

Deterioration and conservation of textiles in museums

■ MANISHA CHOUDHARY AND SUDHA BABEL

Received: 27.04.2012; Accepted: 16.11.2012

See end of the paper for authors' affiliations

Correspondence to :

MANISHA CHOUDHARY
Department of Textiles and
Apparel Designing, College of
Home Science,
Maharana Pratap University
of Agriculture and Technology,
UDAIPUR (RAJASTHAN) INDIA
Email: manishatejan@gmail.
com

■ **ABSTRACT** : The word textile conservation is defined as the protection of ancient textile objects from damage and deterioration. Antique textiles and costumes can be maintained for years of use and enjoyment provided that some basic attention is given to their care and preservation. Most antique textiles are composed of natural fibres that may include wool, cotton, linen or silk. The first step in the care of textile collections is to understand and minimize or eliminate factors that cause damage. The second step is to follow basic guidelines for handling, display, storage and cleaning.

■ **KEY WORDS** : Textile conservation, Historic textiles, Pests, Pollution

■ **HOW TO CITE THIS PAPER** : Choudhary, Manisha and Babel, Sudha (2012). Deterioration and conservation of textiles in museums. *Asian J. Home Sci.*, 7 (2): 605-607.

Historic textiles are more fragile than many other objects from past eras. Conservation is the application of technical, scientific, and historical analysis to preservation and treatment of artifacts (Landi, 1998). There are two sides to conservation *i.e.* preventive and remedial. Preventive conservation's aim is to recognize the agents and mechanisms of decay and to slow down the process by introducing optimum conditions for preserving the textiles (Mailand, 1980). The organic materials of a delicate nature are more susceptible to get disintegrated and destroyed by the agencies of decay. Many agents contribute to textile's deterioration. These agents of deterioration can occur naturally, or they can result from external forces. Avoiding the agents of deterioration is the key role of preventive conservation. The agents that affect textile collections are:

Temperature and humidity:

Textile fibres are hygroscopic—they readily take up and loose moisture. Fluctuations of humidity and temperature cause the textiles to take up or loose moisture. These fluctuations cause dimensional changes and mechanical stress that can lead to breakage and structural damage of weak yarns. In museums humidity should be maintained between 55-60 per cent. Textiles can become embrittled when humidity levels

are low. Conversely, permanent staining can occur from mold growth when humidity levels are excessively high. Humidity can be modified with humidifiers or dehumidifiers. Humidity modifiers such as silica gel can be used to control relative humidity in display cases; it comes in many forms, including self-indicating crystals and impregnated sheets. Ideal temperature is between 65° -75° F. Temperature can be controlled with central heating and air conditioning system



Fig. 1 : Silica gel as humidity modifier

Data logger is an instrument for automatic recording of temperature and relative humidity. It records the data of each and every second. So that we can control the environment's temperature and humidity.