



## Jersey Archive Information Leaflets

# Preservation and Conservation at Jersey Archive

## General Information

Unlike printed books, archives are unique documents and records. The information they contain may be the only evidence of events; and their physical format, order and materials also provide important evidence: for example, of the conditions and period they were written and used in. Therefore keeping the original archive materials in good condition is an important aspect of the work of Jersey Archive.

## Preservation

Preservation aims to increase the longevity of archive materials through careful storage and use. It is important because there is not enough time or money to give each and every document individual treatment; and because poor storage can allow mould, insects, rodents, structural defects and chemical ageing to destroy archives. Their security against fire, flood, theft and vandalism also has to be ensured.

### Preservation is:

- Good housekeeping – ensuring that insects and other pests do not get into the repository, that the building is well maintained and secure, with fire prevention measures in place, and that the collections going into the repository are not dirty. Inspection, cleaning and packaging of each item before it goes into the repository are always carried out.
- Environmental management – this ensures that the documents are kept in a climate that slows the rate of chemical ageing and will not allow mould to grow.
- Packaging – in archival quality materials that protect the materials from pollution and changes in the climate of the repository, reduce wear and tear during handling and would help to protect them in the event of a fire or flood.
- Handling – staff and volunteers receive training in handling in order to reduce wear and accidental damage, and in order to advise researchers. The Reading Room regulations and Introductory video are also intended to help researchers use the materials carefully. A variety of book cushions, weights and magnification devices help to make using the documents easier while reducing handling.
- Providing surrogates, such as microfilm, digital images and copies, reduces wear and tear on original documents.

- Cataloguing – accurate and informative cataloguing helps researchers to identify the documents they need, thus avoiding unnecessary production and handling of documents.
- Security - registering readers, tracking the movement of documents being used by staff or readers, returning documents to the repository immediately and other procedures, limit access to the repository and help to protect the records when they are in use. The repository is fully fitted out with fire detection and suppression systems and it has been built to resist fire and reduce water damage. Jersey Heritage has contingency plans for all of its collections in case of fire or flood.

## Conservation

Conservation is the actual repair of the collections.

Items can be given a full range of treatments, or minor repairs, balancing the priority of the item with the level of damage.

High priority items are:

- in frequent use; and/or
- of great cultural significance;
- required for exhibition;
- in such an unstable condition that they will deteriorate in storage or damage other archive materials.

Items from these groups will be given priority for conservation treatment.

Conservation ethics mean that all treatments should be reversible and not harm or conceal the original document. Unlike art conservation, the repairs should be visible so that there is no confusion about what comprises the original document. Archive conservators do not try to replace missing writing or drawings or make purely cosmetic repairs. Stains, punctures, old repairs, and abrasions, may all be part of the historical evidence a document conveys. Therefore, provided these “defects” do not put the document at risk, impede a vital treatment, or make it illegible, they are not removed or repaired. The aim is to stabilise the item and make it usable with the minimum of interference to the original.

### Conservation materials and equipment

All the materials we use must be pure, long lasting, and must not produce harmful by-products as they age. Hence, many traditional materials are used in repairs because the evidence of centuries shows how they behave over time. Paper documents are strengthened with gelatine size, repaired with hand-made papers from Europe and Japan made of cotton, linen and other plant fibres and adhered with pure wheat starch paste. Unbleached linen and cotton, vegetable tanned goat and calfskin, vellum, parchment, and beeswax can be used in book, parchment and seal repair.

Science and technology are also important. For example, vacuum packing, climate control, freezing, “oxygen scavengers”, pheromone traps and understanding more about the life cycle of insect pests means that infestations can be dealt with without using any harmful chemicals.

Equipment such as ultrasonic humidifiers (which make fine mists of water and adhesives) and vacuum suction tables enable treatments such as relining to be more controlled and sympathetic. Modern materials such as capillary matting, Gore-tex and bonded fibres are useful when moistening, washing and supporting documents.

Small amounts of chemicals such as solvents and enzymes are used for stain removal. The acid accelerated decay of paper affects great numbers of documents and at the present time alkali solutions are used to slow this.

### **Conservation treatment**

Work on a document begins by looking at it carefully, doing some tests to establish the causes of its condition and planning appropriate treatment. The expected use of the document is considered when deciding on treatment. The make-up and condition of the item is recorded and the storage packaging is often made at this stage because it is useful to protect the item while it is in the Conservation Room. The item will then be lightly surface cleaned because later treatments might fix the dirt.

Paper may be washed and given treatment with alkalis to slow down its rate of decay due to acidity. Obviously paper is very weak when wet and therefore it is handled carefully using support fabrics. Solvents to dilute or resist the de-ionised water may be used and to accelerate drying. Tears and holes are repaired with hand made paper and tissues and attached with wheat starch paste. The repairs have torn or pared edges to give a smooth transition between the repair and the original. Furthermore, repairs should be weaker than the original so that the repair rather than the original gives way if mechanically stressed. Sometimes paper pulp is used to fill in holes.

Some inks, dyes and papers cannot tolerate aqueous treatments; there are solvent based alkali treatments to buffer them against acid degradation and paper repairs can be attached with dry acrylic adhesives that are activated with heat from a small iron.

Parchment and vellum is made from animal skin, treated with lime solution and tensioned, stretched and scraped while wet. It is usually strong and durable, and resists acidity because of its loading of lime; but may need repair if it has been attacked by insects, rodents or mould.

Holes in the original are filled in with new parchment pared down to fit the hole and to give a smooth transition between the original and the new piece. Where repairs need to be transparent, sausage skin (which is pure collagen) or fish swim bladder can be used. The repairs are attached with paste, gelatine or even a special isinglass made from the swim bladder of sturgeon.

Seals are repaired with beeswax. The wax is used warm since it loses its adhesive qualities as it cools but not warm enough to melt the original.

Photograph repair is a complicated area to describe here as techniques vary with the emulsion, the printing out process and the substrate (what the photograph is on – i.e. paper, tin, glass etc). But the golden rule is chemical purity – photographs are highly sensitive to chemical degradation because the image is in an emulsion of chemicals chosen because they react very quickly to light. Subsequently they also tend to be sensitive to other chemicals as well, which come from pollution (backing materials, fingers, packaging, the environment, etc). Therefore the last thing a conservator wants to do during a conservation treatment is to add in any contaminants or chemicals, so we use distilled water and highly

refined solvents. Specially produced paper that is low in chemical residues and a box board which contains a layer of carbon filters that mop up pollutant gases, are used for repairs and packaging photographs. Photographic materials are then stored in our Cold Store where the air is chilled and dried to help prevent deterioration.

Bookbinding means learning about the construction of books from the way the pages are folded and gathered together, through sewing the gatherings and attaching the covers, to covering the covers with paper, cloth or leather and gold tooling. However, in book conservation, the idea is to interfere as little as possible with the original and to retain as much of the old sewing structure and covering material as possible. This means strengthening sewing structures and board attachments with good quality materials and lifting covering materials to unobtrusively insert new pieces. This is often more time consuming than rebinding a book from scratch; and it does mean that the book might look much the same as it did before repair rather than shiny and new. Bookbinding is the area of archive conservation that is most likely to get blurred with restoration.

Modern materials such as videotape and cine film are copied onto standard formats on polyester film and the originals placed in chilled storage. This approach takes account of the fact that changing technology means that the equipment may not be available to play the original; and that some media, such as video tape, are chemically unstable and very difficult to preserve.

The purpose of the Jersey Archive is to identify, select, collect, manage, preserve and provide access to the Island's Records on behalf of the whole community, promoting Jersey's culture, heritage and sense of place, both within its shores and beyond.

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Opening Hours: 9am to 5pm, Tuesday to Thursday. The Reading Room and Help Desk are closed between 1-2pm. Late night till 7pm the last Thursday of the month.