

**PRACTICAL SESSION SUMMARY:
CLEANING AND REPAIR TECHNIQUES FOR FEATHERS
Allyson Rae**

A large number of techniques have been tried and applied over the years and are well represented in the literature. I am demonstrating a few basic procedures which I have found particularly useful with the types of feather objects I have encountered.

As with all conservation treatments, the cleaning and repair of feathers needs careful thought – it is possible to do more harm by doing the wrong thing than by doing nothing. Cleaning is irreversible. Cleaning agents and repair materials become intimately associated with artefacts and have a bearing on their long term stability. We need to feel confident that the choices we make, the knowledge, skills, materials and time we have available allow us to apply techniques which enhance the understanding and longevity of feather artefacts.

When approaching feather treatments it is important to bare the following in mind:

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| Cultural issues. | <ul style="list-style-type: none">• There may be cultural concerns over treatments being proposed.• Soiling, existing damage or repairs may be significant. |
| What effect is wanted? | <ul style="list-style-type: none">• The condition and use of the object will affect to its conservation needs.• The level of treatment desired or possible should be established.• The effect on and treatment of associated materials need to be considered. |
| Nature of soiling and damage. | <ul style="list-style-type: none">• The type and significance of soiling.• Forms of physical damage, including distortions, cracks and breaks, insect damage, disintegrating feather fragments. |
| Choices for cleaning. | <ul style="list-style-type: none">• Start with the least invasive options.• Consider the benefits and drawbacks of application methods and materials. Remember the importance of effective rinsing / drying.• Try out materials / techniques in a discreet area. |
| Qualities of adhesives. | <ul style="list-style-type: none">• Good long term ageing, easy reversibility / re-treatability.• Good initial tack and fast drying, with a degree of flexibility.• Suitable strength for the size and location of the feather. |
| Qualities of repair materials. | <ul style="list-style-type: none">• Good long term ageing.• Suitable strength for the size and location of the feather, with a degree of flexibility.• Easily shaped and colour matched. |
| Risks to artefacts. | <ul style="list-style-type: none">• Loss of information.• Damage from the technique.• Long term effects from cleaning residues, inappropriate adhesives.• Loss of preen oils.• Migration of soiling rather than removal.• Uneven effects due to composite materials.• Adverse reactions from hidden materials. |
| Risks to people. | <ul style="list-style-type: none">• Pesticide residues.• Health and safety issues with solvents and adhesives. |

TECHNIQUES DEMONSTRATED.

CLEANING AND RE-SHAPING.

1. An immersion technique using water without detergent.

- a. Feathers are laid in a shallow bath of purified water. A few drops of Industrial Methylated Spirits (IMS) added to the bath reduce surface tension. The feathers are allowed to relax.
- b. Feathers are supported on a Polyester sheet and lifted in and out of the bath once wet in a Polyester sheet sandwich.
- c. Additional agitation to assist cleaning if necessary is provided with a soft sable brush in the direction of growth.
- d. Drying is achieved by removing excess moisture with absorbent tissue, followed by gentle use of a cool air blower and finger preening.
- e. Adaptations of the technique can be used if appropriate for objects not suitable for immersion.

2. Localised re-shaping using absorbent tissue moistened with purified water.

- a. Tissue is cut to size, moistened and wrapped around a distorted or bent shaft.
- b. The feather relaxes and resumes its original shape, usually after about 15 minutes.
- c. The tissue is removed and feather allowed to dry with the aid of finger preening if necessary

REPAIR.

1. Repair of cracked or broken feather shaft using a splint of replacement quill.

- a. A repair splint is cut from a suitable new feather, shaped to fit over the shaft at the crack/break and extending approximately 1cm on either side of the break.
- b. Mowilith 50 (Polyvinyl Acetate resin) 50:50 IMS:Acetone is used to secure the butt joint in the shaft and to attach the splint, held in place with finger pressure.
- c. Any excess adhesive is removed immediately with fine forceps.

SUPLIERS INFORMATION.

Mowilith 50	Conservation Resources (UK) Ltd Unit 2 Ashville Way Off Watlington Road Cowley Oxford OX4 6TU +44 (0)1865 747755
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Industrial Methylated Spirits. Acetone	VWR International Ltd Hunter Boulevard Lutterworth Leicester LE17 4XN +44 (0)1455 207000
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Polyester sheeting	Conservation by Design Limited Timecare Works 5 Singer Way Kempston Bedford MK42 7AW +44 (0)1234846300
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Biography

Allyson Rae has extensive experience in the conservation of artefacts incorporating feathers over the last 30 years. With a BA in Fine Art, she joined the Department of Conservation and Science at the British Museum as an Assistant Conservator in 1978, specialising in organic artefacts. Undertaking a dissertation for her Certificate in Ethnographic Conservation with the Museums Association in 1984 she focused on the treatment of African feather headdresses. As head of the Organic Artefacts Conservation at the British Museum from 1991, she was responsible for a wide range of organic artefacts and provided training in feather conservation for staff and students. She became a Professionally Accredited Conservator-Restorer in 2000.

Allyson started a private conservation practice in 2006, working in liaison with a range of organisations and private clients including Renaissance in the East of England, the National Trust, Canterbury Cathedral and the Textile Conservation Centre. She has provided advice to the National Trust on the care of the decorative feather interiors at A la Ronde, Devon. She led practical workshops introducing feather conservation in 2007 and 2008 in liaison with the ICON Ethnography Group in Birmingham Museum and Art gallery and the Pitts Rivers Museum, Oxford. She will be leading a 3 days workshop in liaison with the Canadian Conservation Institute in Ottawa in 2010.

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