



TSIG

*Textile
Special
Interest
Group*



AICCM

**Emerging Technologies
in Textile Conservation**

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Mission Statement

The AICCM Textile Special Interest Group (TSIG) has been formed to promote the preservation of our textile heritage through education, collaboration and research.

Our objectives are to:

- Achieve the highest ethical standards by upholding the AICCM Code of Ethics
- Respond with research and education initiatives appropriate and relevant to the needs of private and public textile owners.
- To establish standards for the materials, treatments and procedures used in the conservation of historic textiles and to ensure WHS standards are observed.
- To provide leadership, influence and direction on textile conservation and management issues.



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Contemporary Art - Future Problems for Textile Conservators?

Wendy Dodd

ABSTRACT

Textile art in many museum and gallery collections is made from traditional materials using traditional methods. However, artists today are encouraged to experiment with new materials and methods. Some of these materials are natural or plant materials while others are new materials and many of the methods are not well documented.

This paper discusses some contemporary textile art work and points out potential future problems for conservators. Some unusual materials mentioned are plastic bags, hair, crepe paper, sausage skins, dissolving fabric and tea bags.

KEYWORDS: *Contemporary art, adhesives, fading, plant materials, organic, new materials*

INTRODUCTION

Since the earliest times, textiles have been made for warmth, decoration and to help with daily life. Some of the methods or technologies used to make textiles are still used today.

Textile artists weave, spin, crochet, coil, twine, knot, knit, braid, felt, stitch, print and dye.

The main organic materials used in making textile art and fashion items in Australia today are silk, cotton, hemp, flax or linen, jute, leather and wool. During the 1970's, there was considerable activity in textile art in Australia when weavers such as Solvig Baas Becking, Erika Semler, Mona Hensing, Jutta Federson and Margaret Grafton, all of whom trained overseas, moved to Australia.

Other artists were taught by or were at least influenced by these artists. Many were tapestry artists, whose tapestries hang in various Australian public buildings. One of the most controversial artists was Margaret Grafton, who in 1975 used metal foil in a tapestry commission.

This was seen as so controversial, that it was taken down after only four days and only rehung seven years later. Mona Hensing and Jutta Federson's work helped to break down the barriers between art and craft.

In 2004, Ann French wrote a paper (French 2004) describing the issues facing textile conservators using examples of art work from the collection of the Whitworth Art Gallery in the UK.

She lists the issues raised by contemporary textile art (and I quote):

- The choice and range of materials used by artists
- The changing techniques of manufacture used by artists
- Display methods
- Storage methods

The lines between various art forms are becoming blurred. For example, sculptures can be formed using fibre and knitted clothing using metal. Fashion week brings out amazing textiles such as digitally printed lustrous satins and reflective fabrics. These relate closely to theatre costumes. There are early examples in the collection of Ballets Russes (1903-1909) costumes held by the National Gallery of Australia (From Russia with Love 2010).

Australian indigenous plant materials, used in textiles include kurrajong, banyan and pandanus fibres which can be treated to make soft, flexible but strong string that can be woven into textiles.

Within contemporary textile practice, the use of materials is changing. Organic materials are mixed with not just man-made fibres but with other media. The wet cleaning of mixed fibre textiles such as silk and rayon has still not been well researched (Howe 2015).

New materials and technologies are being used to create textiles that express the artist's ideas. These new materials can be interactive and responsive.

Textiles are being woven with computer driven methods using wood, bamboo, LED light tubing and recycled plastic. Computer chips incorporated into textiles help to create wild, interactive and high performance materials which are being used in high fashion. Nanotechnology is allowing sensors, actuators and logic circuits to be embedded in traditional woven, knit and non-woven structures to create interactive textiles.

Just as in the past there have been changes in textile conservation methods, there will be further changes in the future.

Lise Fr lund, who lives and works in Denmark, spent time in Australia at Sturt in Mittagong. She uses traditional methods converted for a digital jacquard loom and has experimented with all kinds of materials such as reflective, copper, silver, translucent, paper, wood, LED light tubing, sea grass, and over spun yarns to create new kinds of weaves (Frolund 2011).

'Love Lace', an exhibition held at the Powerhouse Museum in 2013, combined traditional lace making techniques in innovative ways. Some of the work, for example "Patterns of Frost", a soft sculpture made by Anneliese Vobis using heat treated felt and thread, may need specialist input from sculpture conservators in the future. Other 'lace' pieces were made from various metals, glass, *Perspex* and leather.

The variety of contemporary textiles is infinite, in fact anything goes. Students at art schools are encouraged to experiment with materials and methods. The emphasis is on what is being expressed, or the meaning behind the work, not necessarily the way it is made.

This usually continues once the artist has graduated. I have selected some examples to highlight some of the problems associated with their conservation in the long term.

TAPESTRY

Ancient tapestries often contained pearls and other jewels. Today most tapestries are still made using traditional materials, although the incorporation of shredded plastic bags, plastic buttons and metal wire is also known. The addition of fire retardants can also be a problem (Karen Finch 1969).

Even old tapestries that have received conventional conservation can have problems

with differential fading of repairs made using vegetable dyes (Patricia Cox Crews 1987) (Terry T Schaeffer 2001).

EMBROIDERIES

Some embroideries are hand stitched using traditional threads, while others incorporate a mixture of natural and synthetic materials. Other large embroideries by Alice Kettle, are actually drawings made using a sewing machine (Alice Kettle, Jane McKeating 2011).

SUN-DYED FABRICS OR CYANOTYPES

The fabrics used for this type of printing are often a proprietary product and it is difficult to find out the constituents or coatings.

RUST-DYED FABRICS

Textile conservators normally try to remove rust stains from fabrics, but artists are using pigments obtained from rusted metals to express concepts such as decay, impermanence, past memories and history.

FELTED ITEMS

Most felt is made from merino wool, however some artists are incorporating velvet and silk into their functional and non-functional work. Three dimensional or sculptural felted work is sometimes coated with varnish to help it keep its shape (Denise Lithgow 2015).

PLANT MATERIALS ATTACHED

Almost any form of textile may be embellished with plant material. The combination may be unstable and the longevity will depend on the preparation of the plant material. Melinda Le Guay's piece "Natural Order" which was shown at the Brenda May Gallery in Sydney is almost completely composed of *nyssa sylvatica* leaves (Welch 2014).

SHIBORI

Shibori is a Japanese tie dyeing technique dating back to the 8th century. There are many ways you can bind, twist, fold or compress fabric. Shibori fabric is generally dyed however sometimes it is

the structure left following the folding, compressing and heating to make a three dimensional shape which is the outcome desired by the artist.

Keiko Amenomori-Schmeisser is a shibori artist who combines traditional techniques and indigo dyeing with gold foil and metal paints.

HEAT COMPRESSION USING LEAVES AS DYE

The heat compression technique using leaves as dye, is similar to the rust dyed fabric and shibori. The type of plant material will dictate the stability of the fabric. So, new micro fading measurement techniques might be useful to dictate exhibition length and light levels to preserve organic dyes (Lerwill, Townsend, Liang, Thomas, Hackney 2008).

QUILTS

Contemporary quilts may be made from a variety of fabrics, and often a mixture within the one quilt. The quilt may also be embroidered. To make a temporary bond between the top fabric and the batting a basting spray is sometimes used. The adhesives are usually solvent based and it is difficult to discover their constituents. Over time particularly if the quilt is subjected to heat or light the adhesive may discolour and stiffen. Fusible battings can also be purchased and appear to be more stable (Evenson, Cox Crews 2004).

NATURAL DYES

Natural dyes have been used by artists for many years now. These can be fugitive if not properly fixed and are often particularly susceptible to fading (Hofenk de Graaff 1968, Schweppe 1992).

PRINTED FABRICS

A good textile designer/printer will select the right inks or dyes for the fabric and its function. Dye mixed with a carrier printed on fabric gives a different appearance and feel from pigments as dyes penetrate into the fibres rather than sitting on top. Recognition of the process is as important as an understanding of the dyes and pigments. Today printing has moved from silk screens, flatbed or rollers to digital printing. There is considerable research and development going into

printing inks which makes it particularly important to obtain information and fabric samples from the artist.

ENCAUSTIC

This is bees wax and paint heated onto a variety of fabrics. It is probably better known to painting conservators and has been around since Roman times. The method is being used experimentally by textile artists. It can also be used to add a stiff component, such as a leaf to a work (Kruger 2014). Images on wax coated cards can be transferred to a textile using an iron. This is often the base for a work which is embroidered and embellished.

WEARABLE ART

For conservators working with contemporary fashion it is interesting to search the internet for WOW (World of Wearable Art) in New Zealand. Clothes displayed in this forum are made from all manner of materials in combination, including plastics, metal and wood. Some are not designed to last, but others will be incorporated into museum collections.

THERMOPLASTIC FABRICS

These fabrics are frequently used in millinery and to make artificial flowers. Fabrics such as nylon and polyester can be shaped with the careful use of a heat gun. Cotton sateen and silk can also be shaped using a "hot sheet" between layers. Polymer sheets can be obtained in mesh and a felt like fabric. Many artificial flowers are made using the thermoplastic properties of materials (Flora Fascinata 2014). Product information is essential for conservation.

NATURAL MATERIALS

Although I have mentioned natural materials in conjunction with other categories I also want to mention work which may also fit into object or paper conservation. Some artists use a variety of materials such as waxed linen thread, tea bags, pine needles, rabbit fur, philodendron husks and gourds.

Judith Brown has made some amazing "clothing" using laser cut paper decorated with freeze dried plant material (De Boer 2013).

FUSIBLE WEBBING AND WASH AWAY SHEETING

As with fusible batting there are a variety of products which can be used as a base for machine stitching or applique which dissolve leaving a lace-like material. It is difficult to obtain proprietary information and longevity will depend on the diligence of the artist.

Sharon Peoples who had a major exhibition at Narek Gallery, Tanja NSW in 2014 makes very lacy transparent pieces. She uses a proprietary brand dissolving substrate and has been experimenting with various brands.

Many adhesives yellow with age, particularly when subjected to light and often attract dirt, particularly soluble nylon (Abbey Newsletter 1982, Down 1984).

MIXED MATERIALS

Monique van Nieuwland who had a major exhibition at Sturt Galleries in 2015, uses a semi industrial jacquard loom with a cotton/linen warp. Dyed monofilament, netting, audio tape, rope and plastic bags are incorporated in the weft. Will there be problems in the future for these weavings which contain such a variety of materials?

PAPER

The use of crepe paper was quite common during WW2 when women crocheted sun hats for themselves. In the 1950s, women made hats from clear cellophane. Both these materials are quite fragile and become brittle with age, as Lynne Johnson, a Canberra artist discovered when she tried knitting some 30 year old crepe paper. These materials were not meant to last so good storage is probably the best option. There is even a toilet paper installation by Rachel Park (Cahill, Mulford 2014).

KNITTING, CROCHET AND MACRAMÉ

The conservation of items made using these methods will depend on the materials from which they are made. New materials pose new problems.

NEW FABRICS MADE FROM SEAWEED AND WOOD PULP

New fabrics are continually being made for different purposes. One called SEACELL™, a cellulosic fibre that contains seaweed is supposed to be good for the skin and to have anti-inflammatory properties.

OTHER MATERIALS

Feathers and hair have been used in traditional textiles and are also being used in contemporary work. The Bishop Museum has a good handout on the care of feathers. The Royal Alberta Museum has a scholarly paper entitled 'Considerations in the Conservation of Feathers and Hair, particularly their pigments' given by Joycelyn Hudson at CAC/ACCR 31st Annual Conference in Jasper 2005 (Hudson 2005).

The textile magazine *Textile Fibre Forum* Issue number 116 illustrates a work made in 2013 by Jessica Coetzer (Wisniowski 2014). It is hand woven using nylon monofilament warp and a weft of polyvinyl chloride tubing filled with mixed yarns such as wool, tulle, leather, wool fibre, cotton paper and polyester yarn. How stable will the filling be inside the tubing? The stability of the polyvinyl chloride tubing is dependent on the stabilisers used in its manufacture. A fluorescent acrylic garment lit with UV lights is included in the same magazine!

What is a textile? In 2010 Ola Robertson exhibited a piece called *Fragile Vessel* in a textile exhibition. It was made from sausage skin and had a net insert made by stitching on a dissolving substrate. How does one conserve a dried stretched sausage skin? Hopefully good storage and minimal handling will help this amazing piece last for a few years.

CONCLUSION

The description of what is a textile, is expanding. Contemporary textile artists are experimenting with a vast array of materials and techniques. Some of the results they are achieving are accidental. Some methods of dyeing are halted when the artist has achieved what is required rather than when the dye pot is exhausted or the dye properly fixed. Many artists make haphazard documentation, so institutions acquiring work need to ensure curators and conservators collect samples and information about the way the item has been made and the materials from which it is made to take the guesswork out of future conservation.

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MATERIALS

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