

Conservation newsheet 2: The conservation of the Orkney suit rolls

Background

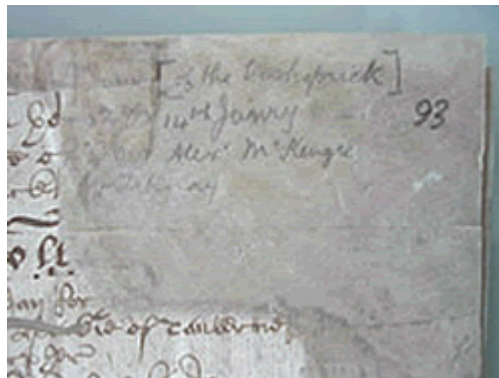
This project was carried out within The National Archives of Scotland (NAS) Conservation Services Branch (CSB). The task involved repair of several hundred documents which were in a very fragile state, to stabilise the ink corrosion and prepare them for digitisation, whereby the original documents could then be re-transmitted back to secure storage within Orkney archives. Images have been made available on Virtual Volumes which can be viewed in the NAS search rooms.

The manuscripts themselves contain information relating to sheriff court records held under charge and superintendence within Orkney archives and consisted mainly of suit rolls from the 17th and 18th century; these were lists of tenants etc who owed suit to the courts.

Condition before treatment

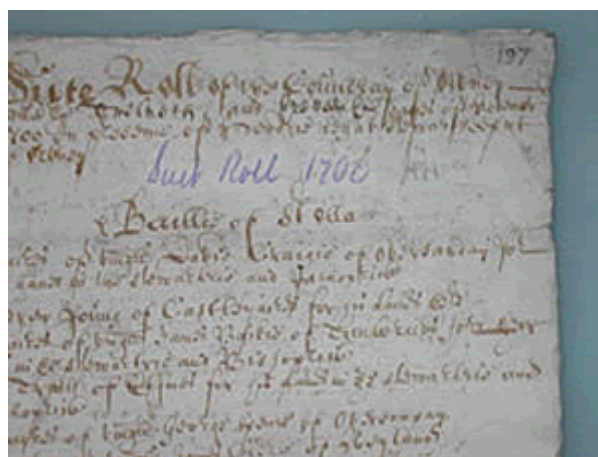
The documents were written in ink on cream medium weight laid paper and are in different formats e.g. rolled, flat and sewn into gatherings. Annotation of various hands from around the 19th century has been written over previous degrading repairs. The removal of these repairs may lose valuable evidence in some cases. It was necessary to preserve and record this information by taking digital images during the treatment of the items. Images have been taken and are currently being stored within CSB.

These damaging repairs have since been removed during treatment.



Example of written annotation over damaging repair

There was also evidence of solubilised copy pencil on several documents and this was taken into consideration during treatment. The main constituent of copy pencil is largely a violet basic ink dye known as methyl violet. It would have originally appeared similar to marks made by a carbon based pencil. However, on reaction with water, this activates the dye changing to purple.



Example of copy pencil activated by water damage

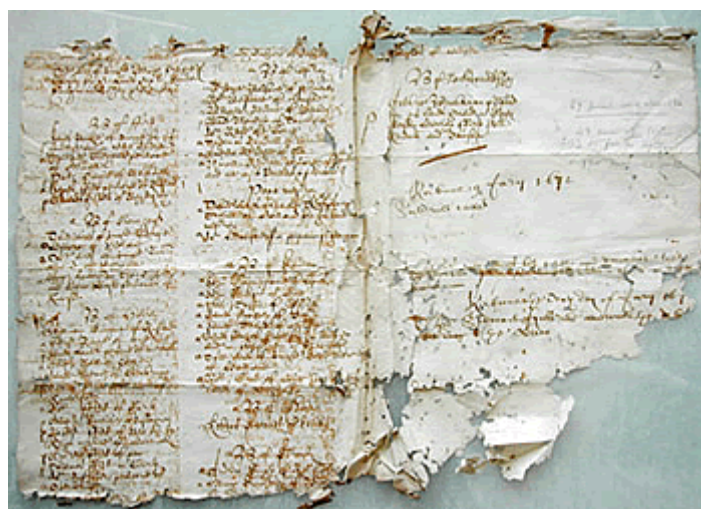
In general, most of the documents were in poor condition with tears, creasing, and some loss of paper, text and size. Many pieces exhibited signs of previous mould growth leading to very soft/fragile paper which could not withstand much handling. Items show staining mainly due to water, ink or rust and are soiled with some ingrained dirt also. Different types of adhesive tape have been used to keep manuscripts together; these include paper backed, glassine and pressure sensitive tapes. Full documentation of specific treatments is held at CSB. Overall, the documents show signs of degradation due to inadequate storage with different sizes having been placed together causing abrasion and loss of material at the edges. Inks used in the original documents are most likely to be iron gall ink.



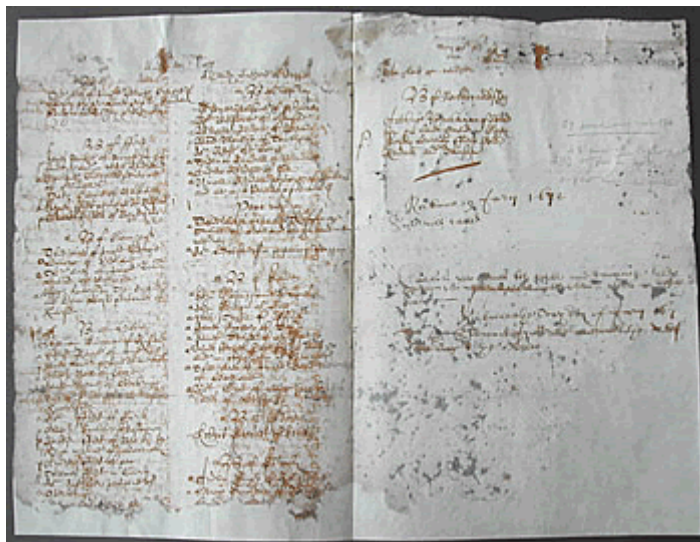
Before treatment image showing fragile paper further damaged by the use of adhesive tapes

Treatment

Pre testing of inks, adhesives and paper was carried out after collation and numbering, then items were separated into bundles for treatment. All pieces were cleaned using Mars Staedtler erasers and chemical sponges. Removal of minor mould spores was carried out using appropriate protective equipment conforming to standards within a well ventilated area. Calcium phytate treatment was undertaken where inks tested positive for iron (II) and iron (III) ions. Items with very little copy pencil did undergo full aqueous treatment as what there had been was already solubilised and had moved through the papers' fibres previously. There was no further visual ink movement found after treatment in these cases. Tape removal was carried out in various ways, either dry in removing some carrier materials, or immersed in water baths to release carriers and reduce the adhesive residues. Alpha amylase enzyme immersion was carried out on a few items to remove backings which potentially obscured textual areas, and the removal of unstable previous repairs after imaging had been carried out where appropriate. Gelatine was chosen as the repair adhesive due to the condition of the inks overall and several different Japanese papers were used in the repair and infilling of the documents appropriate to the colour and weight of the original document.



SC11/86/18/1/77-80 Before treatment



SC11/86/18/1/77-80 After treatment

Some flat sheet items had been joined originally, however due to the breakdown in adhesive had become separated over time. Single sheets that have been found to be originally joined were returned to their original rolled format and were housed appropriately. Dimensional change throughout the bundles has caused uneven stresses and abrasion of the edges when stored together in paper wrappers. The running order has been retained wherever possible whilst maintaining a high level of protection. Where the wrappers contain no information and do not provide sufficient support, these have been discarded after discussion and agreement with curatorial staff. Many pieces were previously sewn in gatherings and were returned to this format with protective covers following treatment. Using the original sewing holes they were finally sewn into non-adhesive booklets.



Items sewn into non-adhesive pamphlets after treatment

Housing and storage according to format

- Flat format. Custom made non-adhesive 4 flap folders in manilla tied with cotton tape. Folder size changed with format and an attempt was made to keep the running order and marking clearly on the labels when this has not been possible.
- Rolled format. Long sheets have been rolled around a manilla covered former. A sheet of manilla was placed around all and tied with unbleached cotton tape. This has subsequently been placed inside Tyvek tubing for additional protection with appropriate labelling.
- Whole bundles have been kept together inside several custom made boxboard phase boxes which have been labelled with a set of handling instructions for readers to be retained at the front of the box. Plastazote was used in lining to support the items thereby reducing movement within the box where necessary.