

## **Exhibition Brief**

### **Worlds beneath the Waves:**

#### **The 150<sup>th</sup> anniversary of HMS Challenger's famous voyage**

The National Museum of the Royal Navy (NMRN) wishes to appoint an exhibition designer for a colourful and engaging exhibition at Portsmouth, showcasing objects and interactives based on HMS Challenger's famous voyage of 1872-6, with linked content displayed at NMRN Hartlepool. The exhibition will also highlight the Royal Navy's continued involvement in science at sea, in the context of the Challenger legacy.

#### **Locations and Dates:**

Special exhibition area, Storehouse 10 galleries, National Museum of the Royal Navy, Portsmouth (NMRNP).

**Date:** opening June 24<sup>th</sup> 2023, for one year

Modular display to fit atrium at NMRN Hartlepool (NMRNH), with linked content to main exhibition in Portsmouth. This site is home to HMS Trincomalee, still afloat and open to visitors; the ship has its own story of circumnavigation – content here will be on the theme of *Worlds Beneath the Waves* but more tailored towards Trincomalee's story.

**Date:** opening June 24<sup>th</sup> 2023, for one year

#### **Target audience:**

Families and young people.

#### **History**

HMS Challenger set sail in December 1872 on a groundbreaking voyage of discovery that gave rise to the modern science of oceanography. By the time it returned to the UK in 1876 the team had discovered 4,700 new species, resolved questions of what the ocean floor is made up of, and discovered the deepest point on the planet. Years of study of the collections made on the voyage would later lead to other discoveries such as confirmation of the theory of plate tectonics, and the risks associated with greenhouse gases and acidification of the oceans.

The expedition was the first Royal Navy venture with the primary goal of scientific discovery, and required collaboration between scientists and crew to be successful. The Challenger collections were also key to contemporary developments in museums, at the time of the founding of the Natural History Museum in London, where collections were housed for the purposes of study and learning rather than

just display.

Britain at the time of Challenger was at peace and had arguably the world's strongest and most experienced navy, making the Royal Navy uniquely suited to undertake this global expedition.

This project will focus almost entirely on the discoveries made at sea, rather than the land-based explorations of the voyage. However, we will not fail to acknowledge the contentious history of the voyage and the scientists involved where indigenous peoples were subjected to the same kind of recording as plants and marine animals. Advancements in scientific practice and theory since the 1870s can be demonstrated through the diversity of modern-day teams working through our partners.

The exhibition will demonstrate how exploration expanded our knowledge of the natural world and how scientific research can answer the questions we still have about our planet. It will connect the emergence of oceanography as a science to present studies in climate science, using records and quotations from the scientists and crew on board Challenger. Challenger data is still used today to aid in climate change studies, and the legacy of the expedition can be demonstrated through the work of our partners. The exhibition will challenge and engage audiences culminating in the opportunity to get involved and do some oceanographic science of their own, alongside the story of current day naval expeditions that support and carry out scientific exploration, particularly in the polar oceans.

Project outputs include:

- Temporary (1 year) exhibition at NMRNP
- Smaller-scale exhibition at NMRNH (1 year)
- Permanent digital content on NMRN website
- Showcasing the work of our partners e.g. HMS Protector's surveying of the sea floor in the South Atlantic, National Oceanography Centre's work with Remotely Operated Underwater Vehicles (ROV)
- Legacy package for schools/learning
- Programming activities focused on attracting young people, especially women and girls, to STEM careers

### **Project Partners and Roles:**

National Oceanography Centre, Southampton (NOC)

*Contributing content for display including archive from Challenger and modern oceanographic equipment, as well as digital media*

HMS Protector, Royal Navy

*Contributing content and support of programme through crew involvement and interviews; how the RN support science at sea today*

National Museum of the Royal Navy (NMRN)

*Delivery of the exhibition (physical and digital) and associated programme.*

### **Aims of exhibition**

- Inspire visitors to want to find out more about Royal Navy exploration and careers in science
- To celebrate the historic voyage of HMS *Challenger*, the discoveries made on the voyage, and its role in shaping the modern science of oceanography;
- To showcase the modern-day role of the Royal Navy in supporting science at sea, mapping the sea floor, and the importance of this work
- To demonstrate that the ocean is key to understanding our changing planet, linking this to current climate science work, outlining recent research findings about the changing climate

### **Key themes will include:**

- Discoveries – both on Challenger and on Protector, which is still mapping uncharted areas of the sea floor today
- Technology – e.g. how do you measure the temperature of different layers of the ocean, then and now, sample the sea floor, all from a moving ship?
- Human stories - the crew and the scientists, how they lived and worked together and the novelties and challenges of this
- Inspiration – why this type of work and science is so important and relevant, and inspiring young people to take up careers in the field
- Legacy & Environmental concerns – sensitivity of marine life to changing climate
- Hands-on – asking our audiences to interact physically and digitally

## **Exhibition Content**

### **Objects**

Content will include objects from NMRN collections as well as a significant amount of loaned material, from partners and from other museums. The object list is yet to be firmly defined but likely to include:

- Instruments used for sampling the sea floor, ocean layers and marine life, as used on Challenger
- Modern instruments used for similar purposes today, including models of very large equipment such as ROVs
- Natural history specimens in jars representing some of the new species identified on the voyage
- Microscopic specimens mounted on historic glass slides
- Drawings, paintings, photographs and archive volumes

### **Images**

The cased displays of artefacts will be supported by large, visually stimulating exhibition graphics which make extensive use of photos and natural history drawings produced of the species first identified by Challenger. Paintings and drawings of the ship are available, as well as portraits of key members of the crew and staff. NMRN holds a photo album of images taken during the voyage and there is much archive material available at NOC. Partners also hold a wealth of images on modern-day work and crews involved in exploration and ocean science today.

### **Digital and AV**

Digital content will include interviews and footage of recent work with HMS Protector crew and NOC staff. We can also produce photogrammetry of the Challenger figurehead and potentially a VR tour of Challenger, which could compliment video tours of the RRS ships currently in operation.

### **Feedback area**

An imaginative and attractive method of obtaining feedback from visitors will collect data to be used as part of the evaluation of the project.

### **Exhibition design specification**

The designer appointed will work with the NMRN to design and manage the project, in two stages. Design stage will include all designs up to the technical design stage. Manage stage will include the build and install of all physical and digital elements. The Manage stage will go ahead subject to funding.

**Design stage:**

- Design the exhibition at NMRNP, up to technical design stage, for both physical and digital elements, at NMRNP and NMRNH
- Design artwork/logo for use on NMRN digital platform and exhibition

**Manage stage:**

- Manage tender process to contract build/install stage
- Build and install exhibition at NMRNP and display at NMRNH
- Supply and install all interpretive graphics including title panel, story panels and object labels
- Provide bespoke mounts for exhibition artefacts
- Produce audio-visual elements with content provided by NMRN and partners
- Provide hardware for interactives and AV
- Build a reflective/feedback area

**Other requirements**

- Accessibility of design, multi-sensory engagement
- Work with NMRN teams in MarComms, Heritage and Programming, and our partners
- Artwork is to be produced in formats usable by the National Museum of the Royal Navy for marketing and promotion

**NMRN and partners will provide:**

- showcases for core exhibitions
- text and images for display boards and captions
- content for AV
- company/partner/sponsor logos and any statutory wording
- Programming element of the project in support of the physical exhibition and display.

**Miscellaneous**

- A timetable will be agreed with the NMRN (P) exhibition team, including the deadline for signing-off final versions and delivery of completed exhibition material
- Font style to be advised
- Hard copy drafts, in full colour, of all designs, to be approved and signed-off by the client before printing
- All final artwork, panels, interpretation board content and graphics to be provided in a digital format that will allow use in the future if required
- All design work and copyright relating to it will become the property of

the client upon completion of the contract

- All travel will be at the expense of the contractor
- Any sub-contractors' costs should be included in the price submitted
- All prices to include packaging, delivery and unloading
- All design estimates and costings to be produced net of VAT

**Venue details:**

**1) Special exhibition area, Storehouse 10 galleries, National Museum of the Royal Navy, Portsmouth**

**Size: 120sqm**

The proposed display area is located within an eighteenth century storehouse which was refurbished in 2014. It includes:

6 x Kub2 walls which can be reconfigured to alter display area and direct visitor flow (3 x 3.6 m wide and 3 x 2.4 m wide)

Fixed wall panels around edge of space

7 x Evolution demountable showcases which can be reconfigured in a variety of combinations (2100mm H x 900 W x 900 D)

3 x Vista cases (700mm H x 600 W x 600 D)

Lighting system: Concord Muse LED track mounted spot lighting

*Appendix 1. Images of exhibition space*

*Appendix 2. show case type 1 schematic*

*Appendix 3. show case type 2 schematic*

**2) NMRN Hartlepool**

**Size: c16SQM**

The proposed display area is a space on the 2<sup>nd</sup> floor at the top of the entrance stairs with a window overlooking HMS Trincomalee along one side.

**Budget**

**The budget allocated to this work will not exceed a total of £227,100 exclusive of VAT.**

**Please refer to the ITT for budget details.**

## Key milestones

This timeline is for the exhibition is proposed for both sites, however Hartlepool install/fit out may differ slightly.

Date	Activity
<b>Phase 1- Design</b>	
July 2022	Advertise tender for exhibition design work
September 2022	Review and appoint exhibition designer
Concept design	w/c 24 <sup>th</sup> Oct
Technical design	w/c 28 <sup>th</sup> Nov
<b>Content development</b>	
June-September 2022	Collections research and data improvement
September-November 2022	Artefact selection and story development
End September 2023	Formal loan requests going in
<b>Phase 2- Manage Stage (Build and Install)</b>	
Tender for build/install subcontractor	Jan 2023
January-March 2023	Text writing and image selection for graphics
March 2023	Label writing
April 2023	Text and images to designers for printing
<b>Installation and fit- out</b>	
May 2023	Sign-off and printing of graphics and artwork
May-June 2023	Strip out and install of gallery space
June 2023	Install of objects
June 24 <sup>th</sup> 2023	Open to public
June 2024	Take down