

Collections Care and Conservation Plan

Name of museum: Tamworth Castle

Name of governing body: Tamworth Borough Council

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Introduction

This plan sets out the actions required to implement the Collections Care and Conservation Policy. It should be read in conjunction with the Forward Plan, Building Plan and Emergency Plan and any other plans affecting the collection and the museum buildings.

The museum refers all concerns to an appropriate conservator.

1. Overview of current Collections Care and Conservation

- 1.1 The plan sets out how the museum currently undertakes Collections Care and Conservation. Collections Care activities are carried out by the Castle Collections and Archives Officer who reports to the Castle Museum Manager at regular management meetings.
- 1.2 Conservation or preservation of the collections is carried out by or supervised by appropriately trained and experienced conservators.
- 1.3 Records of Collections Care activities are kept digitally in the object record in MODES Complete, in the individual object physical History files, and on the object cards. The museum retains records of every treatment carried out on objects, by in-house staff or external conservators. Records are added to an object's catalogue entry according to the procedures set out in the Museum's Documentation Procedural Manual.
- 1.4 It is the responsibility of the Castle Collections and Archives Officer to ensure the measures relating to documentation of the condition of collections and any treatment carried out are in place, communicated and acted upon.

2. Collection Needs and Vulnerable Objects

- 2.1 The condition of the collection is recorded by the Castle Collections and Archives Officer, Collections Assistant, and volunteers under the supervision of the Castle Collections and Archives Officer. The authorised staff check objects selected by random sampling across the displayed and stored collections; additional checks on objects being put on display or returned to storage; during regular housekeeping, and annual checks on vulnerable or significant objects. The results are recorded in the Condition reports
- 2.2 A copy of the form used is available at Appendix 1.

- 2.3 Changes in the condition of any object are notified to the Castle Collections and Archives Officer and / or Castle Museum Manager for action in line with the museum's Forward Plan.
- 2.4 Every object loaned from the collections has its condition checked and recorded when it leaves and when it returns to the museum. A copy of the form used is available at Appendix 2.
- 2.4 The museum is aware that the following objects and collections have particular needs or are vulnerable:

Object or Collection type	Need or Vulnerability	Required actions
Specific archaeological metal	Requires very dry conditions	Kept in sealed polythene boxes with silica gel which is checked annually and dried out if necessary
Wood / metal	Requires a stable environment	Check for pests and mould / warping / pitting
Metal / leather	Requires a stable environment	Check for pests and mould / bronze disease in particular
Leather / organic material	Requires a stable environment	Check for pests and mould / warping
Textiles	Requires a stable environment	Check for pests and mould
Geology / Natural History	Requires a stable environment	Check for pests and mould
Paintings / frames	Requires a stable environment	Check for cracking / warping / flaking
Long case clocks	Requires a stable environment	Check for warping / cracking / pitting on metal

3. Monitoring and Improving Environmental Conditions including Temperature, Relative Humidity (RH), Light and Dust

3.1 Temperature and relative humidity

- 3.1.1 The museum monitors and records the temperature and relative humidity (RH) in the storage and display areas. Allowing lower temperatures in the storage area than the display areas.
- 3.1.2 The museum aims to maintain conditions which are as stable as possible, in the Castle display areas and the document Archive stores, within the range 12°C – 20°C (with a maximum fluctuation of 4°C within 24 hours) due to the nature of the buildings **(and the temporary suspension of the minimum requirement for temperature under the Arts Council England 2022 – 2023 Government Indemnity Scheme (GIS) environmental conditions review)**
Relative humidity 40% – 65% RH within the Castle display areas, and the Archives stores.
- 3.1.3 The museum aims to maintain conditions which are as stable as possible, within the range 10°C - 20°C and 35% – 70%RH in the off-site object stores.

- 3.1.4 Special conditions are required for the following parts of the collections:
- Staffordshire Hoard Loan-in
 - Stoke-on-Trent Museum Loan-in
 - Kettering Museum Loan-in
- 3.1.5 If the conditions fall outside the desired range, the cause is investigated, and action taken to improve conditions.
- The Staffordshire Hoard display cases are fitted with 'miniClima' Humidity Devices regulating the RH values. The RH values can be adjusted if required.
- 3.1.6 Currently the environment is monitored using Tinytag View 2 - TV-4501 throughout the display rooms of the Castle, object store and Archives store.
- Staffordshire Hoard Loan cases, and one other Loans-in case are monitored with Testo Saveris 2 wireless monitors.
 - A Tinytag Plus 2 - TGP-4505 is used as an external weather monitor, installed in a weather-proof box at the rear of the Archives store.
- 3.1.7 Readings are recorded in quarterly downloads as graphs from the Tinytag monitors, stored digitally on the laptop and the Castle shared drive, and reported on.
- Readings from the Saveris monitors are available online and stored in the iCloud with access available to the owners of the loans at any time.
 - A sample recording sheet is available at Appendix 3.
- 3.1.8 The readings are analysed by the Castle Collections and Archives Officer, or Collections Assistant, and reports are provided to the Castle Museum Manager, and the governing body when requested.
- 3.1.9 All readings are filed digitally, (with the option to print) and kept for a minimum of 10 years.
- 3.1.10 The devices are calibrated by Gemini Data Loggers Limited on a rolling annual programme.
- 3.1.11 The museum uses the following to control the environment:
- 'miniClima' Constant Humidity Devices have been installed independently in each of the three cases displaying the Staffordshire Hoard Loans-in.
 - Archives storage environment is controlled by a wet central heating system independently controlled on a constant background temperature.
 - Off-site object storage environment is not controlled other than by fans maintaining air movement.
- 3.1.12 Objects which require extremely dry environments are kept in well-sealed display cases, acrylic, or similar inert material boxes with adequate quantities of silica gel.
- Objects which require a strictly controlled RH are kept in similar containers with adequate quantities of silica gel.
 - The silica gel is checked by the Castle Collections and Archives Officer, quarterly and replaced with dried or conditioned silica gel when necessary.
- 3.1.13 The 'miniClima' equipment controlling the environment in the Staffordshire Hoard display cases is checked regularly by trained Castle museum staff, and the Castle Collections and Archives Officer, or Collections Assistant quarterly, and repaired and maintained by the manufacturers 'Click Netherfield' where necessary.

3.2 Light

- 3.2.1 No objects are exposed to direct sunlight. Objects are protected from unnecessary exposure to light, e.g., when the museum is closed. Storage areas are kept dark when not in use.
- 3.2.2 Ultra violet light is excluded as much as possible. All windows are either blocked off or fitted with UV filter film and / or Holland blinds in the Castle museum.
- Lights are replaced with UV-free alternatives such as LED bulbs wherever possible.
 - Fluorescent lights are fitted with UV filters.
 - Windows fitted with UV filter film and / or Holland blinds are tested for effectiveness at quarterly intervals by the Collections Assistant, Castle staff or volunteers trained to carry out light monitoring.
 - The results are recorded digitally on the laptop and Castle shared drive.
- 3.2.3 Non-LED lights are tested for UV emission using a UV meter at quarterly intervals by the Collections Assistant, Castle staff or volunteers trained to carry out light monitoring.
The results are recorded digitally on the laptop and Castle shared drive, reports are provided to the Castle Museum Manager, and the governing body when requested.
- 3.2.4 Visible light levels are checked using the Museum's light meter whenever the lighting is changed (lights are moved or new bulbs fitted).
This is the responsibility Collections Assistant, Castle staff or volunteers trained to carry out light monitoring.
The results are recorded digitally on the laptop and Castle shared drive, reports are provided to the Castle Museum Manager, and the governing body when requested.
- 3.2.5 Light-sensitive material is not left on permanent display.
- 3.2.6 The museum aims to keep light exposure for very light-sensitive material to below 150,000 lux-hours per year and for less sensitive material to below 300,000 lux-hours per year. The museum will remove objects from display if light exposure is deemed to be too high.

3.3 Dust

- 3.3.1 Objects are not left exposed to dust if possible. They are protected by being kept in display cases, boxes or covered with Tyvek or unbleached calico covers and acid-free tissue paper.
- 3.3.2 If objects need to be protected with polythene sheet or bubble wrap, they are first covered with acid-free tissue paper. Covered objects and objects in boxes are clearly marked to identify the object inside.
- 3.3.3 Dust levels in the museum displays are controlled by:
- Good housekeeping.
 - Keeping external doors and windows closed whenever possible.
 - Keeping the approach to the museum clean.

- Sealing off areas where building work is taking place.
- Increasing the regular dusting patterns during building work.
- Removing especially vulnerable items from display where necessary during building works.

It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to monitoring and improving the environment are in place, communicated and acted upon.

4. Managing the Threat from Pests

4.1 Quarantine

- 4.1.1 Any object coming into the museum (even returning objects which have been on loan) will be kept separate from the collection until it has been fully examined by the Castle Collections and Archives Officer or Collections Assistant, to ensure it is clean and free from any infestation.
- 4.1.2 Objects which must be stored in the museum awaiting examination will be kept away from the collection or isolated by placing them in a plastic box on a pad of acid-free tissue or wrapping them in polythene sheet, lined with acid-free tissue. They will be examined as quickly as possible, especially as there is a risk of damage if they are damp.

4.2 Monitoring

- 4.2.1 Bat proof sticky traps are placed throughout the Castle in display and storage areas, as well as in the stores and along the floors, near doorways and windows, and occasionally on shelves, to monitor insect activity especially in dark, quiet areas.
- 4.2.2 The traps are checked quarterly near the end of March, June, September, and December.
- 4.2.3 A plan is made of each floor, showing the location of the traps. The traps are numbered. Each trap is examined by the Castle Collections and Archives Officer, Collections Assistant, or trained staff in a good light and using a digital or manual microscope.
The results are recorded digitally on an English Heritage devised spreadsheet stored on the Castle S\drive. An example of the record sheet is available in Appendix 4.
- 4.2.4 If pests are found which are potentially harmful to the collection or building, or not immediately identified, a conservator is asked for advice which is then acted upon.

4.3 Prevention

- 4.3.1 All staff are trained to be aware of the risk of pests and know how to report any observed pests or suspected pest damage.
- 4.3.2 Areas where vulnerable parts of the collection are kept are identified so that staff are aware to take extra care in these areas.
- 4.3.3 Impermeable gloves are worn when handling objects to reduce the possibility of mould growth and pest attack.

- 4.3.4 Good housekeeping keeps the museum clean, reducing the risk of infestation by pests.
- 4.3.4 No food or drink is kept in any area where the collections are stored or displayed.
- 4.3.5 Waste bins are emptied daily.
- 4.3.6 Windows and doors are kept shut whenever possible.
- 4.3.7 All vents in the walls in the off-site store are protected with mesh screens.
- 4.3.8 Areas which are full of boxes and objects are deep cleaned every year. All boxes and objects are removed from shelving, the shelving wiped clean with microfibre cloths, and the boxes and objects are replaced.
- 4.3.9 Good ventilation is important for preventing mould and pest infestation. Off-site storage is opened up regularly and fans installed to encourage air flow..
- 4.3.10 Objects are stored in a way to allow air movement around them. Boxes are kept at least 100mm (4 inches) away from walls. Objects are not left on the floor or stacked against external walls.
- 4.3.11 Any mouldy, pest infested or deteriorated packing material is thrown out promptly. Any information on it is recorded first.
- 4.3.12 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to pests are in place, communicated and acted upon.

5. Housekeeping

- 5.1 No polishes, cleaning agents or sprays are used in the museum without the advice of the Castle Collections and Archives Officer, or a conservator.
- 5.2 Synthetic (not feather) dusters are used on walls, lights, and ceilings (not objects). Cotton lint –free cloths (dry or dampened with clean water), brushes and vacuum cleaners are used for cleaning in the building.
- 5.3 Housekeeping does not include cleaning objects on open display.

5.4 Storage areas

- Floors are cleaned by trained staff regularly in line with the Integrated Pest Management.
- Shelves, worksurfaces and ledges are wiped down with cotton lint-free cloths by trained staff twice yearly.
- Rubbish bins are emptied weekly by anyone using the store.
- The areas are deep cleaned by trained staff twice yearly.

5.5 Display areas

- Ground floor areas are cleaned by trained Castle cleaners every day or week, depending on locations.
- Ledges are wiped down with cotton lint-free cloths by Castle cleaners every day.
- Rubbish bins are emptied daily by Castle museum staff.

- Cases are cleaned with vinegar / water solution damp lint free cloths by Castle museum staff every day – following on from Covid-19 requirements.
- Windowsills are cleaned by Castle museum staff on a regular basis.
- Display areas are deep cleaned by trained staff annually every January under the supervision of the Castle Collections and Archives Officer.

5.6 Other areas

- Floors are cleaned by trained Castle cleaners every day or week, depending on locations.
- Rubbish bins are emptied daily by Castle staff.

5.7 It is the Castle Museum Manager's responsibility, along with the Castle Collections and Archives Officer, to ensure the measures relating to housekeeping are in place, communicated and acted upon.

6. Conservation Cleaning of Objects on open display (or in open storage)

6.1 Wherever possible, objects are displayed in secure, suitable cases and stored in appropriate boxes. Where this is not possible, objects on open display or in storage are carefully monitored, recorded and appropriate action taken when damage or dirt is observed.

6.2 Objects are not cleaned regularly, only when they require it, to prevent unnecessary abrasion and damage to the surface.

6.3 Delicate objects including V&A furniture Loans-in, oil paintings, gilded frames, decorated wood surfaces, musical instruments, and clocks should only be cleaned in depth by an appropriate conservator.

6.4 More robust surfaces may be cleaned using the brush vacuum method:

- Examine the object carefully and make sure that it is safe to clean
- Choose a suitable soft brush and make sure any metal ferrule is covered with masking or electrical tape.
- Cover the crevice nozzle of a vacuum cleaner with a piece of muslin, held in place with a cotton covered hair scrunchy.
- Taking care not to touch the object with the vacuum cleaner hose or other apparatus, gently brush the loose dust off the object into the nozzle of the vacuum. Do not touch the object with the nozzle.
- Examine the object again, record the treatment of it and any observations.

6.5 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to conservation cleaning of objects on open display are in place, communicated and acted upon by trained staff.

7. Documentation of the Condition of the Collection and of any treatments carried out on Objects

- 7.1 The museum keeps records of all condition checks carried out on objects, and of any treatments carried out on objects; these are stored digitally on the object record in MODES Complete, in the individual object physical History files, and on the object cards.
- 7.2 Any conservator carrying out treatments on objects from the collection is required to supply copies of the treatment records in a format suitable for the museum's recording system.
- 7.3 The details of the condition checks carried out on the collection are set out in Sections 2 and 12 of this Plan.

8. Storage Materials and Methods

- 8.1 The museum is aware that all objects should be protected in inert packaging materials in a way that protects and buffers the object from chemical or physical damage.
- 8.2 The museum replaces any inappropriate boxes and packing materials with more appropriate materials such as acid-free tissue paper, Tyvek fabric, Plastazote or polyester wadding covered with unbleached cotton calico, and boxes made from acid-free card, polythene, or polypropylene as detailed in ***Signposts Factsheet No 2 Materials for Storage and Display*** (downloaded from the Collections Trust website). Please see Forward Plan for details of the conservation budget each year for repacking.
- 8.3 Objects which are too large to be boxed are covered with unbleached calico or Tyvek fabric.
- 8.4 No object is stored on the floor.
- 8.5 Very large objects are stored on padded chocks or a pallet.
- 8.6 Smaller objects are stored on powder coated shelves and covered with unbleached calico or Tyvek fabric.
- 8.7 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to storage materials and methods are in place, communicated and acted upon.

9. Display Materials and Methods

- 9.1 The museum uses secure display cases wherever possible.
- 9.2 New cases are chosen in accordance with the ***Signposts Factsheet No 2 Materials for Storage and Display*** and the ***Guidance Note Choosing New Display Cases*** (downloaded from the Collections Trust website) and sourced from museum display case suppliers.

- 9.3 Cases displaying the Staffordshire Hoard Loans-in are made to the Hoard owners / lenders requirements.
- 9.4 Cases are lined with acid-free board, unbleached calico, scoured polyester cotton cloth, or Plastazote. Mounts are of Perspex / Acrylic or made with materials as listed in ***Signpost Factsheet No 2. Materials for Storage and Display.*** (downloaded from the Collections Trust website).
- 9.5 Mounts are constructed to provide support for the object and protect it from physical damage during display and handling.
- 9.6 No object is permanently changed by its attachment to a mount (e.g., by drilling or using adhesive). Mounts are suitably padded and sealed to protect the object (e.g., metal hooks or pins are sealed with an inert varnish or heat shrink polythene tubing).
- 9.7 Objects on open display are checked by the Castle Collections and Archives Officer, or the Collections Assistant, every quarter and their condition recorded by photographing in the event of damage, on the Condition logs stored on the Castle S\ drive . Objects on open display are secured using the least damaging method possible.
- 9.8 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to display materials and methods are in place, communicated and acted upon.

10. Handling Methods

- 10.1 Only trained people are allowed to handle objects from the collection.
- 10.2 The museum has written Guidelines for handling objects which all staff (paid and volunteer), and visitors must agree to follow before being allowed to handle objects, and / or Archives.
See Appendix 5.
- 10.3 The handling of some objects may be restricted owing to the presence of hazards or principles of cultural sensitivity.
- 10.4 For the safety of both objects and people, impermeable gloves are worn by anyone handling accessioned objects.
- 10.5 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to display materials and methods are in place, communicated and acted upon.

11. Transport Methods

- 11.1 Objects are moved or carried between rooms and buildings in suitably padded containers, or by professional removal companies.
- 11.2 All objects leaving the museum travel with sufficient documentation.

- 11.3 Objects leaving the museum are never left unattended in vehicles.
- 11.4 Changes of location longer than part of a day are recorded in writing at the end of each working day, according to the procedures set out in the **Museum's Documentation Procedural Manual**.
- 11.5 Object Movement tickets in triplicate are used when an object is removed from its location / store, even for one day.
- 11.6 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to location, movement, and transport methods are in place, communicated and acted upon.

12. Loans in

- 12.1 The museum treats all incoming loans according to the requirements set out in the Loan Agreement between it and the lending body.
- 12.2 The museum will notify the lending body if there is any change in its circumstances which mean that it can no longer meet the requirements set out in this agreement.
- 12.3 If the lending body does not supply a Condition Check Form for each object, the museum will use its own **Condition Check Forms** as at **Appendix 6**
- 12.4 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to Loans-in are in place, communicated and acted upon.

13. Loans out

- 13.1 All requests for loans from the collection will be assessed individually before a decision is reached.
- 13.2 Preference will be for another Accredited museum, or similar body with the appropriate conditions for display and security.
- 13.3 The condition of the objects, the location, environment and security of the venue, transport and personnel involved will all be reviewed.
- 13.4 Every borrower will be asked to fill out a Facilities Report using the template available from the **UK Registrars Group**.
- 13.5 For particularly valuable objects, additional information regarding display cases and security may be requested using the supplementary templates available from the **UK Registrars Group** or the museum's equivalent.
- 13.6 Security, environmental, handling and conservation conditions are stipulated by the museum and agreed with the borrower as part of the loan agreement.
- 13.7 If agreed, the condition of the object to be loaned will be recorded on a Conditions Check Form, with photographs showing all parts of the object and with existing damage clearly marked. This form is part of the Loan Agreement, and a copy will

accompany the object when it leaves the building. **Condition Check Form** available at **Appendix 6**

- 13.8 Depending on the length of the Loan-Out the borrower will provide access to the Castle Collections and Archives Officer to condition check the object(s) at an agreed date and time within the loan period.
- 13.9 Every object is checked against the original **Condition Check Form** when it is returned to the museum.
- 13.10 The loan details and the outcome of the check are recorded on the object's catalogue entry according to the Museum's **Documentation Procedural Manual**.
- 13.11 It is the Castle Collections and Archives Officer's responsibility to ensure the measures relating to loans out are in place, communicated and acted upon.

14. Workforce Training

- 14.1 It is the museum's policy that only people who have received appropriate training should handle or work with objects from the collections.
- 14.2 The museum ensures everyone - paid staff, volunteers, visitors, or researchers - who handle collections are suitably trained. This includes in-house inductions; instruction to visitors and researchers, and training for staff and volunteers, including a period of shadowing an experienced member of staff; the provision of clear guidance materials, factsheets, posters, and continued support.

15. Plans for Improvement / Actioned areas of Improvement

- 15.1 Castle collections website now live enabling a continuing digitalisation of the object Collections and document Archives, improving public access to stored collections, improving remote audience access and minimising the physical impact of display and handling on vulnerable or fragile items.
- 15.2 Collections Assistant with museum qualifications and training to provide additional support, care, and management of the collections.
- 15.3 Staffordshire Hoard Loans-in monitored remotely with Saveris 2 monitors, without the need to open secure / environmentally sensitive display cases to download environmental data.
- 15.4 Staffordshire Hoard owners / lenders have access to environmental monitoring data 24/7 through Saveris 2 website without needing to request data from the host museum.
- 15.5 Additional Loans-in agreements in place with Birmingham Museums Trust for two A. E. Everitt watercolours to improve interpretation of two rooms in the Castle, and the Tamworth Glascote Torc to be on long term display.
- 15.6 Additional displays planned of objects and archives from store never previously seen.

- 15.7 Project for scanning of images from the photographic Archive to provide greater access to another previously unseen collection.
- 15.8 Hanging costume with correctly padded coat hangers and zipped Tyvek rail covers to improve storage.
- 15.9 Re-boxing costume and textiles, reducing over-crowding in some boxes; ensuring similar colours and textile types are boxed together to prevent colour runs.
- 15.10 Re-boxing large images in the photographic collections, reducing over-crowding in some boxes: ensuring images of similar sizes are stored together to prevent warping.
- 15.11 Reviewing the current collections condition audit on a rolling programme.

This plan should be read in conjunction with the Collections Conservation Policy; Collections Development Policy; Collections Management Policy; Documentation Procedural Manual, and the Emergency Response Plan.