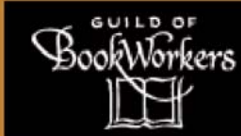


GUILD OF BOOKWORKERS JOURNAL 2009



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Truculent Creatures by Rand Huebsch, 1994. Accordion book, twelve panels, un-inked embossment on Canson Mi-Teintes, 3 1/4" h x 50" w, edition of 75. Photo by Daniel Falgerho.



Night Desert by Rand Huebsch, 1998. Tunnel book, four panels, hand-cut, hand-colored embossments (with Caran d'Ache) on black museum board, side strips printed with hand-carved rubberstamps, 5" h x 8" w x 9" d, edition of 50. Photo by Daniel Falgerho.

ACCORDION AND TUNNEL BOOKS

TWENTY YEARS OF EXPLORATION

For the past twenty years, I have made limited-edition accordion and tunnel books and have found that the basic simplicity of both formats allows for much experimentation. I think of the books as paper sculptures to be handled and explored. Most have been without text (apart from title information), so viewers are free to supply their own narratives for the books' imagery. I produce that imagery almost solely by etching¹, a process whose tactile aspect I enjoy. In the same way, I appreciate the manipulation of elements in constructing a book.

ACCORDION BOOKS

The accordion book is well suited for display upright and extended, like a folding screen, so the viewer can scan all of the images at once. Therefore, while my books usually have a discrete image in each panel, I design them with the entire image sequence in mind. *Reptiles*, influenced by medieval bestiaries, consists of a series of etchings that illustrate basic animal activities. It uses a different species for each panel, to represent a life cycle: the eggshell shape in the first scene is echoed by the waning moon in the last one. Although the reptiles are in an Expressionist style, I did research on the creatures depicted, and the Latin taxonomic names are genuine. The image on the inside back panel is a colophon obliterated by geckos; only the first words, "this book," are legible. The book was in fact part of a group project, in which fifteen artists each produced an edition of an accordion book based on the reptile theme, then made an exchange with everyone else. All books had to be eight pages of the same dimension. Unlike my book, Anneli Arms' version uses a vertical orientation for each page, and her leaping frog etchings are made on shaped metal plates, rather than on the usual rectilinear plates.

The outer front and back cover images (applied to book board) of my *Reptiles* are embossments, made by a technique that is a variation of traditional etching. It is a process I use to make elements in most of my books and reflects my long-standing interest in Mayan and Egyptian stone carvings. Embossing plates are designed and etched so that, when printed, they produce raised images on paper that are similar to bas-relief sculptures. My preferred paper is Canson Mi-Teintes, as it slightly lightens in the raised areas of the paper, which then has the look of tooled leather. *Truculent Creatures* is one of my books that consists solely of uninked embossments. When its front and back covers are placed in apposition, the two rams appear to be in combat.²



Rand Huebsch is a printmaker, book artist, and teacher. In 1986 he co-founded the Manhattan Graphics Center, a fine-art printmaking workshop. He has also curated print exhibitions, including two for the New York Hall of Science. His technical articles have appeared in the British quarterly Printmaking Today and the quarterly publication of the Movable Book Society. Among the collections holding his work are those of the Victoria and Albert Museum, the Cambridge University Library (Rare Books Division), the Detroit Institute of Arts, the Fogg Art Museum, and Yale University. His website is <<http://www.randhuebsch.com>>.



Biblion by Rand Huebsch, 2005. Accordion book, ten panels, each 3”h x 5”w, uninked embossment on Canson Mi-Teintes papers, edition of 75. Photo by Daniel Falgerho.

Biblion is another such book, but it has a continuous narrative flow. For example, a grouping of figures is divided between two adjacent panels, as are, in one case, a building and an ox. Whereas the title text for most of my embossed books is raised, in *Biblion* it is indented—an allusion to the recessed hieroglyphs in Egyptian stone carvings. The book’s earth-colored paper also refers to the geography of the region that gave rise to the images inspiring the book. A different kind of narrative flow is presented in Susanna Bergtold’s *X*, with its implication of a primer in arithmetic, and the increments of images as numerals.

One can hand-color embossments by rubbing crayons, held almost at a horizontal, over the raised surfaces of the design, so the recessed areas of the paper do not change color. This approach is especially effective when the paper is colored and the embossed imagery is strongly linear, almost woodcutlike. Among the books in which I’ve used this premise are *Canterbury Tales*, whose figures are meant to evoke tomb carvings, and *Aviary*, which was inspired by Medieval ivory plaques and illuminated manuscripts.



in a hot dry place by Rand Huebsch, 2006. Accordion book, 8 panels, each 6”h x 5”w, etching on Rives paper; covers are made from uninked embossment on Canson Mi-Teintes papers, edition of 50. Photo by Daniel Falgerho.

Several years ago I started to include short texts in some of my books. For *in a hot dry place* the words came to me when I was half-awake and visualizing the animal imagery I had already sketched. It is a single sentence, sectioned to all eight pages of the book: “in a hot dry place/where the wind/only rarely rises/only rarely spirals down/soundless/against dense earth/the dangers of the day/shimmer in every glance.” In her richly colored *Handle with Care*, Cynthia Back has very minimal text (one word on every other page), as a subtle commentary on her nature imagery. For *Muybridge Sequence* I used only its covers for text. On the front, each letter of the title is enclosed in a compartment, to echo the sequentiality of Muybridge’s photographic work. On the back is text that echoes the interior imagery: “...shifting its weight through the succession of shadows and light...in acquiescence to the surrounding wind, to the sound of its body moving through time...marching, on a mere membrane of glass, into uncertainty...”



Muybridge Sequence by Rand Huebsch, 2007. Accordion book, etchings, eight panels, each 4” x 5”, edition of 25. Photo by Daniel Falgerho.

TUNNEL BOOKS

The tunnel structure has existed since the Italian Renaissance, when artists used it to study perspective concepts for their paintings. It consists of a series of parallel image-bearing panels that, except for the solid back panel, have cut-out areas. The panels are attached, by hinges on two sides, to accordion-folded strips. I enjoy the way in which the theater-like scene alters when the viewer changes position vis-a-vis the book. In addition, the format entails a nice tension between the visual autonomy of each panel and that of the entire piece. Historically, tunnel books often had ten fairly simple panels, but my books usually consist of four, each holding much information. While the

tunnel book is a centuries-old format and increasingly used by book artists, I believe that it is still largely unheard of and underexplored.

I started making tunnel books in 1990 after seeing a show of children's books at the Pierpont Morgan Library³ that included two examples from the nineteenth century, when such books were called "peep-shows," in keeping with their hide-and-seek aspect. *Not out of the Woods yet*, my first book, has panels of two-ply museum board printed with creature etchings that I hand-colored with washes of Caran d'Ache crayon. The accordion elements of a tunnel book can comment on the panels: the strips for *Woods* were printed on their exterior sides with etchings of more creatures and, on their interior sides, with images from hand-carved rubber stamps.



Not out of the Woods yet by Rand Huebsch, 1991. Tunnel book, 5"h x 6 1/2"w x 8"d, five hand-cut panels, hand-colored line etchings, accordion strips printed with etchings on exterior side and relief blocks on interior sides. Photo by Daniel Falgerho.

For several books that use the embossing and hand-coloring methods described above, I first made a prototype by drawing with colored chalk on sheets of black paper, cutting out areas within the sheets, and seeing how the various panels related to each other. Those cutouts were the basis for making printing plates with which to emboss on black museum board. After cutting away the non-image areas of the embossments, I did the hand coloring. As the recessed linear areas remained black, the finished panels had a stained-glass appearance. For *Fable 1*, however, I did not make a prototype for creating the printing plates. Instead I experimented with copies of four unrelated embossments that I had done at various times, trying



Fable 1 by Rand Huebsch, 1998. Tunnel book, four hand-cut panels, hand-colored embossments (with Caran d'Ache) on black museum board, side strips printed with hand-carved rubberstamps, 5"h x 8"w x 9"d, edition of 50. Photo by Daniel Falgerho.

out both their sequence as book panels and also the shapes of cut-out areas until I found what seemed the best combination.

AESTHETICS OF THE TUNNEL BOOK

The tunnel book has a paradoxical nature: it's a theater-like three-dimensional structure comprised of two-dimensional elements. That dichotomy allows for much stylization in image-making; perspective can be forced, in the manner of a museum diorama. For example, the front panel of *As You Like It* depicts only the upper body of a Shakespeare character. He looks directly at the viewer, and his arms form a framework that encloses the succeeding panels, in which the figures are full-length and therefore smaller. *The Musicians of Bremen*, based on a Grimm's tale, depicts interior/exterior space. On the right side of each of the four panels, a braying farm animal stands outside a cottage; on the left side, within that cottage, is a frightened, crouching or leaping human figure. For tunnel image ideas, one can refer to interior scenes by the Dutch painter Pieter de Hooch; Persian or Indian miniatures, for their non-Western perspective; and German Expressionist films, such as *The Cabinet of Dr. Caligari*, with their stylized lighting and distorted sets.

With its linked parallel planes, the tunnel book can imply a metamorphosis or a series of events. In *Circe 2*, I present a chapter from the *Odyssey* in which a sorceress transforms sailors into swine. In the backmost and "earliest" panel, she offers a bowl of potion to an unsuspecting man. In the next panel, a pig-headed

human figure appears, and so on, until the frontmost panel, where a swine leaps. In *As You Like It*, each panel presents a separate scene from the play. Unified, they comment on each other, so the book recalls those early Renaissance paintings that simultaneously displayed several episodes of a saint's life in a single landscape setting.

One can exploit the tunnel's architectural aspect. *My Wunderkammer of Rudolph II* presents the kind of Renaissance room called a "cabinet of curiosities," and a student made elaborate, calligraphic cut-outs within the mosque-shaped panels of her book. It should in fact be emphasized that, while they have traditionally been rectangular, tunnel panels can be shaped in a wide variety of ways (just as the book's connecting strips can have irregular shapes, as well as cut-out areas). For example, Carol Barton's silk-screened book, *Tunnel Map*, makes use of circular panels.

While text has appeared only minimally in my own work, it can be used on any or all of the tunnel book's many surfaces. One of the two connective strips of *Circe 2* shows, Muybridge-like, an owl's flight, and the other strip presents the text version: "within the wingbeat of an owl, they howl from men to beasts." In each case, the exterior of the strip was used, so the viewer can see only one version at a time. A student in one of my classes made a visual journal in which she adhered elements from travel photos to panels that were framelike in shape. Onto both the panels and the connecting accordion strips, she rubberstamped Japanese ideograms. Laura Davidson, in her tunnel book, uses the text elements more abstractly. She writes, "*Florence* was based on a photo that I took from the steps of San Miniato al Monte looking down on the city below. The images were drawn directly on Baedeker travel guidebook pages."

ACCORDION AND TUNNEL BOOKS: POSSIBILITIES

The possibilities for accordions and tunnels are endless. For example, both sides of an accordion book can contain information, and, if there are enough panels to a book, it can be presented upright and configured so the viewer can see some panels from side A and some from side B, in a kind of dialogue. Scale is an element to play with, and Susan Share actually performs with her large, accordion-like pieces, such



The School for Scandal by Rand Huebsch, 2002. Unique tunnel book/toy theater with movable parts, 12”h x 15”w x 12”d. Foam core, cardboard, Caran d’Ache crayon, ink, string, wire. Photo by Marcia Rudy.

as *Zip-off Fence*, which often have additional moving parts. There is also a kinetic aspect to my toy theater/tunnel book, *The School for Scandal*—based on Sheridan’s satirical play—where the figures have movable parts to which strings are attached, so the viewer can manipulate the play’s manipulators. (In one panel the fop’s jaw and outstretched arm are hinged and can be raised and lowered as the character pontificates.) The tunnel structure might in fact be used, if made of lightweight foam core, as an actual stage set that could easily be moved on and off stage. And one can imagine a hybrid tunnel/accordion structure, similar in some ways to a carousel book, in which the tunnel aspect of each accordion segment presents the history of the figures in the front panels, so that past and present coexist in the book.

CONSTRUCTING THE TUNNEL BOOK

Once I realized that the tunnel book traditionally is comprised of three elements—panels, accordion strips, and hinges—I started to experiment with those elements. Since then, I have learned of variations on the premise, as well as several techniques, such as the one used by Ed Hutchins, to make a book out of a single sheet of paper. The following instructions are for the technique I first used and that still works best for me.⁴

To construct the book, only a few materials are needed (see fig. #1): pencil, ruler, white glue, bone folder, scissors or X-ACTO knife, protective cutting



Figure 1. Materials, including bone folder for scoring, X-ACTO knife, and wire for easels.

board, such as a Plexiglas sheet or a self-healing material, and images on paper. These can include prints, drawings, watercolors, rubber-stamp prints, xeroxes, collages, photos, text, or mixed media.

The tunnel book process is very intuitive. I make a construction-paper prototype in the following way (the number of panels and the dimensions listed are used as examples). After cutting four 5" x 8" panels, I sketch images on the perimeter of the first panel, then use an X-ACTO knife or scissors to remove the unwanted interior areas. (The knives are very sharp and should be used carefully.) I place the first, front panel over the second panel and trace the interior contour onto it, to serve as a rough guide for the second sketch, and so forth. Remember that the backmost panel remains solid. If planning an edition, I use the four completed panels as rough guides for making the finished drawings that will ultimately be transferred to the copper plate, which will then be etched.

When designing a book, it is important periodically to set the panels in an upright position, one in front of the other. This helps you visualize their interaction. For example, you may see that the visual balance needs adjusting and can then cut away or add

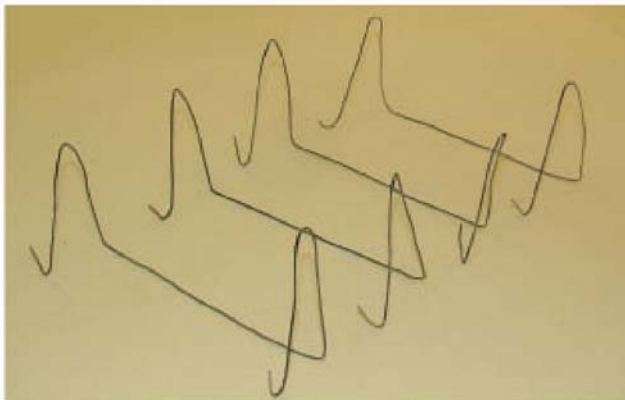


Figure 2. Easels (These are made from wire approx. 20" in length, but use the length you need for the size easel you are making.)

elements. For many years I used ink bottles or paper cups to prop up the panels. Now, for that purpose, I make wire easels, which are much steadier supports and make it easier to experiment with the spacing between panels. (When deciding on spacing, sit fairly close to and at eye level with the panels. That will let you know if they form a solid vista or if, instead, there are visual "leaks" between panels.) I based the easel design on the stands used for displaying small photos that have a lip to keep the image in place. Sixteen- or eighteen-gauge wire is a good thickness; it can easily be bent but is strong enough to support paper (see figs. #2 and #3). The wire can be cut with inexpensive, small wire snippers from the hardware store. When making the easels, you can cut the lengths of wire in advance or draw out a length of wire from the spool, shape it, then snip it off. This second approach makes handling the wire more manageable. In either case, use the first easel as a template against which to bend the rest of the easels.

You can also adapt a two-dimensional image for use in multiple panels of a tunnel book: allocate some of its elements to the front panel, some to the second, etc. It will soon become evident, however, that the book's extra dimension makes additional demands. Recently I adapted a Renaissance painting of a deep-space interior, in which curtains framed the scene. The question arose: in a three-dimensional version of that scene, what is behind the curtains? Part of my answer was to use the same curtain imagery on both the first and second panels of the book.



Figure 3. Prototypes set on easels to see how much space should be between them (that is, how long each accordion-strip interval should be).

The number of panels for a book is often determined by the degree of complexity in each, as well as the amount of overlap. The British books that first inspired me had at least ten panels, each one fairly simple. That same number is contained in Edward Gorey's *The Tunnel Calamity*, which has a peephole on the front cover. I usually put a lot of information into each page, with considerable overlapping, so four panels are generally sufficient for my books. Sometimes I make several options and, using the wire easels, see how each one relates to the other panels in the series.

The accordion strips that connect the panels tend to contract slightly at the folds once the book has been placed upright. Therefore, if you want a two-inch space between panels, measure a two-and-a-half-inch section on the strip. To support the panels, the strips must be of sufficient width. For example, on a book that is six inches high, use a two-inch-wide strip and position it at the midpoint of the panel. In measuring paper for accordion strips, remember to factor in the additional length that will allow for tabs to attach to the back of the front panel and the back of the back-most panel. Bone folders are excellent for scoring the strips and the hinges that will attach them to the panels.

Hinges are used only on the book's interior panels, and they should not be made of heavy paper, as it will not score well. The hinge, when scored and viewed from the side, is essentially a V-shaped piece of paper. If the accordion strip to which one side of the hinge will be attached (the other side being attached to the back of a panel) is, for example, two inches in width, make sure to measure the paper for the hinge so that, once cut, scored, and glued to the strip, it does not exceed that two-inch width and thereby become visible to the viewer. Also, if the length of one half of the accordion interval between panels is, say, three inches, the hinge side attached to that half should probably be no more than one and a half inches. I generally measure and score hinges so that each of the two sides is equal to the other side.

Once you have the three basic elements—panels, hinges, and accordion strips—cut and scored, you can start to assemble the book. First measure and mark the placement on the backs of the interior panels for positioning of hinges, and use the same measurements for all the panels (such as two inches from the bottom of each panel). I think it is best to start



Figure 4. Two interior panels, seen from behind, with markings for positioning hinges.



Figure 5. Front panel of *Not out of the Woods yet*, with one accordion strip attached and trimmed to conform to the cutout area of panel, and the other strip not yet attached (the x-marked area will be glued to the back of the panel).

with the lower of the two marks, measuring up from the base of the panel. That way, if there is any discrepancy in the height of the panels, there will not be any problem with some of the panels not making full contact with the surface on which the extended book is placed. Each panel will need two hinges, one on the right side and one on the left. The marks will serve as guides so all the accordion strips will be aligned correctly with the panels (see figs. #4 and #5).

I first adhere the front tab of the accordion strip to the back of the front panel by brushing glue between the guidelines that have been drawn and all the way to the edge of the cutout area that will be covered by the tab. I then follow the same procedure for the other accordion strip. Once the tabs are pressed down and the glue has dried, I use an X-ACTO knife or small scissors to carefully cut away the "overhang" tab papers that protrude beyond the shaped panels. This can be done once the book is fully assembled (see fig. #6).

Glue one side of each hinge to the back of each of

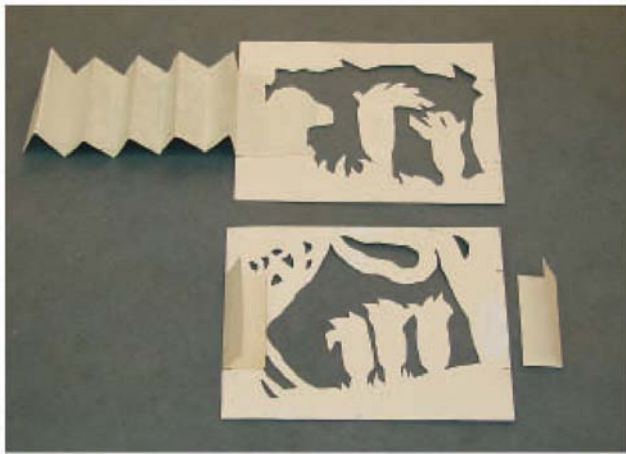


Figure 6. Top: Back of first panel of *Not out of the Woods* yet with one accordion strip attached and trimmed to conform to the cutout area of panel. Bottom: back of second panel with one hinge attached, not yet trimmed.

the interior panels (for example, panels two and three of a four-panel book). You may want to measure the accordion strips so that there is enough paper to allow the two glued sections on the back of the book to meet. Or if there is a gap between them, you can cover that by gluing a paper collage element on top.

When you glue the hinges to the panels, make sure each hinge's fold is aligned with the outer edge of the panel. Then glue the strips, one panel at a time, to the loose tab of the hinges. Remember that the "mountain" fold of each accordion segment between panels faces inward. For all gluing, use a bone folder to press the elements together. Place a piece of tracing paper between the folder and the elements so that any excess glue will be picked up.

As sculptural pieces, tunnel books require a degree of engineering. For example, a small book does not need as sturdy a paper for stability as does a larger book. To strengthen the structure, the paper or board for the front and back panels should be heavier than that of the interior panels—for example, card stock for inner panels and two-ply museum board for covers. Also remember that the book may be viewed when it is collapsed. If you don't want the side strips to be visible, then the panels must be at least as wide, at the hinge point, as half the length of the strip segment between two panels. (In designing my books, I have not been concerned about this issue.)

NOTES

1. Because etching has been so integral to my book work, a brief description follows: Etching was invented in Germany 500 years ago and has been a print medium for Rembrandt, Goya and Picasso, among others. It is ideal for creating images with the look of pen-and-ink lines and hatchings. The artist covers a metal plate, usually copper or zinc, with an acid-resistant, wax-like liquid. When that substance has dried, a metal stylus is used to remove some of it, to expose areas of metal. Those areas will be etched when the plate is put in acid; they will later create the image on paper. When the lines have been etched, the artist removes the resist material from the plate and applies a paste-like ink into the grooves. The ink is transferred from the plate to paper by use of a printing press. For each additional impression, the plate must be re-inked and printed again. (For more information, see <<http://www.randhuebsch.com/eplorations/newsletter.html>>.)

2. For more on the embossing process, see <<http://www.randhuebsch.com/makeimpression/newsletter.html>>.

3. The exhibition was entitled "Be Merry and Wise: The Early Development of English Children's Books." A catalogue of the exhibition was published, entitled *Be Merry and Wise: Origins of Children's Book Publishing in England, 1650–1850* (Brian Alderson and Felix de Marez Oyens, The British Library and Oak Knoll Press, in association with the Pierpont Morgan Library and the Bibliographical Society of America, 2006).

4. All photos accompanying the instructions are by John LoCicero.

ARTISTS' WEB SITES

Anneli Arms: <http://www.anneliarms.com/>

Cynthia Back: http://www.inliquid.com/artists/back_cynthia/back.php

Carol Barton: <http://www.popularkinetics.com/>

Susanna Bergtold: <http://www.susannabergtold.com/>

Beatrice Coron: <http://www.beatricecoron.com/>

Laura Davidson: <http://www.lauradavidson.com/>

Rand Huebsch: <http://www.randhuebsch.com/>

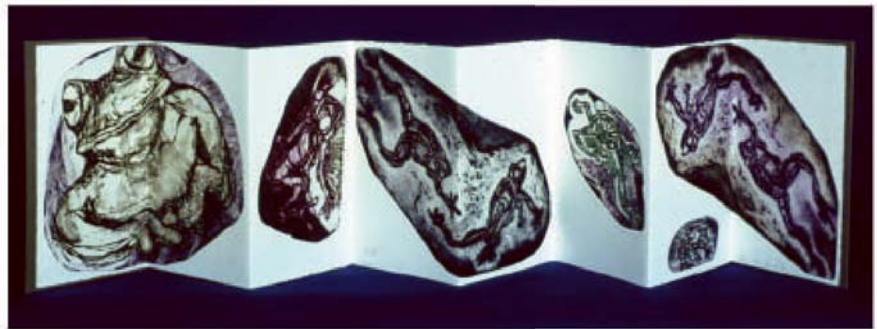
Ed Hutchins: <http://www.artistbooks.com/>

Susan Share has a Facebook page.

A GALLERY OF TUNNEL & ACCORDION BOOKS



Reptiles by Rand Huebsch, 1996. Accordion book, eight panels, each panel 7”h x 9”w, etchings on Arches paper, with embossed covers (on Canson Mi-Teintes), edition of 75. Photo by Daniel Falgerho.



Untitled (Reptiles project) by Anneli Arms, 1996. Etchings, 10”h x 6”w.



Walks of Life by Beatrice Coron, 2008. Cut Arches paper, 6” x 44”, edition of four.



Zip-off Fence by Susan Share, 2005. Mixed media on paper, metal, cord, plastic, welding rods, fiberglass rods, twist ties, zippers. Each panel is multi-layered and connected by a 36" long zipper. 48"x48"x48" minimum; can open to 60" x 60". Photo: Clark James Mishler.



Florence by Laura Davidson, 2003.



Tunnel Map (cover and interior) by Carol Barton



X by Susanna Bergtold, 2000. Silicone intaglio, 5.25" x 11.25", edition of twenty.



Out My Window by Ed Hutchins, 1994. Single-sheet tunnel book.



Handle with Care by Cynthia Back. 2009. Accordion fold artist's book, dry-point, collograph. 3" x 5".