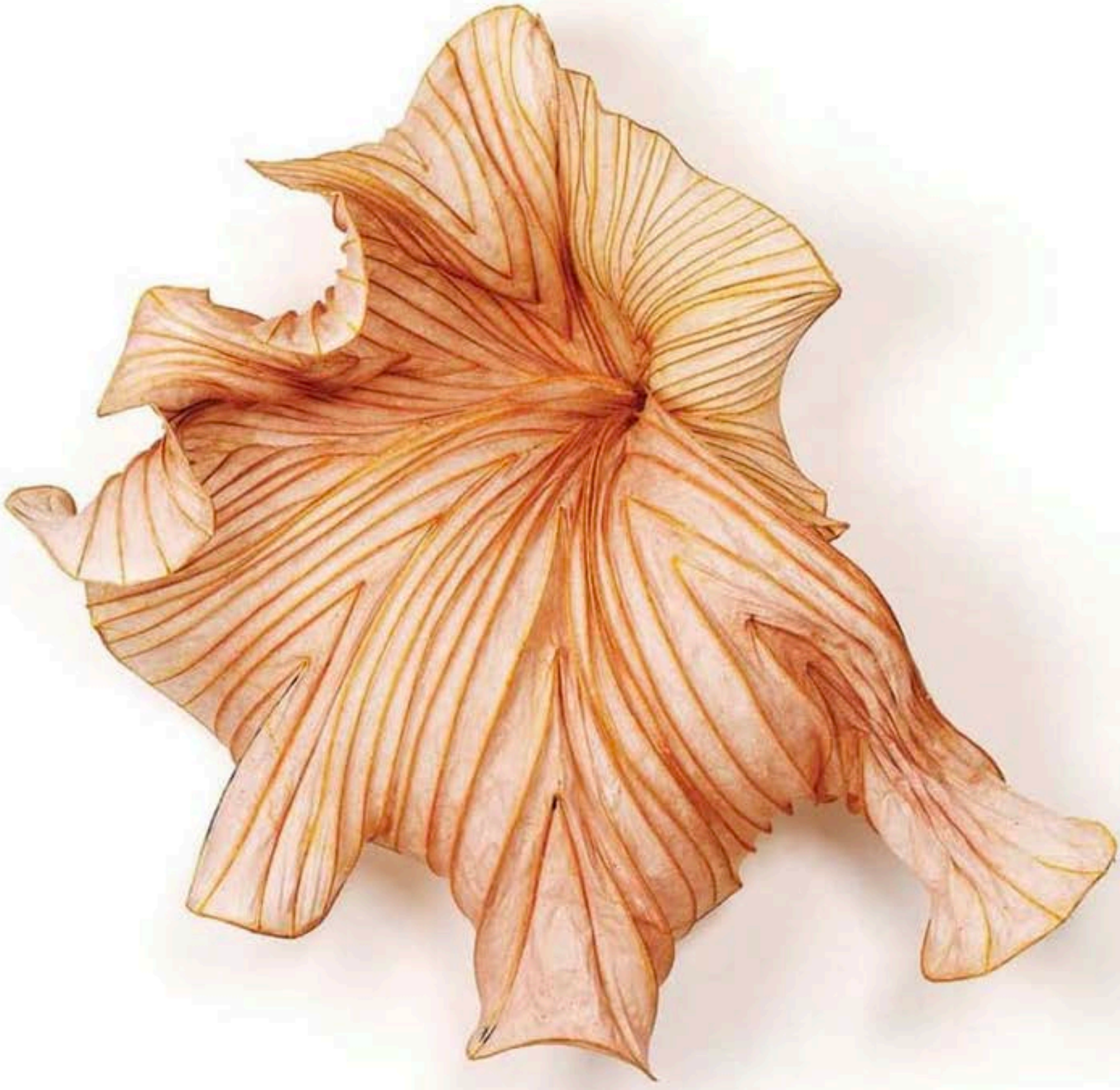
HAND PAPERMAKING



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Howard Clark (center) leading a beater workshop at the annual meeting of the Friends of Dard Hunter, Chillicothe, Ohio, October 2006. Photo by and courtesy of the author. All other photos courtesy of the artists.

Lynn Sures (Silver Spring, Maryland, USA), Frasassi, *2007, 12 x 12 x 18 feet, installation of pulp painting, linocut, and paper sculpture: pulp-painted flax on cotton base sheets with beeswax; sprayed cotton/abaca pulp with pigment; flax with wax on wire netting; sprayed flax with pigment and paste-painting; cotton and flax pulp-painted mixed-fiber base sheets with pigment, linocut; ceramic. Photo: Mark Gulezian.*

Beater Finesse for the Artist

CATHERINE NASH

It is a well-known adage in the papermaking world: "Paper is made in the beater." To learn how to use my own Hollanders with more efficiency and diversity, I surveyed my colleagues and conducted research on how to create different kinds of pulps for a variety of uses. As a result I have compiled 32 beater note entries, by 25 contemporary, international papermakers and paper artists. The beater note entries and a table that summarizes the notes are available on my website, www.papermakingresources.com. With this article, I wish to share the main discoveries of my research, put it into context, and hope that it will serve as a general springboard for readers to pursue their own explorations. The art of beating plant fibers into pulp is quite subjective. One develops a visceral understanding of how pulp looks and feels through experimentation and avid note taking!

The Hollander beater was invented in the late seventeenth century in Holland for the preparation of rags or fibers into pulp for papermaking. Its main components are a cylindrical roll fitted or cast with metal flybars or knives under which lies a bedplate, a grooved and curved surface that conforms to the roll. As the roll turns, fiber and water are forced between the roll and the bedplate, resulting in a cutting, shearing, and hydrating action. The fiber and water continue up and over a backfall, around an oval trough, and back to the roll.

Beater designs differ widely in the shape of the tub, the placement of the bedplate, the distance between the flybars on the roll, the width of the blades, the depth of the cell (the space between the blades), and the shape of the backfall. The Voith Valley "laboratory testing" beater, with a fixed roll and a moveable bedplate, uses an arm with attachable weights to raise the bedplate up and down to bring it closer to or further from the fixed roll. On the contrary, many contemporary studio-size beaters (such as those made by Howard Clark, Lee Scott McDonald, David Reina, Mark Lander, and Peter Gentenaar) have a fixed bedplate and an adjustable roll. My goal here is not to compare the mechanics of different Hollanders. Even two machines by the same maker can produce varying results due to user patterns, water quality, care, and maintenance. With this article I intend to focus on what they all share in common: the ability to produce a wide range of pulps.