

*A Metamorphosis*The Changing Nature
of Fraktur Studies

by JOAN IRVING and LISA MINARDI



Fig. 1: Durs Rudy Sr. (1766–1843) or Durs Rudy Jr. (1789–1850), 1832. Booklet one depicts Adam in the Garden of Eden. By lifting the top flap, Adam is transformed into Eve picking the apple from the Tree of Knowledge. By lowering the bottom flap, Eve in turn is transformed into a mermaid.

FOLLOWING PAGE, CLOCKWISE FROM UPPER LEFT
Fig. 2: Detail, booklet four. Contains the final scene in the series, in which a man is wearing the crown of eternal life, and also the artist's signature and date.

Fig. 3: Detail, booklets two and three. The irregularly torn edges between the booklets fit together in a puzzle-like fashion indicating that the now separate booklets were once a single folded sheet. Grime along the joins on the verso (not shown), suggests that the single-sheet format was in use long enough to acquire embedded grime and other surface soiling.

Fig. 4: Durs Rudy Sr. (1766–1843) or Durs Rudy Jr. (1789–1850), 1832. Overall of the four booklets aligned side by side. The proper sequence of the series is confirmed by the corresponding tears in adjacent booklets, as well as by the storyline, which instructs the reader when to lift or lower each flap.

Fig. 5: Detail, booklet two. Chrome yellow, or lead chromate, as seen in the woman's dress, is derived from the mineral chromite, which was found in both Lancaster County and Baltimore, and became commercially available about 1818.

In 2008, Winterthur Museum acquired a spectacular four-part fraktur metamorphosis series, prompting the collaboration of curators, conservators, and scientists to more fully understand the object.¹ Made by schoolmaster Durs Rudy Sr. (1766–1843) or his son Durs Rudy Jr. (1789–1850), the drawings have survived in remarkable condition and are dated 1832 and signed by the artist “Durs Rudy”—the kind of Rosetta stone object scholars and collectors dream of finding. A rare form in Pennsylvania German fraktur, the metamorphosis booklets can each portray three different scenes. Each booklet is made of a long strip of

paper folded vertically so that the two shorter ends meet in the middle to create two flaps. By raising the top flap or lowering the bottom one, a new scene is created (Fig. 1). Booklet one depicts Adam's temptation by Eve, booklet two the Crucifixion, booklet three the inevitability of death, and booklet four the joys of heaven. Made in both hand-drawn and printed versions, metamorphosis booklets were used to instruct children in religious and moral values. Three hand-drawn fraktur examples are known to be the work of either Rudy Sr. or Jr., but this is the only one that is signed (Fig. 2).² The Rudy family emigrated from Germany in

1803, and by 1809 had settled in Lehigh County, Pennsylvania, where it is believed this fraktur was made.³



In addition to being signed and dated, this metamorphosis fraktur is also in uncommonly good condition. Initially, curators and conservators thought the four sections had been tipped into the protective covers of a book, possibly accounting for the irregular losses along some edges and good condition of the paper and media. Study of the damages, particularly the folds, stains, and grime, however, suggested that the sections were attached and folded in a particular sequence. Close examination of the interlocking losses of the worn edges (Figs. 3, 4) indicates that all the leaves were originally joined. Transfer staining from one paper surface to another tells us that the

object was folded inward, the outer two sections in upon the middle two, and then folded inward once again. These folds eventually became detached over time with use, but for many years protected the media and paper from exposure to light, dirt, and atmospheric pollutants; thus the colors remain vibrant and the paper is still a creamy white where the booklets were folded inward.

Although each fraktur is unique, there are common materials, tools, and techniques of manufacture. The paper is perhaps the most important material choice made by the fraktur artist. This metamorphosis is on wove paper, first manufactured around 1750 but not

common on fraktur dated before 1820 in Winterthur's collection. Wove paper has a more uniform surface than the earlier laid papers, making it well suited for use by fraktur artists whose applications of watercolor and ink ranged from thick, opaque coatings to delicate transparent washes and rich pools of color. Elemental analysis using X-ray spectroscopy (XRF) indicates that the pigments used to create the metamorphosis were Prussian blue, red ochre, lead white, red lead, and chrome yellow—all commercially available pigments rather than homemade vegetable inks and dyes often assumed to have been used in the making of fraktur.⁴ The use of chrome

yellow, which was not commercially available until about 1818, indicates that the artist had access to newer colors, which expanded upon the traditional pigment palette. Chrome yellow also has good light stability, which helps explain the vibrancy of the metamorphosis designs (Fig. 5). The type of ink used to form the accompanying text—known as iron gall ink and made from a mixture of ground oak galls, tannins, and iron sulfate—can, depending on the recipe, become acidic and corrosive, causing losses in the paper. This type of ink, which is blackish purple when first applied but turns to brownish black, is also prone to fading and haloing. Once again, this metamorphosis proves to be in uncommonly good condition. The ink is without halos and has not yet penetrated the paper support. As with the colored pigments and paper, the folded format protected the ink from fading and from mechanical injuries such as abrasion.

To aid in his composition of the drawings and text, the artist used several tools. Close examination of the handwriting reveals a freely formed, organic script that swells in places and then tapers to a fine delicate point, suggesting the use of a lightweight quill pen (a consistent, mechanical thickness indicates the use of a metal point pen, available by about 1820). In raking light, blind scoring or embossed free-hand drawing can be seen. These marks, made by a hard blunt instrument similar to a stylus, were used to guide the placement of the basic shapes and figures. This technique was particularly important in making a metamorphosis, since designs could be scored through the front flaps to the interior to create the continuous designs that transform when flaps are lifted or closed. Once the paper was scored, pencil or ink was used to delineate the design. Pencil scribe lines may still be seen below some of the script (Fig. 6). Transparent watercolor washes lie on top of the iron gall ink lines, which were applied over the embossed scoring. Other brushwork can be seen in the opaque watercolor applications of warm browns,



Fig. 6: Detail, booklet three. A straight edge and graphite pencil were used to create scribe lines that are still evident under some areas of the manuscript. Both the script and calligraphic flourish at the bottom show the swelling and tapering of the ink indicating the use of a fine quill pen.

oranges, and deep blues. These colors have also aged well, with only minor cracking of the dark blue media, most evident in the man's coat and hat in booklets three and four. This blue is particularly shiny, suggesting a heavy admixture of a binding medium such as gum Arabic, which improves the flow of ink and pigments and allows them to attach to paper and to dry.⁵

Connoisseurship and scientific analysis have added substantially to our understanding of the techniques and materials used in the creation of this vibrant metamorphosis by Durs Rudy and enabled us to understand why it has remained in such a remarkable state of preservation. We now also know that the four booklets were originally joined as one unit, although they will remain separate, since the results of wear and use are now a part of the story. Once used for the instruction of children, the metamorphosis can now teach us about the remarkable world of fraktur art and the changing nature of its study. [AFA](#)

Joan Irving is the paper conservator of Winterthur Museum and adjunct assistant professor of the Winterthur and University of Delaware Art Conservation Program (WUDPAC). Joan specializes in the treatment of early American works on paper and historic documents. Lisa Minardi is the assistant curator of furniture at Winterthur Museum, with a specialty in Pennsylvania German arts. She is co-curator of the forthcoming Winterthur exhibition and publication Paint, Pattern & People: Furniture of Southeastern Pennsylvania, 1725–1850.

1. Formerly owned by the Lehigh County Historical Society, the metamorphosis fraktur was acquired by Winterthur at Pook & Pook, Inc's. Period Furniture & Accessories auction, September 26, 2008, lot 199. All twelve scenes are illustrated in Beatrice B. Garvan and Charles F. Hummel, *The Pennsylvania Germans: A Celebration of their Arts, 1683–1850* (Philadelphia: Philadelphia Museum of Art, 1982), pl. 120.
2. A second metamorphosis attributed to Rudy is in the collection of the American Folk Art Museum; see Stacy C. Hollander, *American Radiance: The Ralph Esmerian Gift to the American Folk Art Museum* (New York: American Folk Art Museum, 2001), 246–249; a third metamorphosis is privately owned.
3. See Russell D. and Corinne P. Earnest, *Papers for Birth Days: Guide to the Fraktur Artists and Scribes*, 2 vols. (East Berlin, Pa.: Russell D. Earnest Associates, 1997), 2:656–658; and Gerard C. Wertkin, "The Watercolors of Durs Rudy: New Discoveries in Fraktur," *Folk Art* 18, no. 2 (Summer 1993): 33–39.
4. With thanks to Catherine Matsen, Winterthur associate scientist, for the XRF analysis of the Durs Rudy metamorphosis. Winterthur scientists, paper conservators, and curators have been working together for decades to study the media used by fraktur artists. Instrumental analysis techniques such as XRF and Raman spectroscopy have allowed Winterthur to create a library of known colorants found on works in the collection. Interpretation of data, along with textual sources, clearly indicates that fraktur artists were using commercially available pigments rather than homemade concoctions of vegetable sources. See Janice H. Carlson and John Krill, "Pigment Analysis of Early American Watercolors and Fraktur," *Journal of the American Institute for Conservation*. 18 (1978):19–32; and Jennifer L. Mass, Catherine R. Matsen, and Janice H. Carlson, "Materials of the Pennsylvania German Fraktur Artist," *The Magazine Antiques* 168, no. 3 (September 2005): 128–135.
5. Several fraktur analyzed at Winterthur using gas chromatography-mass spectroscopy (GC-MS) all had gum Arabic as a binding medium. The technical aspects of fraktur making were the subject of the 2005 Winterthur exhibition *Making Fancy: Materials and Methods in Pennsylvania German Fraktur*, organized by paper conservator John Krill.