PAPER DESIGN PAPER
A designer's guide to paper engineering
By Isabel Uria

Approx. 216 pages
Size 9 x 9 inches

Paper Design Paper is a comprehensive how-to guide for graphic designers who want to solve design problems and visualize ideas with paper engineering as a strategy. The term paper engineering refers to artists and designers who work with precisely detailed paper constructions to create pop-up and interactive books and other objects. Paper engineers combine cutting, folding, pasting, and assembling to make a predetermined shape and form that can be contained flat within a closed condition, but when opened, raises into its 3D form. Paper engineering can also refer to constructing of an object out of paper which is designed to remain three-dimensional.

This book displays paper structures, pop-up diagrams, advanced packaging designs, and other paper constructions that may be used and modified by designers to create unexpected works that viewers can physically experience or perceive as highly tactile. Through a series of multi-purpose projects, each designer will be guided into the inner workings of paper mechanisms. Each project is the basis for further exploration. Paper Design Paper not only conveys the thrill, inspiration, and enthusiasm that paper engineering can encompass, but provides uniquely accessible guidance.

CONTENT OVERVIEW

The book is divided into four main sections: basic, intermediate, advanced, and documentation. Each section builds upon the previous one. Every section includes at least one profile from a successful designer or paper engineer, exemplifying different methods of working with paper.

Paper Engineer Profiles:
Andrew Baron
Up with Paper
Bruce Foster
Robert Sabuda

Designer Profiles:
Trish Witkowski
FOLDRite
Miyuki Kawamura
Keetra Dean Dixon
Martin Venezky

BASIC

The first section is basic: easy-to-master first steps to begin paper engineering, including learning how to crease and fold, cut and paste. Starting with learning how to fold a crane accurately, this section also covers useful techniques such as how to design and make accordion folds, tunnel books, and die cuts, and how to precisely measure for folds.

INTERMEDIATE

Projects in the second section build on the basics of paper engineering. Diagrams and templates explain standard pop-up structures such as v-folds, parallel folds and armatures, various opposing angle folds and tipped-in pieces. These structures are then applied to graphic design projects such as magazine advertisements, self-mailers, cards, and resume packages. One featured design is a standard #11 self mailer envelope that, when pulled open, sticks out an arm at its side—as if saying hello—carrying with it a business card. Keep pulling the envelope and the card reveals a letter fold within containing a resume.

ADVANCED

The third section dives into more challenging designs—daring and fantastic projects such as unique handmade pieces. This is the place where more DIY designs appear, board is introduced in addition to paper to make boxes and package designs, and simple structures from previous chapters are utilized more extensively. For example, a thousand cranes are used to make a sculptural object, and all of the standard paper structures covered in the intermediate section are combined to make a series of 12 calendar pages. Small business promotions are also shown in this section; for example, an architecture firm's paper design where the square spread unfolds to produce an interactive miniature interior space. Additionally, this section demonstrates how paper can easily be used in 4D in the form of a storytelling video of walking paper typography, paper shapes, and forms.

DOCUMENTATION

The final section shows how to document paper projects, bringing 3D and 4D back to 2D, in order to create rich, dimensional, tactile images. The thousand cranes project from the advanced section could make a great image for a book cover, for instance, or the calendar could be photographed to create evocative 2D imagery. The work of Martin Venezky, profiled in this chapter, exemplifies the masterful depiction of the tactile, material objects in 2D form.

ADDITIONAL COMPONENTS

Paper Design Paper is meant to be a catalyst for creative output. The book provides skills, tools, and templates for how to work with paper, offering each reader possibilities to use these to create unique designs for audiences to interact with. A comprehensive web site will accompany the book, providing access to PDF templates, selected content from the book, direct links to designers' websites referenced in the book, and video content that cannot be experienced in book format. The book plus these additional web components will broaden the creative possibilities and perspectives of designing with paper.

FILLING THE NEED

Many books have been published about working with paper, such as David Carter's The Elements of Pop-Ups, Papercraft: Design and Art With Paper published by Die Gestalten Verlag, or Unfolded: Paper in Design, Art, Architecture and Industry by Peter Schmidt and Nicola Stattmann. Few of them specifically address graphic designers. Instead, they are directed at crafters, hobbyists, and beginner paper engineers. Even fewer books have templates, and those that do omit instructions for using those templates. These books are about depicting the beauty of paper works and paper engineering, but they do not teach the reader how to get there.

ABOUT THE AUTHOR

Isabel Uria
http://www.isabeluria.com
isabeluriadesign@gmail.com

Isabel Uria is a graphic designer currently finishing her MFA degree in graphic design at Maryland Institute College of Art. She has led workshops and taught students about pop-ups, package designs, and other paper engineering techniques. Most recently, she participated in the 2010 Visualization Marathon in New York City, where her team received an Honorable Mention for their work. By end of The pop-up designs she created for Up with Paper's new card line, Sight 'n Sound, have been published and distributed internationally since 2011. Some of her design research and work will be published in Ellen Lupton's upcoming title: Graphic Design Thinking: Beyond Brainstorming