# Wessex Museums Virtual Collection: unlocking a Wealth of Knowledge

## Introduction

Wiltshire Museum and Wessex Museums wish to procure an open source system to enable cross-searching and display of data from the collections management systems of the four Wessex Museums partners – Dorset Museum, Poole Museums, Salisbury Museum and the Wiltshire Museum. This is supported by funding from Arts Council England (ACE).

The intention is to export data from the museum collections management systems into a data repository, to create interfaces to enable search and presentation of object records and to use those object records to create online exhibitions.

The Virtual Collection planned in the context of FAIR principles, the AHRC Towards a National Collection initiative and the work of the Collections Trust. As these initiatives come to fruition, it is intended that the open source tools developed through this procurement can be adopted by a wide range of museums to reduce the barriers in enabling online access to collections.

This procurement is being managed by Wiltshire Museum, in partnership with the Wessex Museums Trust.

## Wessex Museums Virtual Collection

Wessex Museums is a thriving consortium of the principal museums that tell the stories of the Wessex region and its people, from prehistory to now. The partnership brings together four museums across Dorset and Wiltshire: Poole Museum, Dorset Museum, The Salisbury Museum and Wiltshire Museum.

This is a natural partnership of museums covering the geographical spread of Dorset and Wiltshire, and with world class collections spanning archaeology, fine and decorative art, ethnography, literature, social history, costume and textiles. As such, the Wessex Museums are perfectly placed to share the story of Wessex and its relationship with the rest of the world.

The Wessex Museums partnership was formalised in 2017 when the consortium secured major funding from Arts Council England (ACE) as a National Portfolio Organisation (NPO). In the same year, the consortium formed a registered charity, the Wessex Museums Trust. The Trust exists to build the resilience and relevance of the partner museums and we seek every opportunity to connect, inspire and add value to people's lives through our collaborative programme.

Our Strategic Plan includes an action to develop a virtual Wessex Museums Collection that aims to make our collections more accessible, better interpreted for audiences, better available for research use and for audiences to engage with our collections online in different ways. The Museums are aiming to be able to engage more diverse audiences, share information with each other for programming, loans, exhibitions and to support formal and informal researchers.

<https://www.wessexmuseums.org.uk/>

## Wealth of Knowledge

A Wealth of Knowledge: unlocking a decade of archaeological research is a joint project between Wiltshire Museum in Devizes and The Salisbury Museum, supported by Arts Council England. The project aims to ensure that the results of ground-breaking research becomes an integral part of both museum’s collection management systems, culminating in a combined Wessex Museums online archaeology database.

The project will enable the two museums to review research undertaken by some of the 200 postgraduate researchers who have studied their archaeology collections in the last ten years and ensure that the stories uncovered are accessible to all. The museums will then be able to highlight research potential in currently under-developed areas of the collections. The research will also enable the museums to engage with wider audiences by ensuring that the latest information is included in gallery displays, lectures and conferences, and accessible online on a new website.

<https://www.wiltshiremuseum.org.uk/news-articles/wealth-of-knowledge/>

## Broader Context

This tender has been developed in the context of a changing online environment, and we are keeping in touch with the latest developments.

### FAIR Principles

FAIR principles are intended to improve the Findability, Accessibility, Interoperability, and Reuse of digital assets. The principles emphasise machine-actionability (i.e., the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention) because humans increasingly rely on computational support to deal with data as a result of the increase in volume, complexity, and creation speed of data.

<https://www.go-fair.org/fair-principles/>

### Towards a National Collection

Funded by UKRI’s Arts and Humanities Research Council, Towards a National Collection is an £18.9m programme supporting research that breaks down the barriers that exist between the UK’s outstanding cultural heritage collections, with the aim of opening them up to new research opportunities and encouraging the public to explore them in new ways.

[www.nationalcollections.org.uk](http://www.nationalcollections.org.uk)

### Collections Trust

The Collections Trust helps museums capture and share the information that gives their objects meaning. Their standards and advice are used around the world to make museum collections accessible.

One of their objectives is to help museums use digital effectively to manage digitised collections by building consensus among key sector stakeholders for the ‘framework for change’ proposed in their recent research for the Open Data Institute. This was published as the ‘Getting it Together’ report and includes proposals for a Museum Data Service.

[www.collectionstrust.org.uk](http://www.collectionstrust.org.uk)

## About the Museums

### Collections Management

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Dorset | Poole | Salisbury | Wiltshire | Total |
| **Collections size (as catalogue records)** | |  |  |  |  |
|  | 250,000 | 50,000 | 120,000 | 130,000 | 550,000 |
| **Collections Management system** | |  |  |  |  |
|  | Index Plus | MODES | MODES | MODES |  |
| **Number of records** |  |  |  |  |  |
| 2021 | 179,009 | 33,843 | 96,148 | 122,720 | 431,720 |
| **Number of images** |  |  |  |  |  |
| 2021 | 29,681 | 3,678 | 66,087 | 17,729 | 117,175 |
| **% of collection documented** |  |  |  |  |  |
| 2021 | 72% | 68% | 80% | 95% |  |
| **Database online** |  |  |  |  |  |
| 2021 | 0 | No | No | Yes |  |
| **Number of records online** |  |  |  |  |  |
| 2021 | 0 | 0 | 171 | 122,000 |  |

Key Collections contacts:

* Dorset Museum: [Kat.Broomfield@dorsetmuseum.org](mailto:Kat.Broomfield@dorsetmuseum.org)
* Poole Museums: [gary.edwards@bcpcouncil.gov.uk](mailto:gary.edwards@bcpcouncil.gov.uk)
* Salisbury Museum: [adriangreen@salisburymuseum.org.uk](mailto:adriangreen@salisburymuseum.org.uk)
* Wiltshire Museum: [lisa.brown@wiltshiremuseum.org.uk](mailto:lisa.brown@wiltshiremuseum.org.uk)

### Websites

**Dorset Museum**

* CMS: Wordpress
* Online database: No
* Technical support: Kevin Jones at Windmill Creative [Hello@windmillcreative.co.uk](mailto:Hello@windmillcreative.co.uk)
* Museum management: Mark North and Amy Moore maintain the website and fulfil requests to add or update information as per instructions from the Director/Commercial Director/ Head of Events
* Changes planned: No
* Contact: [Mark.North@dorsetmuseum.org](mailto:Mark.North@dorsetmuseum.org)

**Poole Museum**

* CMS: Easysite by Ideagen
* Online database: No
* Technical support: Through Bournemouth and Poole Council ICT services and external website company
* Museum management: Can manage content and upload blogs/articles but cannot make design or layout changes without going through the external company
* Changes planned: Unsure – there may be changes to museums online offer through the HLF redevelopment project, but they are unconfirmed at this stage
* Contact: [joe.raine@bcpcouncil.gov.uk](mailto:joe.raine@bcpcouncil.gov.uk)

**Salisbury Museum**

* CMS: Wordpress Using a bespoke theme. Elementor is being used for Front End
* Online database: n/a
* Technical support: [jon.ladd@milkandtweed.com](mailto:jon.ladd@milkandtweed.com) or support@milkandtweed.com
* Museum management: Editing pages and content
* Changes planned: Some development scheduled but nothing that would affect this.
* Contact:  [adriangreen@salisburymuseum.org.uk](mailto:adriangreen@salisburymuseum.org.uk)

**Wessex Museums**

* CMS: Wordpress Using a bespoke theme. Elementor is being used for Front End
* Online database: n/a
* Technical support: [jon.ladd@milkandtweed.com](mailto:jon.ladd@milkandtweed.com) or support@milkandtweed.com
* Museum management: Editing pages and content
* Changes planned: Some development scheduled but nothing that would effect this.
* Contact: [cathy.lewis@bcpcouncil.gov.uk](mailto:cathy.lewis@bcpcouncil.gov.uk)

**Wiltshire Museum**

* CMS: Wordpress, using Vestige Museum theme - <https://themeforest.net/item/vestige-museum-responsive-wordpress-theme/12837512>
* Online database: MODES Webserver on separate URL - <http://www.wiltshireheritagecollections.org.uk/>
* Technical support: Wordpress installation and technical support from Milk and Tweed - <https://milkandtweed.com/web/>
* Museum management: Update and install plugins, directly manage all content and page layouts, some design changes
* Changes planned: No
* Contact: [david.dawson@wiltshiremuseum.org.uk](mailto:david.dawson@wiltshiremuseum.org.uk)

## Users

We conducted user research during the TaNC-funded FAIR project with the Collections Trust – see the completed report at <https://zenodo.org/record/5846220#.YlAdfzUo9PY> .

Other relevant research includes:-

* Research Information Network – Discovering Physical Objects: Meeting Researchers Needs - <https://archive-media.museumsassociation.org/discovering_objects_report.pdf>
* Europeana – including <http://paramita.staff.shef.ac.uk/papers/cloughetal-TPDL2017.pdf>
* TaNC - including - <https://digitalfootprints.cis.strath.ac.uk/>

## Requirements

### Online Database

At the heart of our requirement is an online database that will hold collections records exported from the four collections management systems, with links to media such as images and audio files.

|  |  |
| --- | --- |
| Requirement | Response |
| 1. The database MUST support searching using:-    1. Free text search across all relevant fields (fields to be agreed with the Museums)    2. Detailed search on a sub-set of text fields. This MAY be presented as Who, What, Where and When fields, or using a similar approach. These would map to relevant fields in the underlying database. |  |
| 1. The database MAY support more complex searches, such as year, geographic coordinates / map-based searching and date-range |  |
| 1. The database MUST preserve information that records the identity of the Museum from which the record comes and present this information to users. |  |
| 1. It MUST be possible to search across all records in the aggregated database and also within the records uploaded by an individual museum. |  |
| 1. Records in the database MAY have a Persistent Identifier (see <https://github.com/tanc-ahrc/PIDResources/tree/v2.1> ). |  |
| 1. Records MUST be imported from the Museum collections management systems using agreed formats that are supported by those systems.    1. These MAY include XML and CSV files such as LIDO (<https://cidoc.mini.icom.museum/working-groups/lido/lido-overview/about-lido/what-is-lido/>) or the Europeana Data Model (<https://pro.europeana.eu/page/edm-documentation>).    2. Data mappings MUST be developed in collaboration with the Museums.    3. Exporting the data in the agreed format is the responsibility of the Museum.    4. There is no requirement within this procurement to further process or clean the data once imported.    5. The Museums are responsible for ensuring that fields containing confidential data (eg storage location or purchase price) are not exported from their system. |  |
| 1. It MUST be possible to update records already in the database with newly updated versions of the same records. |  |
| 1. There MUST be an interface to enable Museums to upload their own new and updated records. |  |
| 1. Each Museum MUST be able to have access to an interface which enables the search and presentation of their own records. This interface MUST be available as a WordPress plugin and MUST be presented in ways that can be linked to the website of Museums that do not use WordPress. This MAY be through the use of iFrames, by linking to an external domain (eg museumname.virtualmuseum.org.uk) or by another appropriate solution. |  |
| 1. Aggregated data    1. An interface MUST be created to enable the cross-searching of the aggregated data. This MUST be available as a WordPress plugin (eg for the Wessex Museums website) and MAY be available through another solution.    2. It MUST be possible for the WordPress plugin to be added (for example) to the bottom of a result pages to encourage users to cross-search aggregated data (ie ‘Find more from across the collections of the Wessex Museums). |  |
| 1. Search results presentation:    1. Records MUST be presented either as a list, with thumbnail images alongside OR records displayed in a grid as a ‘lightbox’.       1. Museums MAY be able to choose which presentation to select as the default for their website.       2. Users MAY be able to switch between these presentations.    2. Results pages MAY allow faceted browsing - displaying alphabetical lists of terms generated from the data (eg displaying object names, material or places) alongside search results.    3. Search results MUST be sorted in a logical order. This SHOULD be in Accession number order.    4. Users MUST be able to prioritise the order in which records are displayed by using filters which MUST include:-       1. Collections Highlights (see definitions)       2. Records with linked images / media       3. For the aggregated website, the name of the originating museum    5. When users click on a selected record, this MUST be presented full-screen, displaying additional images, where they exist. |  |
| 1. Virtual exhibitions    1. Museums MUST be able to create simple virtual exhibitions (eg http://museumsinwiltshire.org.uk/food-and-farming/).    2. Museums MUST be able to mark individual records so that summary information (brief description, image/media) can be combined on a single webpage as a virtual exhibition. For the aggregated website, this should include the name of the originating museums.    3. Museums MUST be able to add additional information such as exhibition title, linking text and additional images (such as maps or funder logos) to the authored webpage.    4. Virtual exhibitions MUST be created using a WordPress plugin that can be used on the Museum and aggregator websites and an alternative approach MUST be available for those Museums that do not use WordPress. |  |
| 1. User-curated collections.    1. Users MAY be able to select records so that they can download basic information (eg Accession number, Brief description, URL of full record) as a CSV file or generate a PDF (perhaps including a thumbnail image)    2. Users MAY be able to register and create their own curated collections on the website. Users SHOULD be able to share the URL of this curated collection. Users MUST NOT be able to add their own text and images to avoid safeguarding issues. |  |
| 1. Page layout and design    1. All WordPress plugins MUST incorporate the branding of the Museum website.    2. For non-WordPress websites, a single set of basic page layouts and designs MUST be provided, agreed in collaboration with the Museums. These designs MUST enable the branding of the Museum to be included (eg museum name, standard legal text, text about the organisation and up to 2 logos). Customisation beyond the agreed common design will be commissioned separately by the individual museums. |  |
| 1. Social media    1. Users MUST be able to easily share individual records and curated collections to social media platforms. The text shared SHOULD include the name of the Museum.    2. Museums MUST be able to easily share individual records and virtual exhibitions to social media so that posts can be scheduled in advance (eg for #FindsFriday or #MuseumsWeek). This MAY be through the use of a third-party tool such as Hootsuite that allows posting to multiple platforms. |  |
| 1. Media files    1. The system MUST include the storage of the specified number of images. These are currently available at a range of file sizes and resolutions and at this stage, the images are intended for low resolution on-screen presentation only (eg a resolution of approximately 600 x 800 pixels).    2. A mechanism MUST be made available to manage the size of images stored online. This MAY be a tool used by the Museums OR a tool that manages images as they are uploaded.    3. A limited number of other media files (such as audio files) linked to catalogue records MUST be stored.    4. No video files will be uploaded to the system. Any video material will be displayed by linking to YouTube.    5. Copyright. When a large image is being displayed, then an existing copyright statement MAY be displayed. Optionally, each Museum MAY set a default copyright statement for those records where a Production date is more than 120 years ago. This copyright statement SHOULD make it easy for the Museum to assign a Creative Commons licence to appropriate images. |  |
| 1. Accessibility    1. The system MUST support access for those with visual impairments, while recognising that this is largely controlled by the design and implementation of the Museum websites and the data provided. For example, the system must permit the display of ALT text, where it exists. |  |

### Costs

The Contractor should indicate their costs for each of the headings below.

|  |  |
| --- | --- |
| Creating and hosting a database that meets the specification above, including uploading the specified number of records from the four Museums. |  |
| Maintaining and hosting the database for a 12 month period, |  |
| Adding records and images. Please specify how this is calculated (eg per MB or GB of images) |  |
| Day rate for enhancements |  |
| Upload carried out by the contractor on behalf of a Museum, once the initial upload has been completed and signed-off by the Museum. |  |
| Any additional recurring costs (eg bandwidth) |  |
| Any options put forward by the contractor (please detail) |  |
|  |  |

## Definitions

* MUST – a mandatory requirement. Comments on technical complexity or ability to deliver may be made.
* SHOULD – a preferred approach, but other options or approaches will be considered.
* MAY – an option which would be welcomed.

## Responding to this Requirement

Responses **MUST** be returned by email to [david.dawson@wiltshiremuseum.org.uk](mailto:david.dawson@wiltshiremuseum.org.uk) by 10am on Monday 12 September. Responses MUST use this document in preparing the response and may additionally give additional information, such as reference projects, CVs of key personnel etc. Responses will be evaluated on the response to the requirement (50%), reference projects (20%) and the cost basis (30%). Responses will be evaluated by a team of three.

Any requests for clarification **MUST** be sent to [david.dawson@wiltshiremuseum.org.uk](mailto:david.dawson@wiltshiremuseum.org.uk). Requests for clarification and responses will be uploaded to the host webpage on a regular basis, usually weekly, and will therefore be available to all potential suppliers. Any supplier that has been in contact will be notified of clarifications as they are published.

## Financial information

A sum of £28,000 is allocated to this tender. The payment schedule will be 30% on signature, 20% on completion of trial data load, 20% on delivery of pilot WordPress plugin, 20% on full data load, and 10% on acceptance.

## Examples

* Sample data exported from collections management systems is available on request
* Collections Highlights:-
  + Wiltshire Museum - <https://www.wiltshiremuseum.org.uk/recently-added/>
  + Salisbury Museum - <https://salisburymuseum.org.uk/collections/>
* Virtual exhibitions - <http://museumsinwiltshire.org.uk/food-and-farming/>

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10/8/2022