



The Art of Paper
in the Early Modern World

From the Holy Land to the Americas

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Figures 1 and 2. Albrecht Dürer, *Dream / Vision*, 1525. Watercolor on paper.
The Kunsthistorisches Museum, Vienna.

The paper in its entirety is rarely reproduced in Dürer monographs. Instead, the image is often cropped to contain the watercolor and Dürer's script, omitting the accompanying expanse (fig. 2). It is not surprising that scholars do not reproduce the whole sheet, as paper confounds reproduction. Paper is the support for the image, the engraving, the photograph. It is intrinsic to reproductive media, but its functionality prevents it from becoming an image itself. From the late-medieval woodcut to the contemporary photograph, paper is the material on which the image is impressed, captured, or cast but is itself not the object of representation. The success of other media demands that it appear transparent, denied its own capability to convey a message.

Paper is a three-dimensional object, and it challenges photographic reproduction. Raking light images will capture its surface (fig. 3). While photographing paper against transmitted light can apprehend its underlying structure (fig. 4), the surface and structure of paper can never be captured in a single image. This is made clear in the volumes on papermaking by the historian Dard Hunter, in which he always included samples of paper from around the world (fig. 5).³ Paper can only be conveyed by paper.

Despite its absence from later photographic reproductions, the artist who mounted Dürer's vision in an album of his engravings, woodcuts, and drawings considered the entire sheet integral to the work. It is likely that a member of Dürer's workshop, perhaps Hans Döring, assembled the album in the sixteenth century. In compiling Dürer's graphic oeuvre into a bound volume, the editorial artisan trimmed some works, such as *Nemesis*, or the small mythological watercolors (figs. 6, 7), but he kept intact the sheet with Dürer's *Dream*.⁴ The presence of the paper therefore also frames the authenticity of the drawing and marks it as a direct trace of Dürer's hand. Works such as *Dream* indicate a shift in the economic and intellectual value of not only drawings but also the artist's





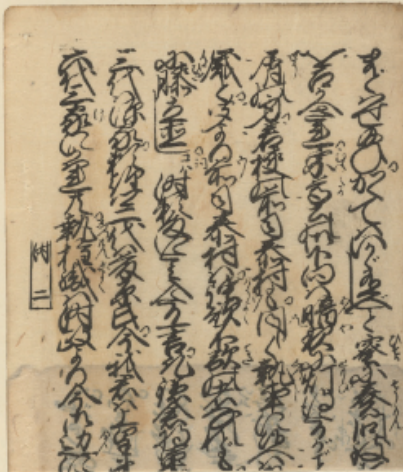
Figures 3 and 4. Timoteo Viti, *Study of a Nude*, 1479–1523. Black chalk with touches of white on paper. The Clark Art Institute, Williamstown. (Fig. 3, raking light; fig. 4, transmitted light.)

more autobiographical notes and sketches. In the sixteenth century, drawing, in particular, became mythologized as Giorgio Vasari (1511–1574) described a Michelangelo (1475–1564) drawing as a relic, suggesting a direct correlation between Michelangelo’s body and his work on paper. Like a saint’s fingernail or a shred of bone, drawing represented evidence of the draftsman’s physical presence.⁵ *Dream* occupies an even more ambiguous place as it conveys the workings of imagination and memory in sleep, a liminal activity experienced beyond the limits of the body and the day.

Paper also was ubiquitous enough by the sixteenth century that there was no need for a later artist (or Dürer himself) to employ this precious space. Although it was not to be wasted, paper was neither as costly as parchment or bronze, nor as easy to expunge as parchment or boxwood. The luxurious un-



Bark of the Japanese paper mulberry (*Broussonetia papyrifera*).



An example of paper made from the bark of the Japanese mulberry. This specimen is from a volume printed in the early eighteenth century. The text is a block-printed facsimile of Japanese script.

Figure 5. Dard Hunter, “Samples of Mulberry Bark and paper made from the Japanese Mulberry,” in *Old Papermaking in China and Japan*, 1932. Houghton Library, Harvard University, Cambridge.

Paper *Technê*

One of the first comprehensive illustrated treatises on European rag paper, *Art de faire le papier* by Joseph Jérôme François de Lalande (1732–1807), contextualizes the production of paper within the proto-industrial mill economy of early-modern Europe while also offering a brief comparative history of European paper with its Asian counterparts.² Lalande was not a papermaker but an astronomer. He dedicated his scholarship to the heavens and the sister-art of navigation, a rigor in observation that he applied to his analysis of papermaking. The treatise was part of a larger project, known as *Description des arts et métiers* (1761–1788), which unfolded under the aegis of the *l'Académie royale des sciences*. The *Description* involved members of the academy observing and publishing on the industries of the French economy, covering a variety of topics including the production of metals, scientific instruments, ships, textiles, porcelain, pottery, and sugar. Although the *Description* is not as renowned, many of the engraved plates were the basis for Denis Diderot's illustrations in the *Encyclopédie* (1751–1766).³

Lalande detailed both the actions of the papermakers, and the technical design of the mill. He began his illustrations with the women who classified the rags into varying qualities: fine (*les fins*), medium (*les moyens*), and coarse (*les grossiers*).⁴ The narrative focuses, however, on the structure of the papermill, and the technology employed to channel running water to transform soiled linens into a new material (fig. 13). In his portrayal of the engineering, Lalande illustrates papermaking as a technology that embodied man's ability to transform the raw resources of the natural world into an artificial product that synthesized nature.

Lalande's attention to the architecture of the mill demonstrates the importance of waterpower in driving local economies. Mills were central to economical changes in late-medieval Europe, as the historian March Bloch maintained, arguing that they produced a proto-industrial revolution.⁵ Paper is essential to this story, for the advancements in its industry contributed to Europe both cornering the paper market and changing the structure of the sheet.⁶ The rag paper trade in Europe significantly changed the global production of paper, as paper became a European symbol of ingenuity, technology, and mastery over nature.

With this work on paper, Dürer engaged with two forms of waterpower: the materials for the watercolor and the depiction of a water-powered mill. Yet Dürer attended not only to the mills but also to the landscape in which they were situated, rendering with impressionistic strokes the blue mountain range while picturing the local buildings with linear precision, documenting the integral connection between industry and environment. His attention to the

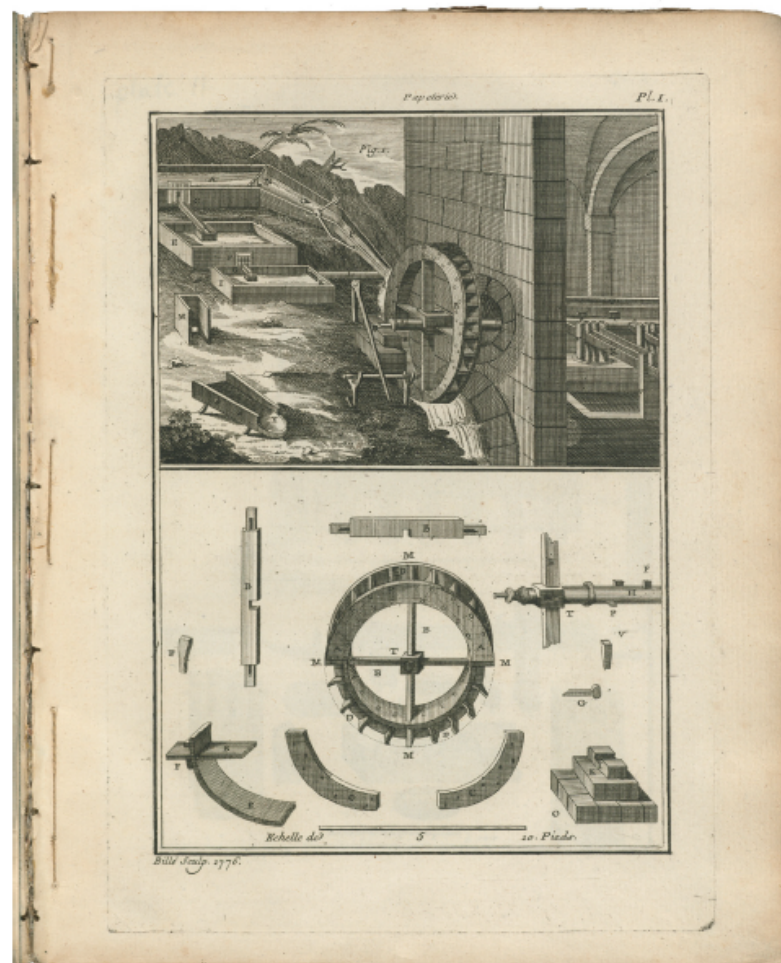


Figure 13. Joseph Jérôme Le Français de Lalande, "Mill on the Grand River Auvergne" in *Art de faire le papier*, 1761. Engraving on paper. The plates are signed: Billé sculp. 1776. Houghton Library, Harvard University, Cambridge.