
Three Fragments of the *Mystic Capture of the Unicorn Tapestry*

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The tapestries illustrating the Hunt of the Unicorn at The Cloisters, woven in the Southern Netherlands between about 1495 and 1505, include six complete panels and three fragments (Figure 1). Shortly after their acquisition by the Metropolitan Museum in 1938, the fragments were hung next to the Unicorn Tapestry panels that had been given to the Museum by John D. Rockefeller Jr. the previous year and were displayed in a gallery designed for them (Figure 2). When the galleries at The Cloisters were renovated in 1998, the tapestries and the three fragments were taken down, providing the opportunity for close examination and study, as well as some conservation work. In 2004, the fragments were again removed from the galleries and analyzed further for identification of the weave, yarns, and dyes. Upon completion of this survey, fragile areas were reinforced and then the three fragments were remounted and reinstalled, rejoining the six complete tapestries. These haunting hangings are among the most celebrated and cherished works of art from western Europe, and their conservation is therefore of considerable importance.

The fragments, collectively titled *The Mystic Capture of the Unicorn*, entered the Museum's collection under fortuitous circumstances. While the previously acquired unicorn tapestries, which John D. Rockefeller Jr. had purchased in the 1920s, were being prepared for exhibition, The Cloisters' curator, William Forsyth, carried out further research on their history. He learned from the former owner, Comte Gabriel de La Rochefoucauld, whose family had owned the tapestries for generations, that he still had in his possession fragments from a unicorn tapestry that he had used to plug drafty crevices in the walls.¹ Their purchase was negotiated. In early 1938, the fragments arrived at the Metropolitan

nailed to a backboard. Quickly prepared for exhibition, they were installed for the opening of The Cloisters in May 1938 (Figure 3).

The Unicorn Tapestries—including the fragments—have long been studied by art historians, with considerable debate about their iconography, place of manufacture, designer, and patron.² One central question is whether or not the tapestries, and the fragments, are from a single ensemble. Adolfo Salvatore Cavallo, in the catalogue raisonné of the Metropolitan Museum's medieval tapestry collection, argues that the works may be from as many as four different ensembles.³ He suggests, in particular, that the fragments are from a separate tapestry or group of tapestries.⁴ Thomas Campbell is more cautious, however: "We simply do not know enough about late medieval workshop practices and the contemporary perception of uniformity and consistency of style to assume that what strikes us as stylistic disjunction would necessarily have appeared so to medieval viewers."⁵ Campbell believes that the fragments of *The Mystic Capture of the Unicorn* are probably from the same series as the Metropolitan's six complete tapestries depicting the Hunt of the Unicorn.⁶ Similarly robust debates continue about the iconography of the tapestries.

The tapestry fragments form the upper left corner of a larger lost tapestry, which could have measured 15 by 12 to 13 feet (4.6 by 3.7–4 m), representing about a quarter of the original tapestry.⁷ Comparing what remains of the design in the fragments to the complete tapestries, it is possible to speculate on the layout of the tapestry to which these fragments belonged. In the majority of the complete tapestries the monogram *AE* is tied to a tree or a fountain, and so forms a vertical center line. Additional *AE* monograms are placed in each corner. In the fragments, an apple tree with the *AE* monogram tied to one of its branches would have been at the center of the tapestry. *AE* monograms would also have been placed in each corner of the whole hanging.⁸

1. The three fragments of the tapestry *The Mystic Capture of the Unicorn* after conservation in 2007, mounted onto a handwoven fabric that complements the texture of the original weaving. Woven in the Southern Netherlands, ca. 1495–1505. Tapestry weave in wool, silk, and gilt-silver-wrapped thread; fragment with hunter (left): 67¾ x 25¼ in. (172 x 65.5 cm), fragment with maiden's companion and unicorn (below right): 59½ x 26 in. (151 x 65.9 cm), fragment with sky (above right): 18 x 25¼ in. (45.8 x 65.4 cm); overall dimensions of fragments: 80 x 57¾ in. (203.2 x 146.7 cm); mount: 80¼ x 58½ in. (203.8 x 147.7 cm). The Metropolitan Museum of Art, Gift of John D. Rockefeller Jr., 1938 (38.51.1, 2). The place where the two fragments on the right have been joined is visible in Figure 11.





2. The Unicorn Tapestry Room at The Cloisters, 1938. The gallery was designed to display the six complete tapestries and three fragments illustrating the Hunt of the Unicorn. The Metropolitan Museum of Art, Gift of John D. Rockefeller Jr., 1937 (37.80.1–6) and 1938 (38.51.1, 2)



3. For the opening of The Cloisters in May 1938, the fragments were squared off, hiding some of the original weaving, including part of the unicorn.

Although they have losses, the three fragments collectively constitute a pictorial image of a unicorn in an enclosed garden. The woman dressed in a red velvet gown has been identified as the companion of the maiden who succeeded in taming the unicorn. All that is present of the maiden herself is her right sleeve, part of what was once an elaborate brocaded gown, and her graceful hand, which strokes the locks of the unicorn's mane. The natural tones chosen let these intricate features (the fingers and mane) merge. Behind the enclosed garden, a hunter sounding his horn gazes through the spiky leaves of a holly tree. In the back, on the right, the crown of an apple tree remains.⁹ The initials *A* and *E* are located in the upper left corner (Figure 4), and the remnants of the letter *A* appear along the right edge. These initials contribute to the conclusion that the fragments form the upper left quadrant of a tapestry.¹⁰

The left fragment shows the hunter. To his right is the fragment depicting the maiden's companion and the unicorn; two hounds are perched over the unicorn's back, having already drawn blood. Above this piece is a small fragment depicting the foliage of various trees against a vivid blue sky (Figure 5). While there is a diminutive loss between the two



4. Detail of the fragment on the left in Figure 1, showing the *AE* monogram

5. Detail of the fragment at the upper right in Figure 1, showing the well-preserved area of sky



6. Detail of the obverse and reverse of the fragment on the left in Figure 1, showing the hunter. The colors on the obverse (left) have faded, and the deep green foliage appears blue. The colors on the reverse (right) retain their rich tones.



smaller fragments, a gap of $2\frac{3}{8}$ to $5\frac{1}{4}$ inches (6 to 13.4 cm) lies between them and the piece depicting the hunter. It is believed that the upper parts of the complete tapestries were removed during the French Revolution.¹¹ In four of the tapestries (37.80.2–5) the original sky was replaced with a modern fabric during a restoration project when the tapestries entered the Metropolitan's collection.

The fragments were woven with dyed wool, dyed silk, and gilt-silver-wrapped thread on an undyed wool warp.¹² The wool weft represents roughly 60 percent of the tapestry fragments, and the silk weft about 35 percent; the gilt-silver-wrapped thread represents the smallest amount, about 5 percent. The gilt-silver-wrapped threads were used sparingly to highlight such areas as the initials *A* and *E* (see Figure 4), the brocaded dress, the collars on the dogs, and the apples on the tree.¹³

All three fragments are in comparable condition, which can be classified as fairly good. The silk weft is fragile. Broken warp and warp and weft losses are evident. The metallic threads have tarnished, and their brilliance is thus



7. Detail of the obverse (left) and reverse (right) of the fragment on the lower right in Figure 1, showing the head of the unicorn. The placement of slits creates texture in the mane of the unicorn. Dovetailing and double interlocking features were used to bridge color junctures.

reduced.¹⁴ Some damage is the result of degradation; in other cases an unsightly mark or stain has been cut out, leaving holes. Past restoration is noticeable in some small areas, including a patch placed behind a hole in the lower part of the tree trunk in the fragment depicting the hunter and small weft replacements in the left shoulder of the maiden's companion and in the collar of the hound perched over the unicorn's back. These restorations are well integrated into the original weaving. There is puckering in several areas, such as in the hair and the hat of the hunter, the unicorn's mane, and the tree trunk. Puckering was caused by warp shrinkage during wet-cleaning.

The color preservation presents no surprises. The original colors are still vivid on the reverse, retaining much deeper and richer tones than those on the front, where all colors are subdued and some have faded (see Figure 6).¹⁵ Deep purple wool weft, used to create the texture of the hunter's hat, has faded to olive green, losing the original fine modeling, which is still vivid when examined from the reverse. The yellow dye component, the most fugitive dye employed, has faded to a large degree so that areas originally woven in green now appear blue. Blue and black are the most stable dyes; the bright blue sky, woven with indigotin-containing dye (probably woad), has barely faded over the centuries. To achieve brown or black, a combination of madder, weld, and an indigotin-containing dye such as woad was used. This practice has helped to preserve the fragments and also testifies to their high quality. Brown-dyed yarns used in the pictorial images or for outlining design elements are frequently dyed with tannins and iron mordant and usually disintegrate, contributing to the fragility of a textile.¹⁶ In addition, long slits were closed with overcast and blanket



8. Detail of the fragment on the left in Figure 1, showing the remnant of a start or finish border along the left edge

stitches, and dovetailing and double interlocking features were used to bridge color junctures (see Figure 7).¹⁷ These joins are still intact, contributing to the fragment's integral condition and providing further evidence of the high quality of the weaving.

Along the left edge of the hunter fragment, a narrow band 59½ inches (151 cm) high survives (Figure 8). The width of the band is uneven, varying from ⅛ to ½ inch (3 to

9. Detail of the fragment on the left in Figure 1, showing examples of dropped warps



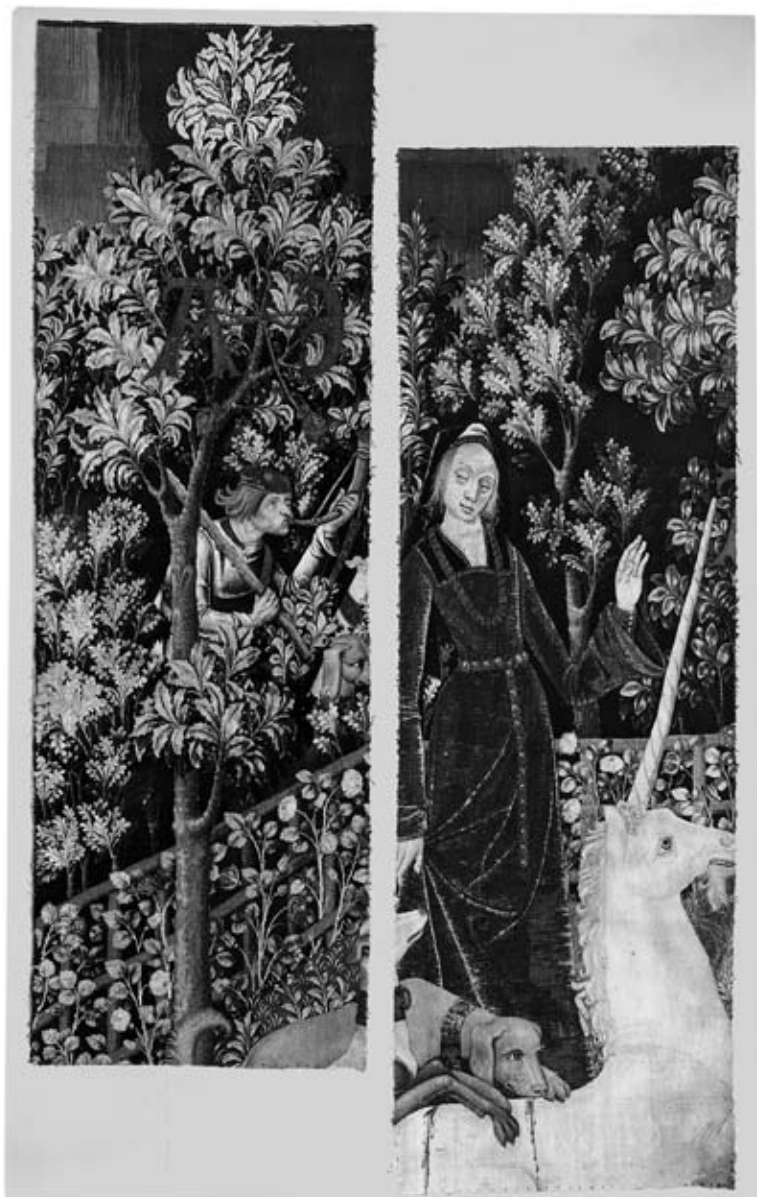
11 mm). The band, in fragmentary condition, is fragile and fraying, but the color preservation is good. This left edge is recognizable as the remnant of a start or finish border. It is woven with wool weft threads in four colors. The color sequence from inside to outside—at the widest area—is red (8 weft threads), orange (3 weft threads), pale brownish purple (6 weft threads), and beige (10 wool weft threads). The number of weft threads determines the width of each stripe, but the width of the original band cannot be established. The weft yarns of orange and light brownish purple wool in the border do not recur in the pictorial imagery of the tapestry fragments.¹⁸ The start and finish borders did not serve a decorative purpose but, rather, were turned to the back after removal of the tapestry from the loom. Frequently, tapestries were woven from the back with the image positioned sideways to the weaver. Once removed from the loom, the tapestry would be rotated 90 degrees so that the image would be in the desired orientation. The start and finish borders then resembled the right and left edges of the tapestry. In fortuitous cases, these borders survive. It is often the top and the bottom edges that suffer the most from handling and display.

In examining a tapestry, it is often difficult to determine the side from which it was woven. Technical examination of *The Mystic Capture of the Unicorn* suggests that the tapestry to which the fragments belong was woven from left to right

(when seen from the reverse with the image in the desired orientation). Throughout the fragments, nineteen areas can be found where either four warp ends merge into two or three warp ends merge into one warp. When facing the fragments from the reverse in hanging position, the number of merging warps increases from the left to the right edge: six merging warps are present on the fragment depicting the maiden's companion, and thirteen are found on the fragment illustrating the hunter (see Figure 9). None is visible on the smallest fragment.

When the warp concentration was too high, warp threads would abrade from the friction created during the weaving process and could eventually break. The weaver would not necessarily incorporate the broken warp back into the weave: the warp would be “dropped.” In the fragments the location of these dropped, or merging, warps appears random. If the tapestry is viewed from the reverse, however, it can be seen that “dropped” warps increase toward the (suggested) end of the weaving. In tapestry weaving additional warp was commonly added for the weaving of a delicate passage, such as a face or a hand, but this is not a significant factor in the fragments, where the warp count increased by one warp only in the face of the maiden's companion, changing from seven to eight per inch.

The colored band on the left edge of the fragment depicting the hunter is not even, and the weft threads are not



10. The three tapestry fragments of *The Mystic Capture of the Unicorn* (Figure 1) as they arrived at the Museum in 1938, nailed to a backboard



11. During a 1974 treatment the three fragments (see Figure 1) were remounted, exposing all of the original weaving. The finished piece measured $78\frac{1}{2} \times 57\frac{7}{8}$ in. (199.4 x 147 cm).

perpendicular to the warp. With the loom furnished with newly strung warp threads, the weaver began the hanging by inserting continuous threads in different colors to create a band, called the starting band. At the completion of the weaving, the weaver created the same striped band, the finishing band. The finishing band can pose a challenge, especially after weaving a complex pictorial design. Some unevenness could also occur from warp shrinkage, however, after removal of the finished tapestry from the loom. As the tapestry is cut off, the tension is released and the once-taut surface becomes pliable.

If indeed these observations support the suggestion that the tapestry to which these fragments belong was woven from the left side to the right, the maiden (of which only the

right hand and sleeve survive), dressed in her richly brocaded cloth of wool, silk, and metallic threads, would have been woven before anything else in these fragments.

The fragments had undergone treatment prior to entering the Metropolitan's collection. A handwoven rectangular piece in tapestry weave measuring $9\frac{1}{2}$ by $25\frac{3}{4}$ inches (24 by 65.3 cm) had been joined to the upper edge of the fragment depicting the hunter, completing the missing top of the foliage. A narrow tapestry-woven strip of 1 by $16\frac{1}{4}$ inches (2.5 by 41.2 cm) was joined to the small fragment, straightening its ragged edge. The fragments arrived at the Metropolitan nailed to a backboard (Figure 10). When removed from the backboard, nail stains remained, as can be observed in photographs taken at that time.

During 1937 and 1938, the conservation of the set of Unicorn Tapestries was in the hands of Baroness Wilhelmine von Godin.¹⁹ She and four assistants prepared the six newly acquired tapestries for exhibition in the course of one year. Under her supervision, the tapestries were wet-cleaned in the Cloisters courtyard and fragile areas were consolidated.²⁰ The delicate top edges—the tapestries had once been carefully trimmed around the landscape and treetop lines—were supported by being placed on pieces of blue fabric, which were deliberately dyed unevenly to resemble the missing sky. A note in the files warns that if these modern additions were exposed to water the dyed fabric would “bleed out black.” In addition, gallons (narrow woven strips, usually found on the outermost edges of tapestries)—assembled in many smaller strips—were handwoven by the baroness and her assistants, duplicating the originals. These gallons were sewn around the sides of each tapestry, covering what had survived of the fragile original borders.

The fragments were remounted by the baroness onto a new support. In an effort to exhibit a piece with even sides, the fragments were squared off: the later addition joined to the left fragment was turned to the back, and $9\frac{7}{8}$ inches (25 cm) of the original weaving depicting the maiden’s companion was turned under, hiding a large part of the unicorn’s body. The outermost perimeter was wrapped around the sides of the frame, hiding part of the original fragment, including the narrow band on the hunter fragment. To fill the vertical gap between the fragments, a dark fabric was placed on top of the inner edges of the fragments, slightly covering part of the original. In this configuration, *The Mystic Capture of the Unicorn* was on display for nearly thirty-five years (see Figure 3).

Further conservation was undertaken in preparation for the exhibition “Masterpieces of Tapestry from the Fourteenth to the Sixteenth Century,” mounted in 1973–74 at the Galeries Nationales du Grand Palais and the Metropolitan Museum. Included were the famed tapestries *The Lady with the Unicorn*, from the Musée de Cluny, Paris, and sections of the *Apocalypse Tapestry* housed in the tapestry museum in the Château d’Angers.²¹ Among the Metropolitan’s twenty-two contributions to the exhibition were the seven Unicorn Tapestries.

In preparation for the exhibition, the fragments were taken down from the walls of The Cloisters. A departmental memorandum dated November 10, 1972, from Curator Margaret Freeman to Director Thomas Hoving proposed a change in the mounting:

It has long seemed to me a great pity that such a large section of the right hand fragment should be turned under in order to make a pleasing rectangle. Would you consider keeping it intact and adding a blank piece of rep [ribbed fabric] (similar to the

strip between) to square things off? The top of the left fragment could remain turned under since it is a restoration.

Hoving quickly responded. His memo dated November 22, 1972, to Curator Timothy Husband simply said: “Let’s do it. Please return photo to Peg Freeman.” Husband then contacted Nobuko Kajitani, the conservator responsible for the textile collection. His memo dated December 6, 1972, stated:

Attached are the photograph and memoranda relating to the Unicorn fragment. The upper left restored area should remain turned under and the blank area below filled with a neutral material similar to what is presently used in the vertical strip. Would you kindly send the photograph to Miss Freeman in the Medieval Department when you are finished with it.

A memorandum from Kajitani dated May 24, 1973, states that in preparation for the exhibition, the fragments required the following work: “Remove existing lining, straps, and webbing. Cleaning. Reweave missing areas. Apply lining, straps and webbing.”²²

The 1938 mounting was removed, and further discussions led to the removal of all the later additions.²³ The goal was to expose only what had survived from the original work, a practice then current in the field of textile conservation. Following wet-cleaning,²⁴ the fragments were placed onto a cotton cloth in rep weave. The texture of the cloth was pleasing, but it did not provide either a good color match or a good support. Acrylic paint was applied to areas on the mounting fabric that the fragments did not cover. Both were backed with a cotton muslin fabric. The narrow vertical gap between the two fragments on the right was closed by inserting a dark blue, plain-woven fabric in cotton underneath the loss. Mercerized cotton embroidery floss was used to affix the fragments to their support fabrics. A lining of polished black cotton was attached, and a Velcro band attached to webbing was sewn along all four edges for mounting on an aluminum frame.²⁵

The completed work (Figure 11) had straight top and bottom edges. The highest point of the hunter fragment was the upper point of the mount; the lowest point of the fragment with the maiden’s companion reached the lower edge of the mount. The right edge of the original served as the turning point for the mounting fabric, exposing the tapestry in an uneven shape. Along the left edge a margin of mounting fabric measuring about 2 inches (5 cm) was exposed.

In 2004, the fragments were again removed from the walls at The Cloisters and their condition was evaluated. Although their condition had held up, the 1974 support had long appeared unsuitable, having discolored from years of display, and no longer met Metropolitan Museum standards.

It was decided to remove the fragments from the support. Careful documentation and detailed photography followed. Samples for a new support were prepared, with the goal of producing a fabric that resembled the weaving of the original. Finally, three shades of beige wool yarns were dyed in the Metropolitan's laboratory and plied in various combinations to serve as the weft. Unlike commercially available fabric, the handwoven fabric in discontinuous tapestry weave creates a lively texture. Its warp is made of undyed wool, consisting of three yarns with a Z-twist, plied into an S-direction. The weft consists of two yarns with a Z-twist, plied into an S-direction.²⁶ For additional support, this fabric was joined to a heavyweight beige cotton fabric. The assemblage was then placed on a roller table and the fragments were aligned.

After the fragments were basted onto the new support, they were stitched onto it with DMC cotton embroidery floss. Because of the fragility of the hunter fragment, especially the tapestry's delicate border, selected areas were reinforced with dyed rep fabric before being attached to the main support. In addition, losses in the upper left and right corners were substituted with dyed wool rep. The narrow open space between the two fragments on the right was filled by embroidery stitches in colored wool yarn. This work was done on a roller, which allowed for the sewing to be done with one hand above the roller and the other underneath.

To provide optimum reinforcement, the fragments were mounted onto a rectangular fabric support, allowing at least a one-inch border around all four edges (see Figure 1). The fragments were finished with four straight edges (in contrast to the previous mounting, in which they were finished in an uneven shape). Thus, it was possible to stitch the hanging system (consisting of a Velcro strip sewn onto cotton webbing) through the modern material. This procedure allows for the tapestry to be attached to the solid support for installation on the wall (see Figure 1). The piece was lined with a beige cotton sateen fabric. A band of Velcro 2 inches (5.1 cm) wide was used along the top edge, and another band 1 inch (2.5 cm) wide along the remaining edges. The fragments were returned to their home in The Cloisters Unicorn Room.

Since the fragments of *The Mystic Capture of the Unicorn* entered the Metropolitan's collection, their conservation has been guided by existing state-of-the-art principles and techniques. As in other fields, however, textile conservation is ever evolving. The most recent conservation of the fragments began with a study of their composition and manufacture. The conservation of the fragments respected the surviving originals, but with a willingness to reverse previous conservation treatments. Drawing on the close study of the fragments, great effort was made to use supporting materials

that were close to the original materials in both composition and appearance. The most unobtrusive backing possible was employed, and the fragments were placed in proper relation to one another. The recently completed conservation of the fragments attempts to make the image easier to read while at the same time providing additional support. The intention is both to protect the fragments and to suggest, to the extent imagination will allow, a sense of the original tapestry, surely an equal to the other masterpieces that illustrate the Hunt of the Unicorn.

ACKNOWLEDGMENTS

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NOTES

1. Forsyth 1992.
2. See Rorimer 1938; Erlande-Brandenburg 1975, pp. 88–90; Freeman 1976; Salet 1978; and Williamson 1986.
3. Cavallo 1993, pp. 313–18, 325.
4. Cavallo 1998, p. 45.
5. Campbell 2002, p. 78.
6. *Ibid.*, p. 74. In fact, there is no consensus on the title of the fragments. The name given at The Cloisters is *The Mystic Capture of the Unicorn*. Some scholars prefer *The Mystic Hunt* or *The Unicorn Is Tamed by the Maiden*. Cavallo (in 1993, p. 297) divides the title into two, one for each larger fragment: *A Hunter Sounds the Capture of the Unicorn by the Maiden* and *The Maiden's Companion Signals to the Hunters*.
7. The approximate dimensions of the tapestries were listed in an inventory made in 1680. It also lists a short description of their condition. See Freeman 1976, p. 221.
8. The meaning of the AE cipher remains unresolved. See Campbell 2002, pp. 78–79.
9. The tapestries illustrating the Hunt of the Unicorn depict a large variety of plants that have symbolic meaning. Almost all of the 101 different species have been identified. See Alexander and Woodward 1941.
10. Helmut Nickel (1982) made an attempt to reconstruct the tapestry fragments, drawing on *Sight*, one of six tapestries in the series *The Lady with the Unicorn* at the Musée de Cluny in Paris.
11. Geneviève Souchal (1974, p. 78) suggests that the upper parts of the tapestries, which she believes must have borne coats of arms, were removed at the time of the French Revolution, when the Société Populaire of Ruffec urged the Société Populaire of Verteuil to destroy any tapestries with royal arms. Images that have survived showing the tapestries on display in the château of the La Rochefoucauld family at Verteuil about 1890–1900 indicate that the tops had been cut around the tree and landscape lines on four of the tapestries (MMA 37.80.2–5).
12. In 2007, Mark Wypyski, research scientist in the MMA's Department of Scientific Research, analyzed the composition of three different metal-wrapped thread samples using energy-dispersive

- X-ray spectrometry in the scanning electron microscope (SEM-EDS). He concluded that the metal strip wrapped around the silk core is gilt-silver.
13. For an explanation of how a tapestry was woven, see Campbell 2002, pp. 5–6.
 14. For a discussion on medieval gilt-silver-wrapped threads, see Jaro 1998.
 15. Dye analysis was performed in 2007 by Nobuko Shibayama, associate research scientist in the MMA's Department of Scientific Research, using high performance liquid chromatography (HPLC) with a photodiode (PDA) detector. Shibayama identified the following dyes: weld, dyer's broom, a madder-type dye (probably *Rubia tinctorum*), and an indigotin-containing dye such as woad.
 16. See Masschelein-Kleiner 1979, p. 38, and Schweppe 1993, pp. 81–82.
 17. For a definition of the stitches, see Thomas 1935, pp. 10–11, 156.
 18. Bands survive on four other hangings: *The Unicorn Is Found* (MMA 37.80.2), *The Unicorn Leaps out of the Stream* (MMA 37.80.3), *The Unicorn at Bay* (MMA 37.80.4), and *The Unicorn Is Killed and Brought to the Castle* (MMA 37.80.5). The color sequence from inside to outside is white, red, and pale purplish brown. The bands are fragile. Shortly after the tapestries entered the collection, the remnants of the original border were covered with a modern gallon. A small fragment on the lower left edge of the tapestry *The Unicorn Leaps across the Stream* (MMA 37.80.3) has been left exposed. It is discolored and soiled.
 19. Maloney 1939.
 20. The wet-cleaning procedure is described in Kajitani 1987, pp. 56–57.
 21. Souchal 1974.
 22. This was proposed by Kajitani in consultation with Knud Nielsen, head of the Conservation Department. All of the cited memos are preserved in the departmental files at the MMA.
 23. The later additions were placed in storage mounts and are housed in the Antonio Ratti Textile Center.
 24. The fragments were last wet-cleaned in 1972; see Kajitani 1987, p. 57.
 25. The occasion of the 1973–74 exhibition prompted the use of frames that were lightweight and easily assembled, and could also be used for displaying the tapestries at The Cloisters. The frames are constructed of aluminum. Similar frames are used for other tapestries at The Cloisters.
 26. This yarn was custom-spun by Allen A. Fannin to Nobuko Kajitani's specification. Since 1982 it has been used in the department as warp and weft replacement in the restoration of tapestries.
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