Silk is created by silkworms - the bombyx mori moth. This moth is one of the earliest domesticated animals. It needs human intervention to survive because it cannot fly.

Silk is created by insects. This may be why no insects will eat it.

Silk is animal protein similar to our own hair. This is why it has a sensuous, warm, luxurious touch. Its beauty and rich feel has made it a valuable source of trade for many centuries.

Silk is the strongest natural fiber. For its weight, it is stronger than steel. As a result, silk has been used as sails on boats, as parachutes, in hot air balloons, and as armor.

Silk is able to absorb up to thirty times its weight in water and is warmer than wool.

Silk has been with us for a long time. Records indicate that silk has been in production before 6803 BC.

Silk is archival. There are examples of still brightly colored silk found in China from the third and fourth century BC.

Silk was the painting support of choice long before canvas or paper was ever used.

Silk Painting

Silk paintings are created on white silk. The dyes are painted onto the stretched surface of the silk using a paintbrush. The dyes flow into the fiber and bond with the proteins, becoming a part of the silk thread. This is different than oil, acrylic, or watercolor paints which sit on the surface of the support. These paintings are steam set - locking the dyes into the fiber and making the color of the painting reasonably lightfast and washable.

As the history above suggests, silk painting has been with us for a long time. There was a resurgence of interest in silk painting in France in the early 19th century with the discovery of gutta. Gutta is a rubbery resist that can be used to create boundary lines on a silk. The dyes that normally would flow through the silk are stopped at the boundary created by the gutta. This gives the artists control over positioning the dyes on the fabric allowing them to create images.

There are also other more recent materials that help the artist control the way the dyes move through the silk. Many artists use a dye thickener or an antifusant on the surface of the silk to slow the progress of the dyes through the silk. There are many techniques used by silk fine artists to express themselves in this media.

Protecting Fine Art Silk Paintings

Dirt - When the silk painting is steamed, the dyes are bound in the fiber. The painting is hand washable using a mild soap and can be ironed with high heat.

Light - more specifically, UV light can fade the colors in a textile. The best way to protect a silk painting is to keep it out of direct sunlight. Framing the artwork under UV-protected glass such as museum glass can eliminate the impact of fading.

Moisture - silk resists mildew and most other bacteria and fungi. Moisture and humidity can make the silk fiber brittle over time. So it is especially critical when framing under glass to make sure that there is air flow around the painting, to reduce the possibility of moisture build up.

References

You can find more information on the history or biochemistry of silk and silk painting in the book "Silk" by Mary Schoeser, Yale University Press, 2007.

http://silkpainters.org/