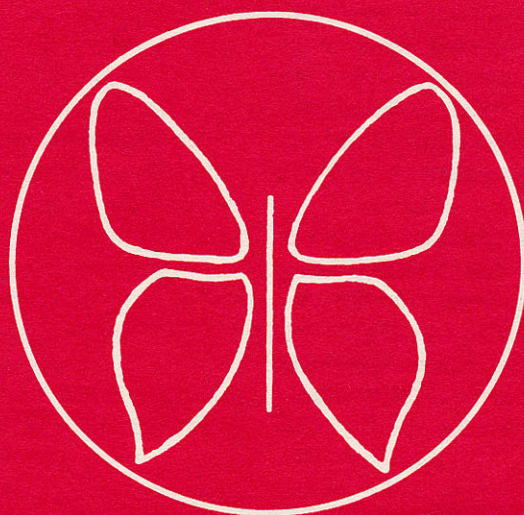


only  
silk is  
silk



FOR THE  
STUDENT  
OF SILK

## WHY SILK?

In a world which emphasizes ease and speed, often sacrificing quality for convenience, it is important to balance your knowledge with an elegant, beautiful subject such as silk. Why do we say "Only Silk Is Silk"? Because there is no other fiber which can match its combined performance of look, feel and wear. Silk is a miracle of nature which over the centuries has defied duplication by man.

## BIOGRAPHY

Silk was discovered by a teen ager, a little Chinese Empress named Hsi-Ling-Shi. While walking in her garden one day she spied a small white cocoon growing on a Mulberry branch. She brought the cocoon into her rooms and while examining it accidentally dropped it into a basin of hot water. Suddenly a wispy filament began to unwind from the cocoon. Hsi-Ling-Shi thought this strange substance would make a beautiful robe. She called in the court weaver, and so silk was born.

Hsi-Ling-Shi inspired the first silk fashion in 2640 B.C. For nearly 3,000 years after that China kept the secret of sericulture, the cultivation of silk worms, and monopolized the silk trade. Then a few silkworm eggs were smuggled into Japan and the wonderous fiber was an instant success there. Today, Japan is the leading producer of raw silk fiber.

Through history, silk has been a treasured fiber. The Greeks wove their finest togas of silk. During Julius Caesars reign it was literally worth its weight in gold. The nobility of the Byzantine, Renaissance and Tudor periods favored silk, and the early American colonists wore it as a status symbol. Silk remains Queen of fibers and is more desired in the Far East, Europe and America than ever before.

## SERICULTURE

For over 2,000 years Japan has developed the science of sericulture (the raising of silkworms) until today that country is the leading producer of raw silk.

One of the reasons sericulture has flourished in Japan is that mulberry trees grow so well in its mild climate. The best quality silk comes from worms fed only on mulberry leaves.

Sericulture is a family affair in Japan. The leaves are gathered and chopped and the worms tended by grandmothers, adults, teenagers and children.

When the Bombyx Mori, a medium sized white moth, lays her silkworm eggs they are about the size of a pin-head. The moth is then examined and only if her eggs are completely germ free are they cultivated. This is to constantly improve the silkworm strain. There are two seasons when the worms are born and cultivated, Spring and Fall.

About an hour after birth the silkworm is fed its first mulberry meal. The tender small leaves are fed to baby worms, the larger tougher leaves to the older worms. The silkworm eats continuously day and night. Wilted leaves



must frequently be replaced by fresh ones. It takes about a ton of foliage, or 1/5 of an acre of mulberry trees to feed an ounce of eggs, or 36,000 worms, from birth to maturity.

As the silkworm grows its skin becomes too tight; he must shed his skin for a larger, more comfortable one. The worm performs this shedding 4 times during his life. 25 days from birth, at maturity, the silkworms weight increases 10,000 times his birthweight.

When the silk glands are developed the farmer puts his worms on a rack called the moutage. Each silkworm has his own apartment in the moutage where he spins his cocoon. The silk glands run down his entire body and open at an orifice called the spinneret. The amount of silk a silkworm produces is determined by the size of the glands. 1 ounce of worms should produce at least 12 pounds of raw silk. The more protein in the mulberry leaves the larger the glands. Even a silkworm must have adequate protein.

Silkworms move their heads in a figure 8 as they spin their cocoons. It takes about 60 hours to build up a cocoon. The cocoon is a year-round shelter for the silkworm, warm in the winter, cool in the summer. This is why silk is a natural insulator. After the silkworm has finished spinning, two silkworms will set up housekeeping and make a cocoon together called Duppon, producing a heavily slubbed silk, Dupponi.

In China and India are uncultivated silkworms which live on oak leaves. The silk from these worms is called

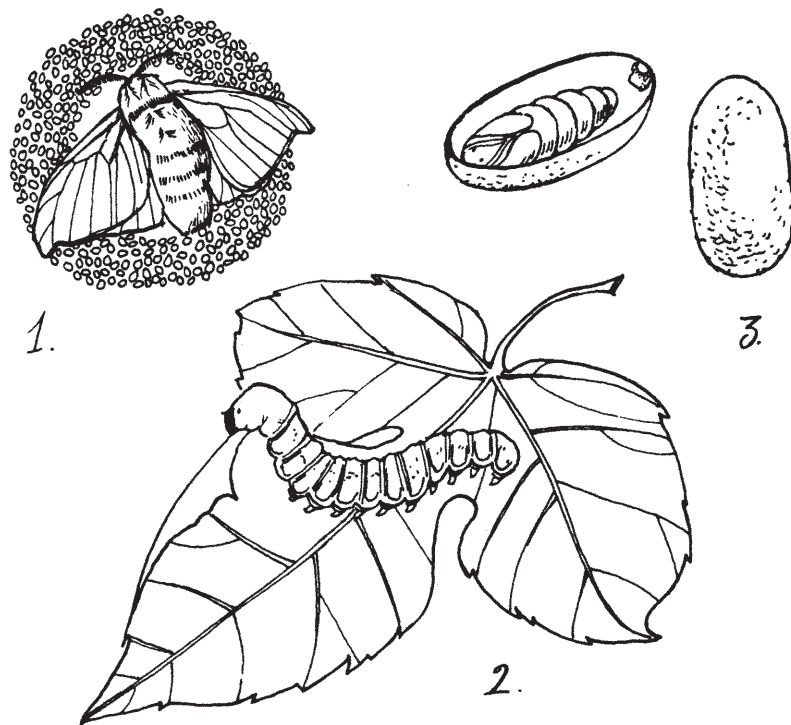
Tussah, a strong fiber with a distinctive, rugged appearance when woven.

"Spun Silk" is made from the loose outerlayers of left over cocoons, together with imperfect ones. This silk is not reeled but spun after much the same cleaning and combing process, applied to wool and cotton. Spun silk is combined with many fabrics for added softness and beauty.

Raw silk reeling begins with cocoon boiling. During this process the cocoon becomes soft and easy to reel. The single cocoon filament is too fine to use as textile yarn so several cocoons are reeled together. There have been many new improvements recently in Japanese reeling machines. The first reeling, a delicate process, was formerly done by hand, but is automated today. During the second reeling, the raw silk is transferred to larger reels, further dried and checked for breaks or gum spots.

After reeling silk is made into skeins which are put in a wooden frame to form a "book" which consists of 30 skeins. Most raw silk, with the exception of coarse sizes is twisted into heavier weights or deniers before it is woven into fabric. This process is called "throwing". According to fabric construction silk is either dyed in the yarn (yarn dyed) or after it is woven (piece dyed). Silk takes dye beautifully because it is a resilient, living fiber with a high protein content.

Some of the finest silk fabrics today are manufactured right here in the United States. The United States consumes more imported and domestic silk than any other country in the world, proving that Americans know the value and beauty of silk.



## SILK THE FASHION FIBER

The world's leading couturiers and interior decorators receive much of the inspiration for their greatest designs from the fabrics with which they work. That is the reason that magnificent silk is so important to Paris, Rome, New York and California.

### *Silk Fashion for Daytime and Evening Dresses*

**DRESSES      COATS & SUITS      SPORTSWEAR**

All girls and women love the look, feel and wear of silk. No other fabric gives such a true sense of luxury.

**DAYTIME DRESSES** in shantung, jersey, tussah, silk linen, faille and prints

**EVENING DRESSES** in chiffon, crepe, taffeta, peau de soie and satin

**COATS & SUITS** in silk linen, faille, brocades and mixed with worsted

**SPORTSWEAR** in shantung, twill, prints, silk linen and tussah

### *Silk Fashion for Life's Great Moments*

**BRIDAL      GRADUATION      COMMUNION      CHRISTENING**

Silk for the most important occasions in your life, when elegance is mandatory. Silk is appropriate, beautiful for the dress you will always remember. For centuries silk has been handed down in cherished heirloom bridal gowns, communion and christening dresses.

**GOWNS** in peau de soie, faille, lace, organza, chiffon, taffeta, brocade satin and velvet

**VEILS** in silk tulle or illusion

### *Silk Fashion for Accessories*

**HATS      SCARVES      HANDBAGS      SHOES      UMBRELLAS**

Accessories can make the difference between just a dress and a costume. True fashion taste is proven by the way clothes are accessorized.

**HATS** in chiffon, satin, shantung, twill and made-to-match

**SCARVES** in chiffon, satin, twill, china silk and prints

**HANDBAGS** in satin, shantung, faille and made-to-match

**SHOES** in satin, shantung, faille and made-to-match

**UMBRELLAS** in silk broadcloth and prints

### *Silk Fashion for Men*

**SUITS      SHIRTS      ACCESSORIES      PAJAMAS      ROBES**

Silk adds distinction to any man's appearance and because of its natural resilience, wears and travels like a dream. Packing creases "hang out" in a few hours.

**SUITINGS** in silk linen, shantung, tussah and silk and worsted

**SHIRTS** in silk broadcloth and tussah

**TIES** in reps, shantung, tussah, surrah, Douppioni and satin

**KERCHIEFS & SCARVES** in reps, knits, surah, satin and prints

**ROBES** in broadcloth, surrah, satin, brocade, twill and prints

**PAJAMAS** in broadcloth, shantung, satin and print



## Silk Fashion for Home Decorating

### DRAPES    UPHOLSTERY    SPREADS    CUSHIONS

The lustrous, long wearing qualities of silk make it the perfect fabric for home decorating. Interesting textures with hand woven, slubbed or antique effects are used by famous decorators and furniture manufacturers to enhance every room in the home. Because silk takes dye so well, its brilliance can provide a much needed color accent. Drapes made of silk have a graceful, soft, lightweight body that only silk can achieve. For maximum service silk drapes should be lined.

**FOR THE BEDROOM** in sumptuous drapes and spreads  
**FOR THE LIVING ROOM** in drapes, upholstery and cushions

### CARE FOR YOUR SILK

Silk is one of the most beautiful, luxurious fabrics in the world. It is so becoming and such a delight to wear, surely it deserves a little extra care.

**DRY CLEANING** There are many silks specially treated for water and spot resistance and so less care is required, but most silks should be dry cleaned by a reputable cleaner. Do not try to spot-clean silk garments at home. Always read a manufacturers care label.

**WASHING** No pure silk should ever be put in the washing machine. Washable silk always means *hand* washable. However, some silk blends containing synthetics are machine-washable. Always read a manufacturers care label. If there is no label, follow these simple rules.

- (a) Use a mild soap and lukewarm water or a cold water soap with cool water. Do not rub garment, squeeze suds through gently.
- (b) Rinse several times in tepid water and hang away from strong sun or heat until almost dry, or roll in towel for half an hour.
- (c) Set your iron at lowest heat point and press while still moist.

**IRONING** Never use a hot iron on silk. Silk's resiliency



gives a smooth response to light pressing. Strong heat weakens the fabric. Always press silk on wrong side.

**WEAR** Any garment you buy should not be a tight fit. This is especially true of silk. Your home-sewn or bought garment will last much longer and of course look better if it fits correctly. Do pin or sew shields under the arms of silk dresses or suits with sleeves. Perspiration will harm silk as it will any other fiber.

### SILK TERMS

**BARATHEA** heavy texture with dull finish  
**BENGALINE** a ribbed fabric with a corded effect  
**BOUCLE** nubby texture, woven to produce looped surface look  
**BROCADE** Jacquard woven fabric  
**BROADCLOTH** plain, smooth surface, often used in shirtings  
**CHIFFON** light, translucent in plain or crepon finish  
**CREPE** textured surface, often crinkled  
**CHINA SILK** light weight, plain weave, often used in linings  
**DAMASK** Jacquard weave with reversible design  
**DOUPIONI** made from 2 cocoons which have nested together, has natural slubbed appearance  
**FAILLE** ribbed fabric in shiny or dull finish  
**JACQUARD** a woven pattern fabric invented by Joseph Marie Jacquard in France  
**KNITS** silk jersey and trico, now used in sweaters, suits, and dresses  
**LAME** silk woven with metallic thread  
**MARQUISETTE** woven sheer silk  
**MOIRE** water marked taffeta on ribbed type silk  
**ORGANZA** crisp, sheer silk  
**OTTOMAN** heavily ribbed silk  
**PEAU DE SOIE** French term for a dull finish satin  
**PONGEE** soft, natural colored silk from wild worms  
**SATIN** smooth texture, with glossy surface  
**SHANTUNG** woven with Doupioni silk giving a slubbed effect  
**SHARKSKIN** finely woven silk suiting  
**SURAH** soft, weave silk  
**TAFFETA** lustrous, a woven silk with a crisp hand  
**TIE SILK** used commonly in ties, has a resilient pliability suitable for tying and knotting  
**TUSSAH** wild silk with good body from uncultured worms

### SEWING WITH SILK

Sewing with silk is not difficult, but it does require a little thought. Handle the fabric gently with a light touch. The cutting surface should not be highly polished and fine silk does not belong on the carpet. A cork or felt cutting surface is preferable, but sheeting pinned tightly over your usual cutting table will make a good substitute.

Use fine pins, or better still, needles, when pinning pattern to fabric. Place them within the seam or dart allowances.

Careful cutting with sharp scissors of medium length will be reflected in the accuracy of seam widths and garment proportions.



Hand baste seams and darts when changes may be required in fitting. Avoid temporary machine stitching which later will be removed since some silks show needle marks. Baste with silk thread of contrasting color to facilitate later removal, using a size 8 or 9 hand sewing needle of appropriate length.

Machine stitch silk fabrics with silk thread for professional perfection. Use a size 11 sewing machine needle on light weight silks and a size 14 needle on heavy or rough nubby surfaced silks. The pressure exerted by the presser foot on the fabric should be light, no heavier than needed to carry the fabric gently and evenly under the foot. Always make a test seam at least ten inches in length. Determine pressure adjustment first on a double thickness without thread. Thread both the bobbin and needle with silk thread of matching color. Set stitch length at 10 for heavy silk and 12 for lightweight silk fabrics.

In most cases, the needle thread tension must be lessened one or two points or until the stitching looks the same on the top and underside and does not pucker. Then shorten stitch to 12 on heavy silk and 15 on lightweight silk and test again. These are the stitch lengths you will use for most of your construction sewing.

Crepe weaves require gentle support when stitching by holding the seam in back of the presser foot as well as in front of the needle. Do not attempt to pull the fabric under the foot, merely place it under slight tension. When stitching with a zigzag sewing machine, always use the straight stitch throat plate and presser foot for best results.

Press carefully and use steam sparingly. Keep the iron on setting indicated for silk. Pressing on the right side is

permissible for a few silks, however it is best to press most silks from the underside.

Finish seams as smoothly as possible. Some closely woven silks require no seam finish, others you may prefer to pink. Rough, open weaves which tend to ravel are quickly finished with your zigzag sewing machine. Sheer silks, such as chiffons, require narrow French seams.

Hems should always be hand stitched with silk thread, placing the stitches between hem and garment and not over the hem edge. Do not tighten this hand stitching, but knot your stitching frequently. Seam tape is acceptable for hem edge finish, but a pinked edge with a line of machine stitching one-fourth inch from the edge or a zigzag finish is preferable.

Sewing with silk is a most rewarding creative effort and if these sewing suggestions are followed, your finished garment is certain to become one of your favorite fashions.

Sewing information courtesy of  
Singer Sewing Machine Co. Education Department

## WHERE TO LOOK FOR MORE INFORMATION ON SILK

### PERIODICALS

American Fabrics	America's Textile Reporter
American Dyestuff Reporter	Modern Textiles Magazine
Textile Bulletin	Textile World
Textile Industries	Textile Organon
Textile Reporter	Textile Research Journal

### NEWSPAPERS & TRADE PAPERS

Daily News Record	Home Furnishings Daily
New York Times	Women's Wear Daily

### BOOKS

American Fabrics Encyclopedia of Textiles—  
by American Fabrics Magazine

Applied Textiles—by George Linton and Joseph Pizzuto

Handbook of Textile Fibers—by J. Gordon Cook

Textiles—by Norma Hollen and Jane Saddler

Textile Fibers, Yarns and Fabrics—by Ernest R. Kaswell

Elementary Textiles—by Julia S. Lee

Matthews Textile Fibers—  
by Herbert R. Mauersberger (Editor)

The Structure of Textile Fibers—  
by A. R. Urquhart and F. O. Howitt

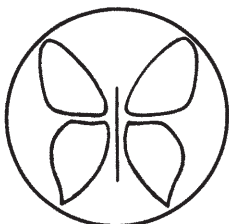
Textile Fabrics and their Selection—by Isabel B. Wingate

### DICTIONARIES

Fairchild's Dictionary of Textiles

The Modern Textile Dictionary—by George Linton

Callaway Textile Dictionary—by J. Fred Murray



INTERNATIONAL SILK ASSOCIATION, 299 MADISON AVENUE, NEW YORK, NEW YORK 10017  
Grace Beller, Education Director