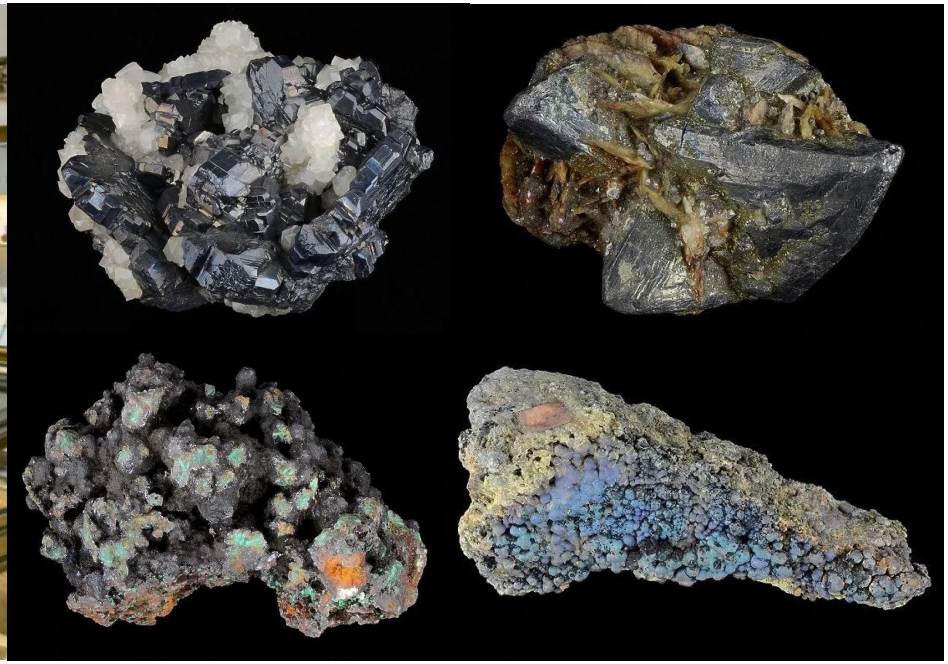
headland design associates

Interpretation Strategy - Mineral Gallery at the Royal Cornwall Museum

December 2023



rcm royal cornwall museum

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Contents

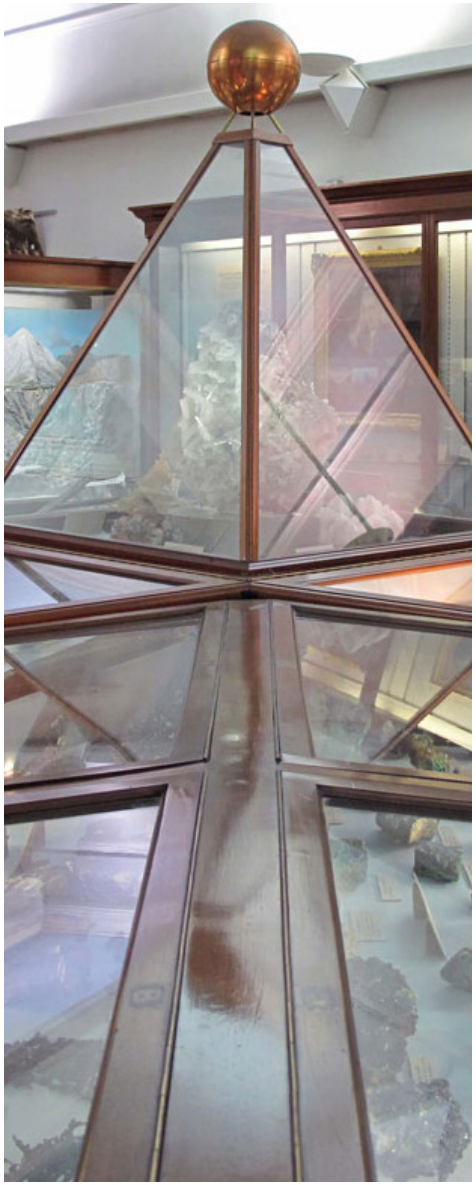
1. Introduction

This Interpretive Plan sets out the interpretive approach for the new Mineral Gallery at The Royal Cornwall Museum. It draws on the exhibition design brief and in turn will be used to inform the development and design of the gallery, it also supports, and is informed by current work by Counterculture to develop a Business Plan and to review audience development work.

Headland Design were appointed to support the museum team to develop an approach to interpretation for the new Mineral Gallery and to consider how this fits into the wider museum redevelopment. The team started with an interpretation planning workshop to discuss the principles, and to identify and discuss core and priority audiences. The second workshop explored the identity of the museum, a SWOT of the current visitor experience, and discussed what works well in the current Mineral Gallery display and what doesn't. A smaller group from the museum looked at objects and stories related to the Mineral Gallery which has helped to inform the Interpretive Framework and an understanding of the heritage resources. A site visit helped to inform the current visitor experience summary and the heritage assets and key stories. The team took part in an outcomes workshop, discussing the outcomes and impact that this gallery will achieve.

In 1818, the newly founded Cornwall Literary & Philosophical Institution (later the Royal Institute of Cornwall) began to gather a collection which reflects the mineralogical discoveries and developments in geological understanding that were taking place. The original aims of the museum were to promote excellence in science and art and to forward the world-leading industries that Cornwall was known for. The museum owns and cares for over 1 million objects, which includes the Courtney Library collection.

The museum's mission is to: provide a welcoming, dynamic and lively cultural hub centred around our collections, that inspires people to explore, thrive and have fun.



2. Theory of Change model – vision

CM Mineral Gallery: Theory of Change model

VISION: Create an inspiring place where the significance of the unique mineral collection is shared and celebrated, We want to engage different audiences to use our collections to inspire creative thinking, help build connections and promote curiosity and learning.

Challenges / needs & opportunities	Inputs (resources)	Outputs	Short term outcomes	Impact
Visually interesting display but lacks a clear narrative / story	Exhibition design	Beautiful object rich displays that showcase significant collection	Visitors will discover Cornwall's unique, rich & diverse geology & minerals	Visitors feel welcomed and become regulars at museum
Information focuses on the minerals – opportunity to tell wider story and connect collections in rest of museum	Clear narrative that sets out the story	Accessible showcases and engaging story told through graphics, labels, digital and interactive exhibits	Create sense of awe and wonder inspired by the collections	Visitors are inspired to find out more about geology and Cornwall's history
Strong support and interest from academics/ specialists – need to retain audience and engage new ones	Fabulous / significant collections (minerals and others)	Multi-sensory displays	Visitors learn about the geology of Cornwall and how this shaped the history	Local people take pride in the significance and importance of the collection and Cornwall's heritage
Need to appeal to range of visitors and ensure inclusive and accessible displays (current showcases not accessible)	Content with layers of informaiton	Layers of information for different audiences – specialist & families	Visitors will enjoy exploring the gallery and make connections with wider collection	Inspire young people to pursue interest and careers in geology and geothermal tech
Retain sense of awe and wonder – object rich displays.	Funding for exhibition deisgn & fit out	Recreate traditional atmosphere and cabinet of curiosity feel	People appreciate Cornwall's global role in industrial & geothermal innovation	
Create displays that reuse existing materials and have low environmental impact	Curatorial knoweldge and expertise from advisory panel	Create connections with other places to visit	Visitors inspired to visit other sites linked to mining history / WHS	
	Consultaiton / inout from audiences			

3. The current visitor experience

3.1 Museum team review

The notes below are based on the SWOT undertaken with the museum team and a site visit by the consultant team.

The museum is within two historic buildings which create fabulous spaces and tricky access challenges. The story of the buildings is not currently told and although visitors receive a warm welcome from staff as they enter the museum there is no clear introduction that sets out what the museum is and what visitors can expect.

The Mineral Gallery is located to the left of the main hall/ atrium space. The atrium is a flexible space that is used for large displays, events (it can seat 200 people), and around the edge has object displays including showcases of archaeology and larger objects such as the coach.

The Mineral Gallery is well loved, and often mentioned as visitors' favourite part of the museum. Traditional showcases date from the original Rashleigh museum collection display and create a cabinet of curiosity feel for the galleries which is important to the museum team and many of the visitors. There are a few graphic panels in the gallery but they are not part of a coherent story; the introductory panel was removed because of damage. The minerals are grouped by type with a technical introduction to the type, with individual labels for each specimen and information about where it is from and sometimes information about the location or mine.

Displays also include non-Cornish minerals and tools used in the mining industry, these are labelled in a similar format with technical information related to the geology. There are a few stories of key individuals, mostly linked to the portraits and other artworks. There is limited tactile or interactivity.

The gallery is often described as being full of crystals by visitors and it is a popular gallery. Specialists like the depth of information provided through the labels and many people like the locations that connect the minerals to places that they know or have visited.

The museum team discussed what works well and what needs to change in the redisplay.	
Works well	**Doesn't work**
Antique / historic feel of showcases B&W photographs alongside collections Labels about where minerals are from / links to place Variety of the rocks Range of colours Object rich Diorama – divides opinion Not many people stories	Limited view into showcases (for wheelchair users/ children) Beige colour Lots of specialist info (too high level) Some of Information is inaccessible No story for the gallery Text heavy Interpretation is limited and not engaging Introductory panel has been removed (it was dated) Interactive exhibits don't work (not v good either) Information relies on reading / visual Lighting is bad Sloping 1990s cases look out of place

This led to a list of 'sacred cows' or elements that needed to be retained

- Historic feel of the collections, through reuse of the showcases (with adaptation)
- Wealth and depth of the collections on display
- Depth of information for specialists (could be provided as extra info)
- Specific information about the collections (place found)

3.2 Text and content

The consultant team undertook a review of the content and approach to object labels in the Mineral Gallery and the wider museum.

- Graphic panels are an important way to tell a story and provide an introduction to different spaces, they should be visually interesting, with a clear catchy title, a summary sentence and less than 120 words. An in house style guide will help to ensure consistency and a coherent approach and tone of voice. Most of the current graphic panels (including temporary exhibitions) are over 200 words – tight editing and concise language will reduce these.
- Object labels should be informative and easy to understand, specialist information or detail can be provided in other ways (QR codes or pick up handouts). The labels should be easy to find and either use a clear numbering system or appear alongside the objects, and follow text writing guidelines with concise language. Group object labels can explain why objects are grouped together and their significance. Labels should grab the reader's attention. Accession numbers do not need to be added to object labels, if this is critical for object movement information then they can be added to the reverse – this is not important information for visitors!
- The current object displays do not change. The current showcases are hard to open and curatorial time is given to creating temporary exhibitions. The number or frequency of temporary exhibitions could be reduced, and permanent displays could be updated with changing objects and information.
- All written information should use easy to understand language, ideally written for a reading age of 10 (the UK average) with short sentences.

4. Audiences – current and potential / priority

4.1 Current Audiences

The museum team discussed who currently visits the museum and what we know about them and how they engage.

Current audiences	What we know
Local people	• Local families looking for ways to spend their time at the weekend • Parents and toddlers/babies looking for somewhere to entertain children while shopping • Local adult couple coming to see temporary exhibitions • Lost young people looking for something to do • Wellbeing and community groups • Young adults coming to Lates events
Specialists, special interest groups and researchers	• Researchers looking to access collections for studies • Specialists • Academics using the library • People interested in minerals – geology background • People with specific interests attending events, e.g. textile lovers at textiles events • Art lovers/enthusiast • Members

Current audiences	What we know
Schools, colleges and students	• Primary schools • Work experience students (around year 10) • University students and FE college students - art • Language students
Visitors and tourists	• Family visiting area on holidays and it's raining • Tourists in summer and spring • Saga season tourists • Retired couples on holiday (shoulder season) • High street wanderers in hot weather looking for shelter • Off-peak couples without children

The group discussed who doesn't visit and the priority audiences for the new Mineral Gallery.

Who doesn't visit?

- Young adults (under 30/35 years old) – small numbers coming to evening events but not transferring to daytime visits yet. Would be great to attract more students and local young adults.
- Young couples – people who might be encouraged to repeat visit
- Families don't visit outside of the holidays – would like to encourage local families to see it as a place where they can drop in – don't seem to be coming at weekends
- Quite a broad reach but would be good to attract more of each of the current audiences, e.g. do get small numbers of art lovers but need to find a way of attracting a larger group more regularly

4.2 Core and Priority Audiences for the Mineral Gallery

Core audiences are people who are likely to, or already do visit. In order to engage with priority audiences further consultation and research may be required to find out about interests and barriers to access.

Core audiences	Priority audiences
• Specialists –they like the current gallery and it validates what they know / adds to their knowledge • Artists – visually interesting displays appeal • HE and FE students – linked to art • Tourists and visitors	• Families with children aged 12+, the natural history gallery is aimed at families with younger children • School groups – realistically this is likely to be primary schools • Local people who visited a long time ago and not been back

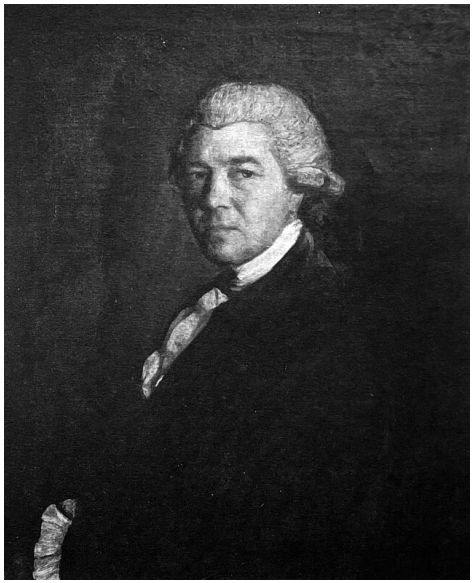
Advisory panel noted that the new interpretation needs to give introduction for people who don't have geological background and the minerals should be the starting point, hook or connection for visitors.

5. The story we want to tell

The Interpretive Framework sets out the key stories grouped together into topics with an interpretive theme for each topic. In order to develop these we undertook consultation with an advisory panel made up of specialists, geologists and other museum professionals who provided feedback on the emerging themes and key stories. The museum's youth panel (which includes pupils studying geology) provided feedback during one of their regular sessions, and the Royal Geological Society of Cornwall took part in round table discussions as part of their recent meeting at the museum.

The advisory panel discussed the proposals the stories we'd like to tell and they provided feedback. They confirmed the choices made by the museum team and through our research, but added further context and suggested also taking a more scientific approach rather than just historic. They identified important geologists and collectors connected to Cornwall. They noted that the development of mineral extraction and production of metals such as bronze and the use of China clay are closely linked to the development of human technology. The geological knowledge and skills in Cornwall and Devon in the 1800s was the greatest in the Europe and influenced development across the world. The geological identity of the different areas of Cornwall defines these places.

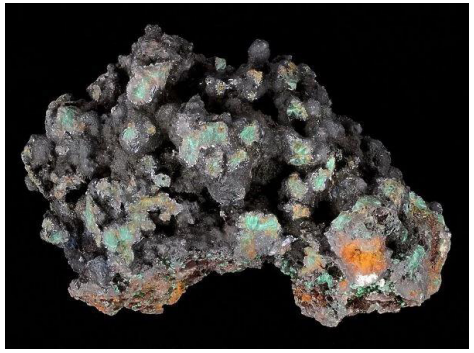
They commented that the story continues to evolve; The Camborne School of Mines continues to teach mining engineering and geology. It is important that the new interpretation helps visitors explore the wider story of mining and places to visit. The group added to places connected to myths and legends and noted that place names change depending on the Cornish dialect which contributes to Cornish identity. The group also contributed to the themes and stories summary diagram, adding to the topics - deep time to help explain the geological process and an emphasis on geology and mining today. There was some concern about the range of stories to be told and how much of the focus would be on the minerals. The story of the minerals and the collection needs to be at the heart of the new gallery, this is where most visitors start, either because they are attracted visually or because they have an interest and some knowledge.



The youth panel talked about the importance of something for children and young people to do in the gallery and that the interpretation needs to show people how to find out more, explore the local landscape and go and find other museums or places to visit. They suggested including stories about the lives of miners, the story of oil – how does this fit into the story of minerals and connect to environment and conflict? There needs to be a balance of negative and positive stories related to the environmental impact and the mineral collections needs to be connected to life today. The interpretation needs to show how minerals have shaped society and tell stories related to them. The locality of the minerals is really important. Wider stories could include artists' responses to the minerals and landscape, people like Natalie Day. The group were asked what's special about the Mineral Gallery:

- The visual element - so many rocks and so many colours.
- How they're grouped together
- So many from all across Cornwall
- Philip Rashleigh - his work and collection
- Sensory aspects - whilst making sure these are present also making sure they're not overwhelming and over sensory. - finding a balance between sensory experiences
- Makes you grateful for your surroundings
- The atmosphere with the dimmed lights
- Being able to find minerals near you

The Royal Geological Society of Cornwall members added comments and key stories to each of the evolving themes for the new Mineral Gallery. These have been incorporated into the Interpretive Framework key stories and have added information and depth. The group also commented that the visual impact of the collection should not be underestimated – they should be considered works of art! They commented that overcrowding in the showcases can be discouraging, although others wanted the gallery to be left untouched and as it is. A few people commented on the importance of telling the story of the collectors, especially Rashleigh. There were positive comments about the idea to make the showcases more accessible. Members of the group also offered to help with further research and information.



6. Heritage assets and the collections

6.1 The mineral collection

The mineral collection started by the Royal Institution of Cornwall (RIC) documents 300 years of Cornish mining and mineralogical-related activity. It represents the portable evidence of the resources, people, places and events that shaped Cornwall's scientific, intellectual and industrial development. With the inscription of the Cornish Mining World Heritage Site, the RIC's mineral collection has taken on worldwide significance.

The earliest specimens in the RIC's collections date from the mid to late 1700s and comprise the internationally significant collection compiled by Philip Rashleigh F.R. S. (1729 – 1811), which includes significant mineral finds in Cornwall and many scientifically notable specimens. In 1797 and 1802 Rashleigh published his two-volume Specimens of British Minerals, recognised today as one of the earliest illustrated British mineralogical publications.

In the mid to late 1800s, comparative material brought back by Cornish adventurers from North America, Australia and Chile reflects the economic fluctuations experienced by Cornish mining. 'Cousin Jack' specimens sent back from overseas give a personal dimension to the Cornish diaspora of the late 1700s and early 1800s. All the key transnational links for the Cornish Mining World Heritage Site are represented in the RIC's collection: O'okiep (South Africa); Burra Burra & Moonta (Australia); Real del Monte (Mexico) as well as mines in Cuba, Bolivia and Peru. The status of the RIC's collection was enhanced by the publication of catalogues (in 1878 and 1891) edited by pioneering Cornish mineralogist J. H. Collins (1841 – 1916). Nationally, J. H. Collins founded the Mineralogical Society of Great Britain & Ireland in 1876, but was a prominent supporter of the RIC.

In 1922 the collection of James Wickett (1841-1921), a Redruth entrepreneur who sat on the board of directors of many Cornish mines was donated to the RIC. The significant part he played in the development of Malaysian tin deposits adds an interesting dimension to his role in the history of Cornish (and world) tin mining. His collection of Cornish & World tins, perfectly illustrates the dichotomy of his business interests and the role Malaysia would play in the demise of tin mining in Cornwall. The 1970s and early 80s saw numerous donations from Richard Barstow (1947- 1982). Without question the most significant UK mineral dealer of the 20th century and knowledgeable field collector, Barstow gifted many contemporarily collected specimens which give evidence of the rapidly vanishing mining landscape as mines closed and mine-dumps were being landscaped or built over.

Although contemporary additions to the collection have been reduced, due to the need to fulfil strict quality and provenance criteria, rare 'old timers' and occasional new finds (e.g. the spectacular Botallackite find at Cligga Head in 2007) do meet the standards and help maintain the modern relevance of the collection.

6.2 Other related collections

The gallery contains more than minerals and there is an opportunity to further develop the wider connections between the mineral and other museum collections.

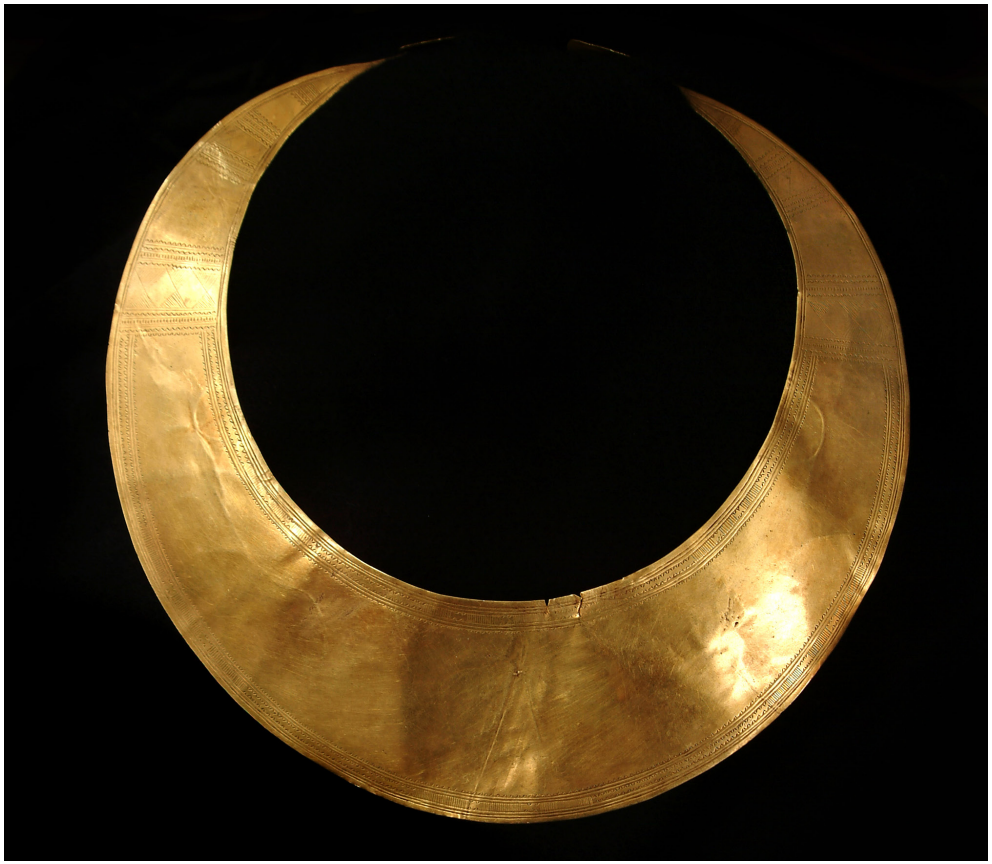
Fossils

Fossils from Dorset and Lyme Regis (not dinosaurs but other prehistoric specimens), casts from the US and the rest of the world. Not many fossils survive in Cornwall because of the type of geology found in the area.

Materials related to minerals

Materials and items made from tin, copper, arsenic (big byproduct), lead, China clay, zinc, gold and silver. Cornish silver is of not very good quality. Cornwall is renowned because every type of mineral is found here, but the quality varies.

There is some gold within the minerals collection. There are items made from Cornish gold in other parts of the collection, including archaeology which show the importance and presence of the mineral. These could be linked or moved into the displays. Cornish gold and tin found around the world is evidence of trade and people connections during the Bronze Age.



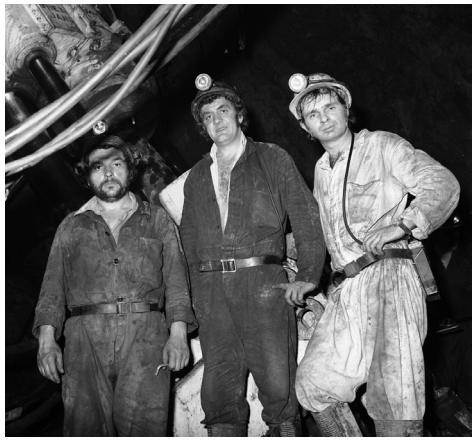
Art collection
The current displays including paintings and portraits. The Roy Billingham paintings show a contemporary view of the mining landscape. There are also oil portraits of some of the collectors and museum donors. These could provide a good starting point for telling stories of people connected to the collections and story.

Mining equipment
This includes personal items such as miners' candles and tools. A Davy lamp (on loan) which was invented in Cornwall. Scientific instruments used to ascertain quality and weight of minerals – one of the key manufacturers of these instruments was Cornish. There are quite a few gaps in the collections in relation to tools and equipment. Other sites that focus on the mining process have better collections, such as King Edward Mine, Geevor, Batallic, Levant. They tend to focus on the mechanics and processes rather than the people. The sites are also difficult for visitors to get to by road.

Museum building
The museum building combines an old bank and a chapel and used to be owned by a local mining company, RCM holds plans of how it was used during that

period. The building is made of local stone, with a granite façade and other stone used throughout the building decoratively.

Photographs and oral histories
J.C. Burrows was one of the first photographers to take a flash down the mines to capture workers, he also took his wife and she's captured in some of the photos. John Peck was photographer for Croft Handy and Wheel Jane (some of last active mines in Cornwall) and took photographs of miners about 40 years ago. These were donated to RCM and are used with the museum's dementia group. The photographer had to build strong relationships with workers to capture images and was originally not welcomed. There is also a collection of oral histories relating to the mine.



6.3 Understanding of the collection

The collection is categorised by type in storage and on display. The objects are recorded on the museum CMS (Modes) which includes specialist descriptions but lacks a depth of information that would help with interpretation for a non-specialist curator. The places where the minerals were found is an important aspect of the interpretation, visitors and local people like to identify places that they know. This information is recorded on individual labels alongside the objects – need to clarify if this is also on the CMS?

7. Wider connections

World Heritage Site

The museum collections played a significant role in securing the inscription for the WHS for the Mining of Cornwall and North Devon. Truro is outside of the geographical designated area of the WHS but close to places within and an important location for visitors to the area. The new interpretation will help visitors to understand the significance of Cornwall's geology and mining industry which is important enough to have been designated.

Places to visit

The museum should act as a hub, inspiring visitors to find other places that tell a different part of the story and providing a clear comprehensive narrative for those who have already visited some of the other sites.

Royal Cornwall Museum

The refurbishment of the Mineral Gallery is the first in a series of redevelopments across the museum which will improve the visitor experience, highlight the museum's significant collections and create a clear narrative for visitors. The displays need to connect to other objects within the museum and help visitors to follow a story around the whole museum. The mineral and mining collections are a great starting point to understand Cornwall's history and connect to many of the other displays. The development of the narrative themes for the museum will help to create a coherent story throughout the museum. Each gallery will also have a clear identity and key message. This needs to be reflected in the design of each gallery, creating a visually coherent experience, with a clear introduction and visual identity for each gallery that is also part of the whole.

8. Interpretation in the RCM

The development of the Mineral Gallery is part of a wider project to redevelop the whole museum. This being progressed one gallery at a time due to funding availability. In order to set the context of the Mineral Gallery the consultant team supported the museum team to create a series of narrative themes for the museum. These are like interpretive themes and contain an idea developed from a topic that threads throughout the museum collections and interpretation. They will help to create a coherent visitor experience and will appear within each of the galleries. They sit underneath an overall key message for the museum (which is to follow).

Approach to interpretation key messages

A. Key overall message for the museum
B. Narrative themes for the museum (see below)
C. Key message and identity for each gallery
D. Themes and key stories for each gallery (see Interpretive Framework for Mineral Gallery)

A. Key overall message for the museum

B. Narrative Themes

These will thread through the museum connecting the stories told in each gallery. Visitors will find aspects of each of these themes across the museum's galleries. The narrative themes have been developed based on principles set out in the AIM Interpretation Planning guidance notes https://aim-museums.co.uk/museum-displays-interpretation/interpretation-planning-interpretation/

1. ***Cornish identity has many layers, based on a distinct culture that continues today. The historic language, influenced culture and is having a revival. Cornwall's place at the edge of the island of the British Isles gives the Cornish identity a great sense of place which continues to be expressed through the arts, sciences and industry.***
2. ***The mining industry led Cornish people to far-flung places across the world. The Cornish diaspora still identify strongly with the land and culture of their ancestors. There are places known as 'little Cornwall' in Australia, Mexico and the USA.***
3. ***Cornwall's landscape was changed forever by mining, quarrying, and farming. It has been irreparably scarred by industry. The hills and valleys surrounded by the coast influenced what and how people made a living. . The landscape of today was shaped by people, while industry was shaped by the landscape, generating wealth, communities and culture.***
4. ***Cornwall's deep history, more closely linked to Brittany, Wales and Ireland than anywhere in England, is reflected in its archaeology, placenames, language and folklore. It is steeped in myths and legends, with its own unique tales, and remains a place that people associate with spirituality and the unknown.***
5. ***Landscapes of Cornwall are rich and home to a unique and diverse wildlife. The peninsula, surrounded by the sea, is a jigsaw of cliffs, woodlands, lakes, rivers moors, peaks, towns and villages. Throughout history, these landscapes have inspired artists, and today, can also help us understand how the climate is changing.***
6. ***The World Cultures collections enable people to experience history and identity from global perspectives, encouraging everyone to celebrate diversity, recognise similarities and interrogate Cornwall's role in Empire and colonialism.***
7. ***Geographically and culturally, Cornwall is distant from England and its ruling powers. Cornish people have fought to protect the distinct characteristics of their culture, identity, values and beliefs, establishing a tradition of rebellion***

9. Interpretive Framework

Topics and key stores for Mineral Gallery

The tables below set out each interpretive topic and its associated interpretive theme with a related key question. The key stories can be found in the left-hand column with key points noted for each alongside. The final column is for heritage assets and collections.

Deep Time ***Cornish minerals were formed many millions of years ago. Understanding geological process and deep time explains Cornwall's unique landscape and defined geological identities across Cornwall.***		
Key Question: What is deep time and how are minerals created? Note: Having deep time presented before the geology sections allows for a greater understanding of the significance of minerals and the uniqueness of Cornish geology.		
Deep time is the geological time scales and was first conceptualised in the late 1700s.	• The concept of deep time was initially discovered in the late 1700s by geologist and farmer James Hutton, who came to realise through exploration of rock formations that the structure and arrangement of specific rocks did not conform to the biblical timeline and was in fact the creation of millions of years, contradicting belief that the world was only a few thousands of years old. • What Hutton had discovered was an 'unconformity', a clear line where two different types of rocks met to create a rock formation that charted millions of years of existence and could only be created through drastic changes in the environment, for example, the drying of an ancient ocean that once covered the area where the rock formation lay. • This discovery would create the basis for the realisation and conceptualisation of deep time.	

Geological processes are important in the shaping of the Earth's geology, contributing to the marking of time in the surrounding landscape.	• Geological processes are naturally occurring events shape the physical landscape of the planet. These natural forces result in the formation of minerals. Geological processes include: Erosion – breakdown and transportation of rock particles – Weathering – biological, chemical (acid rain), physical – Deposition – laying down of sediment via wind, flowing water etc. The area has some fascinating geological features which raise several mystifying questions. These are known as 'unconformities', which are exposed and visible for people to explore: – Carne and Pendower beach is backed by a low cliff, the base of which is Devonian (and includes fossils) but the upper part if over 100 million years younger. There is a huge period of time not recorded in between! – The Devonian rocks have been tilted and the whole Variscan mountain range building episode is missing. Everything above the top of the tip-tilted area has since been eroded away over millions of years before the upper part we can now see was deposited on top of that worn surface.	

Cornwall has a unique geological identity	• Cornwall's long geological history began approximately 500 million years ago with its distinctive geological landscape being resultant of the variation of climate – ranging from wet and humid, desert-like, glacial, and now the present day temperate state. This drastic variation of climate has left its imprint on the geology of the land, leading to the formation of a variety of different rocks and minerals. • The main geological eras that impact Cornwall's geology are: – The Devonian period – Geological period from 417 million to 354 million years ago – this is when the main story of Cornwall's geological history dates to. – The Carboniferous period – geological period that spans 60 million years from the end of the Devonian period until the Permian Period in 298.8 million years ago. – The Permian period – geological period spanning 47 million years from 298.9 million years ago up until 251.902 million years ago. • Significantly, the geological make up of Cornwall varies across the region and has several distinctive areas: – Cornwall is known for its granite backbone which paved the way for its extensive and significant mining history. – The Land's End peninsula consists entirely of granite which gives it its unique appeal - rocky cliffs carved into pillars and blocks by time. – North Coast is made up of carboniferous sedimentary and volcanic rocks. – The Lizard Peninsula– unique geological structure – famous for serpentinite.	

Geology

Cornwall is rich with a cornucopia of minerals. These beautiful and valuable minerals have attracted industrialists, geologists and collectors. Their extraction has advanced human technology and placed Cornish engineering on the map.

Key Question: What type minerals exist within Cornwall? What is unique about Cornish geology?

Cornwall's landscape is rich with metallic mineral deposits including copper and tin ores	• During the 1800s Cornwall was the largest producer of copper worldwide. • Historically, Copper was used to sheath the hulls of British ships and to provide coinage. It was used for copper wire and cable that were the basis of the electronics and the communications industry. The sugar and dyeing industries used it to make hollow-ware boilers, vats and piping. It is also the principal constituent of brass and so provided crucial fittings for steam engines, brass trading goods and gun cartridges. • The need to transport copper from mining hotspots was integral to the changing of infrastructure and transportation links in Cornwall. • Tin mining industry has been prevalent in Cornwall since the early Bronze Age. • Traditionally, Tin was used in pewter ware and solder, and to make the tin plate on which the canning industry was built. Tin was alloyed with copper to make bronze for industrial applications, including machine bearings and ship's propellers • Tin mining was not as prosperous as copper mining had been meaning there was a greater demand and pressure to make profit. Overall tin was in less demand than copper by the mid-1800s, but it remained as one of the principal metallic minerals being produced alongside copper and arsenic. • The last tin mine in Cornwall closed in 1998 – South Crofty at Pool. • Although Cornwall has an extensive history of mining primarily tin and copper, other metal have also been mined within the area - arsenic, silver, zinc, manganese and iron - relating to its mineral rich landscape (the Cornubian Orefield).	

Granite is one of the more common minerals found in Cornwall, making up the central spine of the land	• Granite is an igneous rock that is formed with the cooling of magma deep underground. The main areas of granite are found at Land's End through to St Austell and Bodmin Moor, then further to Dartmoor in Devon. • It is the intrusion of granite into sedimentary rock which has contributed to the creation of west Cornwall's rich mineral wealth. • Granite has been a dominant industry since the 1800s but its use within the area dates much further back with granite stones being quarried on the moors (moorstones) and cut by stonemasons for building churches and bridges. • Granite was also exported overseas for civil engineering projects in continental Europe, South Africa, India and Argentina • Cornwall's granite provided building material for major construction projects including docks and lighthouses. • At present day, granite is still quarried in some area of the region, particularly at De Lank near St Breward on Bodmin Moor.	
The mid-1700s saw the beginning of the clay industry that would change the landscape and local communities.	• Another key mineral industry within the area came from the development of China clay which received its name from its similarity to Chinese kaolin clay. • China clay is made from partially decomposed granite, using water to separate the granite impurities from the fine talc-like material that was used to create the clay. The clay was initially used predominantly in porcelain, but was also eventually used within medicine, the paper industry and for many other use. • The discovery of this type of clay lead to the manufacture of true, hard-paste porcelain in Britain. The secret of making it had been kept very closely by the Chinese potters for centuries. This eventually lead to porcelain wares becoming more common in Britain as they did not need to be imported from Asia or mainland Europe. • In being one of the largest China clay deposits in the world, Cornwall's landscape and community was greatly impacted by the industry. The increase in industry within the area rapidly saw the tiny villages within the area boom, with the landscape being transformed dramatically to meet the demand of the industry – this included investments from landowners in building infrastructure such as harbours for ships transporting material, houses, and factories/workshops. • The industry further impacted the physical landscape of the region through the heaps of waste sand formed during the extraction process. The process created large amounts of mica waste that was then taken and dumped on land either as distinctive conical structures – these became commonly known as the Cornish Alps or Pyramids. • China Clay was transported from the historic port at Charlestown. • Another Cornish site of significance to the clay industry was Tregonning Hill (recently purchased by the Cornwall Heritage Trust), which is where China Clay was first discovered and quarried in Cornwall, and also the site of an Iron Age Hillfort. There are signs here of continuous use through history. Porthleven developed as an exporter of China Clay from Tregonning Hill for a short while, as the nearest harbour.	

Given its unique geological landscape, Cornwall has been the residence of many notable geologist.	**Elizabeth Catherine Thomas Carne (1817-1873)** • Daughter of self-taught geologist Joseph Carne (1782 -1858). • After coming into fortune after her father's death in 1858, Carne turned her attention to charitable efforts, founding several schools and building a museum in which to display the mineral collection that she has inherited from her father. • Elizabeth held her own interest in geology and wrote four papers discussing geological processes and formations which were included in the 'Transactions of the Royal Geological Society of Cornwall'. • Carne's later work took a shift in focus, exploring social conditions and public health concerns. **Joesph Henry Collins (1841-1916)** • Born in London, Collins became a prolific British mining engineer, mineralogist and geologist. • Throughout his career he played a significant role in three of the key geological societies in Cornwall: Royal Geological Society of Cornwall (President from 1903–1904, and 1911–1912), the Royal Cornwall Polytechnic Society and the Royal Institution of Cornwall. • Collins pioneered the exploration for China clay in the St Austell area. **Richard Pearce – late 19th century – Geologist and Collector** • Pearce was educated at the Royal School of Mines • In 1872 Pearce relocated to the US and began working in the tin smelting industry in Colorado. • His miners were the first to find pitchblende in the US. • In 1924 Pearce received the Gold Medal of the Institution 'in recognition of his life-long services in the advancement of metallurgical science and practice.'	

Many minerologists within the 1700s and the 1800s began building up large specimen collections and were integral to building an understanding of Cornwall's geological significance	**Philip Rashleigh (1729-1811) – Mineralogist** • Began his mineral collection around 1765 • Published two-volume description of his specimens (published 1797 and 1802) • Sister in law drew a lot of the diagrams in Rashleigh's books **James Wickett** • Investor in the Gopeng Tin Mining Co. which was founded in Malaysia – this was the first instance of hydraulic mining for tin. • Wickett was also a collector of specimens – mainly tin – his collection is one of the larger mineral collections held at RCM. • RCM purchased his collection of around 2,500 specimens. **Richard Pearce – late 19th century** • His miners were the first to find pitchblende in the US. **Richard Barstow (1947-1982)** • Mineral dealer • Examples of minerals from the South West • Became interested in minerals in 1962 • Came to Cornwall in the late 1960s to find work during the mine revival of that decade • Worked in sampling office at South Crofty mine and later at Geevor mine • Not academically trained but extremely knowledgeable and well respected by other mineralogists **John Henry Heuland (1778-1856) - Collector/Agent** • German-born English mineralogist and dealer • His uncle Adolarius Jacob Forster was also a dealer and Heuland inherited his dealership in London • Fellow of the Geological Society • Travelled across Europe buying minerals • Collection held in the Natural History Museum • Heulandite is named after him	

Cornwall remains a leading innovator in geological knowledge and skills	• Cornwall has been described as being probably the most important copper mining district in the world by the mid-1800s (Burt, et al) and the concentration of mining activity here made it a focus for those seeking specialist mining technology and skilled workers. These were to be exported world-wide throughout the 1800s. *More information to go within this section* • Cornwall remains one of the leading innovators within the geology and mining sector. • Wheal Jane remains an important site with a huge number of works surrounding geology and minerals. *Conversation with present day representative at Camborne to be held*	

Stone ***The use of Cornish stone in structures and industry connects Cornwall's geology to the lives of its people and their skills. Ancient stone structures dominate the landscape and buildings made of local stone create a unique vernacular architecture.***		
Key Question: What role does stone play within Cornish geology and the wider community?		
Historically, stone has been used by communities to denote sites of significance	• A cairn is a human-made pile of stones used to demarcate special places, often sites of burial. Often cairns are considered the more feminine counterpart to the more masculine menhirs (long standing stones). • There are many notable menhirs in Cornwall including the 75 known menhirs that lie in West Penwith alone. The idea of the classic menhir came to Cornwall around 2,500 BCE. • Naturally occurring tors have been significant sites throughout human history in Cornwall, with major sites built near or intervisible of them. Similar granite formations have taken on folkloric status, such as Giant's Rock, Zennor and Logan Rock, Treen, St Agnes Beacon, Carn Brea and Roche Rock. • Chapel Carn Brea is a major cairn site (altered much later to make it more aesthetically pleasing), comprising hill forts and cliff castles. These have a unique form in Cornwall and Devon, and are significant sites with prominent places in the landscape, often built near contemporary or older 'ritual' sites. • Fogous are found near or within villages. The most famous and well-preserved can be found in Carn Euny.	
Stone has been integral to the advancement of human technology	• Stone has historical significance of contributing to human technological advancements including the creation of stone axes. • The increased demand for stone and mineral mining capacity led to many notable advancements in associated processes and technology. These technological advancements include the development of the Davy Lamp, a safety lamp created by Sir Humphry Davy in 1815 for the purpose of reducing the danger of explosions in coal mines that had previously been a risk due to the flammable gases. However, there was no need for Davy lamps in Cornish mines – flammable gases such as methane are only produced in coal mines, which are not found in Cornwall. • Other developments used to further mining processes were the inventions of Cornish inventor and mining engineer Richard Trevithick, including his use of steam engines that used high pressure steam to pump water from mines and haul ore to the surface for processing.	

Local stones are commonly used within Cornish buildings and houses	• Cornwall's diverse geological makeup has produced interesting and rich variety of stone buildings and architecture. • Luxullianite, a type of granite, provided a decorative stone. • Stone chimneys – traditional architecture – typically built with local limestone and slate. • Blue elvan is part of the same family as granite, but presents very differently, and is more often found in vernacular Cornish architecture than granite. Blue elvan was very commonly used in working class dwellings, but was also used for official buildings. • There are a huge number of small historic localised quarries to be found along many public footpaths. • Penlee Quarry at Newlyn is now a SSSI and heritage site, with the ruined locomotive bridge still extant and a small collection of objects that have been found there. • Recent emphasis on restoring and preserving older buildings has seen a resurgence of the use of local building materials and natural stone products once again.	
Cornish hedges made from local stone have become a well-known symbol of Cornish identity	• Comprised of earth banks faced with stones, these semi-natural habitats are functional parts of the landscape reducing wind speed, providing shelter and reduce flash flooding. • Cornish hedges can be dated as far back as the Bronze Age, about 4,500-2,000 years ago. • The hedges are increasingly under risk due to the need for regular structural repairs – not offered protection under the Hedgerow Regulations 1997. Only the woody growth on top is protected.	

Mining ***Cornwall's unique geological landscape has World Heritage Site status. The desire to extract and make money from minerals resulted in a hugely successful mining industry. Cornish mining knowledge and skills were exported around the world, and the industry's impact is still felt by local people.***		
Key Question: What role has the mine played in the industry and in the development of community/culture?		
The rise of the mining industry led to the need for educational institutes where mining skills could be developed	• Camborne school of mines – founded 1888 – now under the University of Exeter. • The School of Metalliferous Mining – an amalgamation of the three full-time mining schools located in historic mining areas – Camborne, Redruth and Penzance. • Many facilities were paid in part by local mine owners. • The school gained its reputation in 19th century – graduates began seeking employment overseas – by 20th c graduates were located in major mining areas: Southern Africa, Western Africa, Malaysia, Australia, South America, Mexico, United States and Canada. • Present day curriculum focuses on Mining Engineering and Geology. • Mining is also a really important part of the development of the RCM. The RIC established a Mining School that ran between 1838 and 1868. It had previously been dedicated to lectures given on the arts and sciences, which included mining and minerals. They then endeavoured to set up the school for chemistry and mineralogy, teaching science, maths and mine surveying to its students. It met with some pitfalls and had several iterations. The museum had been furnished with a laboratory and its students ranged between 14 and 30 in age. • The first school was run in the current museum building when it was the Miners' Bank. In 1858 its appointed teacher was Richard Pearce, who later became a collector and went to Colorado and discovered pitchblende there.	

The industry impacted and shaped Cornish community, particularly in the areas directly surrounding the mines	• Mining impacted whole communities and communities often grouped into small mining settlements. • Copper mining was initially confined to a small area between Hayle and Gwennap. This became Cornwall's core industrial district, bounded by the towns of Truro, Penzance and Falmouth. • Poor public health was commonplace in mining communities – cramped conditions, lack of sanitation, rapid spread of disease such as cholera and typhoid. • Strong sense of community – self-reliance and shared experience. Much of this experience was shaped around mutual experiences of poverty, poor working experiences and difficult living conditions. • Beyond sites of hardship, mining communities were also places where people could escape their daily lives by attending one of the many events held by local chapels – this includes bazaars, choral ensembles and improvement societies. • Present day mining communities - mining identity lives on with many community identities echoing the importance of values and culture that developed during this period of mining and industrialisation such as brass bands, rugby, and an appreciation for the icon that is the Cornish engine house. • Longstanding impact of communities reliant on mining – the impact of the deindustrialisation of the tin mining industry and failure to adequately diversify into alternative industries and business meant that with the decline of mining came the decline of Cornwall's economy.	
The development of the mining industry not just the workers in the mines but affected all members of society	• Role of women in mining - Women took up occupation as bal maidens ('bal' is the Cornish word for mine) – this role was based at the surface of the mine and included tasks such as, breaking ore-bearing rock to separate the ore from the gangue minerals (waste) and tending tin dressing frames and buddles. • Child labour was also prevalent within the mining sector during the 1800s and in 1838 it was estimated that 5,000 children were employed in the Cornish metal mines. **Joshiah Thomas – Mine manager** • Founder of Camborne School of mines and Mine manager of Dolcoath (1867 to 1895). Dolcoath mine which was once known as 'The Queen of Cornish Mines'. • Dolcoath mine stope collapse – 1893 – under management of Thomas. 7 men were killed in the accident.	

The industry brought vast wealth to the region during its peak and greatly benefitted select groups of society	• Much of the wealth of the mining industry benefitted only those who held direct control over the mines, such as the influential mine owning families or the mineral lords. • Mineral Lords – Had major influence upon development of the mining industry. These mineral lords owned considerable amounts of property. Mineral rights to base-metal ores provided the mineral lords with royalties that provided a level of wealth that could not be reciprocated by industries such as agriculture. Influential mineral lords include Sir William Lemon of Carclew who held a quarter share in Wheal Unity, one of the most profitable mines in Cornwall. • Sir William Lemon's son, Charles Lemon, was president of the RIC and paid for the first two years of the RIC's Mining School in 1838. He petitioned for a college of the same to be set up in Truro, but the mine owners wouldn't support it, despite the venture having support from the Queen and the Council. The school was intended for the working miner, not the assayers, agents or engineers. **Mine owning families** • Bassets of Tehidy were the fourth largest landowners in Cornwall in 1873, and controlled two of the richest mines, 'Cook's Kitchen' in Pool and Dolcoath. The Basset monument sits at the top of Carn Brea alongside natural granite tors and prehistoric enclosures. The radioactive mineral bassetite is named for them, found first at Wheal Basset, Carn Brea. • Pendarves • The Williams family of Caerhays, Burncoose and Scorrier were one of the wealthiest and most influential families in Cornwall. The Williams were owners of mines and smelting works across Cornwall for several generations.	

The expansion of the mining industry oversees saw the migration of Cornish workers to new locations worldwide	• The Great Migration (c.1812-1930) saw Cornwall lose 20% of its adult male population overseas as a result of the expansion of the global mining industry and, later, the decline of Cornish mining and need to find profitable work elsewhere. Mineworkers were further motivated by the want to find roles with better pay and working conditions than were experienced in Cornish mines. • Cheaper deposits of tin were found oversees (as was the case with copper) leading to an increase of Cornish miners migrating abroad (up to a third of all migrants are thought to have later returned). • Colonial tin mining held significant impact in establishing mining colonies – leading to the displacement of indigenous communities. • Gopeng Tin Mining Co. – James Wickett (collector) was an investor – began mining in Malaysia – first instance of hydraulic mining for tin. • Walter Richard Haighton Chappel (Cornish engineer) and Osborne (Irishman) • Scoble family – Kresen Kernow has archives exploring life on the mining frontier in North America including papers and letters sent from Richard Scoble to his family in Devoran. • Influence of mining diaspora – Both technology and culture moved with the diaspora. The Yorke Peninsula became known as Australia's 'Little Cornwall' with the Cornish making up 42% of migrants to South Australia by 1865. The Cornish even took football to Mexico, playing the first game in Pachuca in 1900. • The spread of the Cornish mining industry and its technology worldwide helped expand (formally and informally) the frontiers of the British Empire – for around a century, the global mining industry was largely influenced by British capital and Cornish mineworkers. • Cornish miners could be found on every human-inhabited continent. Consequently, Cornish engine houses can be found in the Americas, New Zealand and South Africa. • Development of major steam technologies were often carried out, tested or used first in Cornwall. For example, one of the first Newcomen engines, beyond the English coal fields, is understood to have been installed at Wheal Yor, near Helston. Richard Trevithick developed the high-pressure steam engine, building on the works of Hornblower, Watt and Newcomen, as well as being influenced by his neighbour William Murdoch (of steam locomotion fame.) Trevithick also ventured to South and Central America in his mining career.	

Although Cornwall's mines are no longer in action, many have become key visitor hotspots	• The mineral species found in Cornwall are of both national and international importance (geological cornucopia). It is this significance that led to the strong history of mining within the area and that cemented the status of the World Heritage Site in 2006. The WHS covers 10 areas of Cornwall and West Devon (1 West Devon). • There are many mines within the area that were turned into visitor attractions in order to explore the importance of the history of mining and its impact on Cornwall and local communities. This includes: – Poldark mine – Helston – Mining heritage site [closed to the public since 2020 due to lack of funding] – Levant mine and beam engine – National Trust site – East Pool Mine – National Trust site – Geevor Mine, Pendeen – CC owned/Pendeen Community Heritage – Mineral Tramway Trails – Wheal Martyn Clay Works (China Clay mining museum)	
The extraction and study of Cornish minerals has shaped the area's history and will continue to play a major role in its future	• In present day, Cornwall still remains at the forefront of geological and mining research with recent project exploring the revitalisation of the mining industry for the purpose of lithium and geothermal energy. • Geothermal energy - Feasibility study currently exploring possibility of using water within flooded abandoned mines to warm houses through heat pump technology - The Department for Business, Energy and Industrial Strategy awarded £67,000 to Cornwall Council, housing association LiveWest and the National Trust to carry out a feasibility study. • Lithium mining – recently exploratory drilling for lithium in copper and tin mines in Gwennap after a discovery that the water in abandoned mines contains 8 to 10 times more lithium than spring water resultant of the mica present in the granite and geothermal water present within the mines. Although lithium was discovered in 1816, it is only recently that there has been extensive use of it within daily life. The rising demand for lithium batteries presents this as a potentially highly profitable endeavour.	

Landscape, climate and environment ***The mineral industry may have brought jobs, innovation and wealth, but it also brought environmental devastation. Cornwall's landscape has been forever changed and its ecology badly damaged. The positive use of abandoned industrial sites and environmental recovery mark the beginnings of biodiversity success.***		
Key Question: What influence has Cornish geology had on the surrounding landscape and ecology?		
After the decline of the sector, many mines were left abandoned or to meet new fates	• Although some sites have become tourist attractions – one of the largest industries in Cornwall - many mines were left as is. Unparalleled relict mining landscape – including waste tips, shafts and engine house – this has broader implications and creates hazards of waste material not been correctly disposed of and abandoned instead. • Inevitably the empty mines raise a safety concern as a result of abandoned mineshafts, which are often hidden by surrounding nature and are susceptible to collapsing. • Sometimes, houses were built on the site of old mine working, leading to potentially dangerous housing, and leaving many homes unmortgageable. • These ever-present hazards mean the search and rescue services are vitally important.	
As a by-product of the heavy mining industry, much of the surrounding ecology has been impacted by the wastelands of the mining landscapes	• Mine tailings and the dump deposits of waste material from mining extractions have contaminated the surrounding environment in numerous ways including acid mine drainage which has polluted surrounding soil and water supplies. • A study in phytoremediation, which uses plants to extract or bind heavy metals in soils, was undertaken by a Dphil student at Exeter's Penryn campus relating to the Carnon River mining waste.* • The rough vegetation that grows in mining wastelands helps to bind pollutants into the soil, preventing mobility, but this takes time. The vegetation and wildlife recorded in wastelands helps us to understand how the environment is or isn't recovering. • Metallophyte species such as the Cornish Path Moss are extremely rare and are only found on former metalliferous mine sites. Former mine sites often host a wealth of flora and fauna. • The latest water treatment plant at Wheal Jane seeks to extract metals in the waterways around Bissoe, which will then return the water in a much cleaner state and extract minerals at the same time. The water there has a rime of rust-red along the banks and it covers the submerged plants as well.	*Link to Exeter University research
The remnants of this abandoned industry instil an awareness of the long battle between industrialisation and environment	• Present day conversation of climate crisis and sustainability have made many of us question the implication of previous industrialisation on our world. The changes that the Cornish mining sector has had on the landscape and the long-lasting impact raises relevant conversations of technological advancement vs environmental sustainability.	

Recent efforts have seen attempts to reinvigorate ecology within mining wastelands, presenting these abandoned sites with a new lease of life	• A former China clay pit was transformed into a reservoir and achieved conservation status - Park Pit and surrounding land on Bodmin Moor bought by South West Water in 2007 – now a designated County Wildlife Site. The site has even flourished with rare species of clubmoss (marsh and stagshorn).	
These mining landscapes and wastelands have provided inspiration for many artists	Jeffery Camp (1923–2020), Robert Morson Hughes (1873–1953), Graham Vivian Sutherland (1903–1980), Mark Tovey (b.1956), Elliott Seabrooke (1886–1950), John Opie (1761-1807), Frederick Thomas Penson (1866–1951), Alexander MacKenzie (1923–2002), Michael Praed (b.1941), John Tunnard (1900–1971), Harold Harvey (1874-1941), Terence Cuneo (1907-1996) [there is debate about which out of Opie and Harvey is the most important contributor to capturing these scenes through their art. Harvey's works tend to capture mining's ordinary people, whereas Opie's works generally depict mine owners] Need info on most relevant artists **<u>John Opie (1761-1807)</u>** • Cornish historical and portrait painter • Born in Trevellas, between St Agnes and Perranporth • He painted portraits of many famous and influential people of the 1780s/90s and early 1800s • His works include portraits of mine owners, but several also appear to have captured ordinary Cornish people • **<u>Harold Harvey</u>** • Born in Penzance and trained at Penzance School of Arts • Newlyn School painter • Captured scenes of working class Cornwall, including miners (also fishermen, farmers and everyday scenes) • Mixed with many other famous artists involved in the Newlyn arts scene, including Laura Knight, and was married to fellow artist Gertrude Boddinar • Established the Harvey-Proctor School in Newlyn with his best friend Ernest Procter *Link to collections*	Recent Alexander MacKenzie acquisition 'The Waves of Cornish Resourcefulness and Innovation', by Kurt Jackson (artist noted prominent Cornish figures linked to arts, sciences & tech. on top) 3 x paintings by Harold Harvey paintings showing tin miners and clay works.

Inspired by the geology and landscape ***Cornwall is a land of myths and legends. Many of these were born out of people's need to make sense of the world around them. Cornish geology and minerals are at the heart of these folkloric stories and a key element of local identity.***		
Key Questions: How has geology been used to influence myths, legends and local identity?		
Over the centuries, many myths and legends have been inspired by Cornish geology and landscape and remain important stories even today	• Myth of the Tommyknocker – some believed the Knockers to be the protectors of the miners and would warn miners of mine collapse or make them aware of the location of rich ore veins. Others believed they were spirits of old miners or lost souls. Miners would throw the crust of their pasty to the Knockers to keep them happy. • Piskies - said to live in stone circles, barrows and ancient dolmans, these childlike and mischievous little creatures appear in many Cornish tales. Known for dancing and playfulness, their leader was Joan the Wad. • Bucca Gwidden/Widn (white in Cornish) are the good version and Bucca Dhu/Boo (black in Cornish) is the bad. Reputed to live in tin mines and around the coast. Similar legends appear in Irish and Welsh culture. • Mounts Bay – boulders in the area are said to have been thrown by Cormoron the Giant, and he made his wife carry stones in her apron pocket to build St Michael's Mount. • Spriggans are mythical beings that were thought to haunt burial grounds, mostly barrows and cairns. They caused mischief and liked treasure, and would cause disruptions or disturbances. They were also associated with hills and giants.	
Even with improved knowledge of the formation of geological spectacles, such as rock formations, legends are still used to explain their existence	• Cheesewring located on Bodmin Moor is one of the most iconic sites in Cornwall – consisting of seven slabs of rock stacked smallest and lightest to thickest and heaviest in order to make up this natural spectacle. Cheesewring was formed by natural weathering of the rock. However, local legend states that this rock formation was created during the introduction of Christianity resultant of a rock throwing competition between the giants who inhabited the land and the saints invading the land. The competition between one of the larger giants (Uther) and a saint (Tue) led to the giants agreeing to become Christians. • Throughout human habitation of Cornwall, there is evidence of some kind of veneration of these natural formations. Other tors and beacons across the region have similar stories.	

Some human-made structures also have myths associated with them	• The Hurlers of Bodmin Moor is a structure made by humans rather than geological forces but its presence has also been explained by a myth. These standing stones were created as a result of local men playing the sport of hurling. It is likely that the site once had a ritualistic and ceremonial use. • Some standing stones are thought to be natural and formed through surface processes forcing stones to stand upright. One such process is the shifting of 'clitter', which is a colloquial term in the southwest, and refers to debris surrounding tors, and natural monuments on moorland. • Some people have theorised that the standing stones were designed to emulate these natural formations, but that explanation does not account for standing stones being found world-wide.	

10. Interpretive principles and identity for the Mineral Gallery

Working with the consultants the museum team developed a series of principles for the interpretation of the Mineral Gallery:

The Mineral Gallery is designed to inspire local people with a sense of pride and understanding about their connection to the geology and landscape of Cornwall, and for visitors to feel a sense of awe as they begin their exploration of Cornwall's history and culture.

Just like the geology, the people of Cornwall have a unique identity and a strong connection to the coast and natural minerals, which have provided wealth and inspiration for innovation.

We will tell the stories through layers of information, with a narrative for visitors, information that helps people understand the significance of the collections and depth of information for the specialists.

The minerals are the starting point – both visually and in the story.

The gallery should retain a Cabinet of Curiosity feel with traditional showcases and a wealth of objects.

Physical access to the object displays will be improved.

The story that starts with the minerals and the geology of Cornwall needs to be told as a spine running through the gallery – this could be digital or through graphic panels.

Group or showcase object labels will introduce a group of objects and explain their significance or story.

Information for each specimen will be available but does not nee to be alongside each object, it could be provided through additional information (QR codes or pick up sheets).

11. Recommendations

Research
The Interpretive Framework sets out the key stories identified by the museum team with support from consultant research and specialists. This needs further in depth research to help develop content for the new gallery. Within each theme the heritage assets (objects, images and assets such as oral histories) need to be added to the framework and research for each of the key stories will need to be undertaken.

Consultation
The advisory panel and the youth panel have been involved in the development of the Interpretive Framework through conversations, workshops and feedback. It is important that this collaboration continues throughout the development of the gallery. Further consultation with current visitors and people from the priority audience groups will be essential during the interpretation and design development of the gallery.

Development of the interpretation
The exhibition designers will work with the museum team to identify the different stories that will feature in the new gallery – the Interpretive Framework sets out all the stories that could be told, not necessarily all those that should be told. The next step is to decide the best way to tell each of the stories, allocating interpretive media against the stories.

Text writing / layers
A further piece of work has been commissioned to set out an approach for story telling within the gallery. This will set out how introduction to the gallery, the narrative story and the stories for the objects will be told. It will also consider how to add depth of information for people with a specialist interest. There are some excellent training courses on text writing including Text Workshops run by Dea Birkett which will help to create concise and easy to understand text.

Review of spaces and galleries across the museum
The series of grants secured to redisplay the museum collections is a massive opportunity to consider the whole museum experience. The spaces used for museum collections are also used for events and activities and need to be flexible to ensure ongoing engagement and income generation. The current layout does not put the museum collections at the heart of the visitor experience, some of the objects are tucked into transition or meanwhile spaces which does not enable people to connect with them. A space review would enable the museum team to consider how each space is currently used and to consider what is required for each function of the museum and to prioritise these functions, creating a cohesive visitor experience. A framework has been developed to consider current and potential use of spaces.

Clear identity and welcome
The museum entrance will be reconfigured as part of the later capital project. This will create a better physical entrance, but is also an opportunity to consider how visitors understand what the museum is and what to expect. An introduction to the museum through words and objects can help to show what the museum is, and will be able to use the current work to develop a clear identity for the museum. This could also reflect the ideas behind the narrative themes, which connect the museums stunning and eclectic collections. It is important that visitors understand from the beginning why this is a special and unique collection and museum.

12. Risks

Risk	Mitigation
Doing one gallery at a time could create disjointed physical visitor experience/ journey	Review Masterplan and use as basis for Interpretation Strategy for whole museum
Creating an Interpretation Plan for one gallery first could lead to a disjointed narrative /story	Interpretation Plan needs to reflect future Interpretation Strategy
Ambitious project – might not deliver expectations for funders, stakeholders and visitors	Consultation and conversations will help to manage expectations. Regular review of vision to ensure project delivers vision
Too many stories to tell in the Mineral Gallery could dilute the geology and minerals collections and story	Interpretive Framework sets out the whole story connected to the collections and the interpretation will identify and prioritise these
Not able to deliver interpretation that meets needs of specialist and visitors with no prior knowledge (especially Mineral Gallery)	Create layers of information, using digital and paper based sheets to add depth of information. Help specialists discover wider story
Lack of depth of knowledge of subject (minerals) within staff makes it hard to create detailed interpretation or gaps in story	Advisory panel to be involved in developing the story and to provide background information
Lots of information about very significant items but less knowledge about other collections makes it hard to create meaningful interpretation	Draw on knowledge of academic panel, undertake collections review for mineral collection (if possible within resources)
Tight timescales linked to funding don't allow time for development	Create detailed project plan showing key tasks and resources required
Not enough staff resources to deliver the project	Identify activities that could be postponed or stopped to give staff adequate time on the project
The new Mineral Gallery will be smaller (with the new digital lab) but aim to display more collections – could look cluttered or not able to display more objects	Careful design approach and consideration of a mix of objects that are significant and tell an important story, and areas that are object rich

Appendix A: SWOT

SWOT for current visitor experience at the museum

Strengths	Weaknesses
Welcoming – intro chat Good volunteers Strong FOH staff People sometimes split their visit – families coming back after lunch Feels accessible when inside Wow factor as people enter main hall Collections – range, some strong areas Family-friendly spaces Café is popular for particular groups More inclusive interpretive approach in some areas with family spaces	Busy periods there's a blockage at front desk Lack of reflective spaces/ pause points for adults Short length of visit (approx. an hour) Entrance is intimidating No structure to displays – just objects in a case Lack of engaging interpretation/activities No connecting story Beige look Activities aimed at families and family spaces could be off-putting for others Mineral Gallery aimed at specialists Less coherent approach to interpretation because of different tone of voice One learning room is in the roof – low accessibility Labour intensive set up: events/ learning sessions
Opportunities	**Threats**
Increase dwell time Aiming to improve look of building & to enhance welcome Use café for evening events Improved accessibility – refine what's been done (ramp, lift, sensory packs) – enhanced for neurodivergent needs More interactivity Better use of spaces for events/ learning Maintain quality learning offer by keeping school groups to 15 (split classes) – create spaces in galleries for group activities Audit of spaces – how to use in future Reclaim café and art shop spaces – create café/ bar Create flexible spaces for events / learning	Acoustics of main gallery – not suitable for dementia sessions or sensory pack users Imposing entrance and barrier – threshold fear Grey granite building can be threatening – impenetrable Name – RCM could be a barrier Café aimed at more affluent, older and child-free audience – high quality and expensive Low lighting in galleries not suitable for some Big ambitions and limited facilities

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