

Scribal study based on a sixteenth century Portuguese armorial.

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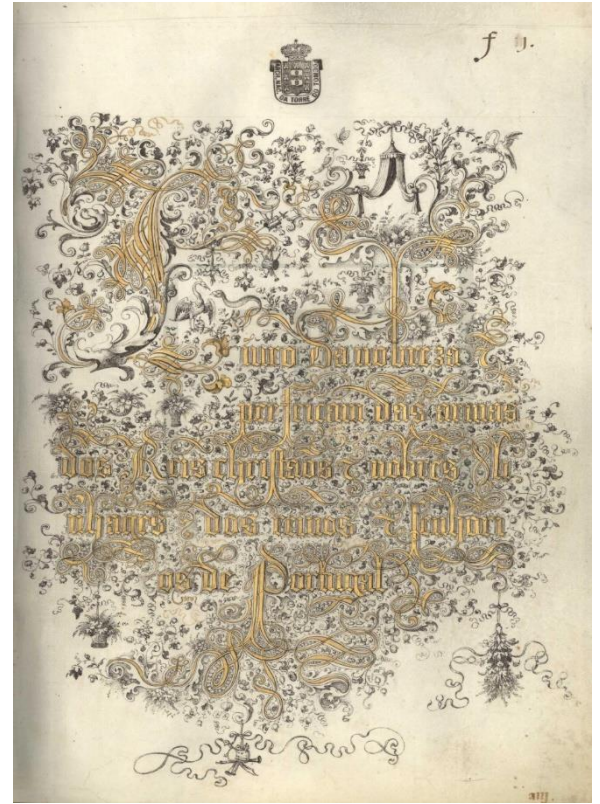
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Introduction

This is a small partial reproduction of a Portuguese period illuminated manuscript called *Livro da Nobreza e Perfeição das Armas* (Book of Nobility and Perfection of the Weapons¹) which is housed at the National Archives Torre de Tombo in Lisbon. The original piece is the frontage page of an elaborate armorial written by Antonio Godinho, who begun the codex in the reign of King Manuel and became the Registrar of D. John III, fifteenth king of Portugal². It is dated between 1521 and 1541. The codex contains 63 folios of parchment (430 x 320 mm) and 135 illuminations of arms and weaponry and this page is listed as the 13th scan³. My main scribal focus is cadels and flourished letters and I found the title page to be absolutely captivating. I had never seen anything this elaborate before and I immediately was inspired. My main goal was to capture the essence of this piece using methods that were as close to accurate as possible within my means. I have done two separate sections of this piece within a 4 month time frame with each one isolating a section of the inspiration and using slightly different materials.



Construction

In sixteenth century Portugal, it was common for books to be written on either parchment or vellum with iron gall ink and gold leaf or shell gold⁴. While I have not found analysis on this particular piece, it is likely that it used these methods because we have other extant examples from around this time period. Wikipedia states that the original is penned on parchment⁵, which is the specially prepared skin of animals, commonly goat, sheep and calf, designed to make the surface suitable for writing.⁶ The style of preparation may affect the coloration of the parchment but in general, calfskin is whiter

¹ The full title is "*Livro da nobreza / perfeição das armas / dos Reis christãos e nobres li / nhagens dos reinos e senhorios de Portugal*" which roughly translates to "Book of the nobility and perfection of the weapons of the Christian kings and noble lineages of the kingdoms and lordships of Portugal.

² National Archives Torre de Tombo Listing <http://digitalq.arquivos.pt/details?id=4162407>

³ National Archives Torre de Tombo <http://digitalq.arquivos.pt/viewer?id=4162407> PT-TT-CR-D-A-1-20_m0013.TIF

⁴ Clemens, Raymond, and Timothy Graham. *Introduction to Manuscript Studies*. (Ithaca: Cornell UP, 2007).

⁵ http://pt.wikipedia.org/wiki/Livro_da_Nobreza_e_Perfei%C3%A7am_das_Armas

⁶ Clemens and Graham, 9.

and may show a pattern of veins while sheepskin is yellower and may be greasy or shiny in areas⁷. The discoloration in the bottom right corner of the page is likely to indicate that this is sheepskin. The *Mira calligraphiae monumenta* (the *Model Book of Calligraphy*⁸), which is a close to contemporary folio to this piece (1561) and showcases a master scribe, is documented as penned on vellum and embellished with gold and silver⁹. The *Livro da Nobreza e Perfeição das Armas* is fairly large (17" x 13") and I wanted to replicate the letter at true size because I felt that the challenge lay in keeping the flourishes and line work to a smaller scale instead of enlarging it. I chose to use goat parchment for this project because it is an accurate material that I could obtain.

The cadel is a flourish made up of primarily straight sections that meet at angles or square corner instead of an oval or circular curves.¹⁰ This technique was born out of the Gothic scripts and achieved its height of popularity in the 15th century for manuscripts and early books¹¹. The cadel is an important design element in this piece and the interlacing of the words provides the visual structure. For my first attempt at this piece, I chose to first work through the design on Bristol board to properly layout the cadel and all its flourishes. At that time, I used a few rough measurements from the original piece to block out squares for each part. Using mechanical pencil, I hand drew the letter and its curves, working it out until I felt it visually matched. I approached the second cadel a little differently since it was less complicated and had more lower case letters involved.



For this attempt, I did not use a handmade stencil, but instead laid out a few guidelines for the letters and just free hand worked the gold flourishes. I think that this caused more difference between the original and my work, but I also feel that this gave it more of a natural look. Not using a stencil also allowed me to get much narrower lines.

⁷ Clemens and Graham, 9-10

⁸ Hendrix, Lee, Thea Vignau-Wilberg, Georg Bocsday, and Joris Hoefnagel. "Introduction." *Nature Illuminated: Flora and Fauna from the Court of the Emperor Rudolf II*. (Los Angeles: J. Paul Getty Museum, 1997), 5

⁹ Hendrix, 5 "...being written on the finest white vellum and lavishly embellished with gold and silver".

¹⁰ Hildebrandt, Bill. *Calligraphic Flourishing: A New Approach to an Ancient Art*. (Boston: D.R. Godine, 1995), 56

¹¹ Hildebrandt, 56-57



Initially, I had assumed that the gold lettering would have been done in gold leaf because of the original was made for a king and the gold has survived very well based on the images.¹² However, upon close inspection of each letter, it shows that there are fine lines drawn on top of the gold. There is no flaking or noted absence of gold in these areas. Gold leaf loses some of its structural integrity if it is scraped away with the application of the liner ink. Though there is evidence of tooled decorative patterns¹³ in gold leaf works, I could find no reference to line work such as this. Based on that knowledge, the gold work appears to be effects that would be better achieved through the use of shell gold paint. Shell gold is made with powdered gold mixed with a binder such as honey or gum, creating a paintable gold that can be applied with a pen or brush¹⁴. Unfortunately, true shell gold is expensive and out of my means at this time.



For my first attempt, I chose to use gold leaf for the main part of the cadrel and use Finetec for the small gold leaves. Finetec is a mica based paint and is a reasonably-priced substitute for shell gold. I used a modern adhesive, miniatum, for the gold due to its reliability. The term size is a word that references a gelatinous substance made from glue which is used as a bond for gold leaf in books. In period, gesso or a base such as egg whites¹⁵ would have been used. To lay the adhesive size onto the parchment, I darkened my template and used it on a light box to be able to transfer the design to the goatskin without having any pencil marks. Because of the process, some of the fine lines did get slightly thicker as I traced them since the lines become fuzzier through the thicker parchment. Next time, I will use a different method of transfer.

¹²http://pt.wikipedia.org/wiki/Ficheiro:Fl_1_Livro_da_Nobreza_e_Perfei%C3%A7am_das_Armas,_Folha_de_Rosto.jpg

¹³ Clemens and Graham, 33

¹⁴ Clemens and Graham, 33

¹⁵ Clemens and Graham, 33



I used 23ct gold leaf on this cadell and it was laid down after the gold size had dried to a slightly tacky level which typically takes 20 min in winter in my house. I prefer to work with patent gold, which come attached to a tissue like backing paper, instead of loose leaf gold, which floats freely in between pieces of thin rouged paper. Patent gold makes it easier to move around the adhesive size and lay smaller sections of the gold without losing as much of the material to tears, wind and inadvertent adhesion. I used an agate burnisher, a small, smooth, tooth shaped tool, over glassine paper to gently press the gold over the edges of the size so the gold was flush with the parchment. It took about 45 minutes to properly lay the gold, checking to make sure every area was covered with at least one layer.

For my second working of this piece, I chose to try a different gold. The Finetec mica based paints are a very close approximation to the aforementioned shell gold and in deepening my research, I was growing more certain that the original was not done in gold leaf. This paint allowed for more delicate lines, sharper edges on the lower case letters and could be shaded directly with ink. Switching this process also sped up the construction of this section due to not having to wait for the adhesive to dry. Getting the delicate lines on top of the gold in the letters was the best part of this change since I was unable to achieve that with the gold leaf on my first attempt.



The line work on the original was most likely done with a goose quill and with iron gall ink for the marginalia and letter outlines. The most common writing implement for Western Europe in the Middle Ages was the quill pen and goose primary feathers produced strong yet flexible quills¹⁶. Iron gall ink is superior to lamp black for use on parchment because it soaks into the parchment instead of sitting on top¹⁷. I used two inks, instead of just iron gall ink, for different reasons. On the original piece, the gold is clearly outlined with black ink – which also helps to create the interweaving effect of the flourishes. For that step, I applied modern Noodler's X-Feather ink in true black which is formulated for a slower dry time with less surface penetration¹⁸, with a metal crow quill pen. I wanted something that would not feather as it got near the gold leaf which may have area of scratches or roughness due to the leafing process.

For my second version of this piece, I continued to use the Noodler's X-Feather ink for the outlining of the gold letters and the iron gall ink for the rest of the sketching. I did attempt to use the iron gall ink for the outlines but the watery consistency did not want to adhere to the gold. I experimented with multiple different crow quill nibs and ended up alternating between the nib I used on the previous piece and a super fine Hunt 108 nib.

The gray, monochromatic, sculptural decorations surrounding the letters on the original piece are known as grisaille¹⁹ and were most likely done in iron gall ink. Iron gall ink is a light bluish grey that layers well to create depth and shadows and was known to be used for drawing²⁰. The ink also oxidizes over time and turn to darker brown black²¹ that does not resemble aged black ink²². Since this piece has a lot of shading in the decorations, it made sense to start with the lighter colored ink and layer to create depth. I used a crow quill style metal nib for the sketching to replicate a sharpened goose quill. I chose Old World Oak Gall Ink for my line work because it is an iron gall ink made with period recipes and material, including oak galls, iron salts,



¹⁶ Clemens and Graham, 18

¹⁷ Clemens and Graham, 19

¹⁸ <http://noodlersink.com/whats-new/x-feather/>

¹⁹ "grisaille". *Encyclopædia Britannica. Encyclopædia Britannica Online.* Encyclopædia Britannica Inc., 2015. Web. 08 Mar. 2015 <http://www.britannica.com/EBchecked/topic/246394/grisaille>

²⁰ Lamay, Marie-France. "Iron Gall Ink." *Traveling Scriptorium.* Yale University Library, 21 Mar. 2013. Web. 09 Jan. 2015. <http://travelingscriptorium.library.yale.edu/2013/03/21/iron-gall-ink/>

²¹ Clemens and Graham, 19

²² <http://travelingscriptorium.library.yale.edu/2013/03/21/iron-gall-ink/>

logwood dyes and acacia gum²³. Iron gall ink begins to oxidize almost immediately after it is dry²⁴. I chose to match the current appearance by starting on the grisaille a few weeks before I planned on showing this piece, allowing it time to darken.

Now that my original piece is four months old, the oxidation of the iron gall ink has completely changed the appearance of the grisaille. The grey tones that originally were on the piece have all transformed into shades of brown. The new look is unique enough that I do not think I could have found an ink to create it from the start. Now that the oxidation has taken place to this point – since it will continue on for the entire life of the piece, I can see why the original inspiration looks different than my attempts. The influence of time on the ink has forever altered it and therefore, I am attempting to create an inspired piece that looks like this one would have looked when it was new.



I learned, whether it is a period technique or not, that one could not just lay the grisaille down in its entirety, going left to right across the piece which is my standard way of working a scroll. I had to fill in small areas around each gold section first, then move out to the edges to build out the square and then finally into the center 'sections' to create balance in the space provided. It completely changed how I work on a piece like this. There was a balance that had to be created in laying out each section in order to keep things scaled and have enough room. I used a few light pencil lines for the major areas but the rest was sketched without guidelines.

The original uses weaponry, drums and bugles, swords and axes, bows and arrows as well as snakes, birds and snails in its flourishes. For my first attempt, I kept much of the imagery the same but, as a thank you to my sponsor, Mistress Margaret Malise de Kyrkyntolaghe OL OP, I changed the bird / snake image into a Pelican in its Piety and incorporated the original leaves in that area into a modified Laurel wreath.



²³ <http://www.oldworldink.com/>

²⁴ Clemens and Graham, 19

For the second piece, I also worked the grisaille in bits and pieces around the gold work. It is a process of gauging the space that is open and filling in small parts at a time. I chose to keep the same imagery as the original this time because it was all nature related. I really enjoyed the visual appeal of the hanging arming tent and was excited to put it in my piece.



Conclusions

I really enjoyed working on this project because it contained all of my favorite parts of the scribal arts. Working on the parchment is far superior to any other materials I use on a more daily bases for scrolls such as paper or pergamenata. The goatskin surface was quick to absorb the adhesive size which speed up the drying time and allowed me to lay the gold fairly quickly. The ink was also absorbed quickly which made the layering process of the shading to be very smooth. I was intimidated, at first, by the idea of doing all of the design work free hand but I took the time to break it down into parts. For the first attempt using the light box to apply to size directly in the layout I wanted saved time and was less intimidating than working out the flourish directly on the goatskin since I was unsure how it would react to being erased. The actual L, even with all its flourishes, was the easy part. On the second piece, the use of mica paints to mimic the shell gold was an efficient process that allowed for crisper lines and a more concise script. I, once again, found the gold to be the easiest part of the process and the line work to be the true, but greatly enjoyable, work.

I plan to use this exemplar again to create a more personalized text at a size closer to the original. I have acquired a piece of manuscript goatsin at the full size and look forward to using such a great surface again. I will also be using the same mix of black and iron gall ink for the different types of line work since I now know better how each behave and feel that its darkening of the iron gall over time would produce the lines on the original. I also know that the shell gold or mica based paints will work better that the gold leaf for the gold lettering because it would allow me to replicate the black overlay on top of the lower case letters and also the small flourishes and trails that are impractical in gold leaf. For doing a recreation of the entire piece, it will require a more detailed layout and planning for the lettering than this single, proof of concept piece. I look forward to the challenge.

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National Archives Torre de Tombo "Livro da nobreza e da perfeição das armas dos reis cristãos e nobres linhagens dos reinos e senhorios de Portugal", por António Godinho
<http://digitarq.arquivos.pt/details?id=41624>



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