

PAPER ENGINEERING

HISTORICAL HIGHLIGHTS

ca. 1250

FIRST MOVABLE BOOK

English monk Matthew Paris produces a book with a volvelle (wheel) to indicate church holidays. *Note: Printing with movable type had not yet been invented. Paris's book was all handmade.*

ca. 1450

FIRST PRINTING PRESS

Johannes Gutenberg invents the first mechanical printing press. More books for more people!

ca. 1800

PRETTIER BOOKS

New refinements in printing improve the quality of book illustration. Color printing is developed in the mid-1800s, although hand-coloring continues to the end of the century as well.

1800s

GERMANY—WHERE THE ACTION IS!

German publishers (along with a number of Dutch printers) lead the way in printing movable books for children. This lasts until 1914, when World War I puts German production out of business.

LOTHAR MEGGENDORFER

(1847–1925)

German Illustrator & Paper Engineer

Made his first movable book in 1878 as a Christmas gift for his son. Invented a complex pull-tab mechanism to move several parts of a picture at once.

S. LOUIS GIRAUD

(1879–1950)

British Newspaperman

In 1929, created a series of inventive pop-up books with paper engineer Theodore Brown. In a later series, called *Bookano*, cleverly constructed paper figures rise up tall from the page and can be viewed from all angles.

JULIAN WEHR

(1898–1970)

American Sculptor

In the 1940s patented a new type of pull tab, using a paper rocker, that made several parts of an illustration move in various directions.

1965

POP-UPS IN THE U.S.A.

Inspired by Vojtěch Kubašta's work, American businessman Waldo Hunt founds Graphics International to publish pop-ups in the U.S. Intervisual Communications, Inc., Hunt's book-packaging company, employs notable paper engineers to produce great numbers of pop-ups in the 1970s and 1980s.

ROBERT SABUDA

(BORN 1965)

American Artist & Paper Engineer

An award-winning designer of contemporary pop-ups, he continues the tradition of complex paper engineering begun by Intervisual Communications.

ca. 1305

MYSTICAL MOVABLE

On the island of Majorca, poet and mystic Ramon Llull uses volvelles (wheels) to correlate ideas about God and truth.

1765

FIRST MOVABLE BOOK FOR CHILDREN

London bookseller Robert Sayer prints the first movable book for children—a "lift-the-flap" book about the comic rascal Harlequin.

MARTIN ENGELBRECHT

(1684–1756)

German Engraver

Arranged elegant cut-out figures and scenery in a peep-show format to create the illusion of three dimensions.

1850

THE FIRST POP

London publishers Dean & Son are the first to develop cut-out scenes that emerge from the page when a book is opened.

late 1800s

MORE READERS

Literacy rates rise in Europe and the U.S., leading to a growing demand for books.

ERNEST NISTER

(1842–1909)

German Publisher

His firm produced numerous children's books, including many innovative movables.

1880s

AMERICAN MOVABLES

The McLoughlin Brothers become the first major publishers of movable books in the United States, inspired by European examples.

1930s

JUST NAME IT

Blue Ribbon Books of New York patents the term "pop-up."

VOJTĚCH KUBAŠTA

(1914–1992)

Czech Artist

An architect by training, he began making ingenious, dramatic, and colorful pop-ups in the late 1950s.

COMPUTERS! LASERS!

From about 1971, new techniques in computer-assisted design and laser-cutting let paper engineers experiment with intricate folds and complex pieces that were previously impossible to mass-produce. (Nevertheless, pop-up books are still assembled by hand.)