"Setting in a Frame" – Some Evidence in the Use of Needlework Frames for Embroidery

by L. Haidar for Access Commodities, Inc.

"Embroidery at the very least, is a handicraft: at it's best, it is art." Lewis Day and Mary Buckle, *Art in Needlework: A book about Embroidery, 1901*

Introduction

In the formal, cathedral-like setting with high ceilings, marbled floors and the muffled hush of other visitors, I stood recently at the Metropolitan Museum in New York trying not to press my nose against the plexi-glass case. While contemplating a beguiling 17th century raised work mirror frame[1], I realized as an embroiderer, it always comes to this. I cannot help it. Here I was in a swoon, overcome by the incredible visual feast of a variety of stitches and unusual threads used to execute them. However, my pleasure was tinged with uneasiness. All I could think about was: How did they do this, and could I do it, too?

I have long believed that embroiderers living in the epoch of the *digital revolution* are capable of achieving similar feats of fine embroidery if they possess the inclination and the materials to pursue it. Interest has definitely grown in 16th and 17th century embroidery pieces from museum exhibitions, publications, symposiums and classes (teaching what would have been called archaic techniques twenty years ago), resulting in more attention being paid to the materials used to refabricate their appearance.

Learning the intricacies of executing various stitches would be a small fraction of what was needed, I finally realized. If my goal was to achieve a level of verisimilitude in interpreting any period embroidery, I must emulate not just the materials, but the work method as well. In other words, getting an outcome that reasonably approximated the caliber of excellence as in the specimen of 17th century needlework I had seen would also require a replication of the equipment.

This is an account about my attempt to study what sort of frames professional and non-professional embroiderers used, not just in the 16th century but also up to the 1930's. Were the words "slate frame" a common term in the 16th and 17th century for a frame with two wooden horizontal

pieces with mortises, and side pieces that could be moved to adjust the size? Were there any significant changes in the frame as a tool for fine embroidery as the industrial revolution changed other methods of production? Can a needlework frame be produced today that comprises these elements to make the embroiderer a success in using 17th century embroidery techniques, particularly with specialty threads?

Launching an Investigation

How would you know what was used by embroiderers in the 16th and 17th century? Besides minutely examining the actual embroidered mirror surround at the Met or other examples from the period on site, (which is a luxury denied to a majority of us), an embroiderer can discern from photographs an identification of the types of stitches and threads. However, we can get a little closer to the answer of what was consumed because of inventories, letters, diaries and bills of sale written contemporaneous to the needlework as it was produced.

Although it is not a book about embroidery, the late Janet Arnold's *Queen Elizabeth's Wardrobe Unlock'd* is one of my personal favorites because it is replete with delightful minutiae of this sort. Miss Arnold, back in the 1970's working with manuscripts of the Great Wardrobe from the reign of Elizabeth I, furnished a detailed account of the supplies used to create and maintain the extravagantly embroidered apparel for the Queen in the late 16th century. After reading the documentation, on reflection we begin to understand we see only small glimpses of the embellished exuberance of the clothing from the paintings of the period.

Zeroing in on the fabrication of the embroidery for the gowns, Miss Arnold makes an interesting point that mounting fabric on a *tente*,[2] (or *tenter* is what a frame was called at the time), was a separate line item for billing the entirety of the work being performed. In other words, there was recognition *setting in the frame* was a significant portion of the manufacture of the execution of the design. Like businesses today, it is essential to account for all the costs of production, not just the cost of the materials. Manufacturers needed to be profitable while serving the demands of the market to survive. Setting in the frame was clearly time-consuming work for a professional embroiderer, especially if the pattern for the project was large, like throne canopies.

As to the definition of tenter or tente frame, this is where the meaning of "tent" stitch possibly comes from, *to stitch in a frame*, as opposed to working in hand.

The late Patricia Wardle's research published in the *Textile History Journal* in 1995 on the life of Edmund Harrison, Embroiderer to King Charles I and King Charles II is a valuable source as well. Known among his peers as 'the ablest worker living", she examined copies of warrants, "particular paiments and Disbursements…" mentioning Edmund Harrison and his prodigious output. Her articles chronicle the many items utilized to produce embroidered textiles for the Stuart kings, and poignantly illuminates the life of the man for whom the position as "The King's Embroiderer" was not always an easy one.

Edmund Harrison's work output was not just items of clothing. There were embellished bed hangings, barge cloths, bible covers, cushions and banners to name a few of the many articles. Whether it was "3 pounds of Venice Goulde", Cloud lace, Copper Fringe or Culloured Naples Silke", the amount and which materials were being used for the needlework were duly recorded. One of my favorite line items paid to Edmond Harrison in 1663 is as follows:

> "To Edmond Harrison, Our Embroyderer for embroidering the said Cover for Our Dogg Waggon with Our Letters and Crownes and for all manner of Stuffe by him employed about the same the summe of Thirteen poundes Six Shillings and eight."

It is well documented that King Charles II, was very fond of his spaniels.

When reading these accounts, there are a few things that leapt out to me. First, the finest materials were always in demand to produce the best work. They were costly, difficult to obtain and many were imported---does this sound familiar? Secondly, professional embroiderers collaborated with a large variety of other craftspersons: *Silk Wymmen*, pattern drawers, glove makers and furriers among others. The needlework was only one step in a multi-part progression to create a finished product. Edmund Harrison was paid to do the embroidery only. Someone else provided the fabric ground, drew the pattern, fitted the garment after it was embroidered and/or completed the "makeinge upp" of the piece.[3]

In *The Third Book of the Academy of Armory and Blazon*, written by Randle Holme (1627-1699) there is a section called: *Embrautherers Tools*. He describes a "Working Tent" or "Straining Frame" with the following parts:

- The Frame or straining Tent
- The Mortised pieces, which have square holes cut through at each end.
- The Running pieces, which go through the Mortises, to make the Frame wide or closer together.
- The Holes and Pins, they hold it at its distance
- The Pack-thread by which it is strained."[4]

This is the most comprehensive written description of a tent/tenter frame from the 17th century I discovered in my research thus far. What he is describing is precisely what we now call a "slate frame".

Printed Manuals and Books

We can confirm the depiction of the use of embroidery frames with laced sides in the Early Modern period of European history in engravings.

However, stitching on frames certainly reaches much further back in time. The illustration to the left is taken from a book of German woodcuts portraying many of the occupations of 16th century German life.[5] This one features a Silk Embroiderer working at his frame facing the daylight on what must have been a nice day because the window is opened. Notice the tray to his left sitting on the fabric containing beads.

Did the use of embroidery frames change in any way

after the 17th century, and if so how? To answer this, I explored two types of books: Embroiderer's Manuals and Technique books from the past. The manuals were primers focused on educating their readers how to take beginning steps to improve their embroidery. The technique books were aimed at a different audience. I would call this a *commercial* approach. It was assumed the reader already possessed a familiarity with embroidery, and here was an account of what a professional does to make a living at it. In other words, there were different requirements to produce needlework of the finest standard if you intend to sell the finished product.

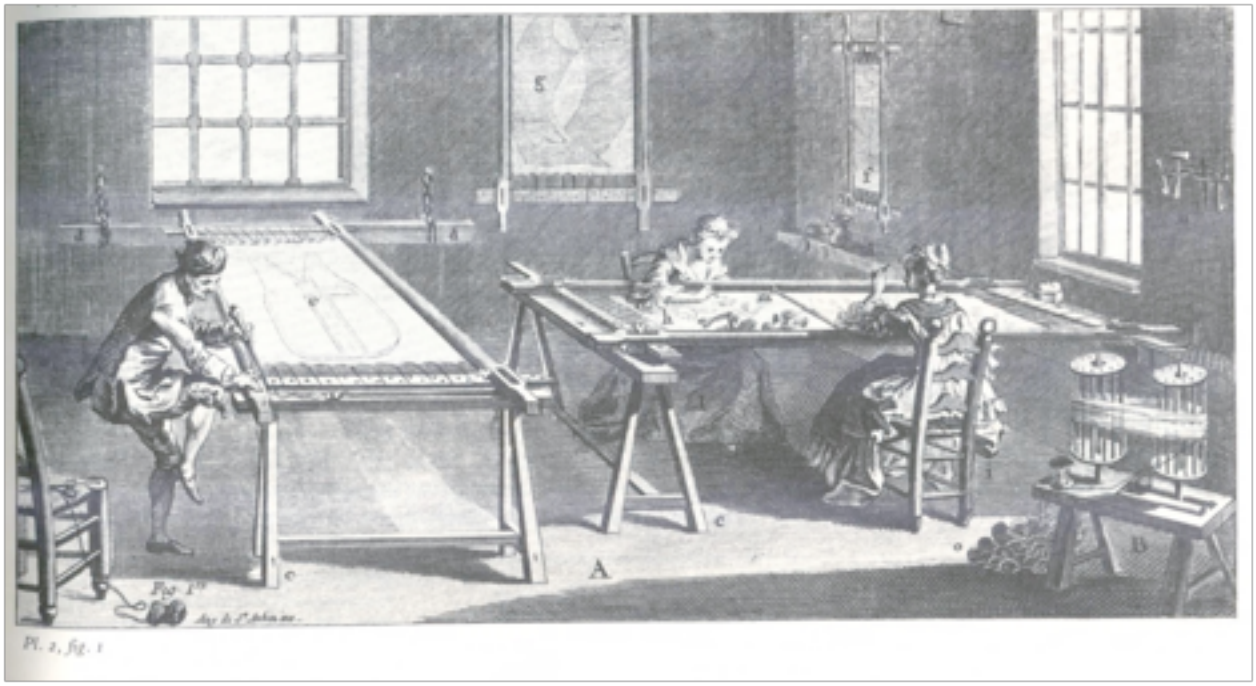
In 1770, Charles Germain de Saint-Aubin, whose title was *Embroiderer to the King* in France, published a book about his illustrious profession. The 1983 translated version, *The Art of the Embroiderer* contains a very instructive discourse on the importance of preparing an embroidery frame and fabric for working.[6]

To begin, Saint-Aubin recommends sewing a *galloner,* a tape with two finished edges, around the perimeter of the ground fabric. This provides reinforcement for the embroidery fabric when it is laced on the frame---and is still practical advice today.

After describing the parts of the frame as *ensubles* (rollers) and *lattes* (slats/laths), he detailed how to sew the fabric to the rollers by keeping it pinned on the straight of grain on the webbing.

After sliding the slats into the mortises, "…[t]he laths are fixed in place with four pegs." Threading up a very large needle with string, "…[a]t intervals one inch apart, pass the threaded needle twice through the…tape that edges the fabric and then around the parallel lath." You can then adjust the tension by "pulling the loops with one hand and easing the fabric with another."

Cautioning against having the frame so tight as to rip the fabric, he supplies a solution for when the frame is so large and so taut the laced slat sides start to bend or warp from the tension; which is still a common occurrence. It consists of what could be described as an adjustable bracing bar attached in the middle of the frame. He further admonished his readers to keep the embroidery clean by keeping it covered when working and to use cloth or paper to protect the work if it is wound around the rollers. Again, this is still good advice for embroiderers using frames.



From Charles Germaine de St. Aubin, *Art of the Embroiderer*.

In the illustration, from the book we can see frames laced, frames sitting on trestles and a frame being worked by two women (one-left-handed and the other right handed) seated opposite each other, with their scissors and thread arrayed on the fabric next to them. The frame where the women are working is positioned near a large window to gain the most from the natural daylight in the room. Did you see the little additional support bar in the middle of the frame for stabilization? Notice the other embroidery pieces hanging on the walls, and the little shelf running along the wall on the right below the window. One side of the frame is propped up on it. There is a tool holder positioned to the right of the window, and in the lower section we see a hank of silk prepared for winding on spools, which are tumbled in a heap on the floor next to it.

Saint-Aubin also tells us the man in the left part of the picture is doing what should not be done to tighten the fabric in the frame. Isn't this a wonderful perspective into how a professional embroiderer's atelier of the 18th century actually worked?

Embroidery Frame Use in the 19th Century

There are two events that shaped embroidery history in the late 19th century. By the 1870's in England the Aesthetic and Arts and Crafts movement brought about the formation of the Royal School of Needlework in 1872. The second event was the exhibition of fine embroidery pieces by the RSN at the Centennial Exhibition of 1876 in Philadelphia, which showcased embroidery pieces designed by leading artists such as Walter Crane and William Morris. Although there were many articles promoting all kinds of needlework in ladies magazines on both sides of the Atlantic, after the 1870's the demarcation between embroidery whose design and execution were seen as *decorative art* as compared to the embellishment of an antimacassar became more pronounced. The development of the *Art Embroidery* movement fostered the notion that even embroidering at home, it was possible to produce excellent work if one adhered to following basic precepts. This is, I would venture to say---a revolutionary idea.

Published in 1880, the RSN's *Handbook of Embroidery*, was not written to teach beginners, but rather to further inform and guide those who already had taken classes. *Frame Embroidery* was understood to be different from other kinds of needlework, such as Plain Sewing, which is done in hand. In the *Handbook* the description of Frame Embroidery is "…the bars, which have stout webbing nailed along them, and mortice holes at the ends…the stretchers, which are usually flat pieces of wood, furnished with holes at the ends to allow of their being fastened by metal pegs…when the work is stretched."[7] The lacing procedure is also described. It should be noted however; nowhere can you find the words "slate frame" in the book, leading to the conclusion the RSN did not refer to it as such at this time.

May Morris, the daughter of William Morris who ran an embroidery atelier in her book *Decorative Needlework* published in 1893, describes a frame as

> "…two 'beams' or rollers…on which the textile is wound, or to which it is merely attached by being sewn to a piece of stout webbing nailed to the wood, and two cross sticks which complete the frame and do the stretching… lengthways by means of pegs or screws in the beams"[8]

Lewis F. Day[9] and Mary Buckle in *Art in Needlework - A Book About Embroidery* originally published in Britain in 1901 and (republished for the

American market in 1972 with the misleading title: *Art Nouveau Embroidery*) gives us another good suggestion about using a laced frame:

"…[The frame] should be rather wider than might seem necessary, as the work should never extend to the full width of the webbing."

The small 1904 American publication by the Corticelli Silk Mills in Florence, Massachusetts has a romantic illustration on the cover of a woman holding a laced frame in her lap. Along with illustrations of various designs and kits for sale by the Corticelli company, it contains an article entitled: "The Theory and Method of Embroidery, Part I. Equipment---How to Prepare for Work." which provides some additional insight into the thinking of the proponents of Art Needlework, at the turn of the last century.[10]

> "Fabrics are made under tension and they come out of the loom smooth and equal throughout. It is evident then that if we are to lay a system of stitches over the surface to form another surface…we cannot do this successfully unless we have it under tension...The embroiderer must rely in the first place on *a stretched surface on which to place her stitches*...Until she is willing to do this she will have results worthy of the name "fancy work," but not of "art embroidery."

The writer goes on to say,

> "The most convenient and altogether scientific way of stretching fabrics is in the *bar frame*."

Notice the linking of the visual idea that fabrics are smooth to begin with, and only by using a properly laced frame is the embroiderer able to maintain this standard.

Towards the end, the tone may sound a bit trenchant. However, this was directed at those who would misguidedly believe their results not using a frame could measure up compared to those who did. This is not unusual for the time. If you have handled or seen these delicate Art Embroidery centerpieces, you would know at a glance the delicate shading using long stitches of fine flat filament silk in artfully drawn designs; most embroiderers heeded the advice to use a laced frame.

Slate plus Frames equal Embroidery?

When did the term "slate frame" become a common term to refer to a laced embroidery frame? Where did it come from and why do we use it today? If we consider the nature of slate, it is a hard surface that has indefinable relationship to needlework, or does it?

In 1798 an English Quaker named Joseph Lancaster founded a school to educate the children of the poor in Southwark, which was just south of London. This was the beginning of the democratization of education at a time of broad social upheaval brought about by not just the American Revolution, but the French revolution as well and was considered very radical. In the past, children were taught to read so they could read the bible, but writing was not taught at the same time.

Lancaster's teaching method used in both the United Kingdom and the U. S. became popular and was called *The Lancasterian System*.[11] His initial method to teaching reading and writing began with the sprinkling of sand on a tray table. Using a stick the students would practice drawing their letters in the surface. The tray could easily be shaken and smoothed again and again, as the cost of paper and ink was prohibitive. Later, children learned to write using a piece of slate that was encased in a wooden frame. [12] Another part of the curriculum also included educating young girls in the techniques of plain sewing.

The use of a slate, as they were called in the 19th century, for teaching in a class room environment became commonplace in schools at the time. They were portable, durable and inexpensive to maintain. However, slate is brittle and could be broken often leaving the wooden frame still intact. In the engraving on the left, a young girl is holding her slate with something to wipe it dangling from a string. If the children lost this, they would simply use their sleeves to "clean the slate".

But how would an embroiderer use a slate to stitch? Writing in 1913, M. K. Gifford in her book called *Needlework*; an embroidery manual provided a small clue when she advised her readers as follows:

> "For large pieces of work, or anything likely to pucker, an embroidery frame is desirable. This can be home-made by covering an old wooden picture frame, or even the frame of a ***broken slate***, with strips of Holland...for tacking the work to…"[13]

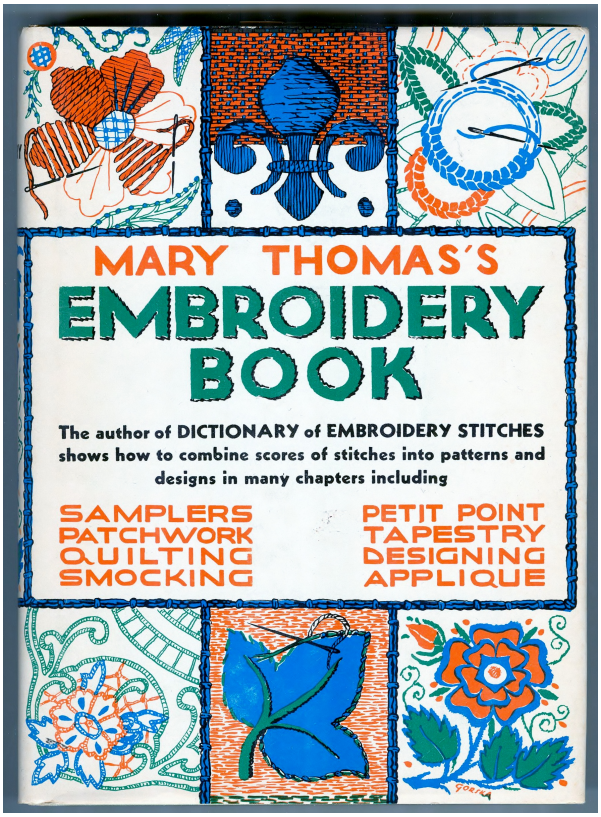
Here we can see the suggestion of repurposing an object, a child's broken slate. While this must have been a fairly common item in most households, one was encouraged to give it new worth as an embroidery frame.

To further illustrate what a common practice this was for teaching beginning embroiderer's, Lucy Vaughan Hayden Mackrille, in her book on Church

Embroidery written for the Alter Guild of the National Cathedral in Washington, D. C. 1939, shared the following anecdote:

> "My first lessons in linen embroidery were given to me by a German woman…She used an ordinary slate frame ***from which the slate was broken.*** She wrapped the four sides all around with soft cotton torn in two inch strips…"

Therefore, the connection of the words slate frame and needlework was a result of the time-honored practice of employing what was available at hand to teach someone just starting out to embroider, where access to a frame *made for embroidery* may not have been possible. Subsequently, the words *slate frame* transmogrified into referring to a laced frame, although up to the early part of the 20th century, the Art Needlework contingent did not refer to a laced frame in this manner.



Nevertheless, by the 1936 publication of *Mary Thomas's Embroidery Book*, referring to a slate frame for embroidery, the author defined it as "…consists of two rollers across the top and bottom, and two flat strips of wood or laths provided with little holes down each side."[14] This is the definition we have used to describe laced frames ever since.

Tenter or Slate Frames for Needlework Today

What are the benefits of a properly laced frame, really? The purpose of using any frame is to create and maintain the same degree of tension over the entire horizontal plane of the design. No matter which frame you use, as you work it is simply the nature of a fabric/canvas ground to move, stretch, or sag on one side and not the other. With a properly dressed frame, it is easy to readjust the tension, by tightening the laces again. When

the needlework is completed, the goal is to have a smooth surface with no ripples in the background of the work.

By contrast, wooden stretcher bars and thumbtacks are a less satisfactory substitute. When the fabric or canvas surface begins to slacken, it is only with tremendous difficulty that you can try to recreate the original surface tension by pulling out all the tacks and starting over. Some embroiderers simply give up, and do not attempt to correct the situation. With a slate frame you simply untie the lacing on the sides and gently tug the fabric or canvas back to where you want it. Nevertheless, it should be said some of my friends prefer to embroider on a surface that is much less firm.

Yes, it takes longer to lace up a frame (especially the first time), but the benefits well outweigh the time spent. Another advantage to working on a properly dressed frame is the quality of the stitches---particularly if you are working with specialty threads, using a laying tool, or even making just plain tent stitches.

While a firmer, smooth surface tension is easier to stitch on, a word of caution here: *Do not make your lacing too taut*. If you stretch something beyond it's limits it will create bubbles and wrinkling in the finished work, no amount of steaming and blocking can fix. One method to determine whether you have pushed the limits of tightening a frame, before sewing the fabric ground to the roller bars, baste a line north/south and east/west in a contrasting thread, do this for canvas as well. If those lines appear to shift to one side from your center marks on the horizontal bar, or the center hole on the slat you can see that and correct it.

Here are a few additional tips:

- Never lace up with cotton cord, because it stretches over time.
- Use a linen thread to sew your fabric ground to the webbing on the rollers.
- Use a good quality twill tape with a high thread count for binding the edges of the fabric or canvas.
- *Always, always cover your work after a session of stitching to keep it clean.*

These are little things that pay significant dividends throughout the time you are working on your project.

As Access Commodities' product offerings enlarged to include real metal threads in the 1990's, I realized to properly support and foster the development of this style of embroidery in the States, a good work frame that could be properly laced was a necessary addition to the product line.

In order to encourage American embroiderers to try a tenter or slate frame, I determined a hybrid design was essential to reflect the way we embroider now. We are a very mobile society and our lives are not centered on staying home for extended periods of time. We take our embroidery to classes and we go to stitch with friends. If we commute to work, we embroider on public transportation. When we travel, we embroider on airplanes, trains and while waiting in lounges.

Access Commodities Slate Frame with Needlepoint Canvas

The embroidery frame I had in mind to create needed to be pretty, feel good in the hands, lace up tightly, be light-weight (i.e. not cumbersome to turn over) easily transportable and affordable. If I invested the funds to develop this frame more importantly, would a laced frame with adjustable slats *work* as I had envisioned? Would embroiderers who had used stretcher bars with

tacks and/or ring embroidery hoops in the past appreciate the difference a laced frame would make during the length of time it took to finish their project? Would they see the benefit of a non-distorted, misshapen piece of needlework at the end of it?

There have been many bumps on the road these past twenty plus years to making needlework frames. Working with many fabricators, small improvements were made to the overall design as time passed with the goal to improve the user experience. Some of the improvements are a better quality of webbing mounted on the frame to reduce stress to the ground fabric, slats that don't wobble in the mortises and a centering mark on the rollers. All of the Access Commodities' frames presently for sale include a great deal of "hand" work. This is an *Artisanal Product*, being carefully crafted for people who are truly passionate about embroidery.

In summary, the words tente or tenter in the 16th century refers to a fabric ground stretched on a frame for embroidery. A distinction was made between embroidery being done in hand and working in a frame. Other frames were devised for attaching the fabric ground as time passed, which is a subject for further research. Yet, the laced frame for fine embroidery did not fundamentally change from the 16th century forward. The words *slate frame*, evolved from the re-use of a child's 19th century classroom writing frame to teach beginning embroiderers.

Lady Marian Alford, another luminary of the Art Needlework movement who wrote *Needlework as Art* in 1886 made this observation about needlework frames:

> "I would strongly advocate the return to the old system for the production of large embroideries. If ladies would design, or have designed for them, curtains or tapestries, and let the work-frame be the permanent occupier of the morning sitting-room…. The frame...is always a pretty object in the drawing-room or boudoir. The French understand this well; and make it one of their most useful "properties" in their scenic representation of refined home life."[15]

(To be continued)

What are your experiences with a slate frame? How do you feel it works for the way that you stitch? Do you leave a large frame up in your living space?

Endnotes

[1] Here is link to the image: http://www.metmuseum.org/collection/the-collection-online/search/203905?=&imgno=0&tabname=related-objects

[2] I am grateful for Dr. Lynn Hulse for sharing this insight. See pg. 191 of Janet Arnold's , *Queen Elizabeth's Wardrobe Unlock'd*.

[3] The Victoria and Albert museum have a few pieces of Edmund Harrison's work, and one that is attributed to him as a result of Patricia Wardle's research. Here is the link: http://collections.vam.ac.uk/item/O144671/pulpit-hanging-unknown/

[4]Chapter VII, *Third Book of the Academy of Armory and Blazon,* Randle, Holme. This is a text only version of the original manuscript, which also contained many illustrations of various manufacturing techniques in the Early Modern Period. http://quod.lib.umich.edu/e/eebo/A44230.0001.001/1:12.8.5?rgn=div3;view=fulltext

[5] Pg. 50, *A Sixteenth-Century Book of Trades,* Theodore K. Rabb, 2009.

[6] The book was re-published in a facsimile edition with a translation to accompany the exhibit in Los Angeles County Museum of Art's exhibit in 1983, An *Elegant Art – Fashion & Fantasy in the Eighteenth Century*.

[7]See *Handbook of Embroidery*, page 33. In 2010, the book was re-issued in a facsimile edition with an essay by Dr. Lynn Hulse.

[8] Pg. 71, Decorative Needlework, May Morris , 1893.

[9] Lewis F. Day was a prolific designer of textiles and stained glass in the Arts and Crafts period in Britain. A successful commercial designer, he taught and wrote books on design and moved in the circles that contained other notables at the time. His co-author, Mary Buckle was an embroiderer whose work won awards at various exhibitions. You can download their book from Project Gutenberg. For additional information on the topic of the production of Arts and Crafts Textiles for the commercial markets and the influence see Linda Parry's, *Textiles of the Arts and Crafts Movement.*

[10] L. Barton Wilson wrote the article with a copyright date of 1890, although the date of the publication is around 1904, leading to the conclusion the article was reprinted many times.

[11] I am indebted to Melissa Roberts for sharing her considerable knowledge about the Lancasterian System as it relates to Plain Needlework. Visit http://twothreadsback.com/plain-needlework/, for further information about how sewing was taught to young girls.

[12] See, Nigel Hall's, *The role of the slate in Lancasterian schools as evidenced by their manuals and handbooks.* This dissertation provides a detailed account of how slates came to be used in the classroom and their importance in teaching in the 19th century.

[13] Pg. 272 *Needlework*, M. K. Gifford, T. Nelson and Sons, London, 1913.

[14] Pg. 271 *Mary Thomas's Embroidery Book*, Mary Thomas, Gramercy, New York, 1936.

[15] Pg. 292 Lady Marian Alford also edited and wrote the Preface to "Handbook of Embroidery", for the RSN in 1880. Alford, Lady M., *Needlework as Art*, Sampson Low, London, 1886.

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