place Cornwall and West Devon's historic mining landscapes on a par with such international treasures as Stonehenge, the Taj Mahal and the Great Wall of China.

Advances in hard rock mining and engineering technologies during the 18th and 19th centuries had transformed the landscape, economy and society of the region, placing it at the forefront of the Industrial Revolution. These technologies quickly spread to every corner of the globe as the international migration of Cornwall and West Devon's highly skilled workforce forged extensive cultural links between mining communities worldwide. Distinctive physical reminders of this important past persist within the landscape - imposing engine houses and extensive relict mine sites, industrial harbours and tramways, foundry and fusework buildings, mining towns and villages, hundreds of non-conformist chapels, the glorious houses and gardens of the mineral lords, the modest smallholdings of the ordinary miners, the technical schools, miners' institutes and geological collections established for the aspiring student.

As well as recognising the unique role of Cornish Mining in shaping modern industrial society, World Heritage Site Status could bring tangible socio-economic benefits to the region. It will draw down conservation funding, be a major asset to international tourism marketing and assist the regeneration of former mining communities.

The bid was successful and the sites ranging over an area of 200 square kilometres became a unique World Heritage Site in 2006.

Students of Cornwall College began a case study of the benefits of the newly acquired status and carried out research to answer the question "WHO BENEFITS"
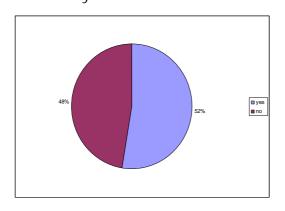


The survey was conducted in the Redruth and Camborne area, the most concentrated mining areas in Cornwall.  Students asked local people their views about the World Heritage status of Cornish mining and what it meant to them.

The students also visited mines and interviewed an ex-minor now a tour guide in a mine. They also interviewed the World Heritage bid co-
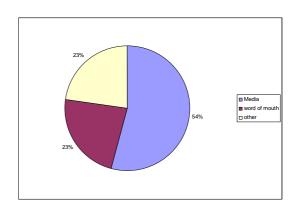
ordinator and the marketing manager of CMAMA  the Cornish Mining
Marketing Attractions Mining Association

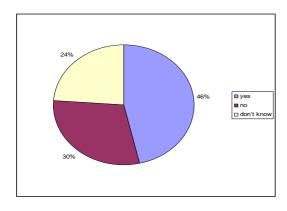Below are the results of the questionnaire survey

Were you aware that Cornwall mines are
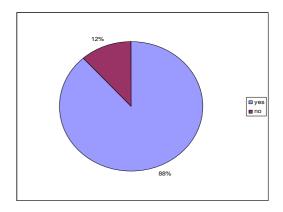a world heritage site before you received
this survey?

How did you find out that
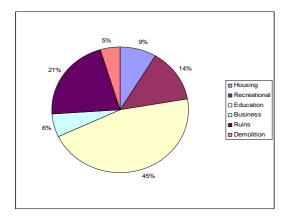Cornwall mines were a world
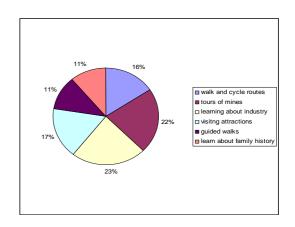




Do you live near any Cornish
Mining Sites?

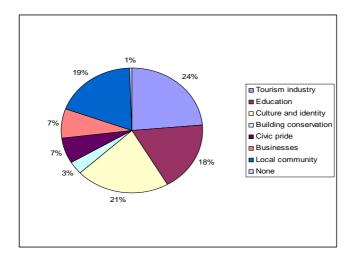Do you think Cornwall's remains
should be protected and





What do you think the main
purpose of our World
Heritage Site should be?

## What do you think should be done to the buildings?



Pie chart showing: Housing 9%, Recreational 14%, Education 45%, Business 6%, Ruins 21%, Demolition 5%



Pie chart showing: walk and cycle routes 16%, tours of mines 22%, learning about industry 23%, visitng attractions 17%, guided walks 11%, learn about family history 11%

## Which part of the community do you think that the World Heritage Status will benefit most?



Pie chart showing: Tourism industry 24%, Education 18%, Culture and identity 21%, Building conservation 3%, Civic pride 7%, Businesses 7%, Local community 19%, None 1%

## Conclusions

The main benefit for local people is that the preservation of Cornish mining means that their heritage and culture will remain visible and accessible for generations to come. The education sector will benefit from increased sites available for guided tours and walks and the increase of information held in visitor centres around the region.  This should help the local people benefit from an early age and give them an appreciation of their own heritage and the lives of their ancestors.

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However it is more than local people that stand to benefit.   The interviews with the key stakeholders  suggested that tourists and tourism businesses would benefit substantially with increased numbers of discerning tourist outside the busy season.  Hopefully visitors from abroad particularly those who have historical links to Cornish mining through the migration of Cornish mine workers will be able to trace their family history through visits to the new sites  and visitor centres.



**Cornish Tin Mine in Spain**

However the survey shows that not enough people know about the developments of Cornish Mining and how World heritage Status is improving the landscape of Cornwall for the full benefits to be appreciated.

Marketing now has to take accounts of the different types of customer, local groups,  tourists, and tourists from overseas and each need to be marketed in a different way.  The interview with the marketing co-ordinator of the mining attractions however thought that money needs to be used wisely to have the maximum impact.  The sites are being marketed in clusters using areas rather than individual sites to combat the difficulty of marketing such a diverse set of attractions in an area of 200 square kilometres, each with its own key site which will also house a visitor centre. Visitors will be encouraged to visit the cluster of sites in the area that they are visiting with a view to encourage them to revisit another cluster at another time using a proposed passport scheme that will signpost them to other sites and possibly provide a discounted entrance fee. Schemes are being developed to market to UK and overseas visitors including the branded posters seen in the presentation

**LINKS TO NATIONAL DIPLOMA TRAVEL & TOURISM UNITS**

The case study will fit with UK Destinations, Incoming and Domestic Tourism, Current Issues and also link to short courses in Sustainable Tourism

## Unit 3 The UK as a Destination

Outcome 4
Inbound tourist needs: local and national customs and traditions; special events;
attractions, eg heritage, culture; accommodation preferences; transport, eg car
hire, ferries, international airports and services; quality assurance; novelty;
access to information, eg brochures, internet

## Unit 11 Sustainable Tourism Development

Outcome 1  Understand the impacts of tourism development in selected destinations
Economic impact: positive, eg improved infrastructure, increased income, increased employment; negative, eg increased living costs, decline of traditional
employment, over-dependency on tourism
Environmental impact: positive, eg conservation and preservation of natural and
built environment, use of renewable resources; negative, eg congestion, pollution, loss of habitat, erosion of resources
Social impact: positive, eg improved provision of community facilities and services, education and training, improved social status for local people improved standards of living; negative, eg crime, sex tourism, conflict, antisocial
behaviour, displacement, seasonal employment
Cultural impact: positive, eg preservation of traditional customs and crafts, reinforcement of cultural identity; negative, eg dilution of cultural identity, westernisation, demonstration effect
Selected destinations: short-haul; long-haul

Outcome 3 **Understand how objectives for sustainable tourism development are put into practice**
Political objectives: eg creating a national or regional identity, raising the profile
of an area
Environmental objectives: eg habitat and heritage preservation, environmental
education
Socio-cultural objectives: eg development of community facilities, promoting cultural understanding, maintaining traditions or beliefs, improving quality of life
for host communities
Economic objectives: employment creation; revenue generation, eg positive multiplier effect, increasing foreign earnings; economic regeneration

## Unit 17: Tourism in Rural Areas

Outcome 5 **Understand the impacts of tourism on rural areas and the techniques used to**
**manage these**
Economic impacts: positive, eg increased employment, increased revenue for
businesses, increase in private investment; negative, eg increased living costs, economic dependency on tourism, low-paid jobs, seasonal employment; other, eg
income leakages, imported labour
Environmental impacts: positive, eg conservation and preservation of assets, maintenance of the natural and built environment; improvement to infrastructure; negative, eg erosion, destruction of wildlife habitats; other, eg traffic congestion, pollution
Social impacts: positive, eg improved provision of community facilities and services, education and training, increased standard of living; negative, eg change in living patterns, conflict with the host community, displacement
Cultural: positive, eg preservation of traditional crafts and customs, reinforcement of cultural identity; negative, eg dilution or loss of cultural identity, change in cultural traditions
Management techniques: eg restricting access, improving public transport

## Unit 26: Current Issues in Travel and Tourism

Outcome 2 **Be able to conduct research into a current issue affecting the travel and**
**tourism industry, using appropriate resources**
Research plan: setting of hypothesis; terms of reference; aims; objectives;
planned outcomes; determining possible sources and resources; task dates;
review dates; monitor process; contingencies; ethical issues; evaluation
Sources of information: eg books, journals, newspapers, websites, TV,
published
research papers, official statistics, questionnaire results
Referencing: standard system, eg Harvard; bibliography
Outcome 3 **Be able to communicate findings on a travel and tourism issue using**
**appropriate media and conventions**
Communicate findings: present own and others' arguments; draw
conclusions;
summarise data; engage audience
Appropriate media to communicate findings: eg extended document, group
discussion, presentation, report
Appropriate conventions to communicate findings: use of vocabulary;
grammatical expression; emphasis; structure; logical sequence
Outcome 4 **Understand the impacts of a current issue on the travel and**
**tourism industry**
Impacts: eg loss of customers, development of new markets, loss of revenue,
changing demands, additional costs, changes to products and services.

**Links to other courses**

The case study can also link to GSCE Leisure and Tourism and can be
used for:

Unit 1 Investigate places of historic interest

Students need to consider the social, economic and environmental
impact of
tourism on at least two of destinations and how they may be
developed in a
sustainable manner.

Unit Two Marketing in leisure & Tourism

To include research methods, SWOT analysis , the 4Ps, target markets
and the promotional mix.

Other activities for students could include tracing family history or searching for evidence worldwide of Cornish mining activities, buildings and culture and where the mining expertise of the Cornish workers has helped progression in mining and related industries over seas. This could in both historical and geographical contexts

It could also provide an educational partnership with other schools and colleges throughout the UK and Europe or even wider where students can exchange information on World Heritage and UNESCO sites in their own areas and countries.



Students at Stonehenge
A World Heritage Site since 1986

**NOTES TO ACCOMPANY THE PRESENTATION**

Recipe for Cornish Pasty

For the Pastry

- One and a half Cups Plain Flour
- Lard or vegetable fat
- Pinch of salt
- Water

For the pasty filling

- Chuck steak or skirt
- Two Large potatoes
- Half a large swede (turnip as second best)
- One large onion
- Salt and pepper to taste
- Water

## *Cornwall Pastie Recipe Method*

### The Pastry
Place flour and salt in a bowl, rub in the fat, until the mixture is so fine that it falls through the fingers. Tip mixture onto a lightly floured table top. With your index finger make a well in the centre of the mixture. Add water a little at a time until it forms a pliable but stiff dough.

### The Cornish Pasty Filling
Finely chop the steak. Dice the potato, swede and onion. You may prefer to slice them. Add seasoning. Mix all in a bowl or to be really authentic use your kitchen table top.

Using a floured table top roll out half the dough to a circle the size of a plate. Make a mound of the filling in the centre of the dough. Dampen round the edge of the dough with either water, or milk. Fold over the dough, to make a half moon shape, crimping the edges. Make a slit to let out steam. Brush with beaten egg to glaze.

**Cooking your Cornish Pasty** Place on lightly greased metal baking tray in the middle of a preheated oven, for around 40 minutes at 450 F . The pasty is cooked when their undersides turn brown and crisp.

**THE CORNISH ANTHEM**

**Words to Trelawneys Army**

| CORNISH WORDS | ENGLISH TRANSLATION |
|---|---|
| Gans cledha da yn dorn yu lel | |

Gwyr, lowen  an golon
Yth aswon Myghtern Jamys fel
Pandr'wrello Kernowyon
Yu ordnys  le ha prys ancow?
Trelawny dos dh'y fin?
Mes ugans myl an dus  Kernow
Gothvos an praga 'vyn.

'Verow Trelawny bras?
'Verow Trelawny  bras?
Ottomma ugans myl Kernow
A woffyth oll an  cas.

Yn meth an Capten, bew y wos,
Gwas jolyf  yn mysk cans-
"Tour Loundres kyn fe Carrek Los
Y'n dylerfsen  dewhans!"
Ny a dres Tamar, tyr dhe dyr
By' ny vyth Havren let,
Ha scoth  ryp scoth, cowetha
gwyr,
Pyu orthyn-ny a  set?

'Verow Trelawny bras?
'Verow Trelawny  bras?
Ottomma ugans myl Kernow
A woffyth oll an  cas.

Devedhys bys yn Fos Loundres
Gwel dek  dhyn, ny a gry-
"Deugh mes, ownegyon oll, deugh
mes!
Gwell on  agesough-why!"
Trelawny yu avel felon
Fast yn cargharow tyn,
Mes ugans  myl a Gernowyon
Gothvos an ken a vyn.

'Verow Trelawny bras?
'Verow Trelawny  bras?
Ottomma ugans myl Kernow
A woffyth oll an  cas

A good sword and a trusty hand!
A merry heart and true!
King James's men shall understand
What Cornish lads can do!
And have they fixed the where
and when?
And shall Trelawny die?
Here's twenty thousand Cornish
men
Will know the reason why!
And shall Trelawny live?
And shall Trelawny die?
Here's twenty thousand Cornish
men
Will know the reason why!

Out spake their Captain brave
and bold:
A merry wight was he:
'If London Tower were Michael's
hold,
We'd set Trelawny free!
'We'll cross the Tamar, land to
land:
The Severn is no stay:
With "one and all," and hand in
hand;
And who shall bid us nay?
And shall Trelawny live?
And shall Trelawny die?
Here's twenty thousand Cornish
men
Will know the reason why!

And when we come to London
Wall,
A pleasant sight to view,
Come forth! come forth! ye
cowards all:
Here's men as good as you.
'Trelawny he's in keep and hold;
Trelawny he may die:
But twenty thousand Cornish bold
Will know the reason why
And shall Trelawny live?
And shall Trelawny die?

| | Here's twenty thousand Cornish men<br>Will know the reason why! |
|---|---|

## Glossary of Cornish Mining Terms

ADIT
A level tunnel (usually driven into a hillside) in order to give access to a mine, and used for drainage or the hauling of broken ore. Deeper adits did not necessarily connect to surface, and were used to carry water back from distant workings to a pumping shaft.

BAL-MAID
A woman or girl employed at surface on a mine, generally in the dressing of ore.

BEAM-ENGINE
A type of steam-engine much favoured in Cornwall for use in pumping, winding, and providing the power to crush ores preparatory to dressing on Cornish mines

BLOWING-HOUSE
An early form of tin smelting furnace, small in scale and using charcoal as a fuel.

BOILER HOUSE
A generally lightly-built structure attached to an engine house, and designed to contain the horizontal boilers for a steam engine; the associated chimney stack may be attached to this structure, or built into one corner of the engine house.

ENGINE HOUSE
A building designed to contain steam, gas, oil or electric engines on a mine or other works. When forming part of the framework of a beam engine, these were particularly strongly constructed.

HEADFRAME
The tall construction set over a winding shaft which carried the sheave wheels over which the winding ropes ran. Headframes usually contained ore bins or ore chutes to allow the broken rock in the skips or kibbles to be tipped into trams at surface

SHAFT
A vertical or near-vertical tunnel sunk to give access

to the extractive areas of a mine.

SHAKING TABLE     An inclined, mechanically vibrated table on which fine tin (as sands or slimes) in suspension in water was concentrated by relative density.

STREAMWORKS     An area worked for detrital (redeposited) tin deposits by shallow excavation. Often characterised by linear dumps, river diversion, and evidence for leats. Some streamworks (dryworks) exploited deposits of shoad in now dry valleys and on hillsides, where concentrations of this material were economically workable. Leats and reservoirs were necessary to work these sites, and are characteristic of them.

WATER-WHEEL     Wheel fitted with buckets or paddles around its periphery, and driven by the weight or force of a stream of water directed onto them.

WHEAL also WHELE, WHILE, HUEL.     A mine.

WHEELPIT     A structure built to house a water-wheel, often excavated and stone-lined, but sometimes free-standing

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