Part One
Conserving Art

Some of us expats start collecting art only when we move to Southeast Asia, perhaps because we've just reached that more grown-up stage in our lives or – more likely – because we're so inspired by the exciting art that is produced in this part of the world. Ironically, the climate is the opposite of ideal when it comes to keeping art: heat and humidity are the collector's two greatest enemies. If you have invested in paintings that you plan to love forever and perhaps even pass down to your children, you must protect them from harm.

by Verne Maree

Why is our tropical climate a problem?

All art – especially delicate paintings and works of art on paper – undergo dramatic changes in a tropical climate as the temperature and humidity fluctuate. The life span of an artwork depends on the techniques and materials that went into making it, and the environment in which it is kept. Using inferior framing materials such as cello-tape hingeing and plywood or millboard backing-board can also cause it to deteriorate.

Oil on canvas, *before and after restoration*

What is an art conservator?

An art conservator is a professional in art conservation who has the knowledge and experience required to preserve an actively deteriorating artwork and increase its life expectancy. The terms conservation and restoration are often used synonymously, but they are in fact very different.

- **Restoration** of a damaged artwork is concerned with improving its appearance, while conservation is two-pronged:
- **Preventive conservation** is carried out to preserve the artwork from future risks, and
- **Curative conservation** treats the deteriorating artwork to improve its strength and extend its life.

A conservator can do both conservation and restoration, but a restorer can do only restoration. A conservator is bound by the ethics of conservation – these rules limit the extent of restoration that he or she is allowed to do.

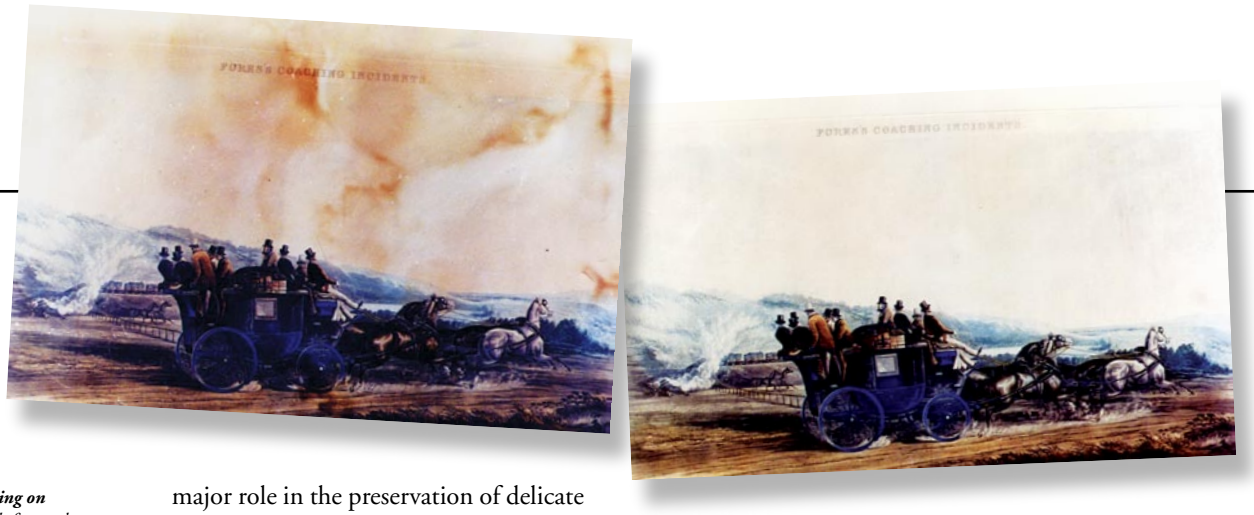
What are the ethics of conservation?

The main thrust is that a conservator must adopt techniques and materials which are reversible and of conservation standard. The only irreversible technique that is allowed is cleaning. Most importantly, the conservator should not be over-enthusiastic while doing restoration.

Exactly what causes artworks to deteriorate faster in a tropical climate?

There are five main factors.

- **Dust and dirt**: Dust contains acidic pollutants that harm paper and canvas fibre, especially in the presence of moisture. These acidic substances speed up the breakdown of paper or canvas fibre, making it very brittle and vulnerable to the slightest knocks. The accumulation of dust and grime can also affect the visibility of a picture.
- **Heat and damp**: Temperature and humidity play a



Engraving on paper, *before and after conservation*

major role in the preservation of delicate paintings and works of art on paper. Different materials react differently to changes in climatic conditions. Fluctuating high temperature and humidity have a direct impact on canvas and other materials in a painting.

The effect on canvas: Changes in the relative humidity (RH) – the saturated moisture content of a given volume of air – cause a painting to expand and contract; this stresses the canvas and the painting structure begins to fall apart. The canvas splits and droops; the paint layer becomes brittle, cracks and starts to flake off. Depending on the painting technique used, the cracks may be minimal, but poor or dry painting techniques can lead to heavy cracking. These cracks are different from ageing cracks, which are regarded as desirable.

The effect on paper: Even a small change in temperature can have several effects on paper and high RH causes both chemical and biological reactions. Though light is the main culprit in fading the colours, it happens more quickly at high RH than in low RH. An RH higher than 70 percent will cause mould growth; below 40 percent, it will cause paper to become brittle.

- **UV light:** Sunlight is very intense in a tropical climate. If your paintings or paper-based artworks are exposed to the harmful rays of direct sunlight, their pigments and paper will very soon fade; UV rays can also cause a layer of varnish to darken. Remember that artificial illumination (unless it has UV-buffering) also contains UV rays. The damage caused by UV rays is irreversible, so it is of utmost importance that you protect your sensitive artworks from the light.
- **Mould and fungus:** High humidity attracts fungal and mould growth on paper and painted surfaces. Fungal growth creates stains on paper and eats up pigments; it may weaken canvas fibre and can severely damage delicate paper. Mould and fungus also introduce acidity to the paper – this makes the paper brittle, turns it brown and causes foxing marks to appear.

What is 'foxing'?

The term foxing is used to describe the brownish spots that form on paper. Caused by dampness, foxing manifests in two ways: The first type is a dark reddish-brown or dark green spot with a lighter brown halo and is caused by metal impurities. The second type occurs in high humidity, when mould grows and stains the paper surface. These stains usually appear as a light brown snowflake pattern.

Insects: Being organic substances, paper and canvas are food sources for insects such as silverfish, woodborer, cockroaches, bookworms and termites. High humidity, lack of light and ventilation, and the presence of dust and dirt create ideal conditions for insect infestation.

What should you do if you notice damage?

If a painting or an artwork on paper is damp or mouldy, do not try to wipe it clean: isolate it from any others you may have and contact a professional conservator immediately.

This article was written in conjunction with Benaka Art Conservation, specialists in the conservation and restoration of paintings and works of art on paper. Call Jayashree Bhat on 6100 2707, email benaka@benakaartconservation.com or visit www.benakaartconservation.com.