

Fabrics for the Performer

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The most common fibers of the renaissance period in England was linen, wool, and for those that could afford it, silk. Cotton was known in England, but not widely used as a textile until later in Elizabeth's reign. To understand the various period types of fabrics, look at the attached paper.

Linen

Linen is a textile made from the fibers of the flax plant, *Linum usitatissimum*. The fibers vary in length, ranging from 18 to 55 inches. Long line fibers provide the finest quality linens. Linen is highly absorbant and will feel cool to the touch, which is one way to feel true flax linen compared to cotton or other fibers. Linen is smooth, making the finished fabric lint free, and gets softer the more it is washed & dried. However, constant creasing in the same place in sharp folds will tend to break the linen threads. This wear shows up in collars, hems, and any area that is creased during laundering or storage, so fold linens differently each time it is put away. Linen has poor elasticity and does not spring back readily, which is why it wrinkles easily.

A characteristic often associated with modern linen yarn is the presence of "slubs", or small knots which occur randomly along its length. However, these slubs are actually defects associated with low quality. The finest linen has very consistent diameter threads, with no slubs, and also costs much more.

White linen is a status symbol that women of all ranks of society aspired to. Even the lowest husbandman's wife would use white linen, tho the quality would be of coarser stuff than the finer linens used by the gentry. Linen can be dyed, and was dyed in period. I would not suggest wearing dyed garments next to the skin, as the color might come off onto the body (called crocking).

Linen is best used for shirts and smocks, and other forms of undergarments that are close to the body. Linen can also be used to line garments like doublets, breeches, and bodices. Linen is most commonly found as an evenweave fabric, but can sometimes be found as a twill weave or as canvas.

Linen used to be very expensive to purchase. Now, it is easily found online at various fabric stores (see Stores listing), sometimes as low as \$5/yard or even less. However, as with all fabrics, you often get what you pay for, as the lower priced linens are often slubby, loosely woven, and will not last as long as better quality linens.

If you wish to embroider your linen garment, use a high quality even-weave linen embroidery fabric, which does cost more. But you only need enough for the embroidered areas, and use a cheaper linen for the rest of the garment. This was also a period practice.

Do not be taken in by other fibers that are often listed on the bolts as "linen", as this term is often used to describe a plain weave fabric. Check to be sure the fiber content states "flax or "flax linen. Most "linen-look" fabrics are polyester, rayon or cotton or may be a mix with real flax linen.

For a decent (and less expensive) thin linen blend that has less wrinkles, look for a linen/cotton (good) or linen/rayon (decent) blend, preferably with a higher linen content (like 60/40 linen/cotton).

Linen should be preshrunk on high temperature, but should not be dried too much by tumble drying. It is much easier to iron when damp but not wet. It will whiten when placed on the lawn to dry in the sun. Linen will soften over time as they are washed and dried.

For more info on linen, visit <http://en.wikipedia.org/wiki/Linen>

Wool

Wool is taken from animals in the Caprinae family, principally sheep, but the hair of certain species of other mammals is also sometimes called "wool", including cashmere from goats, mohair from goats, vicuña, alpaca, and camel from animals in the camel family, and angora from rabbits. Wools of the period were usually sheep wool the finest similar to merino, with some goat wools or blends.

Wool is fire resistant, and burns are self extinguishing. This makes wool garments and aprons suitable for those cooking near an open fire.

Wool comes in various weaves, thicknesses & types, which make it suitable for wearing in both summer and winter, depending on the type you chose. In modern terms, suitweight, tropical, and similar light weight worsted wools are comfortable in hotter weather. Worsted wools are smoother, tighter, and don't trap the air for insulation.

Broadcloth, flannel, melton and coat weight wools are good for fall/winter or outer garments, especially melton. The winter weight wools are usually a woolen spun wool, at least in part, which helps to hold the air providing insulation to the body. This makes these wools fluffier in general than worsted wools.

Wool comes in both evenweave and twill weaves, and sometimes as a herringbone weave. Twills generally have a better drape and is stronger, but will eventually fray along the creases. Crepe weave wools are not suitable for period garments, except for light veils. Do not use felt for garments, except as an interlining.

Wools are usually dry cleaned to preserve their finish and minimize shrinkage. You can also hand wash in cold water using a no-rinse soap like Eucalan, then line dry. Do not use Woolite. Heat drying wool will possibly shrink the fabric, to varying degrees. Modern wools like superwash wool is coated to prevent the fiber from fulling or shrinking. In general it is best to test wash a 3"x4" swatch in order to see how washing affects your wool. If you preshrink your fabric first, you will find out how it handles, and can determine if you want to continue washing it, or pay for dry cleaning your garment.

For more info on wool visit <http://en.wikipedia.org/wiki/Wool>

Silk

Silk is made from the cocoons of the Chinese silkworm. Means of harvesting usually involve killing the silkworm to reel the filaments of silk and then spin it into the various strands used in weaving silk textiles. Silk is usually a smooth fabric with a shine that was highly prized in the renaissance. Dupioni is a common modern silk that has intermittent slubs in the weave. While it is inexpensive for silk, it is a type of silk fabric that would have been considered a low grade silk in the renaissance period, and most likely would not be imported into England. Silk was the most prized fabric and was often reserved for those of gentry level and above, although those with the money could afford this prized textile. Silk does breathe, and is suitable for both warm or cold weather wear.

"By the 13th century, Italian silk was a significant source of trade. Since that period, the silk worked in the province of Como has been the most valuable silk in the world. The wealth of Florence was largely built on textiles, both wool and silk, and other cities like Lucca also grew rich on the trade. Italian silk was so popular in Europe that Francis I of France invited Armenian silk makers to France to create a French silk industry, especially in Lyon. Mass emigration (especially of Huguenots) during periods of religious dispute had seriously damaged French industry and introduced these various textile industries, including silk, to other countries."

"Silk has a smooth, soft texture that is not slippery. Silk is one of the strongest natural fibers but loses up to 20% of its strength when wet. It has a good moisture regain of 11%. Its elasticity is moderate to poor: if elongated even a small amount, it remains stretched. It can be weakened if exposed to too much sunlight. It may also be attacked by insects, especially if left dirty."

Silk is a poor conductor of electricity and is susceptible to static cling. Silk should either be

pre-washed prior to garment construction, or dry cleaned. There is almost no gradual shrinkage, unless the fabric uses a twisted thread like chiffon which will shrink on washing. Since silk is similar to hair, hand wash with a clear shampoo, then add a small amount of vinegar to the final rinse water to restore its pH balance, and remove any shampoo residue.

Quotes from <http://en.wikipedia.org/wiki/Silk>

Cotton

“Cotton is a soft, fluffy, staple fiber that grows in a form known as a boll around the seeds of the cotton plant, a shrub native to tropical and subtropical regions around the world, including the Americas, India and Africa.”

“Cotton has been spun, woven, and dyed since prehistoric times. Hundreds of years before the Christian era cotton textiles were woven in India with matchless skill, and their use spread to the Mediterranean countries. In the 1st cent. Arab traders brought fine muslin and calico to Italy and Spain. The Moors introduced the cultivation of cotton into Spain in the 9th cent. Fustians and dimities were woven there and in the 14th cent. in Venice and Milan, at first with a linen warp. Little cotton cloth was imported to England before the 15th cent., although small amounts were obtained chiefly for candlewicks. By the 17th century the East India Company was bringing rare fabrics from India.”

In Tudor England, cotton was not used much as a clothing fiber until sometime in the Elizabethan era. It was used to pad garments and bedding. Fustian is a mix of a wool warp with a plant material weft. So fustian can have cotton or linen weft, sometimes in a twill weave that allows the wool to be seen on the outside. Cotton calicoes were imported to England by the end of the period, but not in large numbers.

Today cotton is cheap and plentiful, and can be used as a substitute for wool or linen garments. I suggest staying away from using cotton broadcloth, which does not have the drape of wool broadcloth.

Cotton can be washed on high or low temperatures and machine dried. Preshrink before sewing up your cotton garment.

Quotes from <http://en.wikipedia.org/wiki/Cotton>

Other Fibers

- **Hemp** is similar to linen, and is almost as comfortable. It can be used for garments of comparable weight linens. There is hemp canvas, hemp/silk blends, hemp/cotton muslins, and other types of hemp fabrics. Hemp is naturally mold & UV resistant, which linen is not. Hemp also accepts dyes easily.
- **Rayon** is made from wood pulp and various chemicals as a substitute for silk. While it is soft and has a light sheen, it is not as strong as natural silk. Bamboo and pineapple fibers are created in a similar manner.
- **Acrylic** is used as a substitute for wool, and is often found as a blend in wool. Be warned that this blend will not breathe as well as 100% wool.
- **Nylon** is also used as a substitute for both wool and silk, and is often blended with those fibers. Also reduces comfort factor when a high percentage of the fabric.
- **Lycra** is used in wool and other fabrics to provide extra stretch. This is not needed, so avoid if possible. Must wash in cold water or you lose the stretch.
- Polyester is a substitute for just about every fiber and textile weave there is. It is completely manmade from petroleum products, does not wear as well, does not wrinkle unless chemically set to hold a permanent wrinkle, is flammable, and definitely does not breathe. Use with caution.

Bleach test

This is a simple test to determine if your fabric sample is made of real wool or silk, and to determine if there are any other unknown fiber(s) blended in, perhaps without your knowledge.

- Get a small glass jar, like a baby food jar.
- Cut a small sample of your fabric, 1-2" square or so.
- Add in a small amount of fresh bleach into the jar. (Do not reuse old test bleach.)
- Poke in your fabric sample into the bleach bath and cover with your jar lid.
- Let sit for at least 24 hours, perhaps longer.
- Look at what is left of your sample. If it is completely gone with nothing floating in the liquid, then the sample was 100% silk or wool.
- If there is anything left in the bleach then it is NOT 100% pure silk or wool fiber.
- Note that some fibers are heavily coated in chemicals for various reasons, especially drapery fabrics. These should be left in the bleach for longer than 24 hours to allow the bleach to eat through the chemicals, before it can eat through the fibers, or you will get a false result.

Books:

- **Fabric Savvy: The Essential Guide for Every Sewer** by Sandra Betzina. ISBN 1561585734
- **More Fabric Savvy: A Quick Resource Guide to Selecting and Sewing Fabric** by Sandra Betzina. ISBN 1561586625
- **All About Cotton: A Fabric Dictionary & Swatchbook** (Fabric Reference Ser.; Vol. 2) by Julie Parker. ISBN 0963761234
- **All About Silk: A Fabric Dictionary & Swatchbook** (Fabric Reference Series, Volume 1) by Julie Parker. ISBN 096376120X
- **All About Wool : Fabric Dictionary and Swatchbook** (Fabric Reference Ser.; Vol. 3) by Julie Parker. ISBN 0963761226
- **Claire Shaeffer's Fabric Sewing Guide** by Claire Shaeffer. ISBN 089689536X

Stores:

- Renaissance Fabrics, <http://www.renaissancefabrics.net/> (Bay area local, free swatches)
- Wm. Booth, Draper, <http://www.wmboothdraper.com/> (various fabrics for re-enactor, free swatches)
- B. Black And Sons, Inc., <http://www.bblackandsons.com/> (Fine quality wools and tailoring supplies)
- Dorr Mill Store, <http://dormillstore.com/index.php> (rainbow colors of wool and wool tartans)
- Burnley & Trowbridge, <http://www.burnleyandtrowbridge.com/> (various fabrics)
- Gray Line Linen, <http://www.graylinelinen.com/>
- Thai Silks, <http://www.thaisilks.com/> (store in Los Altos)
- B.R. Exports aka Puresilks.biz, <http://www.puresilks.biz/store/>
- Dharma Trading, <http://www.dharmatrading.com/> (Ready to dye fabrics)
- Fabrics-store, <http://www.fabrics-store.com/> (low cost linens)
- SyFabrics.com, <http://www.syfabrics.com/> (100% cotton velvets)
- NY Fashion Center Fabrics, <http://www.nyfashioncenterfabrics.com/> (high quality fabrics)
- Decorative International Silk, Inc., <http://www.decorativesilk.com/scripts/default.asp> (high quality silks)
- Tudor Tailor (UK), <http://www.tudortailor.com/tailorsshop.htm>
- Warp & Weft (UK), http://www.stuart-hmalttd.com/historical_fabrics.php, "historically correct fabrics"
- MacCulloch & Wallis (UK), <http://www.macculloch-wallis.co.uk/> (high end fabrics, including venetian wool and wool satins.
- Check eBay.