

### Introduction

Thirty-three folding paper fans were recently acquired by the Huntington Library's curator of early printed books. These fans, all produced by fan manufacturers in England during the second half of the 18th century, share characteristics with bound collections – they contain significant amounts of printed text, represent a convenient method of storing reference information, and are three-dimensional, composite objects that were intended to be handled. The purpose of this poster is to describe the production, condition, treatment, and housing of these fans.



A "hieroglyphical" fan entitled "The Lady's Looking Glass," published in 1793.

### Background

Eighteenth-century paper fans were mass-produced and ephemeral in nature, allowing people from all levels of society to keep up with rapidly changing trends at little expense. Their printed text often functioned as memory aids and included almanacs, song lyrics, dance steps, rules for parlor games, and the details of current and past events. Much more than fashion accessories, these fans serve as documents that shed light on the social and political history of the period.



"Mary (Newey) Hoagly" by William Hogarth, ca. 1740s. The Huntington Library, Art Collections, and Botanical Gardens.



From Francis Nivelon's instructions on deportment in "The Rudiments of Genteel Behavior," 1737. Plate I illustrates how to curtsy while holding a closed fan.



"The Ladies Telegraph: For Corresponding at a Distance," 1798. This fan was designed to allow ladies to discreetly converse across a room by using the fan's color-coded tabs. Recto (left), verso (right).

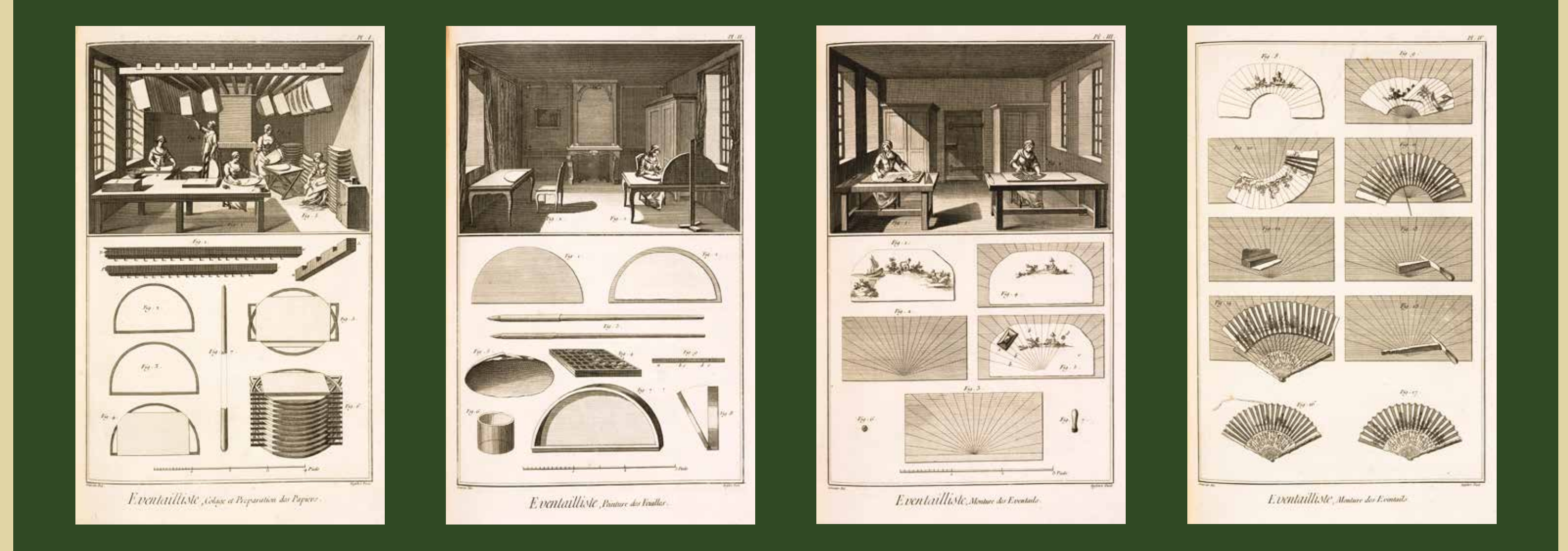
### Materials and Techniques

In the Huntington's collection, the most typical fan design consists of a semi-circular leaf constructed from two sheets of thin, antique laid paper mounted to plain sticks made of cedar wood. The leaf generally includes line or stipple engraving with a strip of metallic paper along the top edge for reinforcement.

More elaborate fans feature leaves with hand coloring in opaque water-based paint and sticks of bone embellished with paint or faux jewels.

The process of fan making is illustrated in Diderot's "Encyclopédie" of 1765 as seen

below. First, workers stretched paired sheets of paper over a frame to prepare them for leaf-making (Plate I). Next, the leaf was hand-colored (Plate II) and scored prior to folding (Plate III). Finally, workers inserted the sticks, trimmed the leaf, and reinforced the top edge of the fan (Plate IV).



"Eventailiste" from Diderot's "Encyclopédie," 1765.



A fan representing the seven ages of man, seen in transmitted light. Two layers of laid paper are visible.



Opaque water-based paint hand-painted on an almanac fan published in 1794.



Stipple engraving and metallic paper band at the top of "The New Dance Fan for 1797."



A "Conversation Fan" from 1797 features sticks of both bone and wood in addition to faux jewel encrusted steel guards.



Publisher information was included on fans as stipulated by British law. An example can be seen on this fan, "The Female Seven Ages," from 1797.

### Condition and Treatment

Few paper fans from the 18th century have survived, but those represented in the Huntington's collection are in stable condition. It is clear that these fans were functional and not solely decorative objects. The inherent stress of opening and closing the fans has presumably caused tears along folds and some flaking of the paint media; surface grime is present on the fans' sticks and is evidence of handling. Other condition issues include the likely presence of mildew, broken sticks, staining, and extensive previous repairs which interfered with the mechanical action of the fans.

Treatment of the fans was complicated by the folded nature of their supports and by the need to limit moisture to prevent warping, bleeding, and corrosion. For this reason, all treatments carried out were non-aqueous. Stick repair, the removal of unconventional repairs from the paper leaf, mending, paint consolidation, and odor reduction were completed as appropriate.



A fortune-telling fan from 1784 shows signs of use. An Oracle could be consulted by pricking the numbered wheel of fortune with a pin.



Vivak 099 forms were used as supports to facilitate mending while working over a light table.

#### Stick Repair



Broken sticks were repaired with 20% - 40% B-72 in acetone applied with a brush and reinforced with Tenguchō.

#### Adhesion Removal and Mending

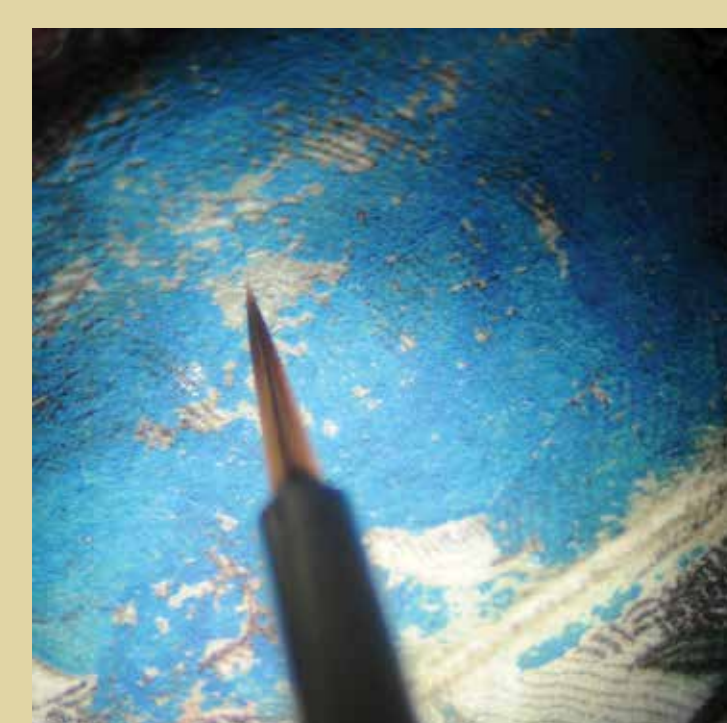


A previous repair prevented complete access to the fan's text. The repair was removed mechanically and mended with solvent-set tissue. Four adhesives were examined:

- 1:1:6 mix of Lascaux 360 HV, Lascaux 498 HV, and deionized water; reactivated with ethanol, isopropyl alcohol, or acetone
- 15% Aquazol 50 in deionized water; reactivated with ethanol or acetone
- 5% Klucel G in deionized water; reactivated with ethanol or acetone
- 1:1:6 mix of Avanse MV 100, Plextol B 500, and deionized water; reactivated with ethanol or acetone

Lascaux reactivated with ethanol was chosen for its strength, flexibility, and minimal sheen.

#### Consolidation



Flaking of the opaque water-based paint was most prevalent in inked or folded areas. The paint was soluble in deionized water, so a non-aqueous consolidant was chosen. Tests were done with brush application of 2% Aquazol 50 in ethanol. Klucel G was chosen for its low gloss.

#### Odor Reduction



Attempts were made to reduce the musty odor of the fans. Fans were placed into an ArtCare storage box within a fume hood. Inside the box, the fans rested on a MicroChamber paper sling above odor-absorbing materials. Activated carbon (Tub O'Carbon) proved to be less messy and was chosen over zeolites (Gonzo Odor Eliminator).

### Housing

Various housing options for the fans were considered. While an open position could lead to warping of the sticks and flattening of the leaf, a closed storage position would require additional mechanical stress for viewing. Because the fans are structurally stable and have been digitized to reduce handling, the decision was made to store them closed in custom-made housings. The housings were designed by Paper Conservator Erin Jue and Technician Asa Yoshie. Rising Museum mat board, Volara polyethylene foam, and Tyvek were used to make a small, custom-fit tray for each fan. Each tray has book cloth tabs for easy handling. Hollinger Metal Edge boxes were then retrofitted with mat board compartments to hold the fans in their individual trays.



Original red pasteboard container for a fan.



Completed housing.

### Selected References

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### Conclusion

The Huntington's collection of 18th-century printed paper fans provides reference information and entertainment. Condition issues included damage from handling and many unusual previous repairs. Non-aqueous treatment techniques were chosen to prevent disruption of the folding paper supports and water-sensitive media. Conservation of the fans stabilized them for future use, while a closed storage position protects the objects and reduces necessary storage space.

### Acknowledgments

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