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Extraordinary Findings: The Conservation & Investigation of an Italian Renaissance Dantesca Chair

This paper presents a case study and the journey an artifact can take a conservator. It begins, at the author's conservation studio in a rural part of upstate New York, just outside the capital. This is where the curator of The Hyde Collection, Erin Budis Coe, brought me one of two dantesca or X-frame chairs to conserve from the collection.

The Hyde Collection is a small museum in upstate New York that combines the intimacy of Hyde House, the historic home of museum founders Louis and Charlotte Hyde, with a modern art museum complex. The collection consists of an impressive array of European Old and modern Masters and works of American art, and antique furnishings. The Italian Renaissance carved walnut dantesca or X-frame chair was treated as part of a restoration effort to return the Hyde's home to an historic appearance during the first half of the twentieth century.

Mrs. Hyde was born in Glens Falls, New York, into one of the leading industrialist families of the Adirondack region. The Hyde family wealth stemmed from the paper and pulp mill known as Finch Pruyn and Company owned by Mrs. Hyde's father, Samuel Pruyn. While at finishing school in Boston in the late 1880s, Charlotte Pruyn met Louis Fiske Hyde (1866-1934), a young Harvard law student and they were married thirteen years later. In 1907, Louis Hyde accepted a position in the family paper business. The couple returned to Glens Falls and Mr. Hyde became vice president of the family mill. In 1912 the Hydies hired the Boston architect Henry Forbes Bigelow to design a two-and-half story Italian Renaissance-style villa to provide the setting for the display of their growing collection of Old Master paintings and antique



Figure 1. Historic view of music room during height of Mrs. Hyde's occupancy.

European furniture and decorative arts. (Figure 1 and Figure 2)

This paper will discuss the upholstery foundation below the red velvet show cover of the Hyde's X-frame chair. Upholstery materials are the most vulnerable parts of seating furniture, damaged by physical wear and light exposure. Therefore, they are typically discarded and replaced. Conservators often only find small fragments of original fabric under tacks or fibers in tack holes. It is with these bits of physical evidence that how the foundation materials were applied and used earlier in the object's history is surmised.

What is exciting about this chair is that an entire seat foundation is present, but the question is from what period? How does the shape of the seat help us in determining when it was attached to the chair frame? Could it be an attempt at faking an old seat for a growing antiques market in the nineteenth century? In the twentyfirst century, do we distinguish between a nineteenth century fake vs. interpretation of an earlier upholstery layer? While I had entertained hopes that the foundation was much older, I now believe that this chair has an interpretation of what may have been an early foundation on this chair. It is possible that Mrs. Hyde's chair is representative of the transition of X-frames from a folding design to a fixed frame.

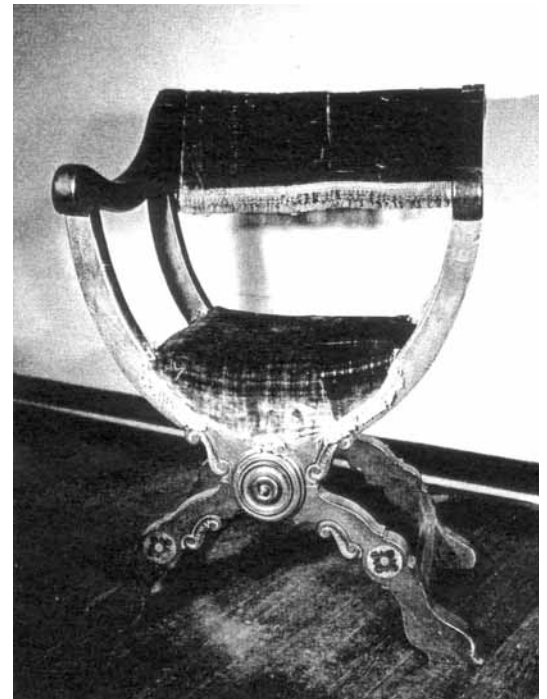


Figure 2. A historic image of the chair.

The elements present within this chair may broaden our understanding of the dantesca or X-frame chair and can be used as a comparative for other existing chairs. Following are some of the relevant details observed. Unfortunately, during this study, many existing publications concerning Italian X-frame chairs could not be located. Therefore, many of the references are derived from English chairs.¹

The goal of this treatment was to interpret the show cover and trimmings to how they were during Mrs. Hyde's occupancy of the home during the first half of the early twentieth century. Therefore this seat was left undisturbed and unaltered so that it still created the desired profile. The new show cover is simply stitched to sewing bases, thus the foundation can be easily viewed in the future. It is important to bear in mind that the heart of the conservator's role is to look deeply at the details as explained below.

General History

The X-frame is an ancient form of chair, dating to Egyptian and Roman times. This form was particularly popular from the medieval period to the seventeenth century, due to its portability and its use as a status symbol. This folding chair became an integral part of domestic furnishings throughout Europe as noblemen traveled from house to house. They became popular in the fifteenth century and throughout the Renaissance period. These chairs were increasingly associated with a more comfortable type of padded chair. By the sixteenth and seventeenth century the chairs became more elaborately upholstered and often could no longer be folded.² The frames became heavy, rigid and almost entirely covered with upholstery fabric. Many styles included additional rails. In England, several important chairs have survived with their original upholstery virtually untouched.

Another surge of popularity was in the nineteenth century with the Renaissance and Gothic revivals. At this time, a market was created to feed the large demand. Often furniture, including old chairs, was reassembled marrying old parts and recreating others in order to create the desired appearance.



Figure 3. Juxon chair & stool, used by Archbishop William Juxon at Charles II's coronation, 1661. Upholstered by French Upholsterer John Casbert.

¹ The conservation and research of upholstery layers is now well established in the United Kingdom and United States. This same wealth of knowledge does not appear to be as well established in other countries of Europe.

² In Mr. Thorton's book, (*Italian Renaissance Interior, 1400-1600* New York: HN Abrams, 1991), several Italian portrait paintings are illustrated where the sitters are sitting in chairs that begin to appear not to be regularly folded. The portraits are of noblemen and woman. The symbol of the X-frame chair is boarder representing wealth or important events, compared to X-frame chairs in England that is still used for royalty at the same period.

History & Description of Hyde Collections' Chair

The provenance of the X-frame chair is traced to the 1920s when Mrs. Hyde purchased it from one of her favorite New York City dealers, either French & Company or Brummer Galleries³. Both of these dealers provided art and antiques to the American cultural elite who viewed themselves as the heirs apparent to the great art patrons of the past. The result of this gathering of art helped to form the collections that are now part of many American museums. Mrs. Hyde did not just collect an early antique chair to display in her home, but her sensitivity to the historical integrity of her collection caused her to maintain physical documents including under upholstery materials that greatly aid our understanding of the historical development of this seat.

This chair has been dated to the late sixteenth century, Italy. At this time, the dantesca chair was favored within the large city centers (of Italy). It is made of walnut with fruitwood inlays of quartrefoil florettes located at the front of each leg. The arms of the chair dip down from the back. The legs are highly decorated with carving and inlays. Of note is the carved head located on the "X" intersection at the back. The seat and back are both flat in profile. While the chair cannot fold, it has a construction that would allow it to fold.

An early photograph of the chair shows it with the old red velvet show cover. It is not known when the red velvet was first attached to the chair, whether by Mrs. Hyde or by the dealer. It is known that Mrs. Hyde reused fabrics, in some cases historic ones purchased on trips to New York City. The velvet does appear to have had a previous use⁴. What is known is that the red velvet was removed and buff colored leather was placed on the chair sometime in the 1970's at a time when the interpretation of Hyde House was undergoing significant changes. The house had become a public museum upon Mrs. Hyde's death in 1963.) The leather was probably selected because it was considered an appropriate show cover for this chair. Leather was quite common historically due to its toughness and longlasting quality. When the leather was attached, the removed velvet was accessioned by the museum and stored with the collections. This saved document allowed the curator to select exact reproduction fabrics and trimmings suitable to the interpretive period of the restoration project.

³ Communication with Curator, Erin Budis Coe, Feb. 2005.

⁴ The early black and white photograph shows clearly an off-center seam located on the seat that runs front-to-back. When the piece is seen from above, the seam runs diagonally and the two halves have different fabric directions. (The red velvet seat accession number is 1972.256 and the red velvet back is 1972.303.)

Findings & Interpretation

The different aspects of the chair's structure that will be discussed are as follows:

- The webbing layer
- Stuffing material and related stitching
- Shape and thickness of the seat
- The quilting pattern
- Decorative Nails
- Show cover

Each aspect will be compared with historical evidences found with the hopes to better understand the seat.

Webbing Material

The webbing support was the initial unusual feature of the chair that became more unique upon examination. Each individual webbing is $3 \frac{3}{16}$ " wide, woven in a warp faced plain-weave (20 warps x 5 wefts tpi) and is light brown in color. A total of 5 widths of webbing support the entire seat. Each width is whip-stitched to its neighbor, to create a continuous layer that runs parallel to the front and back rails. The sewing thread or cord used appears darker than the webbing, and has a $\frac{1}{16}$ " diameter. They are lightly spun and "S" plied. The selvedge edge of the webbing cannot be seen due to the tightness of the sewing. What is intriguing is that the webbing forks on one side of the seat, creating webbing that is half the width. Thus on one side of the chair there are twice as many stitch rows as the other. (Figure 4 and 4a)



Figure 4a. Webbing.

Cross Section of Seat Webbing

Five webbing widths, stitched together cross-sections
Warp faced plain-weave (20 warps x 5 wefts tpi)

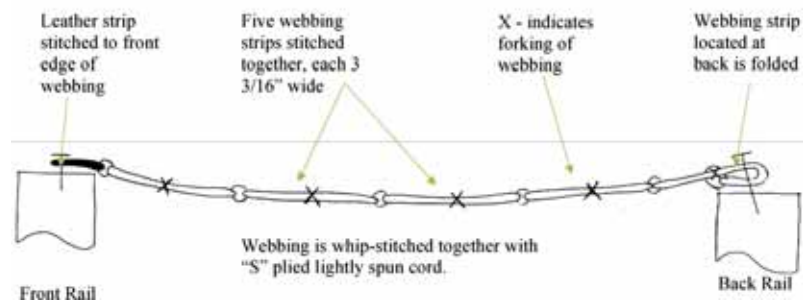


Figure 4. Cross-section of seat.

The shorter stitched rows are about 9" long from the rail to the center of the seat. The forking is not necessary for the purpose of the seat. Does this show an adoption of an available material by the upholsterers? Or were they reproducing a material that they were removing? What was the intended use of this webbing? Was it a 19th century Italian interpretation?⁵

Another interesting aspect of this webbing is the spin direction. This webbing has a mixture of "Z" spun and "S" spun threads. It is hard to tell if there is any pattern to it, but it seems to switch from "z" to "s" and back about every 32-38 warp-threads. This creates a slight chevron effect. What was the intent? Could the difference in twist be the result of different spinners being the source of the thread? Was it done for better wear or perhaps as a method to prevent the webbing from torqueing or twisting? Or for strength during weaving.

The front webbing strip is whip-stitched to a strip of leather. This leather strip is attached to the front edge of the webbing support and then brought over and attached to the front rail. This is an unusual technique. Could the addition of the leather be a mend? Was it added later? Or was it attached because leather would wear better than the linen webbing? The webbing strip located at the back of the chair is folded in half, secured with stitching and then nailed to the top of the back rail only on the outer sides. The ends of the webbing are folded under and attached to each side rail. The ends are held with large headed tacks with a narrow strip of leather positioned under the tack.

The Hyde X-frame chair is comparable to one owned by the Courtauld Institute of Art in London. (Figure 5) It is seventeenth century Italian. The frame is metal with wide webbing. Each strip is placed next to one another to form a continuous support. What is unclear in this image is if they were stitched together at one time, as well as its age. However, solid continuous webbing similar to Mrs. Hyde's chair is present.

A continuous layer of webbing such as mentioned above can be associated with the "French" technique of tightly placed webbing that brings up the question of how far in Europe this technique extend. France is well positioned along trading routes to and from major Italian citystates as well as other centers in Europe.

This example of webbing seen in illustration 6, is from one of three matching late 17th century stools with their original foundations from Skokloster Castle in Sigtuna Sweden. Each of the 5 strips of webbing is 3" wide, and stitched together creating a continuous layer. The layer is tacked to the top



Figure 5. X-frame chair owned by the Courtauld Institute of Art. (Inventory number F.1947.LF.12).

⁵Even the method of construction of such a forked material seems suspect and more labor intense.



Late seventeenth century stool from Skokloster Slott - viewing the underside of the seat.

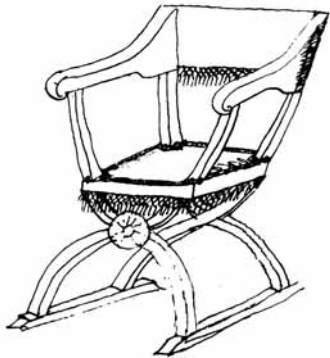


Figure 7. Sketch for a set of eight X-frame chairs commissioned for Medici Guardaroba, 1590. (Unknown artist from Archivio di Stato, Florence).

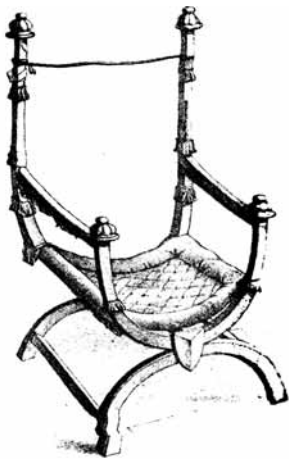


Figure 8. Yorkminster X-frame chair.

edge of the frame with a strip of white leather and nailed on four sides. This method of applying webbing in Sweden is referred to as “Dutch” webbing. It is also known that Carl Gustaf Wrangel (1613-1676) purchased many chairs and stools from Holland. However, this same webbing technique does not appear to be known in Holland.⁶

Stuffing Material

The stuffing material found on Mrs. Hyde’s chair is a combination of plant fibers. This is a lesser quality material, when compared to feathers and down as found in earlier chairs such as the Juxon chair’s deep seat, cushion and stool. (Figure 7) This chair and stool has its original materials and a known provenance. It dates from 1661 and was used by the Archbishop William Juxon at Charles II’s coronation.⁷

In Italy, accounts state the use of feathers as recorded in a commission with accompanied sketch for 8 x-framed chairs by the Medici (Guardaroba in 1590), which were to be stuffed with feathers. The description for this set continues to depict the show cover as black velvet trimmed with netted fringe.⁸ (Figure 8) Peter Thornton’s research on this commission mentions that the use of feathers was uncommon at the time.⁹ Plant material was less expensive and better represents Mrs. Hyde’s chair.¹⁰

Shape of the Seat

The shape of the seat is quite thick with a flat profile and completely fills the entire upper half of the leg supports. The seat structure is a top layer of linen, plant fibers, followed by webbing. This construction is quite different from the common x-frame seats, which have a sling seat that conforms to the body. These seats were composed of the support, possibly padding, and then the show cover. The thin profile of these seats allowed for the chair to be folded and thus portable.

Such a sling seat was investigated by Caroline Rendell on the Yorkminster Chair.¹¹ It is believed to have been constructed in the late sixteenth or early

⁶ Mats Grennfalk tells a story of talking to a Dutch upholsterer who had not heard or seen this technique.

⁷ Much has been written about this important chair. It was recently conserved for the new Victorian & Albert Museum’s galleries. Recent research has identified both its upholsterer as John Casbert who was supplied silk velvet and “fringe maker” Ralph Silversen for the gold trims. John Casbert was a French Upholsterer, who supplied furnishing furnishing for other royal palaces. (Communications with D. Balfour, 2005) www.vam.ac.uk

⁸ Peter Thornton, *Italian Renaissance Interior*, Pg. 184

⁹ Horsehair was not used for padding before 1660 in Europe. (P. Thornton, pg 129)

¹⁰ Horse hair that is present on the top of the seat most likely is associated with Mrs. Hyde’s time.

¹¹ Rendall, C. “The Archbishop’s Chair – York Minster” pg.14-20.

seventeenth century. This seat consisted of a silk velvet top layer with leather below. Hair padded the seat and a plain-weave, linen fabric served as the support. She found many of these layers to be original. (Figure 9)

In contrast, Mrs. Hyde's chair has a thick seat that cannot be folded, as well as a metal brace, one located at the front and back of the seat. It is a hand wrought metal sheet. It appears not to have been moved or altered since it was applied. Large rose-head nails were used to secure the brackets. There is one located on the back as pictured here (Figure 10 next page) and one at the front rail. Each bracket tapers at the center where it bridges the rails. Examples of the shift of non-folding chairs in England have an additional horizontal rail at the base of the seat, thus preventing folding.¹² These chairs with a horizontal rail generally have larger dimensions. The Juxon chair is 50" x 33" inches. Mrs. Hyde's chair measures 26" x 25".

The afore mentioned seat styles do not match the seat shape of Mrs. Hyde's chair. Could this mean that the seat is from a later campaign? Is this due to the smallness of Mrs. Hyde's chair that in essence a full seat was added with the metal braces and secured to the leg supports? It is conceivable that this thick seat, which prevents the chair from folding, is a nineteenth century reinterpretation. Evidence that supports this scenario is this second row of nails, and staining of the wood as shown here by the blue arrows below.

Quilt Pattern

Several examples exist of quilted show covers on chairs and in period paintings. The quilting helps hold the layers together with some padding, which was borrowed from saddle construction methods. This sketch (Figure 11) is an early-recorded example of quilting as seen in a 1590's sketch of a reclining chair for King Philip II of Spain.¹³ The back, seat and arm rests are padded with quilted upholstery stuffed with horsehair.

The top linen layer¹⁴ on Mrs. Hyde's chair represents the underside of the quilted layers.¹⁵ Thus the upper show cover and padding are missing. Now if you look closely at the outer linen fabric, you can see vertical rows of stitching with each stitch hole about 1/2" apart. At the center is a panel with a chevron



Figure 9. Bracket located at Chair's seat back.



Figure 11. Quilting pattern located on the top linen layer.

¹² Mr. Thorton has noted in his extensive research that chair makers continued to construct X-frame chairs well into the seventeenth century with an actual scissor-action even after additional elements were added, like the horizontal rail that made the chairs no longer able to fold. Mrs. Hyde's chair is constructed in a full scissor method in order to fold.

¹³A similar reclining chair is in a collection in Sweden at Skokloster Castle, also with original upholstery.

¹⁴ Please note this horizontal row of stitching marked by the black arrow was to create the edge roll. It is possible that this was done during Mrs. Hyde's ownership.

¹⁵ The linen is 28 warps x 22 weft threads per inch and all of the threads are "Z" spun.

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design. The chevron design is not present on the back. This is clearly evidence of quilting. No stitching thread evidence was discovered, but the York Minster Chair with a central quilted lozenge pattern might be a possible technique. Here Ms. Rendell recorded that the stitching was worked with two strands of linen thread using a saddle making technique. She describes this as “The upper thread is held in place catching the thread and passing through the same hole on its downward path.”¹⁶ The holes left in the linen of Mrs. Hyde’s chair are large enough to accommodate two strands.

Ms. Rendall continues that the underside of the linen was cut at the centers of each diamond where the hair was stuffed. Over-casting stitches that were used to close the slits were still present. This technique does not appear to have been used on Mrs. Hyde’s chair. It is possible that due to the thick seat, little padding between the show cover and linen was actually used.

Could the design of the quilting be any indication of its age, origin or maker? Mrs. Hyde’s central chevron pattern shows more attention to being decorative, alluding to the wide array of quilted designs on saddles from the same period. Compared to the quilted examples from original seats mentioned above, as well as seats later applied to frames, are in a simple grid pattern that seems more utilitarian and functional.

Could this fabric have been removed and then replaced? Since it is so well positioned with the chevron pattern centered perfectly, it is unlikely, taking too much of the upholsterer’s time for a layer that would later be covered. In addition, no evidence of tack holes related to an earlier positioning on this fabric is present. However, might it have been left to fool the dealer as to the chair being older?

The quilted linen has two additional linen pieces, located between the stuffing and the webbing layers. They do not extend to the back of the seat. The top layer is a plain weave, and the lower a twill weave. Both are 9” or 23cm wide, and are nailed to the front rail. It is possible that they were used to bridge the gap that the legs make at the joint fold to smooth the transition.

Nails & Tacking

What secures this fabric to the front rail are five large nail heads that are evenly spaced. The heads are made of copper alloy sheets, each are shaped differently as if deliberately cut and slightly smoothed as if to create a less visible sur-

Cross Section of Seat

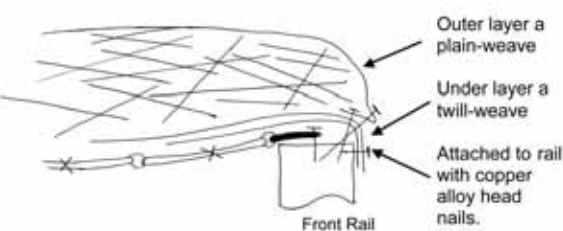


Figure 12. Cross-section of the seat's foundation layers.

¹⁶ Rendall, Caroline. “The Archbishop’s Chair – York Minster” pg. 16.

face under the newly applied show cover. The locations of these nails are somewhat unusual. However, they are following the same curve of the staining mentioned earlier. Several chairs at the Hyde have decorative large head nails. The decorative nails have a square iron shank that is embedded into lead on the inside of the brass sheet, which creates the head. This nail and others within the Hyde collection are likely to date to the mid- to late nineteenth century. Could the nail illustrated here be similar to the nails found on the x-frame chair?¹⁷

Show Cover

The show cover associated with the quilted linen was leather. There were leather fragments found behind the decorative nails. There are also incised lines on the front and back rails that follow the staining, most likely created when the excess leather was trimmed away with a sharp knife.

All of the documentation mentioned has been kept and left unaltered due to the minimal needs of the treatment goals. The new red velvet is simply stitched to sewing bases thus the foundation materials can be easily viewed in the future. The sewing bases are cut to shape from Nomex, a dense non-woven olifin, and covered with a cotton fabric. The sewing base is secured to the frame with brass brads into original holes. Each of the added layers is secured to the sewing bases with herringbone stitches.¹⁸



Figure 13. Chair after treatment.

Conclusion

Given the information presented, is it possible that upholsterers of the mid-nineteenth century have the working knowledge of upholstery techniques of one to two hundred years prior to their time? If so, this familiarity would have provided them the ability to more readily fabricate them. But how accurate? Or is it that they were interpreting these techniques to their own ideals? If so, what was added at that time and what layers could they have left?

How much of what we have interpreted concerning Mrs. Hyde's chair is a reflection of the dealer she purchased the chairs from? What quality of products did French & Company or Brummer Galleries import to provide for their clientele? Were they interested in the upholstery layers? I would like to think so, but this may be naive. It may not be possible to answer these questions. Research of dealers and their clients during the early twentieth century has now begun.

¹⁷ The shank will be what is revealing to these nails. They were not removed during treatment. Communication with Nancy Britton, February 2005.

¹⁸ The new red silk velvet was woven by Prella (200 Lexington Ave, Suite 407, New York, NY 10016. Terry@prelle.com)

Does the webbing technique help us to infer what region it's from? Or could the measurements or dimensions indicate its region? A centralized measure system was not in place in Italy till the metric system was introduced in the nineteenth century and then only gradually. Each region or city-state in Italy had its own individual system and allotted amounts for length, area, volume and currency, and thus their own conversions into the metric system. Researching the slight differences between systems has allowed musical instruments' manufacturing centers to be located, thus identifying the location where a specific harpsichord was made.¹⁹ Could better understanding this practice help in placing the region of this or other chairs?

The most obvious reason for the seat to still be present is that this chair is fixed. There are metal braces attached to the top edges of the legs that prevent it from folding. Therefore, it did not experience the flexing of the textile seat elements that the folding dantesca chairs would have undergone.

This X-frame chair still holds many questions that have yet to be answered, such as, what is the true date of this chair? How old are the foundation materials? It is hoped to do more research concerning this chair, including scientific analysis and dating that was not possible at the time of the treatment.

¹⁹ O'Brien, Grant. "The Use of simple geometry and the Local Units of measurement in the design of Italian Stringed Keyboard Instruments".

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