

Notes from Max Doerner & Jacques Maroger

Objective

By the end of this quick tutorial, you should have a sufficient grasp on the various traditional painting surfaces, to help you make a selection of materials to choose.

Key points

1. A Brief History of Linen and why we paint on linen
2. Cotton vs Linen the American war on linen
3. Cotton vs linen — which is better
4. Types of Linen
5. What to look for while shopping for a linen
6. Where to shop for fine linen
7. A Brief word on other painting surfaces
8. Warning - Notes regarding conservation
9. Conclusion - The Secret Formulas and Techniques of the Masters

1. A Brief History of Linen and Why We Paint on Linen

Linen became popular because of Venetian painters such as Titian, Tintoretto and Giorgione who lived in the latter 1400's to mid 1500's.

Linen was once more expensive than prepared board. Venice experienced a surplus of linen due to the plague. Linen was piling up on the docks of Venice because there were so many deaths from the plague.

Linen now became an affordable alternative to panels, and was much lighter than wood, which made large paintings possible.

2. Cotton vs Linen the American war on linen

The American cotton, timber and synthetic industry waged war on linen, with the efforts of Andrew Carnegie, William Randolph Hearst, Lamont Du Pont, Harry Jacob Anslinger and John D. Rockefeller.

Linen is part of the hemp family of plants. Hemp was easy to produce, took half the water to grow and didn't need chemical fertilizers and pesticides. Its production far exceeds that of cotton.

This well established industry could not be controlled by corporate giants. Let me be specific, not all hemp is Marijuana. Marijuana is actually a small portion of the Hemp Family.

There are many varieties of hemp, that have a variety of uses, from flax oil, vitamins, fabric production and more. Hemp is superior in strength to cotton and competed with

the cotton growers. The petrochemical industry was competing with Hemp for Synthetic fabrics. The cotton industry could not compete with the value and durability of linen. The new petrol chemical industry was replacing natural herbal remedies, oils & tinctures, with newly invented and patented pharmaceuticals, synthetic fabrics, and lubricants.

The corporate giants realized they to change peoples minds, through a long propaganda media campaign against hemp.

They created a misrepresentation campaign of hemp, by creating an association with hemp and Marijuana. Through such films as Refer Madness, including the movie Marihuana , Assassin of Youth, and Devil's Harvest.

The Marihuana Tax Act was passed in 1937 outlawing the production of hemp in the USA.

3. Cotton vs linen — which is better

Linen is made from the Flax plant, which produces linseed oil. Some people refer to this plant as hemp. Linen is far superior to cotton in durability and strength and is 60% less absorbent than canvass. For that reason linen was used for ropes and sails on the old Square Rigger sailing ships.

Cotton Canvass will sag greatly during humidity changes, and can be the cause of cracking. It has a machined look, that is ugly. When photographing works on canvass it creates moray patterns.

I prefer linen because of its non mechanical and organic look. There are fine linens, and some like burlap sacks. Many of the Russian school painted on the burlaps style of linen. There are a huge range of qualities of linen.

Belgium has a sophisticated rating system for linen. They actually award various linen producers medals for their quality. But there are lesser linens that are quite affordable like Polish linens. Never ever use a Chinese linen, they are of the poorest quality.

4. Types of Linen

Roman linen. The best canvas. A fabric of varying thickness and very even structure, both warp and woof of which are composed of several threads. The trade offers types especially suitable for sketching as well as heavy grades of extraordinary strength. It is obtainable in three qualities: heavy, medium, and fine.

Gobelin linen, a very closely woven fabric of flax with especially heavy threads for the woof. Because of the conspicuousness of these threads they must run horizontally when the canvas is mounted for painting.

Half linen (Irish linen) is made with a cotton woof and is unsuitable as artist's canvas because of its uneven strength and lack of resistance to tearing.

Sackcloth or shoddy, are coarse, inferior fabrics of jute, hemp, or the left-overs of flax. Ticking, twill, are very firm fabrics made of linen or flax, but sometimes also of half linen.

Cambric linen, handkerchief linen, cretonne, and shirting are very fine, uniform fabrics which, in the thicker and heavier grades, are suitable for small canvases and pencil work. There are works by Dürer on cambric.

Sailcloth is a strong, firm fabric woven of hemp, flax, or cotton which makes an excellent canvas for painting purposes.

Domestic hand-woven linen, peasant linen, so-called Swiss linen, bleached or in their natural color, are firm fabrics with irregular threads, which, however, often give them a charming texture.

5. What To Look for While Shopping for a Linen

Held against the light, they should be tight and not show sieve-like openings; such wide-meshed fabrics, however, are often used for sketching canvas.

There are also good thick linen fabrics with double threads in one direction only. These are likewise obtainable in the three qualities: heavy, medium, or fine.

Cheaper fabrics, such as the so-called oakum or tow linen, often show knots and defects and are not infrequently soaked in fish oil in order to make the coarse fibers lie down. Such greased canvas becomes very dark when wet.

Besides these there are many other fabrics suitable for sizing and priming, provided they are sufficiently strong and closely enough woven.

6. Where to Shop of Linen

The bad news, many of our favorite art supply stores have succumbed to the pressures of the online shopper. While I miss the service, I don't miss the high prices of the brick and mortar stores.

Moreover suppliers like Dick Blick have merged with Utrecht, and that is the good news. I have always counted on the Utrecht brand as being high quality and affordable. Dick Blick now has a massive inventory of fine Belgian linens.

Before Shopping for linen, you can request linen swatches. This will be a big aid in making your decisions.

Claessen's linen, Fredrix, Artifix, are some of the standard higher quality production linens. If you find some really good linen sources please let me know.

7. A Brief word on other painting surfaces

They can be divided into two categories, fabric and wood.

Fabrics

- Raw Silk, can be as varied in texture as linen. ***Leon Gaspard painted on raw silk. He claimed it could be rolled up tighter than linen, for mailing paintings back to the USA.*
- Muslin, thinner and less durable, than linen. But does have some heavier weights. It is better for the use in miniatures.

Board - Wood board, laminated or composite

- Basswood - is among the most stable woods used by high end frame makers and gilders. I would recommend basswood over masonite for your high end archival work. You can buy this wood from specialty wood suppliers.
- Some art supply stores have ready made panels.
- Masonite boards have been common among painters as a board. Masonite is not prone to warping because it is a composite material. Tempered masonite is the preferred Masonite, because it is much stronger than standard masonite.

8. Warning - Notes regarding conservation

Please pay particular attention to this section

Natural vs Synthetics: While it is true that synthetic materials have far superior quality in stability against moisture, that is their problem too.

This not only applies to linen, but also to canvas sizing as well. Please take into account of the properties of Hyde glue, as opposed to synthetic glues.

You want the sizing to be water soluble

Hyde glues have provided great stability and proven track record for 600 years. Now lets examine conservation and restoration of paintings.

To release the painting from the canvas with Hyde glue, the painting is soaked in a bath of water and mild detergent. That is all that is needed! The painting can thus be remounted on a fresh liner with an iron and beeswax.

Note: To be sure, most paintings are just cleaned, repainted, cut at the edges of the stretchers and glued to a new canvas.

The process of releasing a painting with water cannot be done with synthetic materials such as polyester fabrics and plastics. The process of release would have to be some form of severe chemical bath.

It is my recommendation that a natural linen, properly sized, and the appropriate ground applied to the linen, will prove to give you far superior results.

There is a contention in restoration and conservation circles. That is arrived at through the cleaning of paintings. That the Megilp Butter, or the Maroger Medium was never actually used by the Rubens, Van Dyck, Velasquez.

The argument is that if you mix a varnish with the paint, that you couldn't clean the painting with solvents. The solvents would attack the paint. This of course comes from the stand point of chemists.

It must be noted that Maroger did account for modern enamel paints, that use alkyds or synthetic polymer resins. These resins used in modern household oil paints, give them the gloss and semi gloss qualities.

Here underlies the great contention with people like Ralph Mayer, and Gustave Berger. Those people come at restoration purely as chemist. They do not rely on ancient manuscripts, in fact if a manuscript is mentioned it is usually done so as a disparagement.

10. Conclusion - The Secret Formulas and Techniques of the Masters

Maroger and Doerner rely heavily on ancient manuscripts such as De Mayerne, and Pacheco. The modern Chemist simply have no concern for the descriptive qualities of the medium! That it was jelly like, or you could slice it like butter.

Théodore de Mayerne was a doctor, or better yet a chemist of his time. He was Swiss born French, lived in England and Knighted. De Mayerne compiled the so-called 'de Mayerne manuscript' between 1620 and 1646 based on conversations with painters. The manuscript includes contributions from Rubens, van Dyck, Mytens, Paul van Somer, and Cornelius Johnson.

Francisco Pacheco was also known as the "Vasari of Seville. He wrote a treatise on Painting *Arte de la pintura*, and the father in law to Diego Velasquez. He taught art, and his school emphasized the academically correct representation of religious subjects, not least because he was the official censor of Seville's Inquisition.

To be sure the Italian painters did not use the resins in their paint, they liked broad flat paintings. Two paintings that Pacheco oversaw was the Immaculate conception, and the he Glory of St. Dominic by Tiepolo.

Pacheco did meet with Rubens, while living in Spain. There is a description of Rubens "buttery Medium". He described the Italians way of making Black Oil with Litharge as a siccative. Velasquez used his own Mal Butter recipe substituting the lead, for Verdigris or copper.

Conclusion Rubins lived in Italy 9 years, and Spain for 9 months. While in Spain he was befriended by Velasquez, and his father in law Pacheco. Rubins was painting the Royal Family of Spain. Among the many manuscripts that Maroger referenced was the treatise on Painting *Arte de la pintura*, by Pacheco, and his personal writings, which mentioned Rubins adding Various amounts and types of Resins to his black oil. And lets not forge the de Mayerne manuscript.

1	Art supply warehouse	https://www.aswexpress.com/
	Departure drive 5325	
	27616-1835 Raleigh, NC	
2	Blick art materials	https://www.dickblick.com/
	PO box 1267	
	61402-1267 Galesburg, IL	
3	Cheap Joe's	https://www.cheapjoes.com/
	Industrial Park Dr. 374	
	NC 28607 Boone	
	Phone: (888) 792-6081	
4	Jerry's Artarama	https://www.jerrysartarama.com/
	MADDRY OAKS CT 6104	
	NC 27616 Raleigh	

5	Sourcetek	https://www.canvaspanels.com/
	PO box 14765	
	85367-4765 Scottsdale, AZ	
6	Utrecht Art Supplies	https://www.utrechtart.com/
	Corporate drive Cranbury	
	608512-3616 NJ	