

15th Century Flemish Illumination
By Jehanne Bening, CCL
(Susan E. Gordon)
Advanced Tri-levels Entry July 14, 2007

This Tri-level's entry is an adaptation of a late 1470's full-page illumination, "Souls of the Blessed Arriving in Heaven" from the *London Hours of William Lord Hastings*, now in The British Museum. This work is by the Master of the First Prayer book of Maximilian, Add. MS 54782, folio 230. It was probably made in Ghent, in the late 1470s. It measures 165 x 125 mm or 6.5 x 4.9 inches (McKendrick 56).

The "On-line Gallery" of *The British Library* describes this manuscript as:

...one of the most luxurious books of hours made in the southern Netherlands for an Englishman. It epitomi[z]es ...the new naturalistic style of manuscript illumination. Although produced to the highest artistic standards, virtually every miniature is based on a pattern previously employed in either another manuscript or a panel painting.

15th century Flemish illuminators commonly were paid professional artists working in organized shops in a highly competitive commercial environment. International aristocratic and bourgeois patronage directed the market and the illuminator's work. Many developed a pattern repertoire they frequently exploited while maintaining a high degree of quality as this illuminator is thought to have done (McKendrick 8-11).

It was also about this time that full-page single leaf illuminations detached from their original text were being painted by some Flemish artisans. To control their use, because they competed with panel painting, Bruges illuminators were required to register their signature marks with the painters' guild and pay an annual membership fee. Illuminators were also prohibited from using oil as a medium, and gold could only be applied by a Master illuminator or their assistant (Wilson 37, 38).

Characteristics—Flemish illuminators imitated the Flemish oil painters' new naturalistic style depicting the world of human form, landscape, and light effects. By the late 1470s Flemish illuminators played with three-dimensional and illusional borders. The *London Hours of William Lord Hastings* is one of the earliest datable examples in the new naturalistic style (Kren and McKendrick 193; McKendrick 8-11).

The Maximilian Master's illuminations have several similar features. They are often brightly and beautifully colored. They frequently include disproportionate figures or awkward human forms reflecting a reliance on stock patterns or awkwardness in drawing. The faces lack subtle psychological expression. Their modeling includes a mixture of gray and pink flesh, with distinctive pink or white highlights on the nose or

chin. Slightly stiff elaborate tubular folds portray the drapery. Additionally, the blue and gold acanthus pattern on a plain ground is common in Ghent manuscripts, where this probably was produced (Kren and McKendrick 190, 191, 196, 197, 306).

I selected this picture for the challenges it presented me. I wanted to try its illusional three-dimensional acanthus border and the gold-paint highlights on the angels clothing. After this Tri-levels Competition the entry will be given to Duchess Alethea. She did not receive an illumination when she received her writ and would like a 15th century Flemish picture to compliment her persona. D. Alethea has graciously provided the deer parchment from her reserve, made by HLS Fionnuala.

Materials and Tools

Support: Parchment made by HLS Fionnuala
Preliminary Drawing: 4H Pencil
Gold: XX Deep 23+ K, Koelner Instacoll [acrylic] Base™; Shell gold in gum Arabic
Gouache: Winsor and Newton™ designer gouache paints—Permanent White, Lamp Black, Red Ochre, Alizian Rose Madder, Cadmium Yellow Pale, Yellow Ochre, Cobalt Blue, Ultramarine Blue, Permanent Green Deep
Brushes: Loew-Cornell Comfort 3000 Round sizes 18/0, 1, 3; Winsor & Newton Regency Gold 5/0 flat; scrub brushes
Misc: computer, light box, sharp knife, masking tape, water, etc. etc and so forth.

Parchment—In Western Europe parchment made from animal skins has been used in manuscript production since antiquity (Brown 95; Viñas and Farrell 14). Well-prepared, top quality parchment was in great demand by Flemish workshops of the 15th century. The season and climate, plus the young animals’ health and eating habits influenced its quality. Different grades of parchment were produced depending on the thickness, with thicker folios used for more elaborate illumination pages than that used for mostly text (Watteeuw 75, 76). In the late Middle Ages parchment could even be purchased and delivered to the scribes (de Hamel *Guide* 40; Viñas and Farrell 14). Parchment was perfect for illumination, providing a receptive support that could be made from skins of various animal species. It continued as the preferred material for luxury manuscripts even after the 13th century when paper became common (Alexander 35; Brown 95).

4H pencil—Manuscript historians speculate whether under-drawings were done in metal point or graphite during the Middle Ages. De Hamel believes this occurred about the 11th century when ruling lines show up in the same medium. He states however, “... no-one really knows how these lines were made (47). Brown does not believe graphite was generally used before the 17th century (Brown 78). In the 14th and 15th centuries other substances that could have been used for drawing materials included chalk (white or colored), charcoal and, ink (Alexander 38, 40; de Hamel *Guide* 46, 47, 57; Viñas and Farrell 18).

Gold leaf and Adhesive—The gold I used was XX deep loose gold leaf. It is the thickest gold leaf commonly made today, but not as thick as used before 1600 A.D. Because of that gilding methods have changed a little. Gilding was and is done before painting because it creates a mess if it is done after. In the Middle Ages gold leaf was laid over an area covered with a binding medium of glair (egg white) or gum. To raise the gold above the page, the binder might optionally be applied over gesso (chalk or plaster in a glue). A colorant may well be added to the base to enrich the gold and make application easier to see. Medieval weight gold was often burnished making it shiny. Common modern gold leaf is too thin for intense burnishing because commonly it makes holes (Brown 58, 59; Thompson, *Cennini* 100, *Materials and Techniques* 220; Viñas and Farrell 24).

The adhesive I used was Koelner Instacoll Base™ applied with a brush. It is a caramel-colored modern acrylic adhesive available on-line through a gilding supply company. The color makes it easy to see when applying. Formerly I used Mona Lisa Products™ metal leaf adhesive. This seems to harden better than Mona Lisa Products™ adhesive and works well with modern gold leaf.

Pigments and Binder — Medieval Illuminators used paints of tempera, glair, and gouache. Simply put, tempera is pigments in a binder of egg yolk or glair, which is egg white. Gouache is generally pigments in gum Arabic resin. It also includes chalk or other whitening substances to make it more opaque (Boucher). Theophilus, who wrote his artists manual *On Diverse Arts* in c. 1122, describes the use of the different binders of glair and resin for different pigments in the same paragraph, so they were both available at the same time (33). I used a variety of Winsor and Newton™ gouache colors on this entry.

Pigments are what give paint color. In medieval illumination they were made from vegetable, mineral, or animal extracts, ground or steeped, then mixed with a binding medium of glair, some glue and water. Stale urine, honey, or earwax, were selectively added to improve color, texture, or opacity. Often inert whites of chalk, eggshell, or white lead were added to increase opacity (Brown 98).

Long before the 15th century (around 1200) illuminators were able to purchase their prepared ingredients from a stationer or apothecary. Some pigments they stocked were produced locally; others were imported from as far away as Persia. 14th century's increase in international trade and scientific development added many colors to those formerly available, such as mercury-based vermilion, copper blues, saffron yellow, and red from Ceylon's Brazil (Brown 98). Illuminators learned the process of mixing paint when they were assistants. When they progressed they could have an assistant/apprentice fine-tune grinding, or grind and mix the pigment with the proper binder in the proportions prescribed for each color (Alexander 127, 129; Thompson, *Cennini* 64,65; Viñas and Farrell 30).

❖ White--White lead, a dense, opaque, brilliant white, was the most important medieval white even though poisonous. It was also known then to be incompatible with Verdigris and Orpiment (Thompson, *Materials and Techniques* 94; Viñas and Farrell 30). Because of lead white's toxicity I substitute non-lead Permanent White gouache. I prefer it to Zinc white because it is more opaque.

❖Black--For black I used Lamp black gouache. While not always favored by medieval scribes due to its oiliness, Lamp black was one of several blacks available. Carbon based it is non-reactive and can safely be used with any color (Thompson, *Materials and Techniques* 85, Viñas and Farrell 42).

❖Red--My reds were Red Ochre, a red-brown gouache, and Alizian Rose Madder. Red Ochre was from a natural red clay containing iron oxide. In the Middle Ages the color could vary from light and warm to dark and cool (Thompson, *Materials and Techniques* 97, 99). I also used Alizian Rose Madder gouache. Medieval artists had an orange-red called Vermilion and a selection of organic blue-reds called *Lac* or *Lake*. Thompson does not believe Rose Madder was used as paint during the Middle Ages. He does however; describe other blue-red lacs that were available (Thompson, *Materials and Techniques* 109-121; Viñas and Farrell 36, 38).

❖Yellow--For yellow I used modern Cadmium Yellow Pale. The expanse of yellows in this illumination is amazing for it was not commonly used in this amount until the Renaissance, as improved yellow pigments were just developed in the 14th and 15th centuries (Thompson, *Materials and Techniques* 175). The Renaissance manuscripts studied by Viñas and Farrell included an artificially made lead tin yellow, common after the 14th century (Viñas and Farrell 38). I also used a lot of Yellow Ochre gouache because this picture seemed to call for it. Yellow Ochre, a natural yellow earth of iron oxide and iron hydroxide, was not a consistent paint during the Middle Ages. It varied in opacity and how red or blue it was, depending on the location from which it came (Thompson, *Materials and Techniques* 175, 176).

❖Blue--The blues I used were a little Ultramarine and a lot of Cobalt blue. Ultramarine, an intense purple-blue, is and was very expensive. Ultramarine is made from lapis lazuli. During the Middle Ages it was mined only in Badakshan, Afghanistan, and was made by a complicated process (Alexander, 40; Thompson, *Materials and Techniques* 127,128; Viñas and Farrell 32, 34). Although Ultramarine was the most common blue used, period artists could also have used Azurite. It is paler and lacks the purplish overtones of Ultramarine. Unless Ultramarine was specified in a medieval contract Azurite was used (Thompson, *Materials and Techniques* 132-134; Viñas and Farrell 34, 36).

❖Green--The palette of the medieval illuminator was rich in greens. It included green earths, malachite, and verdigris (acetate of copper) (Thompson, *Materials and Techniques* 160-164, Viñas and Farrell 40, 42). The green I used was Winsor and Newton's™ Permanent Green Deep, again because it seemed to suit the picture.

❖Shell Gold--In a word, "Expensive". I wanted the experience, but I expected more than a large pea size for my coin. It is used like gouache, as it is simply gold powder in probably a gum Arabic binder. Unless authenticity is essential, for the price I would stick with brass flakes or gold colored mica in gum Arabic. Even in the Middle Ages they had Mosaic gold, a substitute for gold paint. Shell gold does go along way only used for highlighting, as in this work, and adds a lot to the right picture. In the late middle ages gold powder was difficult to make because as it was "ground" its malleability made it sticks to things it shouldn't (Thompson, *Cennini* 101,102, *Materials and Techniques* 181-184; Viñas and Farrell 26).

Methods and Skills

Application Sequence—Illuminators followed a strict order of application. First the preparatory sketches were made; then gold leaf squares were applied over adhesive; next color washes were applied followed by opaque color (Viñas and Farrell 20). In the last step white lines were applied (Alexander 40, 41; Viñas and Farrell 20) and black lines painted around the ragged edges of the gold (Alexander 42). I followed this for the gold frames, inner picture and underpainting of the border. I applied the shell gold before I outlined the gold frames with black. I then did the details of the border. Scans of my work at various stages and the exemplar I used are provided.

Preparatory Sketches—I began by having Hewlett Packard™, part of my workshop, make a copy of the selected illumination scaled appropriately for the parchment provided. From this I determined the placement of both the inner and outer frames. I used a 4H pencil to draw these on the parchment and outline the basic forms.

When transferring the pattern I placed the parchment over the properly sized picture of the original and, using my light box and a 4H pencil, I marked both the inner picture and the border. I adjusted the design for some variance between the picture of the original and my replica. Both Christopher de Hamel and James Farquhar acknowledge direct tracing of a model onto a support occurred, possibly with the help of light passing through it (De Hamel *Guide* 62, Farquhar 65). This functions similar to my light box, but with a different light source.

Gilding—Next I applied Koelner Instacoll Base™ with a brush. It is a caramel-colored modern acrylic adhesive used in gilding. The color makes it easy to see when applying, but hard to overlook if misapplied. Under the conditions in my house at the time it took about 8 minutes to set to the tacky stage so the gold leaf could be applied.

I put on two layers of XX Deep loose gold leaf. I burnished the gold with my finger and finished by rubbing with a cotton ball, as suggested in the directions that came from John Neal, Book Seller™.

I want to thank Duchess Alethea Charle for sharing the following method of gold leaf handling she developed that works very well. Commonly gold leaf is picked up by a special brush because it cannot be handled directly as it tears easily or sticks to the things. Using the rouge paper that holds each leaf of gold, I flipped the duo up-side-down onto a piece of disposable palette paper, then rub the rouge paper a little and peel it off. The gold leaf will stick to the palette paper. To use I cut off a desired section of the gold/palette paper combo and invert it over the



adhesive area to be gilded. I then rub the back a little with my finger and remove the palette paper leaving the gold leaf on the glue. The gold leaf can also be stored this way.

Unfortunately some of the adhesive got on the parchment outside the intended space. I used a sharp knife to scrape it off and to even the parchment. I then rubbed the area with a clear plastic spoon to re-establish the smooth parchment surface.

Color Application—My general plan was to block in the areas of color, then complete the interior picture before doing the border.

❖Underpainting--I worked the aura from the center outward expecting to paint over the required areas later. There are so many figures painting the negative space, the background, seemed impractical. In the aura I overlaid color areas as well as applying white or Yellow Ochre to transition the next color. I painted the expanse of Yellow Ochre and I ended underpainting by painting the border background and large expanse of blue with Cobalt Blue. I outlined the aura and the blue area with a width of Ultramarine. Later, I underpainted the border with Cobalt Blue and Yellow Ochre.



❖Flesh--I attempted to work areas of flesh in a manner I thought was used by the Maximilian Master since the technique is a distinctive characteristic of his. I used various combinations of white, black, and Red Ochre to achieve shades of white, beige, taupe, pink and more. I underpainted the designated area with a white to red-beige color in the area and general shape of what I thought would work. Later I would use Lamp Black to outline and shade. I would use washes of color or tiny hatching to shade the face or figure. Many areas of this work are vague for some reason, not just the faces, so I tried to be more specific with the faces than the picture of the original shows.



❖Wings--These were the most fun to paint. When looking at a close-up of the illumination it is possible to see actual individual feathers (amazing!). I painted the wings by overlapping the various colors one into the other, perhaps going back with the first color; so one color is not isolated for another, but visually blended. This was a painting technique common to illumination during the 15th century; I just used it to indicate individual feathers not individual feather parts in the original. I also shaded areas with black or blue, depending on the color scheme. Later, I highlighted and tipped the wings with shell gold.



❖Clothing--The colored clothing was worked with either Alizian Rose Madder or Red Ochre mixed with white. The outlines, shading and hatching were done in black and highlights in white or yellow. The white clothing was done with white (duh) and outlined or shaded with Cobalt Blue. I then made very fine strokes in areas to be shaded. Some of these were also smoothed out a bit with a larger brush, as they appeared harsh otherwise. Finally, just before applying the shell gold on the white clothes I painted the areas to receive it with yellow.



Next, thinking I was done, I painted the shadow next to the gold frames. It looked great. I didn't realize how slow it dries in our Midwest humidity. The next morning something smudged the area on the lower right, so I've had to do things to make corrections there. (So, I learned why this step is done last.) Next, thinking I was done, I painted the shadow next to the gold frames. It looked great. I didn't realize how slow it dries in our Midwest humidity. The next morning something smudged the area on the lower right, so I've had to do things to make corrections there. (So, I learned why this step is done last.)



❖Flowers--These were done with an underpainting of Alizian Rose Madder muted with white, as seen in the previous picture. Next, they were painted in a manner similar to the wings, with many strokes of white, and muted Rose Madder. I also used strokes of muted green. I low-lighted the petal and the center with a taupe made from black and white. The reddish color comes because Lamp black has a red tinge to it that is more noticeable when mixed with white. I highlighted the edged of the center and each petal with more white. Basically I did this until I got the look I wanted.

❖Acanthus pattern--After I underpainted the Yellow Ochre leaves, I marked the “main stem” with yellow or black, depending on whether the area would eventually be highlighted or shaded. I did this to determine the actual bending of the leaves and stems. Next I went around each leaf comparing it to the picture. I “fine-tuned” the edge of the leaf and the border with Cobalt blue, Yellow Ochre, or black, as I thought the picture indicated. After that I filled in areas with hatching of black, or a mix of Yellow Ochre and Rose Madder as I thought the original indicated. (I didn’t use muted Red Ochre because I thought it would look too pink.) Last I highlighted specific areas or leaf edges with a mix of yellow and white. It took time to produce the desired effect because of the multiple colors and large amount of hatching.



❖Corrections--Speaking of corrections, not everything went agreeably. Besides the glue oozing out under the gold leaf, there were a few places that the Yellow Ochre bled through the white and wouldn’t stop. Also, there were two faces that didn’t suit me. This is what is so great about working with parchment, because this method of correcting the paint would not work on Bristol board and probably not on Pergamenata™ either. Working in small areas, I wet the paint to be changed and then blotted it with a paper towel. I did this repeatedly until I was down to “clean” parchment. Then I repainted the area.

Conclusion

I enjoyed recreating this illumination because it helped me get into the mindset of the Maximilian Master. Working from the original brought home the distorted images and misplaced shadows helping me realize these were not important at the time or they probably would have been redone in a work of this luxury. They were not seen as errors.

My adaptation of the 15th century Flemish Maximilian Master's brightly colored illumination used the colors, gold leaf, gold paint, and parchment, similar to the original. I included an abundance of hatching, facial highlighting, distorted human forms, and the acanthus leaves as the characteristics of the Maximilian Master describe. While I used modern implements to facilitate my work, the visible materials were used in the 15th century and in a similar manner. Some colors were obtained by mixing; others were visually combined through hatching and overlaying. With hatching the skill is to vary the stroke's weight. A light touch does not disturb underlying pigment; a slightly heavier stroke blends or destroys multiple layers. Most of the human forms, although distorted, were positioned similar to those in the original. There were few free-form patterns, which are generally easier to do. Because the original had areas that were indistinct or exceedingly distorted, as in the small angel in the center, I modified a pattern or endeavored to make it appear more finished.

Sources

Alexander, Jonathan J. G. *Medieval Illuminators and Their Methods of Work*. New Haven: Yale University Press, 1992

Boucher, E. *On Making Tempera Paint*, 1997. <<http://www.geocities.com/CollegePark/Library/2036/tempera.html>> accessed 9 July 2007

The British Library "On-line Gallery". <<http://www.bl.uk/onlinegallery/features/flemish/flemish037lge.html>> accessed 9 July 2007.

Brown, Michelle P. *Understanding Illuminated Manuscripts: A Guide to Technical Terms*. The J. Paul Getty Museum and The British Library Board, 1994.

De Hamel, Christopher. *The British Library Guide to Manuscript Illumination: History and Techniques*. University of Toronto Press, 2001.

Kren, Thomas and Scot McKendrick. *Illuminating The Renaissance*. Los Angeles: The J. Paul Getty Museum, 2003.

Farquhar, James D. *Creation and Imitation: The Work of a Fifteenth Century Manuscript Illuminator*. Fort Lauderdale: Nova University Press, 1976.

McKendrick, Scot. *Flemish Illuminated Manuscripts 1400-1550*. The British Library, 2003.

Thompson, Daniel V. *The Craftsman's Handbook: The Italian "Il Libro Dell' Arte"* translated by Thompson. New York: Dover Publications, Inc. 1933, 1960.

_____ *The Materials and Techniques of Medieval Painting*. New York: Dover Publications, 1936

Viñas, Salvador and Eugene Farrell. *The Technical Analysis of Renaissance Illuminated Manuscripts*. Harvard University Art Museums and the Universidad Politecnica de Valencia, 1999.

Watteeuw, Lieve. “Flemish Manuscript Production, Care, and Repair: Fifteenth Century Sources”: Chapter 6, *Flemish Manuscript Painting in Context: Recent Research*. Los Angeles: The J. Paul Getty Museum, 2006.

Wilson, Jean C. *Painting in Bruges at the Close of the Middle Ages: Studies in Society and Visual Culture*. University Park: The Pennsylvania State University Press, 1996.

Thank you for taking your time to consider my endeavor.