Reading Artists' Minds in Parchment: Works by Umehara Ryuzaburo and Paul Klee

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There is something incongruous about the pairing of Artizon Museum, renowned for its early modern collection, and parchment, the use of which peaked in the Middle Ages.

Parchment is a material, primarily used as a writing surface in medieval Europe, which is made from the skin of sheep, goats, or calves. The skin is dehaired, stretched on a wooden frame, scraped clean, and dried. The side on which hair grew is called the "hair side," and the side that was inside the animal's body is called the "flesh side." This makes it sound like a rather gruesome affair.

As a matter of fact, Artizon Museum has in its collection two early modern works on parchment, that largely moribund product of the Middle Ages. The two works are *Notre-Dame de Paris* (1965) by Umehara Ryuzaburo (1888–1986) and *Scene from a Hoffmann-like Tale* (Hoffmanneske Märchenscene) (1921) by Paul Klee (1879–1940). Despite their use of this material rarely seen in modern art, in both works paint or printing covers almost the entire surface, and the presence of the parchment is hardly noticeable.

Records describe the works as being on parchment, but is this the genuine article, made from animal skin? If it is, then is it possible to identify which side (hair or flesh) the works were painted or printed on? Is there a reason the artists elected to use parchment? To answer these questions, I conducted studies of these two works and their supports in particular.[1] A combination of data from the studies and related literature was used to infer possible reasons for the use of parchment.

2. *Umehara Ryuzaburo's Notre-Dame de Paris*: Outline of Work and Results of Study of Support

Outline of Support

This oil painting by Umehara Ryuzaburo was produced in Paris in 1965. The museum lists the materials as "oil on parchment," but as the paint covers the entire surface, no parchment can actually be seen.

The record of the work's 1989 restoration clearly states that the support consists of parchment.[2] A letter written by the artist himself describes using "sheepskin" for a work produced in Cannes the same year.[3] Judging by this documentation, it seems almost certain that parchment was used for the work, but I sought to verify this through close observation of the support.

Support Study Procedures and Results

When the painting was removed from the frame, it was found that the support's reverse could not be observed as it was pasted on a wood panel, and tape pasted around the sides meant that there were no exposed areas for observation. There was one area on the upper right, approximately 1.5 mm in width and 50 mm in length, where the paint had peeled off and the support was exposed, and only this tiny area could be inspected.

Observation with the naked eye confirmed only that the support was pure white, but on magnifying it with a simple microscope and taking several photos at 60X magnification, long collagen fiber bundles were found to run in a linear formation. These fiber bundles were thick, with relatively large gaps between them, and a coarse, low-density structure. Based on this observation, it could be assumed that the painting was executed on the flesh side of a piece of sheepskin.

Photos of contemporary parchment made from various animal species were taken at the same magnification for further assessment: the flesh and hair sides of sheepskin parchment and the flesh side of goatskin and calfskin parchment. Comparison of the fiber bundle structures in these photographs with those in the work showed that the surface of the latter bore a strong resemblance to the flesh side of sheepskin parchment.

While it was not possible to touch the support directly and only a minuscule area was exposed, within the extremely limited scope of observation, it could be inferred that the piece was painted on the flesh side of a sheet of sheepskin parchment.

2. Possible Intent Behind Painting on Flesh Side of Sheepskin Parchment

Based on these observations, let us consider why the artist used sheepskin as a support, and painted on the flesh side in particular.

Examples of Oil Painting on Parchment

Generally speaking, use of parchment as an oil painting support is not well documented, but historically there have been a significant number of examples. Oil paintings on parchment pasted or stretched on wooden panels have been produced since the 15th century, when oil painting was established as a medium. This process was used because it was easier to paste parchment on a wooden panel than it was to give the panel itself the desired degree of smoothness. A self-portrait by Albrecht Dürer (1471–1528) (1493, collection of the Louvre) is a classic example of oil painting on parchment.

Use of parchment for oil painting declined after the

emergence of canvas. Overall demand for parchment fell drastically due to the development of printing technology and the widespread adoption of plant-fiber paper, and parchment became difficult to obtain. Gone were the days when parchment was used because it could be procured easily and conveniently, and it became a rare material only used on special occasions. In some cases, parchment may have been used experimentally because an artist happened to obtain this uncommon and interesting material and enjoyed the challenge of painting on it.

Parchment in Mid-20th Century France

In France circa 1960, around the same time Umehara made the above work, the publisher Joseph Foret (1901–1991) was supervising production of a magnificent parchment manuscript codex entitled *L'Apocalypse*. Seven eminent painters of the time, including Foujita Tsuguharu (1886–1968) and Salvador Dalí (1904–1989), each painted three depictions of the apocalypse on parchment, texts were copied by calligraphers, and the works were bound together into a codex.

Video documentation shows that for this project, 200 sheets of high-quality lambskin parchment were carefully selected from among the products made by parchment manufacturer Bodin-Joyeux.[4] Examination of the surfaces of three works by Foujita, currently in the collection of the Yamanashi Prefectural Museum of Art, revealed conspicuous pores indicating that they were painted on the hair side.

Another work on sheepskin parchment is a drawing (1939, currently in the author's collection) made in Paris by the Belgian artist Nicolas Eekman (1889–1973). The hair side of this parchment was scraped fairly roughly, leaving sharp scraping marks, while the flesh side is quite smooth.

These examples suggest that use of parchment was not uncommon in mid-20th century France. However, the hair side of parchment from this era was not completely smooth, and pores and scraping marks were prominent. In fact, the Art Deco interior designer Jean-Michel Frank (1895–1941) took advantage of the natural unevenness of the hair side to accentuate the texture and depth of his furniture's surfaces.

Possible Reasons for Using the Flesh Side of Parchment

As to why Umehara painted on the flesh side of the parchment, we can assume that he preferred to use the smoother side for his work. Probably he simply chose the side that was smoother and easier to paint on, without consciously considering the distinction between hair side and flesh side.

On the other hand, examination of the work in person reveals that the oil paint was applied thickly, to the extent that there is no need for concern over subtle unevenness caused by pores or scraping marks. On the contrary, if paint was to be thickly applied, a somewhat rougher surface would have better ensured that the paint did not flake off. So, if Umehara intentionally selected the smoother surface for this work, why did he do so?

One possible reason is the use of gold leaf. It is not visible to the naked eye, but the record of the 1989 restoration clearly states that "gold leaf was applied to nearly the entire surface, except for the building in the center."[5] The luster of ultra-thin gold leaf is greatly affected by the texture of its substrate, and the smoother the substrate, the brighter the gold leaf will shine. Naturally, smoother parchment makes gold leaf more lustrous. To maximize this effect, illuminated manuscript artisans in the medieval Byzantine Empire went so far as to polish parchment with smooth stones or even coat it with egg white.

This work depicts the majestic silhouette of Notre-Dame Cathedral standing amid the dazzling morning sun and the sparkling river. We can infer that the artist chose parchment, and especially its smoother flesh side, rather than noticeably rough-textured canvas because he intended at the start to express dynamic contrasts of light by accentuating the luster of gold leaf in the background.

Later, however, the gilt section was covered with gold, silver, and blue paint. In the finished work, neither the glitter of gold leaf nor the presence of the parchment is evident. Did the artist change his mind as the work progressed, aiming to capture light in an unchanging manner with paint rather than utilizing the inherent luster of a material (gold leaf) heavily influenced by ambient light? Or were there other, deeper reasons for this change? This remains an open question for future research.

Next, let us turn to the work on parchment by Paul Klee.

3. Paul Klee's *Scene from a Hoffmann-like Tale*: Outline of Work and Results of Study of Support

Outline of Support

This work is one of 110 lithographs produced in 1921 as part of a collection of works by Bauhaus teachers.[6]

As with Umehara's work, the museum lists this work as printed on "parchment." However, as nearly the entire surface is printed and even the unprinted margin gives no clue to the material upon visual inspection, it is difficult to visually identify the work as executed on parchment.

Support Study Procedures and Results

The piece is mounted on white archival cardboard. Only the top is hinged to this cardboard base, so it is possible to lift the work, measure its thickness, and observe the reverse.

I began by visually examining the work, then touched the support with bare fingers to feel its texture. The support's color on the printed side is a subdued cream, and the reverse is white. Next, I checked the smoothness by touching the support. The printed surface felt like normal copier paper, but the reverse had a fine, bristly fuzz like that of peach skin, which was consistent over the entire surface.

At this point it seemed virtually certain that the piece was printed on calfskin parchment, based on an overall assessment of the printed surface's smooth texture with virtually no pores and so forth, the stiffness, and the color differences between the two sides.[7] The hair side of parchment tends to be more deeply colored due to melanin content. The peach skin-like texture of the reverse is often observed on the flesh side of calfskin parchment. Based on these observations, it could be ascertained that the hair side was used for the printing surface.

As with the Umehara work, a microscope was used to take magnified photos of the support, and a densely packed structure of fine collagen fiber bundles was visible. This also enables positive identification of the support as calfskin.

Also, the thickness of the support was measured with a

digital thickness gauge. Its upper edge measures approximately 0.5 mm, and the thickness decreases toward the bottom. The thickness at the lower edge was approximately 0.4 mm. In animal skin, areas that protect the body's trunk tend to be thicker, while more stretchable areas such as the abdomen tend to be thinner and softer. Based on this tendency, it can be inferred that this rectangular sheet of parchment was cut sideways across a calfskin with the spine at the top edge, cutting toward the flank.

4. Possible Intent Behind Printing on Calfskin, Costly Yet Less Compatible with Printing

Calfskin is considered the finest among types of parchment. Parchment made from calfskin is often called "vellum" to distinguish it from other animal species.[8] In medieval times vellum was often used for opulent manuscripts presented to royalty and aristocrats, as well as for special manuscripts such as prayer books decorated in brilliant colors and lavishly gilded.

However, the extent of vellum's usage varied greatly from region to region. In Germany and other areas of northern Europe, calfskin was used more often than in other regions. Considering this regional context, use of vellum in this Klee work can be considered common practice.

Source of the Vellum

This work was printed at the Bauhaus printing workshop in Weimar. Near Weimar is the city of Altenburg, where the parchment manufacturer Altenburger Pergament & Trommelfell has operated from 1882 until the present day.

Upon contact the current owner, Steffen Kerbs, via email to inquire whether there were any sales records from the time (c. 1920), I was informed that there were no records of direct transactions with Bauhaus or Klee himself, but that it was possible they had obtained Altenburg vellum from a retailer. Evidently there were no other parchment manufacturers in the vicinity.

At the time parchment was also manufactured in other countries, and high-quality vellum was being produced in England as well. However, it is reasonable to assume that the Bauhaus procured vellum from Altenburg rather than elsewhere, as it was available quite near Weimar.

Cost and Compatibility with Printing

Vellum is more expensive than regular printing paper. Let us calculate the cost of vellum for this single print.

The work's dimensions are 355 × 258 mm, equivalent to B4 size. I own several full-sized sheets (each one the full output of one calf) of contemporary vellum from Altenburg, from which I selected one with thickness equivalent to that of the Klee work. On that vellum I laid sheets of paper the same size as Klee's work to see how many sheets could be obtained from one sheet of vellum, the result being six sheets.

The exact cost of vellum circa 1920 is unknown, but to calculate based on the cost of Altenburg vellum today: a full-sized sheet costs approximately 100 euros, meaning the single sheet used for Klee's work, equivalent to B4 size, would cost approximately 17 euros, and would be a bit more expensive with a retailer as intermediary. The actual price at that time may have differed somewhat, but it is safe to say it was not just a few euros a sheet.

While costly, vellum is not a material particularly compatible with printing. On parchment, the drying rate of oil-based ink is considerably slower than on paper. I conducted a simple experiment and found that oil-based ink takes five times longer to dry on parchment than on paper. Calfskin in particular has a more densely packed collagen fiber structure than other animal hides, which prevents the ink from penetrating the surface and causes it to stay wet longer. This work is a four-color print using separate printing blocks. Parchment reacts strongly to moisture, expanding, contracting, and undulating more drastically than paper, which makes it exceedingly difficult to use vellum for multicolor printing requiring accurate registration.

Possible Reasons for Using Vellum

Why did Klee select vellum, which is both costly and labor-intensive to print on? As the printing covers virtually the entire surface, Klee does not seem to have intended to display the material itself. In general, one characteristic of the hair side of vellum is the vividness of colors applied to it, and it is favored by botanical artists who prioritize fresh, vibrant colors and fine lines on smooth surfaces. However, with regard to this work at least, Klee does not seem to have been concerned with fine lines or vivid colors. One possible reason for his use of vellum can be seen in the work's subject matter.

This subject matter is derived from the novel *The Golden Pot* by E.T.A. Hoffmann (1776–1822). The novel's main character, Anselmus, is hired to copy ancient manuscripts, and as a result the word *Pergament* (German for "parchment") appears 16 times in the novel.[9] This suggests that Klee may have used parchment for this scene inspired by Hoffmann so as to employ the same material as that of the fictional world.

This work was not framed, but sold in a portfolio where it was stored in a loose state. This meant that initially, the owner was able to touch the parchment directly. When handling the work, he or she may have had the same tactile experience of a sheet of parchment that Anselmus would have had when turning the pages of a manuscript. Use of vellum for this work may have been a device Klee employed, one that would only benefit and enhance the enjoyment of its owner, who could touch it with bare hands and enjoy a vicarious "Anselmus experience."

There is no way to verify whether Klee actually intended to employ this device, and there is no end of other possible interpretations. However, as Klee was a curious artist who experimentally produced and utilized all manner of materials as supports, it is not frivolous to speculate that he employed such a device.

5. Parchment: Treasure Maps to Artists' Minds

Parchment emerged in antiquity, flourished in the Middle Ages, and faded from the scene during the Renaissance. By the early modern era, executing works on parchment was rare. In this context, it is evident that these two artists active in the mid-20th century used parchment as a support with some particular intent.

This article verified the use of parchment in these two works,

and identified which side of the parchment was painted or printed on. Based on studies' results, this article explored the artists' possible reasons for using this rare material.

The word "parchment" is evocative, recalling the mysterious treasure maps that frequently appear in tales of fantasy and adventure. Delving deeply into parchment as a material can potentially enable us to discover "hidden treasure," revealing the minds of artists in a way that framed works on a wall do not.

(Atelier du Parchemin)
(Translated by Christopher Stephens)

Notes

1. This survey was primarily conducted in order to generate content for a workshop entitled "What Is Parchment? Understanding, Touching, and Using the Material," held on October 27, 2018.
2. Ishibashi Foundation Bridgestone Museum of Art, *Bridgestone Museum of Art Bulletin* No. 38 (1989). Ishibashi Foundation Bridgestone Museum of Art, 1991: pp. 22–23.
3. Okamura Tamondo (ed.), *Syokanshu: Umehara Ryuzaburo sensei no tsuioku (Collected Letters: Reminiscences of Umehara Ryuzaburo)*. Okamura Tamondo: 1995, p. 193.
4. Joseph Foret, *L'Apocalypse de Saint Jean illustrée par des surréalistes*.
5. Ishibashi Foundation Bridgestone Museum of Art, op. cit.
6. Work contained in *Neue europäische Graphik, Erste Mappe: Meister des Staatlichen Bauhauses in Weimar (New European Graphics, 1st Portfolio: Masters of the State Bauhaus, Weimar)*, 1921.
7. This judgment was based on my personal experience as a dealer of parchment, handling multiple types of parchment daily.
8. The word "vellum" is derived from the Latin word *vitulus*, meaning "calf." However, as it is difficult to distinguish animal species once skin is processed into thin sheets, high-quality parchment is often referred to as "vellum" regardless of the animal species.
9. In English, the word "vellum" is often used to distinguish calfskin from skins of other animals, but the German word *Pergament* is a general term for all forms of parchment including calfskin.

List of illustrations (pp. 69–72)
fig. 1—— UMEHARA Ryuzaburo, *Notre-Dame de Paris*, 1965, Oil on parchment, 42.6×35.0cm, Artizon Museum, Ishibashi Foundation, Tokyo
fig. 2—— Paul KLEE, *Scene from a Hoffmann-like Tale*, 1921, Lithograph on parchment, 31.6×22.8cm, Artizon Museum, Ishibashi Foundation, Tokyo