Throughout human history, textiles have played a rich part in the lives and traditions of people of all cultures. They have been constructed using a wide variety of materials and techniques—from natural fibers such as cotton, silk, flax, and wool to regenerated or manufactured fibers such as rayon, nylon, and polyester.

Textiles can be simple in structure and composition or can be part of complex composite objects that incorporate other materials like paper, leather, glass, metals, paint, stone, horn, bone, shell and feathers.

Contemporary household furnishings, clothing, many fashion accessories, and even fragmented archaeological finds are all textiles. Textiles, such as quilts, tapestries, embroideries, flags, and christening gowns are often treasured for their artistic, technical, cultural, and sentimental value.

Most textiles, at some time in their history, have served as functional objects. This history of use, along with environmental and handling factors, can affect a textile’s condition, resulting in the need for special care to ensure its long-term preservation. Making careful and informed decisions regarding the handling, display, and storage of a textile can make the difference between a short life span and a textile’s preservation for future generations.

ENVIRONMENT

The deterioration of textiles is often due to a combination of physical, biological, and/or chemical factors working together to cause damage. Inappropriate lighting; improper temperature and relative humidity levels; excessive dust, dirt, and other pollutants; insects; mold and mildew; and incorrect handling all contribute to damage.

LIGHT

Both natural and artificial light can fade color and contribute to the degradation and permanent damage of many textile fibers. The rate at which damage occurs is determined by the level of illumination and the duration of exposure. And, unfortunately, light damage is cumulative and irreversible. If long-term preservation is a concern, protecting textiles from light exposure is key. To this end, several simple and practical steps can be taken: keep draperies drawn to protect textiles from strong, direct light; use ultraviolet light filtering films on windows and over other light sources. Keep in mind, however, that all types of light damage textiles. The risk of light damage can be further minimized by periodically rotating your textiles on and off display.

TEMPERATURE AND RELATIVE HUMIDITY

High temperatures speed up the rate of many chemical reactions, and as a result, speed up the rate at which damage can occur in fibers, dyes, and other component materials of textiles. For this reason, textiles are best stored and displayed as far away from heat sources (fireplaces, spotlights, windows, etc.) as possible. Areas inclined to high temperatures (above 80°F) and those subject to sudden or great temperature changes, such as unfinished attics and basements, are not appropriate for the safe storage of textile artifacts.

Relative humidity is a measure of the amount of moisture in the air. Because many organic materials contain moisture, fluctuations in temperature and relative humidity can cause these materials to expand and contract as they take in or lose moisture. A painted silk banner, for example, can be adversely affected when the pigment and binder in the painted design do not expand and contract at the same rate as the fibers in the silk fabric. As a result, the paint layer will tend to crack and flake off. Other potential problems associated with high relative humidity are mold and mildew, the corrosion of metals, and the bleeding of some dyes. Relative humidity is best maintained at a constant level between 35 and 65 percent.

POLLUTION AND AIRBORNE SOILING

Smog, car exhaust, and ozone are common pollutants that can cause physical and chemical damage. Textiles are particularly susceptible to abrasion and physical damage caused by dust and other gritty particulate surface soiling. Eliminating exposure to these contaminants is an important aspect of preventive conservation care. The use of particulate air filters and protective display and storage enclosures is recommended when planning for the long-term preservation of textiles.

DISPLAY AND STORAGE

Textiles are best preserved when displayed and stored in clean, well-ventilated areas that are routinely and adequately maintained. Controlling dust, clutter, and other accumulations of extraneous material will greatly reduce the possibility of damage caused by insects, rodents, and microorganisms such as molds and fungi. Inspect your textiles often, ideally at six-month intervals, to identify problems early on. Indications of active deterioration are an increase in textile discoloration, tarnishing of metal components, and the presence of a
The recommendations in this document are intended for guidance only. The AIC does not assume responsibility or liability.

**Handling**

Proper handling is important for the long-term preservation of textiles. Textiles are frequently more fragile than they first appear. Before attempting to handle or move a textile, familiarize yourself with its weak areas. Physical damage can occur suddenly as a result of even careful handling. Support a textile in a manner that distributes its weight evenly. A delicate silk embroidery may be supported by sliding a piece of paper or cardboard underneath, while a heavier textile such as a carpet or tapestry is best rolled on a large tube or carried in a fabric sling.

Clean hands are important when handling textiles, as human skin contains oils and perspiration. Refrain from using skin creams as they may be readily absorbed by textile fibers and later contribute to staining. Wash your hands frequently or wear inexpensive white cotton gloves to prevent oil or perspiration from coming in contact with the textile.

When to Consult a Conservator

Before attempting to repair, clean, or mount a textile artifact, contact a professional textile conservator for advice. The conservator will examine your textile, evaluate its composition and method of manufacture, document its condition, and make note of inherent problems and areas of damage. A treatment option will then be proposed, taking into account your concerns and any relevant historical information.

AIC’s Find a Conservator at www.conservation-us.org can direct you to a qualified conservator in your area.

**About AIC**

The American Institute for Conservation of Historic and Artistic Works (AIC) exists to support the conservation professionals who preserve our cultural heritage. AIC plays a crucial role in establishing and upholding professional standards, promoting research and publications, providing educational opportunities, and fostering the exchange of knowledge among conservators, allied professionals, and the public. AIC’s 3,500 members all share the same goal: to preserve the material evidence of our past so we can learn from it today and appreciate it in the future.

To learn more about AIC or to become a member, please visit www.conservation-us.org.