THE EVOLUTION OF PAPER

Exploring the history of papermaking, amount of paper produced and consumed worldwide, and exploring the process in which paper is produced.

THE PRODUCTION OF PAPER

Below is a diagram of the papermaking process, according to DigiPaper.com.

Materials:
- Raw Materials
- Recycled Materials

Be-Barking/Chipping
- Primary step involves cutting basic blocks of wood into smaller pieces.

Chemical Pulping
- Involves soaking wood chips in a strong chemical solution to break down the lignin, creating wood pulp.

Mechanical Pulping
- Uses equipment to break down wood, creating wood pulp.

Pulping
- Paper is made by forming and matting the wood fibers.

Paper Making
- Wet Basis: The paper is made from a slurry of fibers and water, which is then drained and pressed to remove excess water.

Finishing
- Includes processes such as drying, sizing, and calendaring to improve the paper's properties.

THE EVOLUTION OF PAPER

The birth of paper, as we know it today, took place in China. Ts'ai Lun, a court official, invented a papermaking process which primarily used rags (textile waste) as the raw material. This innovation soon spread to the Middle East and Europe.

A BRIEF HISTORY

The first paper-like substance was invented by the Egyptians over 6,000 years ago. Papyrus, which is the root of our English word paper, was made by weaving reeds or other fibrous plants together and pounding them into a flat sheet. The Greeks and the Romans also used this technique, although some Ancient Greek paper makers were the first to create a kind of parchment paper made out of animal skins. Changes are: Aristotle, Isocrates, and other Greek philosophers originally wrote their books on the skins of dead cows.

But paper as we know it wasn’t made until 105 AD, when a Chinese court official named Ts’ai Lun added mulberry bark and hemp fiber to the mixture. This concoction was heated into a pulp and pressed into sheets that were left in the sun to dry.

Today, we produce over 400 million tons of paper annually, more than anyone else on earth. North Americans still consume more paper per capita, upwards of 500 LBS. annually, than anyone else on earth.

Papermaking spreads across Asia, Middle East and Europe, and this is expected to reach 40% of the world’s industrial logging goes into making paper, and this is expected to reach 40% of the world’s industrial consumption of wood.

This statistic depicts the total production of paper and board in the United States from 2003 to 2012. In 2013, the total U.S. production of paper and board amounted to some 81.52 million tons.

This statistic shows the amount of paper produced worldwide, by paper type, from 2007 to 2013. In 2008, some 185.5 million metric tons of graphic paper were produced around the globe. Until 2011, this production decreased to under 135 million metric tons.

ANNUAL PAPER CONSUMPTION PER CAPITA

World consumption of paper has grown 400% in the last 100 years. Now nearly 4 billion tons of paper are used worldwide on every continent, nearly every day.

This diagram illustrates how widely paper usage varies from continent to continent.

Sources: RISI, US Census Bureau, United Nations, Statistics Canada, Infography & Environmental Paper Network

PACKAGING PAPER

Uses:
- Business Forms, Flyers, Books,
- Indicators and safety labels

Popular weights:
- 20, 24, 28, 32, 50, 60, 70 lb.

ANNUAL PAPER PRODUCTION VOLUME FROM 2007 TO 2013, BY TYPE (IN 1,000 METRIC TONS)

Packaging Paper

Graphic Paper

New

GLOBAL PAPER PRODUCTION VOLUME FROM 2007 TO 2013, BY TYPE (IN 1,000 METRIC TONS)

Paper Making Finishing

Resources:

THE EVOLUTION OF PAPER

14th Century

Papermaking technology evolves - demand for paper increases.

FREE SAMPLES

Paper samples below are different types of paper used in professional design projects.

Vellum Bristol

Liger

Index

Laser Bond

Newprint

Offset

Digital Imaging

Popular weights:
- 57, 67, 100, 120 lb.

Popular colors:
- White and Color

Uses:
- Business Forms, File Tabs,
- Business Forms, Flyers, Books

Popular weights:
- 20, 24 lb.

Popular colors:
- White and Color

Uses:
- Business Forms, Flyers, Books,
- Stationery

Popular weights:
- 50, 60, 70, 80, 100 lb.

Popular colors:
- White and Color

Uses:
- Business Forms, Flyers, Books,
- Posters

Popular weights:
- 90, 100, 140, 170 lb.

Popular colors:
- White and Color

Uses:
- Business Forms, Flyers, Books,
- Index

Popular weights:
- 20, 24, 28, 32, 50, 60, 70 lb.

Popular colors:
- White and Color

Uses:
- Business Forms, Flyers, Books,
- Digital Imaging