



REMIX May 2018



CORNISH MINING
WORLD HERITAGE

*Our mining culture
shaped your world*



What Is a World Heritage Site?

UNESCO's Convention concerning the Protection of World Cultural and Natural Heritage, 1972

“cultural and natural heritage around the world considered to be of outstanding value to humanity”





Cornish Mining WHS Outstanding Universal Value

- **Principal producer of tin and copper**
- **Revolution in steam & mining technology**
- **World-wide transfer of technology, culture and its impacts**



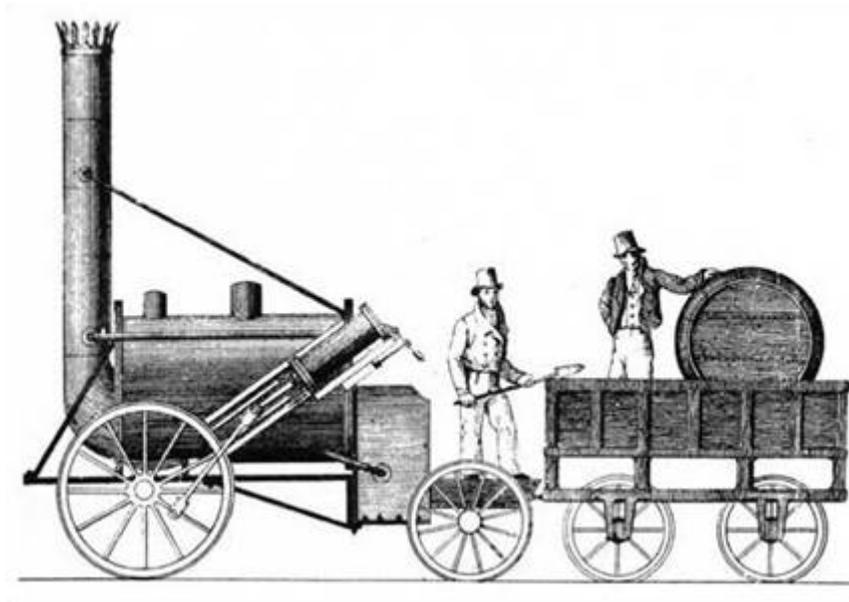


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Principal producer of tin and copper



Alloys for **machine parts**



1810 first **tin plated cans**



1780 - **HMS Victory's** hull below the waterline was sheathed with 3,923 sheets of copper to protect her against ship worm.



Engineering Innovation

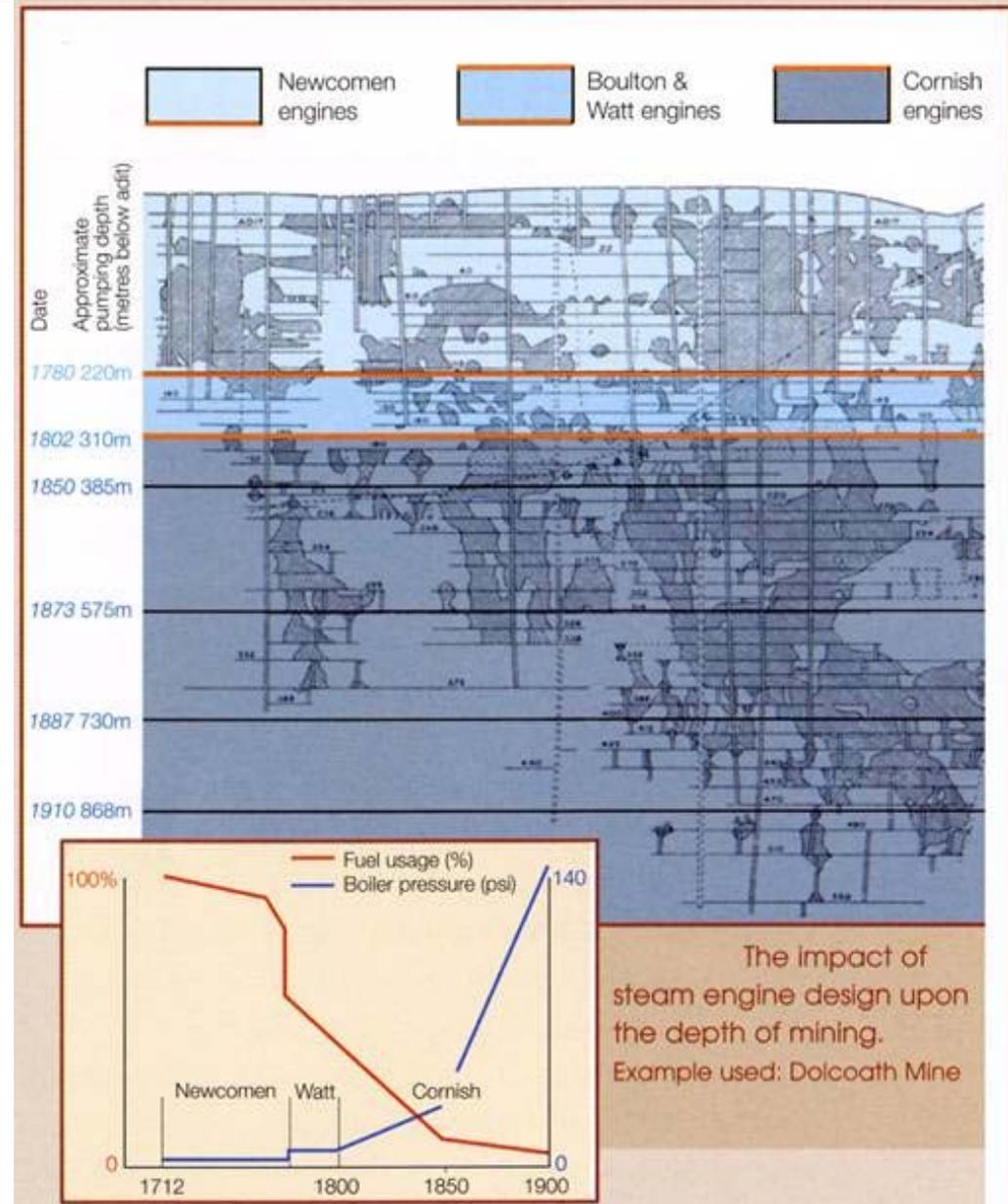
Driven by need to increase efficiency and solve 3 key problems;

- **Depth** – eg Dolcoath William’s shaft 3000 feet by 1917, New Cook’s at South Crofty over 3,000 feet
- **Water** – improving pumping technology
- **Hardrock** – removing huge quantities of ground



Improvements in beam engine efficiency

Enabled mining at great depths





Technological step changes - Trevithick's high pressure steam goes "mobile"



First Steam railway locomotive 1804

World's first steam road locomotive 1801

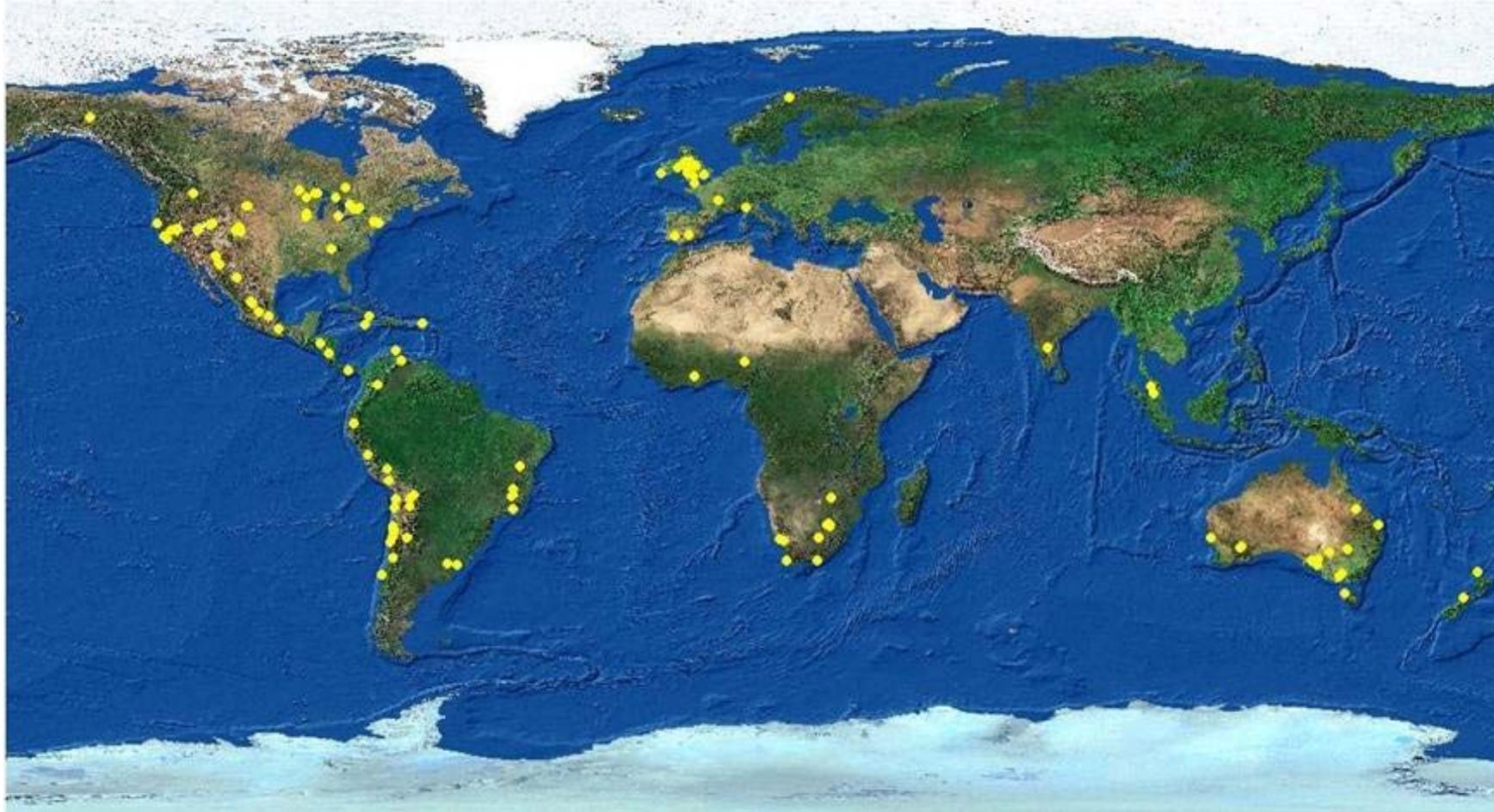


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World-wide transfer of technology and associated landscape



Currently 175 international sites identified with Cornish connection



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World-wide replication of the Cornish Mining Landscape



Ireland



Spain



Australia



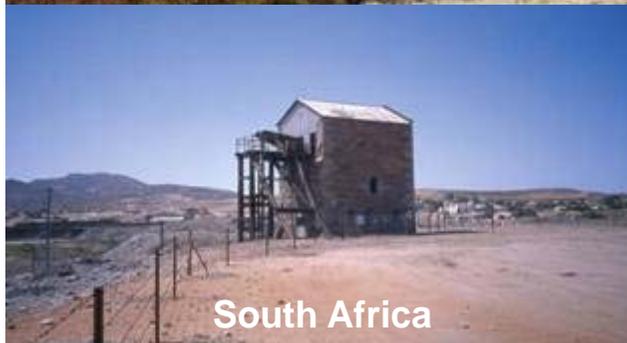
Mexico



New Zealand



Wales



South Africa

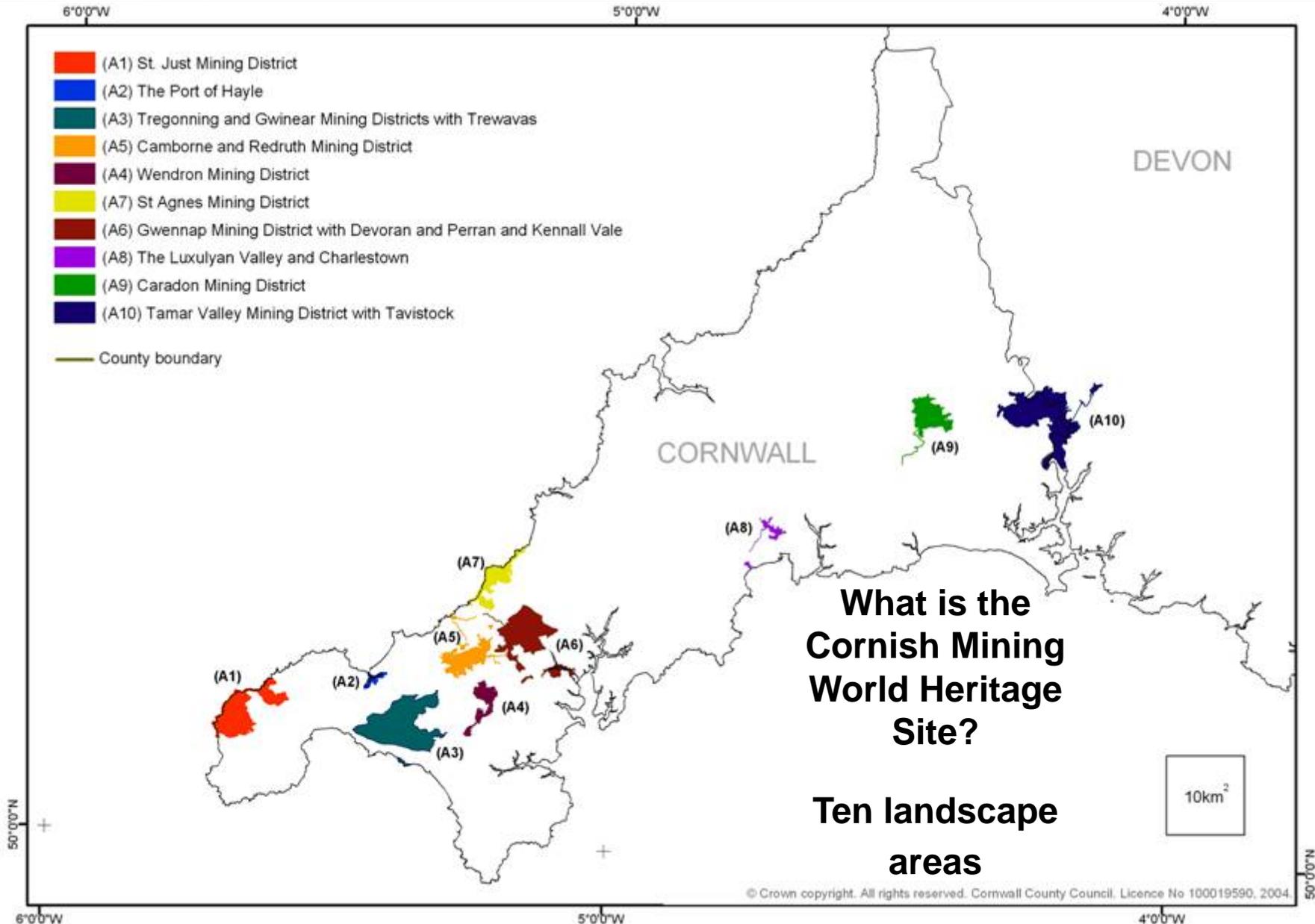


Virgin Gorda



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Mine Sites





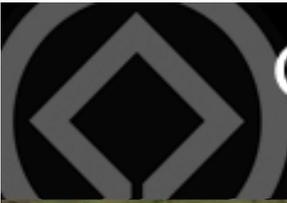
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Transport
infrastructure





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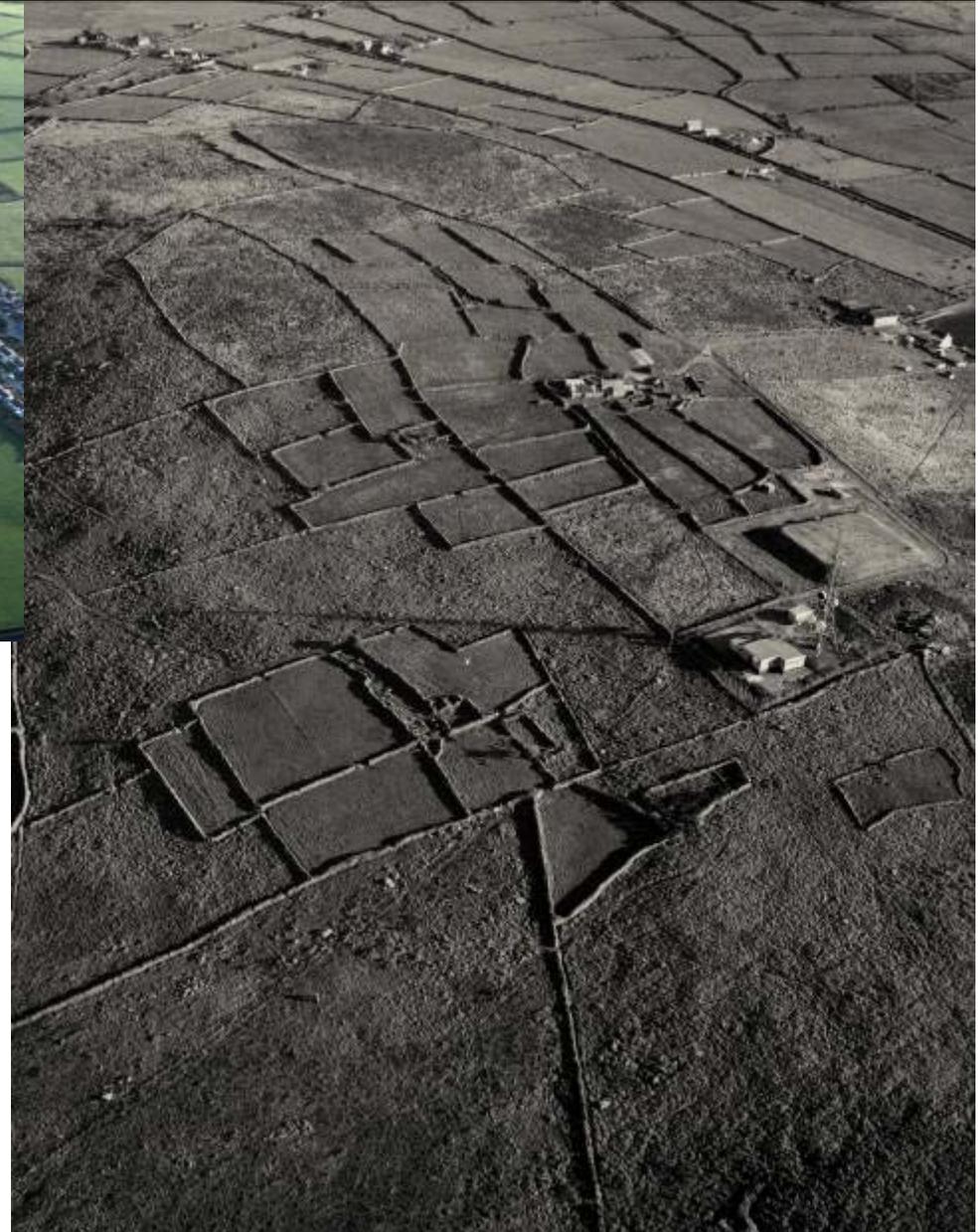


Settlements



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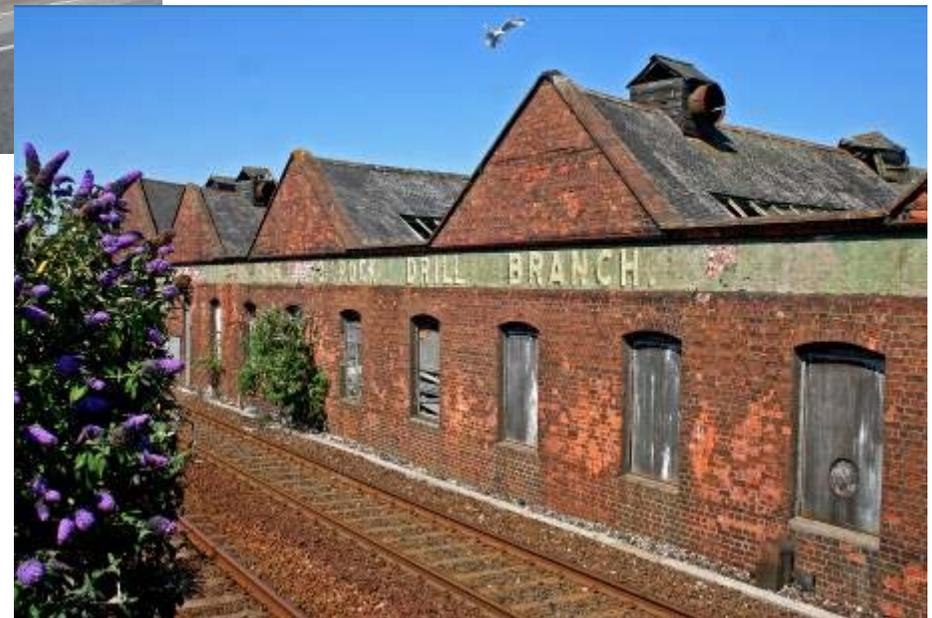
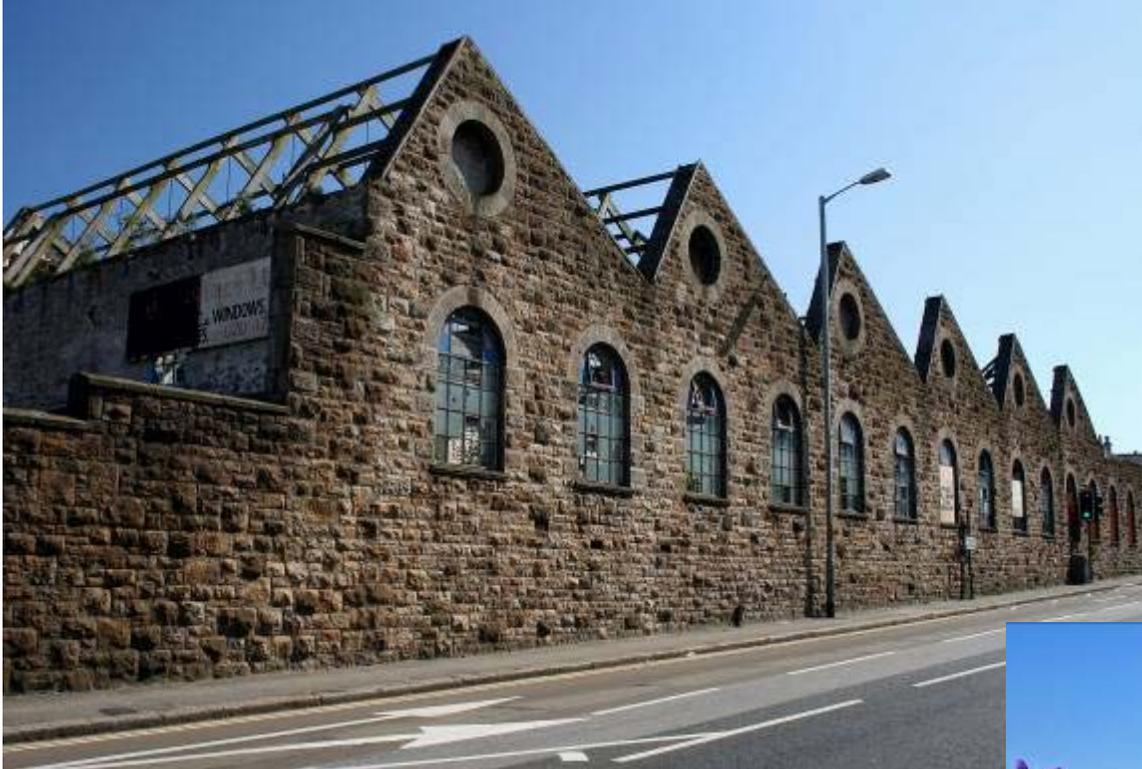


smallholdings



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Ancillary Industries



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Great Houses and Gardens





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Social Infrastructure



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World Heritage Convention – the responsibilities

*“Each State Party to this Convention recognises that the duty of ensuring the identification, **protection, conservation, presentation and transmission** to future generations of the cultural and natural heritage belongs primarily to that State.” (WH Convention, Article 4)*



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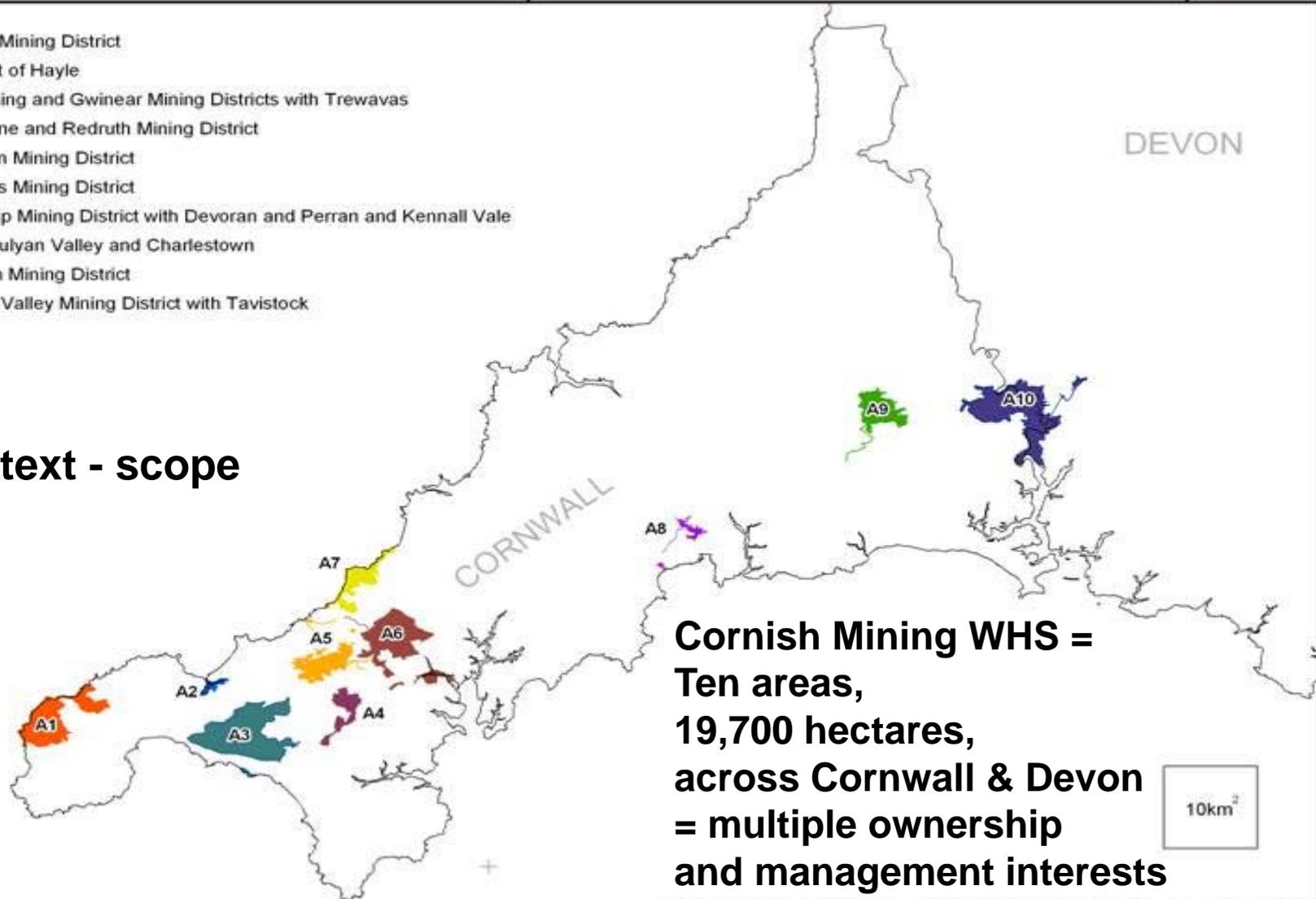


6°00'W 5°00'W 4°00'W

- (A1) St. Just Mining District
- (A2) The Port of Hayle
- (A3) Tregonning and Gwinear Mining Districts with Trewavas
- (A5) Camborne and Redruth Mining District
- (A4) Wendron Mining District
- (A7) St Agnes Mining District
- (A6) Gwennap Mining District with Devoran and Perran and Kennall Vale
- (A8) The Luxulyan Valley and Charlestown
- (A9) Caradon Mining District
- (A10) Tamar Valley Mining District with Tavistock

DEVON

Context - scope



**Cornish Mining WHS =
Ten areas,
19,700 hectares,
across Cornwall & Devon
= multiple ownership
and management interests**



50°00'N
6°00'W

5°00'W 4°00'W



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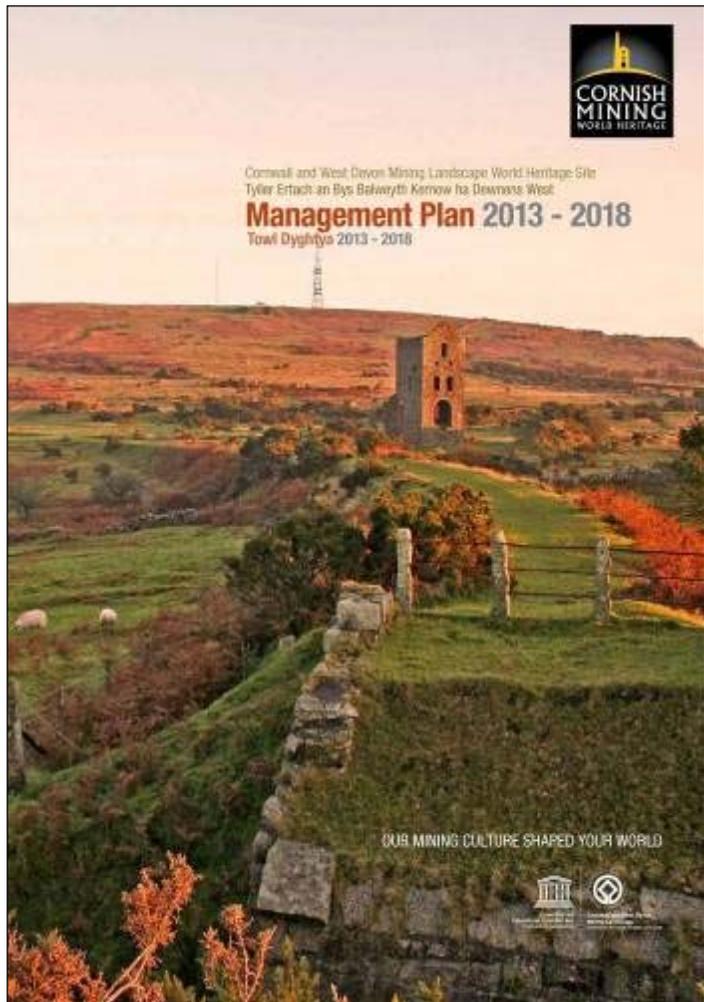


The Vision for the World Heritage Site



*“We believe that by protecting, conserving and enhancing the outstanding universal value of the Cornwall and West Devon Mining Landscape World Heritage Site it will **reinforce cultural distinctiveness**, and become a **significant driver for economic regeneration and social inclusion.**”*

Approach underpins the World Heritage Site Management Plan



Defines Vision, Mission and strategic objectives , resulting policies and strategic actions for meeting the obligations of the World Heritage Convention



Current Plan covers the four Convention responsibilities:

- Protect (Planning)
- Conservation (inc heritage led regeneration, adaptive re-use)
- Transmit (Learning and Community engagement)
- Present (Visitor management, interpretation and tourism)

Each presents opportunities to generate social, environmental and economic benefits



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Examples of sustainable benefits

- Supplementary Planning Document
- Cultural Tourism initiatives
- Education & cultural events
- Brand development
- Media engagement
- Embedding the WHS in communities





Example

“Tinth” Anniversary 2016 events programme

7 cultural projects across Cornwall & west Devon

Total of **161,000 attendees**

For WHS investment of **£0.95 per head** (£154k)

Media reach

Man Engine coverage:

35.9M radio listenership

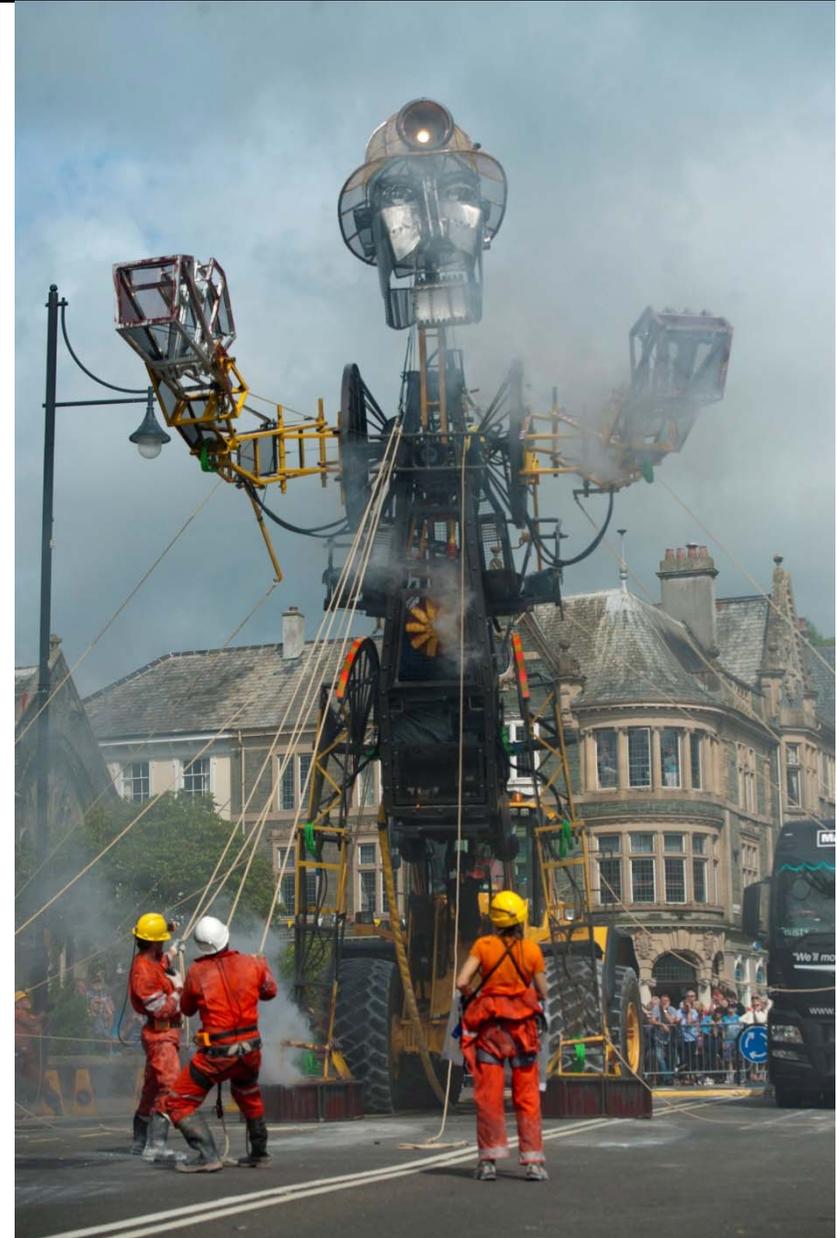
35.6M TV viewers

13.4M newspaper circulation

48.6M online views

£2.9m uplift in town centre spend

7 projects education programmes 2016 directly involved over **1,500 young people**





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Example - Discover the Extraordinary - consolidated the destination offer in an integrated investment programme from 2010-2014, linking;

- product improvement (interpretation, orientation & facilities)
- training & tourism industry engagement
- promotional campaigns





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Product improvement





Business engagement

400 businesses introduced to the CMWHS

Over 100 businesses carrying
the WHS widget on their website

60 'WHS Champion' businesses

Discover the Extraordinary
Our mining heritage shaped your world...

Get widget »

Area locations

Click on one of the coloured areas to explore a location.

Padstow Wadebridge Bodmin Liskeard Tavistock Plymouth
Newquay Lostwithiel
St Austell
Truro Redruth Falmouth
Helston Penzance St Ives Camborne



Principal outputs of Discover the Extraordinary

- **increase of 5.5%** of visitors indicating World Heritage Site historic mining landscape has influenced their decision to visit
- Overall **increase of 24 jobs** created in a sample of heritage attractions (not including accommodation sector)
- An average percentage **increase in visitor spend/income of 138%** amongst a sample of 20 participating inland WHS related tourism businesses





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Developed partnerships with Cornish producers to harness the brand for business and generate income for conservation = **£28k** to date



Example : Capital investment influenced by WHS status, 2006 -17

A1:	£ 4,464,900	7 projects
A2:	£ 8,571,700	4 projects
A3:	£ 850,000	3 projects
A4:	£ 112,000	1 project
A5:	£52,213,846	12 projects
A6:	£ 6,246,000	5 projects
A7:	£ 105,000	2 projects
A8:	£ 5,424,218	5 projects
A9:	£ 2,080,000	2 projects
A10:	£11,365,556	10 projects
Total:	£91,433,220	(A1 – A10: 51 projects)



Example – Wheal Busy

£270k capital (DEFRA/EU Higher Level Stewardship)





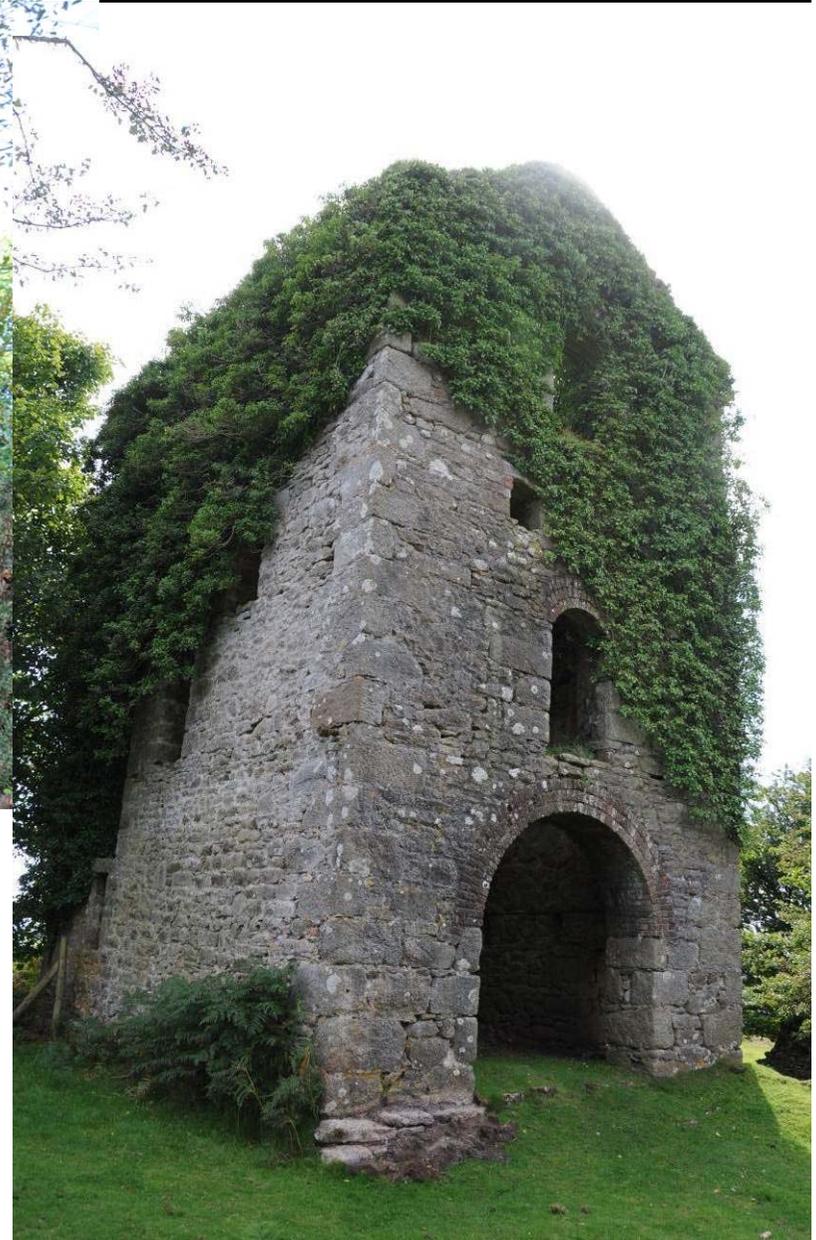
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Challenges

Priority setting exercise for remedial works – in an increasingly competitive environment



Revenue has also become a key challenge

Addressing the reduction in vegetation management, often arising from austerity cuts



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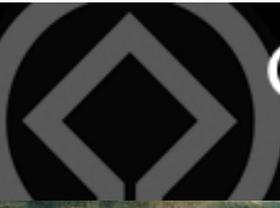


**Future
priorities**

**Transnational
partnerships**

**Develop
new
destination
offers for
overseas
tourists**





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2016 BICENTENARY OF RICHARD TREVITHICK'S JOURNEY TO THE NEW WORLD

One of the most important chapters in Cornish history, the birth of global mining trade networks by a transatlantic enterprise led by Richard Trevithick. This led to lead to Cornwall's virtual dominance of the metalliferous mining industry over a century of international migration.

AN ANCIENT PRECEDENT - THE TRANSFER OF THE INDUSTRIAL REVOLUTION TO LATIN AMERICA

Atacamita was an isolated town in the Andes, on the snow-line some 4,330m above sea level. With a population of one of Latin America's most remote silver mining areas, by the early 19th century its mines needed to adopt new technologies in order to reach rich ore deposits at a higher water level.

The Atacamita Mining Company formed in 1811 with ambitious plans that marked a significant point in transatlantic industrial history. A historic Anglo-Latin American mining tract, the first of its kind, was established when the Company's agents and Richard Trevithick on 8th January 1814, for pioneering high-pressure steam winding engines, at a cost of over £10,000 (in excess of £7 million at present value).

For more information visit www.cornishmining.org

www.cornishmining.org



**Transnational
business
partnerships in
other sectors –
e.g. training,
food & drink**

ACTUAL SIZE OF THE 14" CYLINDER CAST

THE CORNISH CONNECTION LATIN AMERICA: 'COUSIN JACK' AND THE NEW WORLD

Sharron P. Schwartz
www.cornubianpress.com





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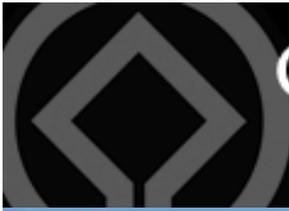
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Ecology and biodiversity



- Address health and wellbeing initiatives
- Support environmental growth strategies
- Contribute to ecosystem services, natural capital & climate change mitigation



CMWHS Management Plan policy on resumption of mining

Policy C4: Proposals for the resumption of mining will be supported where they do not adversely affect the Outstanding Universal Value of the Site.



- **First adopted 2005 and submitted with the WHS bid**
- **Discussed by World Heritage Committee (WHC) 2006**
- **WHC asked to be kept informed of proposals**



Other perspectives

International Council on Mining & Metals Position Statement, September 2003

“In addition to existing commitments under the ICMM Sustainable Development Framework ICMM member companies commit to:

...Not explore or mine in World Heritage properties. *All possible steps will be taken to ensure that existing operations in World Heritage properties as well as existing and future operations adjacent to World Heritage properties are not incompatible with the outstanding universal value* for which these properties are listed and do not put the integrity of these properties at risk.”

Developed in discussion with International Union for the Conservation of Nature (IUCN), arising from concerns at natural WHS's.

Not UNESCO's cultural property advisory bodies

International Council on Monuments and Sites (ICOMOS), or International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)



UNESCO World Heritage Committee

World Heritage Sites and the extractive industries, Stephen Turner, June 2012:

- focused on natural World Heritage Sites (not on cultural Sites or mining sites/mining landscapes).
- Pointed out that the World Heritage Committee itself had no formal policy statement regarding this issue.

More recently, the World Heritage Centre has published information on its website, summarising its general position - <https://whc.unesco.org/en/extractive-industries/>

WH Committee Decisions (2014, 2015, 2017) in relation to resumption of mining at South Crofty have sought design revisions, to be informed by Heritage Impact assessment that focusses on OUV, and to minimise landscape impacts.



The International Committee for the Conservation of Industrial Heritage (TICCIH) Memorandum (2013)

In some circumstances continuation or resumption of mining in a Site inscribed because of its historic mining significance may contribute to the re-invigoration of the cultural landscape... TICCIH recommended criteria to consider :

- 1 Understanding the criteria and justifications that underpin the Site's OUV.
- 2 Understanding the historical, social and economic context within which past mineral working has taken place; especially if examples of recent working form part of the OUV.
- 3 Understanding of the role of mining as part of the cultural tradition of present populations in the World Heritage Site and its environs.
- 4 Access to full details of such new methods of mineral exploitation as may be proposed including specific information on technologies to be employed, their geographical extent within the World Heritage Site and its environs and anticipated environmental impact.
- 5 Protocols between the World Heritage Management agency and the mineral undertaking that guarantee the protection of the existing OUV.



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Commodities

TESLA'S STRUGGLE TO SECURE LITHIUM SUPPLIES FOR ITS PROPOSED \$5BN BATTERY FACTORY HIGHLIGHTS THE RISK THIS POSES TO THE ELECTRIC CAR INDUSTRY. **ROD JAMES** LOOKS AT THE UNSTABLE SUPPLY CHAIN

Lithium: the Key to Electric Cars

*Scroll down or swipe
to read the article*

Resumption of mining - a climate change mitigation issue?



Expanding perspectives - Supporting the preservation of all WHS's through contribution to climate change reducing technologies



Questions