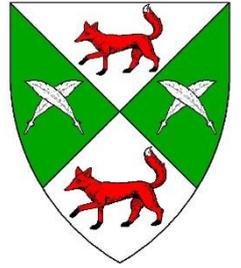


Overview of Pre-17th Century Metal Work Embroidery

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Introduction

The purpose of this article is to:

- provide references that give an overview of metal embroidery techniques,
- give information on some metal work embroidery stitches and how they're done,
- show examples of extant metal work from various pre-17th century periods and places,
- assist beginners and intermediate embroiderers in identifying resources they could use to start their own metal embroidery research and project, including the design and execution stages, as well as placing metal work embroidery in an SCA period context.



Image Source: In-progress goldwork piece as part of a pair of 16th century Spanish inspired velvet embroidered cushions. This image depicts padded goldwork, paired couched passing thread and purl. For more information, see [Embroidered Cushions by Ceara Shionnach \(2010\)](#).

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Types and Styles

There are diverse materials and techniques available for completing metal embroidery. It was popular throughout history, for example, from 6th century France (Kipar, 2000), to 10th century western Viking cultures (Priest-Dorman, 1993-1997), to 10th century England, to 14th century Estonia, to 16th century Germany, England, Spain, and Italy. Irrespective of time or place, it was a symbol of wealth and status and is found frequently in the clothing and accessories of religious leaders and the noble classes. These items include dresses and doublets, cloaks, headdresses and other headwear, vestments, tabards, banners, book covers and more.

Extant metal work embroideries can be found in online museum collections, for example:

- The Boston Museum of Fine Arts: <http://www.mfa.org/collections/search>
- The Cleveland Museum of Art: <http://www.clevelandart.org/art/collection/search>
- The Metropolitan Museum of Art: <http://www.metmuseum.org/art/collection/search>
- The Victoria and Albert Museum: <http://collections.vam.ac.uk/>

Materials

Depending on the place, time, and design, metal embroidery could be undertaken with gold or silver metal, respectively referred to as goldwork and silverwork.

The base fabric used was commonly silk, velvet, or white linen – reflecting the luxurious gold and/or silver embroidery.

Metal embroidery could be done straight onto a base of fabric, or over padding or other threads to make the embroidery more three dimensional.

The metal could be applied in one or many forms, including (but not limited to):

Passing Thread

Passing thread was frequently made up of a silk thread core wrapped in either gold or silver, fine metal plate. Passing thread was usually couched down with fine silk in either the same colour as the gold/silver cord, or an intentionally contrasting colour.

Passing thread could also be thread directly through a needle and used to sew a variety of stitches without the aid of a secondary silk thread, including plaited braid stitches, chain stitches, ground stitches (such as tramming), French knots, and more.

It is one of the most versatile metal work materials and has been used for a diverse range of embroideries and styles.

Surface couching

Surface couching involves using a fine silk thread to stitch one, or a pair of, metal threads on the surface of the fabric. [Historic Needlework Resources](#) has a sketch of this technique.

Underside Couching

Underside couching involves using a fine silk thread to stitch one, or a pair of, metal threads from the back of the fabric so that the couching stitches cannot be seen. [Historic Needlework Resources](#) has a sketch of this technique along with detailed instructions.

Or Nué

Or nué is a couching technique where coloured silks are used to shade the gold to create vivid images. The couching stitches tend to be much closer together than regular couching techniques. [Historic Needlework Resources](#) describes this technique in more detail, including links to extant examples.

Opus Anglicanum

The primary motifs in opus anglicanum were completed in colourful silk split stitch, however, the backgrounds were often completed in gold work using underside couching. [Historic Needlework Resources](#) describes this technique in more detail, including links to extant examples.

Twist

Several (often three) passing threads twisted together to make a single cord. Twist was often couched down with a fine silk in a similar colour.

Purl

Purl is a coil of fine gold or silver that comes in a range of diameters and styles (the surface can appear smooth or checked in appearance, for example). It can be couched down in long strips, or cut up and sewn down like beads using fine silk the same colour as the purl.

Spangles

Spangles are flat circles of gold or silver with a hole in the middle (similar in appearance to modern day sequins). They were frequently sewn down with three stitches (approximately 120 degrees from one another) in fine silk thread, often the same colour as the metal. They can also be sewn down using a loop of purl (see the figure of the 'Elizabethan Sweet Bag' under *Extant Metal Work Embroidery Examples*).

Gilt Leather

Thin leather gilt with gold was used, often appliqued onto fabric as an element of a goldwork design. Gold-gilt leather was also cut up into thin strips and used to couch over top seams in intarsia (see 'Textile Fragment with Unicorn, Deer, Centaur and Lion' under *Extant Metal Work Embroidery Examples*).

Embroidery Frames and Tensioning

When doing any kind of metal embroidery, it is advisable to use an embroidery frame to keep an even tension on your fabric.

There are two very common and readily available types of embroidery frames: hoops and roller frames. You can usually buy them cheaply from sewing stores such as Spotlight, Lincraft, and specialised handworks stores.

Roller embroidery frame (top) and hoop frame (bottom).

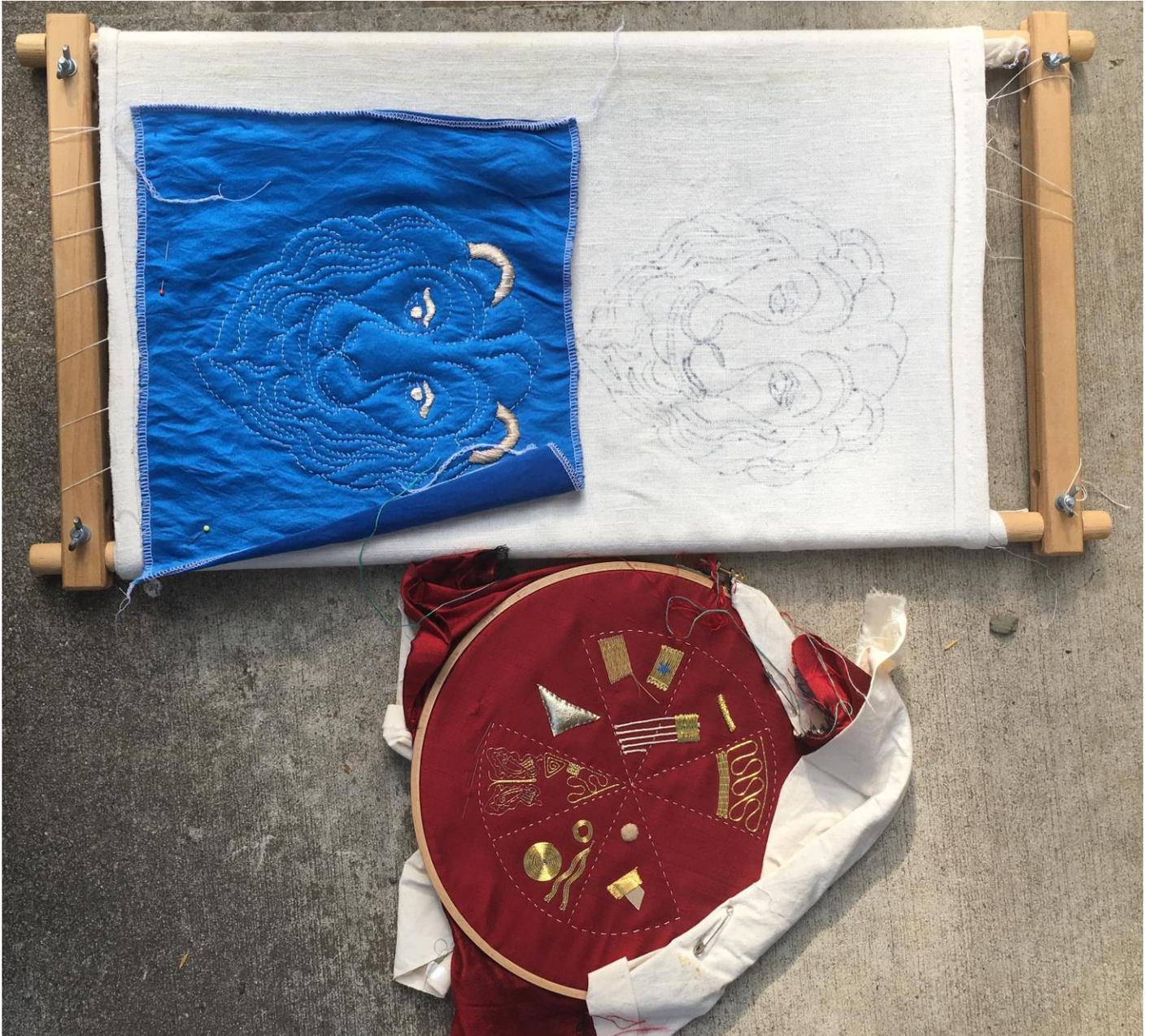


Image Source: Ceara Shionnach, January 2017.

A roller frame such as the one depicted above is prepared by roughly whip-stitching the bottom edge of your piece of fabric to the bias binding on the bottom roller, and the top of your fabric along the bias binding on the top of the roller. The rollers are then turned to create a tight tension on the fabric. Finally, stitches are made along the straight, non-roller edges to pull out the left and right sides of the fabric. [A video posted to YouTube by Homfray \(2013\) demonstrates setting up a roller frame.](#)

Roller frames are particularly good for larger embroidery projects as hoop frames can sometimes crease and/or distort your ground fabric whereas roller frames don't tend to do that. The downside of roller frames are that they are fiddly and time consuming to set up, can only be used as long as one dimension of your fabric piece is smaller than the length of the rollers, and can be more bulky to transport.

A hoop frame consists of two rings of either wood, plastic, or metal. The ground fabric has to be larger than the hoop in order to be used. The ground fabric is placed over one of the hoops and the other slots over the top and tightens. Before the hoop is fully tightened, you pull out the edges of the fabric to increase and even the tension. You want to ensure that the grain of the fabric is maintained evenly (i.e. that the warp and weft are running perpendicular to one another). [A video posted to YouTube by Leather \(2010\) demonstrates setting up a hoop frame.](#)

Hoop frames are easier to set up and transport, and are recommended for smaller projects. The disadvantage of these are that it can be harder to keep the tension on the fabric and the hoops may crease and/or distort your ground fabric in circular patterns.

Transferring the Design

There are many different ways to transfer a design on to your ground fabric.

If you are using a white fabric that is at least partially transparent (e.g. linen or silk), I recommend that you use a sunny window or a light box to trace the design through the fabric. Use an erasable sewing pencil or pen to transfer the design – it is wise to test a corner of your fabric before committing to a pen/pencil (i.e. test that you can remove the lead/ink following their instructions). If you choose to use sewing chalk to transfer the design, be aware that it may rub off before you're done and you will need to reapply.

[Back and front of an embroidery design transferred through running stitch.](#)



Image Source: Design transfer by Ceara Shionnach, 2011. Photos by Ceara Shionnach, January 2017.

If you are using a dense or opaque fabric (e.g. wool or velvet), or a darkly coloured fabric (e.g. linen or silk), you won't be able to trace the design through. In this case, I recommend that you transfer the design using running stitch. To do this, trace the design on to a thin, white fabric (ideally linen) using the method for white fabric (above). Mount the opaque ground fabric to your embroidery frame of choice and tack the traced fabric design onto the back using whip stitch, ensuring the tension on the design is kept tight and even. Using running stitch, follow the lines of the design so that it shows up on the top-side of the ground fabric. This will add time to your setup phase, however, it is and guaranteed removable (with snips or a seam ripper) and won't smudge or rub off (like some transfer pens/pencils/chalks).

Where to Learn the Stitches

There are many resources available to anyone wanting to learn metal thread embroidery techniques, for example:

Historical Needlework Resource – Technique - Goldwork

http://medieval.webcon.net.au/technique_goldwork.html

This online resource has instructions for surface couching, underside couching, and ornué, including pre-17th century examples.

Elizabethan Stitches: A Guide to Historic English Needlework

By Jacqui Carey, 2012, ISBN-10: 0952322587, ISBN-13: 978-0952322580.

This book covers a range of historical techniques, diagrams and written instructions for how to undertake the stitches, and extant examples of Elizabethan embroidery (late 16th century England). These stitches include variations of plaited braid stitches, chain stitches, background stitches, and many more.

A-Z of Goldwork with Silk Embroidery

By Country Bumpkin Publications, 2015, ISBN10: 1782211705, ISBN13: 9781782211709.

This book covers a range of goldwork techniques and how to do them, however, it is not focused on pre-17th century techniques.

Worshipful Company of Broiderers (WCoB) – Designs for the Lochac Order of Grace

http://broiderers.lochac.sca.org/_data/assets/file/0017/557/LOG_Pouches_16thC_Goldwork.pdf

An outline of padded goldwork by Mistress Rowan Perigryne.

Metal Embroidery Suppliers

Alison Cole Embroidery

<https://www.alisoncoleembroidery.com.au/kits-and-supplies>

This online store specialises in kits and supplies for goldwork and stumpwork embroideries.

Berlin Embroidery

<http://www.berlinembroidery.com/goldworksupplies.htm>

This online store is based in Canada, high quality, wide range of types and sizes of both gold and silver, fast delivery. There are also kits and instructions that can be bought from this store.

Hedgehog Handworks

http://www.hedgehoghandworks.com/catalog/metal_threads_index.php

This online store is based in California, unfortunately closing in early 2017.

Mace & Nairn

<http://www.maceandnairn.com/shop/>

This is an online embroidery supplies store aimed at historical handworks. There is quite a range of different gold threads and purls available.

Thistle Threads

<http://thistle-threads.myshopify.com/>

Thistle Threads is an online store that has purchasable instructions, kits, and embroidery supplies aimed at 16th to 17th century embroidery styles (including goldwork).

Extant Metal Work Embroidery Examples

Frankish Cuffs of Queen Arnegunde, 6th Century France

The cuffs of the sleeves of Queen Arnegunde's silk dress were adorned with couched gold passing thread in floral and triangular designs.



Image Source: *Die Franken: Wegbereiter Europas*. Exhibition Catalogue. Mainz: von Zabern, 1996; as published on *Frankish Costume* (N. Kipar, 2000).

Goldwork Lion, 10th to 11th Century Egypt

This lion is worked in gold couched threads and various colours of silk in slit stitch.



Image Source: *Embroidery found in Egypt, 10-11th century*. Image published by the Boston Museum of Fine Arts (last accessed January 2017), accession number 31.445.

Coronation Mantle of Roger II of Sicily, 12th Century Sicily

The coronation Mantle (semi-circular short cloak) of the Norman King Roger II of Sicily was heavily embroidered in gold, predominantly underside couching to fill in the lion and the camel motifs. This was embroidered over a red silk twill base.



Image Source: Detail from *Coronation Mantle of Roger II of Sicily*, 1133-34. Photo by Professor Michael Greenhalgh, as published by Historic Needlework Resources (last accessed January 2017).

Badge of the Dragon Order, 15th Century Southern Germany

This dragon is made up of gold couching over felt padding, which results in a three dimensional piece of embroidery. It is predominantly embroidered with fine passing thread, however, some of the outline details are completed in course twist.



Image Source: *Badge of the Dragon Order endorsed by King Sigismund in 1387, Southern Germany, c1430.* Photos published by the Bayerisches Nationalmuseum (last accessed January 2017).

Or Nué Roundel, 15th Century Flemish

This roundel depicts a scene from the life of Saint Martin. It is embroidered with or nué, which is gold-wrapped silk couched down with coloured silks to create gold-flecked shading.



Image Source: *Or Nué Roundel*, 1430-35. As published by The Metropolitan Museum of Arts (last accessed January 2017).

Textile Fragment with Unicorn, Deer, Centaur and Lion, 15th to 16th Century Scandinavia
(Possibly Sweden)

Intarsia is an applique mosaic technique that involves cutting out two contrasting pieces of wool, swapping them, and sewing them into each other's slots. In Scandinavian embroidery, the back of the seams are whip stitched and the front of the seams have strips of gold-gilt leather couched over them (Hebenstreitz, 2012).



Image Source: *Textile Fragment with Unicorn, Deer, Centaur and Lion*, ca 1500. Photo by the Metropolitan Museum of Art (last accessed January 2017).

Cuffs from the wedding garment of Lajos IV, 16th Century, Hungary

These cuffs are embroidered in a variety of metal work techniques including couched twist outlines.



Image Source: *Cuff and edge of left sleeve, pretty silver embroidery along the edge of the sleeve, Hungary, 1526.* Photos taken by Holly and published by Mayberry (2005-2015).

Saxon Goldhaube (Headwear), 16th Century Germany

Gold twist can be seen in a lattice pattern (possibly couched down) on the goldhaube (orange/gold caul under the red hat), with the intersections of the lattice decorated with clusters of five pearls.



Image Source: Detail from *Judith with the Head of Holophernes*, c1530 (Lucas Cranach the Elder). As published by Wikimedia Commons (last accessed January 2017).

Elizabethan Sweet Bags, 16th Century England

Elizabethan sweet bags were highly decorated pouches given as New Year's gifts amongst high nobility in Elizabethan England. These pouches were often covered in diverse goldwork techniques. For more detailed analysis and images of extant pieces, see [Royal Artisan Project: Elizabethan Sweet Bag \(Shionnach, 2014\)](#).

This sweet bag has a mixture of gold and silver embroidery, including plaited braid (the vines linking the flowers), silver ground work, and loops of purl (the centre of the flowers).



Image Source: Detail from *Linen sweet bag with silk embroidery, 1600-1630*. As published by Glasgow Museum (2003-2008).

Lute-Shaped Pouch, 16th Century Venice (Italy)

This pouch likely had a velvet ground and includes examples of single and double rows of couched gold passing thread, spangles, and purl (filling in the leaves and bottom-most petals of the flowers). For more details about lute-shaped pouches and how you might construct one, see [Lute-Shaped Purse for Amelot, Ceara Shionnach \(2014\)](#).



Image Source: *Ala Napoleonica E Museo Correr* via Realm of Venus (Wake, 2001-2012).

Pair of Sandals, 16th to 17th Century Italy

These silk sandals are stiffened with cardboard and embroidered in gold, silver, and polychrome silk embroidery.



Image Source: *Pair of Sandals, 1580-1680, Italy*. Published by the Museum of Fine Arts (Last accessed in January 2017).

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