



An Introduction to
TEXTILE TERMS

The vocabulary used to describe textiles is rich, varied, and often unfamiliar. The definitions in this publication are a representative sample of common textile terms related to hand-made textiles. These terms were chosen to facilitate understanding of The Textile Museum's collections and exhibitions.

For further study, please visit the Museum's library.

Note: *Italicized* terms within the text are defined in this publication.



batik: Indonesian term for the *wax-resist dyeing* process, or a fabric decorated with this process. Such fabrics reached fantastic heights of virtuosity on the island of Java in Indonesia in the late 19th and early 20th centuries after the introduction of machine-made cotton fabrics permitted more finely controlled designs.



This *kain panjang* (long hip wrapper) was made in Indonesia on the island of Java between 1938-1944. Although the design of this textile was created using traditional batik (*wax resist dyeing*) techniques, the extraterrestrial creatures and rockets depicted betray the influence of Western science fiction comics; in this instance Flash Gordon. The Textile Museum 1985.51.3, gift of Katherine Z. Creane.

carding: A method of preparing *fibers* for

spinning. It is used to even out the density of short fibers, most often wool, by laying them on the teeth of a wire brush (called a card) and scraping them with another matching wire brush. Cards with metal teeth are first recorded in Europe in the 13th century. *Yarns* spun from carded wool tend to be weak and spongy.

carpet: See *Oriental carpet*.

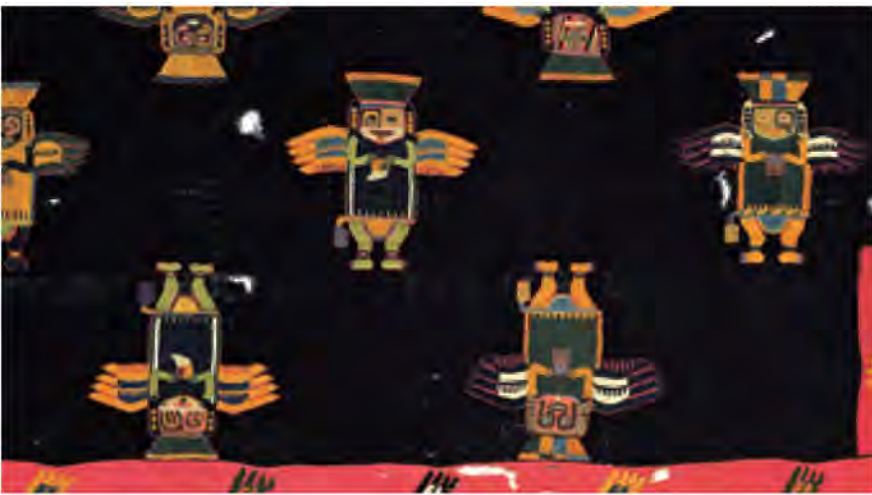
combing: A method of preparing *fibers* for *spinning*.

Fibers are aligned by drawing them through the teeth of a single large comb or transferring them between two combs. The process also separates longer fibers from shorter ones. *Yarns* spun from

Navajo weaver Ella Rose Peury carding wool.

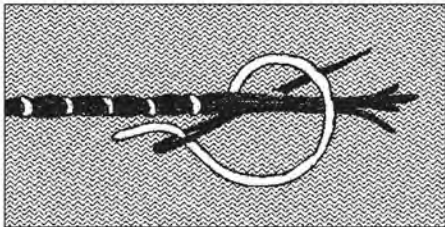


Ann Lane Hedlund



Detail of a mantle (shawl) made on the south coast of Peru between 400 and 300 B.C. The winged figures are embroidered on a plain weave fabric. The Textile Museum 91.192.

combed wool are smoother and stronger than yarns from *carded* wool, and are known as “worsted.”



couching:

An *embroidery* stitch in which threads are laid on fabric and sewn down with another thread.

Decoration with metallic or *metallic-wrapped thread* is often couched both for economy (no precious metal is wasted on the back) and practicality (the metallic-wrapped thread is not fine or flexible enough to be easily pulled through cloth).

The root of the madder plant is used in making a red dye

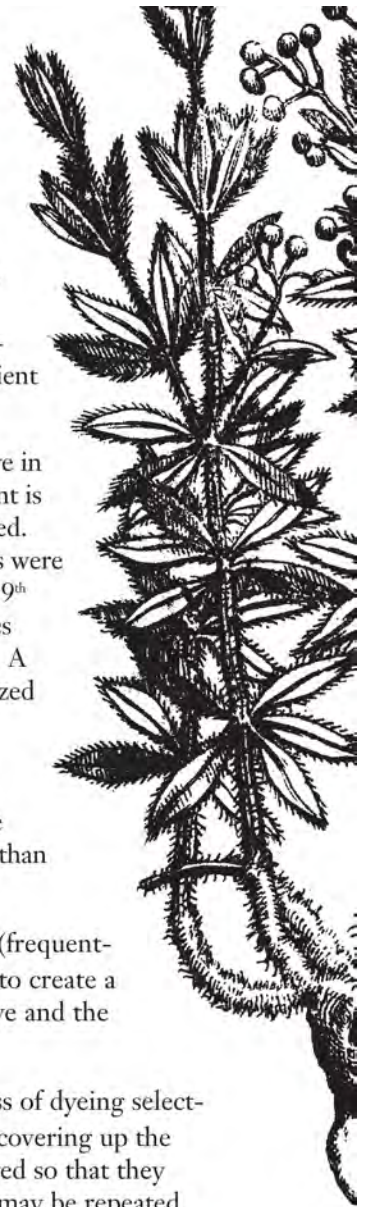
found in plants, but certain insects produce a red dye and certain shellfish produce a purple dye. Rust is an ancient mineral dye.

- synthetic dye: Dye in which the coloring agent is chemically manufactured. The first synthetic dyes were developed in the mid-19th century, and many types

have been invented since then. A few of the compounds synthesized are the same as those found in natural sources (for example, *indigo*). Synthetic dyes are much easier to use and give the dyer more control over results than natural dyes.

• **mordant:** A substance (frequently a metallic oxide) that helps to create a chemical bond between the dye and the *fiber* in the dyeing process.

• **resist dyeing:** A process of dyeing selected areas of *yarns* or fabrics by covering up the areas intended to remain undyed so that they “resist” the dye. The process may be repeated



Tie-dyeing

dyeing: A process through which molecules imparting color are chemically bonded to *fibers*. The fibers may be *un-spun*, or in the form of *yarns* or fabrics, during the dyeing process.

• **dye:** A liquid containing a color-producing compound capable of being chemically bonded to *fibers*.

- natural dye: Dye in which the coloring agent is extracted from plant, animal, or mineral matter. The most common natural dyes are

several times to create a variety of colors on a single cloth. A variety of materials and methods are used to create the barrier or “resist” between the dye and the *fiber*. Some of the most common include:

- warp- or weft-resist dyeing: A process in which groups of either the *warp yarns*, the *weft* yarns, or both are tightly wrapped at intervals and then dyed before weaving. The wrapped areas resist the dye. Often called *ikat*, from the Indonesian term.



- **tie-dyeing:** A process in which cloth is either knotted on itself, or thread is wrapped tightly around bunches of cloth before dyeing.

- **wax-resist dyeing:** A process in which areas of fabric are coated with hot wax before dyeing. The coated areas resist the dye. Designs can be drawn free hand or a metal stamp may be used to apply the wax. Often called *batik*, from the Indonesian term.

- **paste-resist dyeing:** A process similar to *wax-resist dyeing* in which a starchy paste is applied to areas of fabric before dyeing. Designs can be drawn free hand or a stencil may be used.

embroidery: The embellishment of fabrics by means of needle-worked stitches. An extensive variety of stitches and materials are used in embroidery.

felt: A fabric made of loose, haphazardly arranged wool *fibers*, which have surface scales that stick to each other as a result of the *felt-making* process. In



Central Asia, nomadic peoples live in circular tents called *yurts*, whose roofs and walls are covered in felt.

felt-making: The process of making *felt* includes disarranging the wool *fibers*, placing them in a thick layer, and then subjecting them to moisture and extensive friction over several hours, causing the fibers to shrink and mat together.

fiber: A long and narrow hair-like component of plant or animal tissue, and by extension the smallest linear component (natural or manufactured), used to create a *yarn* or *textile*. Usable textile *fibers* can be extracted from the stems or leaves of many plants, some wild and others domesticated. Examples of the latter include linen which comes from the stems of the flax plant and cotton which is a seed hair. Likewise, the hair of many animals, as well as the *silk* of the silkworm, can be used to make textiles. The term also applies to manufactured fibers such as nylon and acrylic.



Felt covers the roof and walls of this Central A

Indonesian weaver at a backstrap loom.



Matthebelle Citlinger

Weaver at a treadle loom in Otavalo, Ecuador.



Lynn A. Meischt

Navajo woman at an upright loom.





Saul Barodolsky

sian dwelling called a yurt.

ikat: Indonesian term for the *warp- or weft-resist dyeing* process, or a fabric made using this process. The technique was very highly developed in Indonesia, Central Asia, and Japan.

indigo: A *dye* containing the coloring agent indigotin, which produces a blue color. Indigotin is found in the leaves of several species of plants native to and utilized in different parts of the world. Indigotin was first synthesized in the late 19th century.

kilim: Turkish word sometimes used to describe *rugs* without *pile*. It more precisely refers to rugs woven in *slit tapestry weave* made in the traditional rug producing areas of the Middle East.

knitting: A technique using a single element or *yarn* in which a loop is drawn through a previous loop at the edge of a fabric. It first appeared during the Middle Ages, probably in the Islamic world, from which it spread to Europe and from Europe to the Americas.

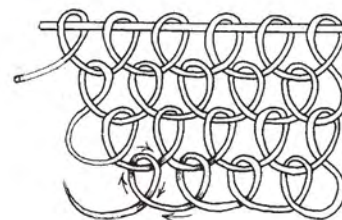
loom: A device for weaving, containing a means of lifting selected *warp yarns* above other warp yarns, forming a space called a shed through which the *weft* is passed. Such devices cannot function unless the warp is under tension, so all looms also contain a means for stretching the warp.

The invention of the loom greatly increased the speed at which cloth could be made of spun yarns. There are many different

methods of stretching the warp and of forming sheds, ranging from the very simple to the very complex. The photographs on the previous page represent a few of the more common types of looms.

looping: A technique using a single element or *yarn* in which the free end and full length of the yarn is pulled through previous work at the edge of a fabric to form each new loop. The element crosses over itself in proceeding to make the next loop.

Looping is an ancient technique that existed before the domestication of *fiber* sources and the invention of the *loom*. The tech-



At top: Hat with dog and nursing puppies. This looped textile was made in Peru between 1000 and 1500. The Textile Museum 1964.52.1.

Above: Looping diagram.



This silk *ikat* patterned wall hanging was made in Central Asia in the 19th century. The Textile Museum 1991.46.12, Gift of Guido Goldman.

nique is still practiced in areas with less European influence such as the Amazon rainforest and New Guinea. Frequently, long plant fibers are used that can be twisted into yarn as the work proceeds.

metallic-wrapped thread:

Contrary to myth, gold and silver cannot be spun, and they are generally too precious and heavy to be woven in the form of wire. Frequently, the glint of gold or silver that embellishes many traditional textiles is a *silk* or linen *yarn* that has been wrapped with thin strips of metal.

mordant: See *dyeing*.

Oriental carpet: Any of a variety of *pile* carpets traditionally from regions east of the Mediterranean Sea (once referred to as the Orient). The terms *carpet* and *rug* are often used interchangeably, but “carpet” sometimes specifically refers to floor coverings.



piecing: The joining of pieces of fabric to make a larger textile. The top layer of “patchwork” American quilts is pieced before being *quilted*.

pile: A plush or shaggy surface on a fabric resulting from loops or ends of *yarn* or *fiber* projecting above or below the surface of the fabric. In *Oriental carpets*, pile is formed by the cut ends of yarns commonly called *rug knots*.

plain weave: The simplest possible interlacing of *warp* and *weft* elements in which each weft element passes alternately over and under successive warp elements (over-one, under-one), and each reverses the procedure of the one before it.

- **balanced plain weave:** Plain weave in which the *warp* and *weft yarns* are of the same size and interlaced with equal spacing.

- **warp-faced plain weave:** Plain weave in which the *warp yarns* are significantly more numerous than the *weft* yarns so that they completely hide the weft.



Detail of a Daoist priest's robe made in China in the late 18th or early 19th century. Both the latticework and the dragon are *couched* in silk and *metallic-wrapped threads*. The Textile Museum 1985.22.1, gift of Ann S. Ling in memory of Helen Dalling Ling.

Left: *Metallic-wrapped thread* diagram.

- **weft-faced plain weave:** Plain weave in which the *weft yarns* are significantly more numerous than the *warp* yarns so that they completely hide the warp.

plying: The process of twisting together two or more single *yarns*. If the yarn is composed of two singles twisted together, it is said to be 2-ply; if of three singles, 3-ply, etc. Plying is usually done in the opposite direction from *spinning*.



Balanced plain weave

prayer rug: A *rug* or *carpet* with the design of a niche or arch at one end of the field, some of which may have served Muslim worshippers in prayer.



Warp-faced plain weave

printing: Although with the invention of synthetic *dyes* it is now possible to apply color directly to fabric, this process will not produce washable colors with natural dyes. Instead, designs first had to be printed either with a *mordant* or with a *resist*, and the entire fabric then immersed in the dye bath.



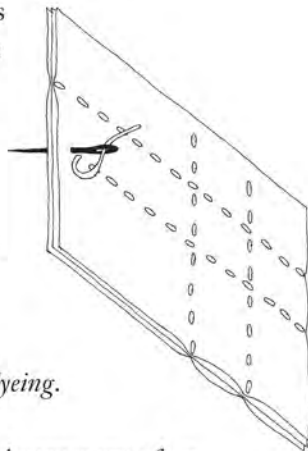
Weft-faced plain weave



Block printing

The traditional textile printing tool in the Middle East and Europe was the wooden block. During the Industrial Revolution in Europe, metal plates and then metal rollers were used instead, at first for mordants and resists, and then for the new dyes when these were developed.

quilting: The process of sewing together layers of fabric with lines of stitches, usually with a layer of padding in between the layers. Such stitching not only holds the layers together but is also often decorative in its effect.



resist dyeing: See *dyeing*.

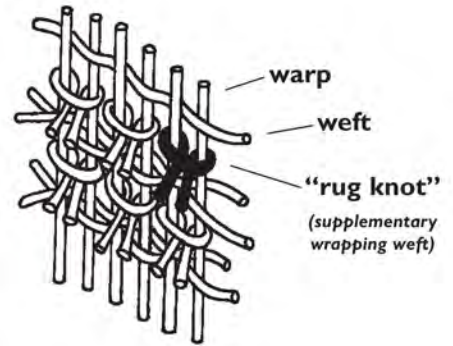
rug: The terms rug and carpet are often used interchangeably. However the term “rug” is broader, often including a range of coarse weavings including tent furnishings, bags for storage and transport and animal trappings.

Detail of a *tapestry weave*, wool and linen curtain. Dating to late Roman times (4th century) this textile was found in Egypt. The Textile Museum 71.118.



rug knot: A segment of a supplementary wrapping *weft* whose cut ends project above the surface of the *rug*.

Although called a “knot,” the *yarn* segments are not actually tied, but just wrap around the *warp* yarns and are held in place by the ground *weft* yarns. Depending on the coarseness of the yarns and how closely they are set, the number of “knots” per square inch of a rug or carpet can range from less than 50 to more than 1000.



selvedge: The edge of a fabric where the *yarns* reverse direction.

sericulture: The process of cultivating, harvesting, and processing *silk* from silkworms, primarily the domesticated caterpillar *Bombyx mori*, which is a type of moth. Silkworms are fed a diet of mulberry leaves, increasing their body weight nearly 10,000 times in their month-long lifespan. The silkworms extrude a protein-based liquid that when exposed to air becomes the filament that creates their cocoon. The cocoons are soaked in hot water to soften them and the filament is drawn out and wound onto a reel. Several filaments are drawn out simultaneously and twisted together in a process much like *plying*.



shed: See *loom*.

shuttle: A stick or other device on which the *weft yarn* is wound in order to make it easier to pass it through the *shed* during weaving.

silk: The filaments secreted by caterpillars and spiders. While the silk of most caterpillars and spiders is not practical for *textiles*, there are a few species of moths whose cocoons yield usable *fiber*. One species, *Bombyx mori*, was domesticated in ancient China and its cultivation is known as *sericulture*.

spindle: A narrow tapered stick that is twirled in the *spinning* process, and onto which the spun *yarn* is wound. Hand spindles usually have a weight or whorl to help provide momentum.

spinning: The process of drawing out and twisting together massed short *fibers* into a continuous strand. Fibers of naturally limited length, such as cotton and wool, must be spun to achieve a desired length, texture, and strength. Traditionally most fiber was spun using a hand *spindle*. Today most fiber is spun by machine.

tapestry weave: A type of *weft-faced plain weave* in which the *weft yarns* are discontinuous, turning back at the edges of each color area, instead of extending continuously from *selvedge* to *selvedge*.

- **slit tapestry weave:** The discontinuous *weft yarns* turn back around adjacent *warp* yarns, forming slits between the color areas.



textile: Anything made by people from fibrous materials. The term includes fabrics made of adhered *fibers* like

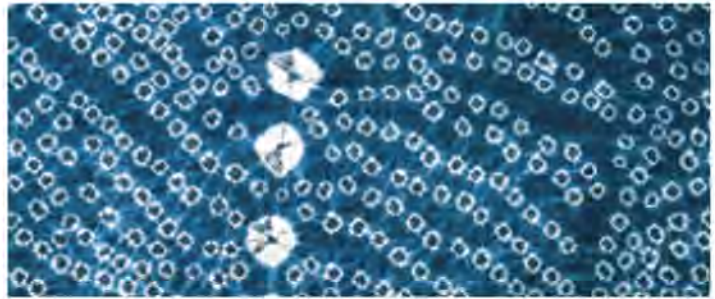
felt, items made of relatively unmodified plant materials like baskets and mats, fabrics made of *spun yarns* such as *knitted* and woven cloth, and items made of synthetic linear elements such as nylon window screens.

- **textile structure:** The relationships of the elements in a finished textile. For example, *plain weave* and *tapestry weave* are structures found in woven textiles.

- **textile technique:** A method or process used to create a textile. Different techniques

can produce the same structure. For example, a cloth woven on a *loom* in *plain weave* can have the same structure as a basket interlaced using only the hands.

tie-dyeing: See *dyeing*.



Detail of a Prestige Display Cloth. The design of this 20th-century textile from Cameroon was created using *tie-dye* techniques and *indigo dye*. The Textile Museum 78.5.

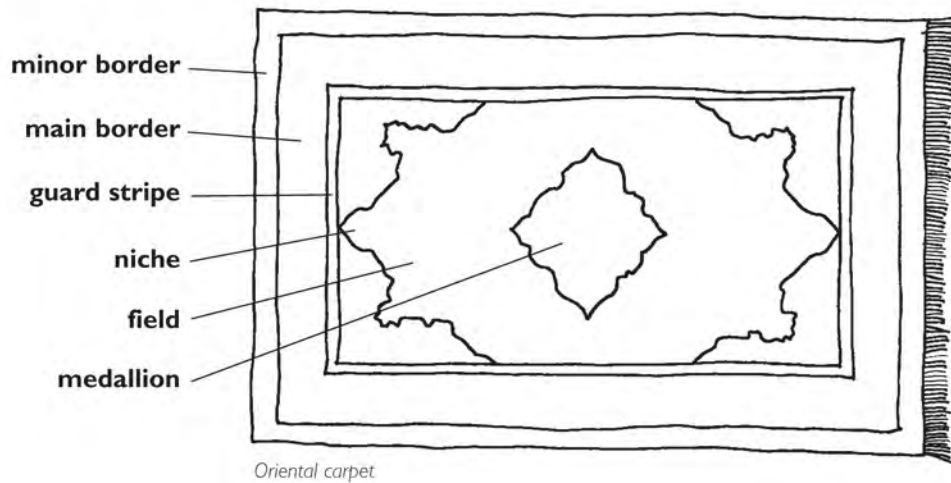
twining: A *textile structure* in which groups of two or more elements in one direction twist around each other as they engage elements in the opposing direction. Twining may be oblique to the edge of the textile, as in a braid, or it may occur in either the *warp* or the *weft* direction or both.

warp: On a *loom*, the warp is the set of elements stretched in place before the *weft* is introduced during the weaving process. The term is also used for a set of elements established before the interworking of weft elements by some other method, such as finger manipulation yielding wrapped or *twined* structures. In a finished fabric with two or more sets of elements, the warp is the longitudinal set.

wax-resist dyeing: See *dyeing*.

weft: On a *loom* the weft is inserted over and under the *warp* during the weaving process. The term is also used for elements interworked with a warp by some other method, such as wrapping or *twining*. In a finished fabric with two or more sets of elements, the weft is the transverse set.

yarn: The general term for any assemblage of *fibers* that has been put together in a continuous strand suitable for weaving, *knitting* and other *textile techniques*.



The arch or niche at one end of the central field characterizes this pile carpet as a *prayer rug*. This rug was made in Turkey in the late 19th or early 20th century. The Textile Museum R34.7.1.

Photos: The black and white photographs of balanced plain weave, warp-faced plain weave, weft-faced plain weave and slit tapestry weave are from *The Primary Structures of Fabrics* by Irene Emery (figures 85, 86, 87, and 93 respectively).

Illustrations: Quilting, couching, and metallic-wrapped thread by Sumru Krody; rug knot, looping, and rug diagram by George Rogers

Samples: Tie-dyeing examples created by Anne Ennes

Design: Cynthia Snyder Designs

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