

Production for Designers

Session Four: February 24, 2020

Review Session Three:

Review Assignment samples

FTP sites

Raster, Vector and Imaging formats

Job Tickets and Mid-Term Project

Today's Agenda:

Introduction to Printing
Four "types" of printing

What is Print - Printing?



What is Print - Printing?

<https://www.dictionary.com/browse/graphic-arts>

What is Print - Printing?

<https://www.dictionary.com/browse/craft?s=ts>

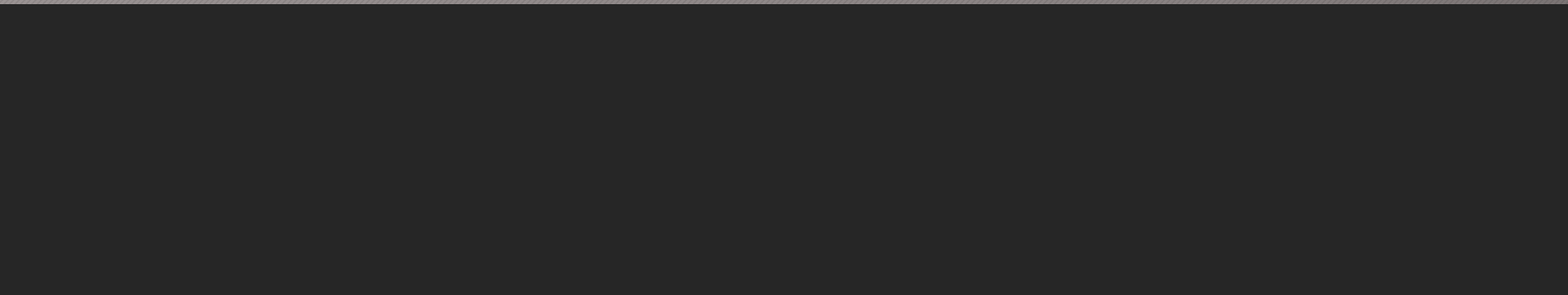
What is Print - Printing?

<https://www.dictionary.com/browse/process?s=t>

What is Print - Printing?

<https://www.dictionary.com/browse/manufacturing?s=t>

What are the different types of printing?



What are the different types of printing

Digital Printing

Offset Printing

Flexography

Letterpress Printing

Screen Printing

Gravure



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Print - Printing an Overview?

PRINT MEDIA



Print - Printing an Overview?

MARKET, PROMOTE AND SELL



Print - Printing an Overview?

PRINT LOGISTICS



Print - Printing an Overview?

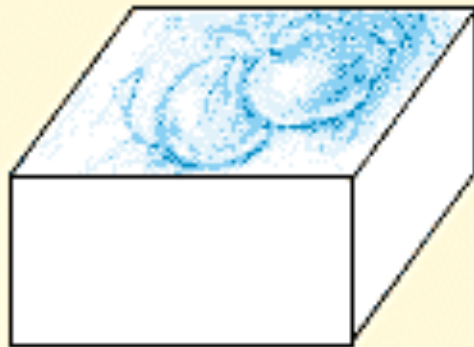
Why has PRINT “returned”?

Diversity of media, the neuroscience of paper and the user, variety of substrates, and the need to touch, feel and bond with a medium.

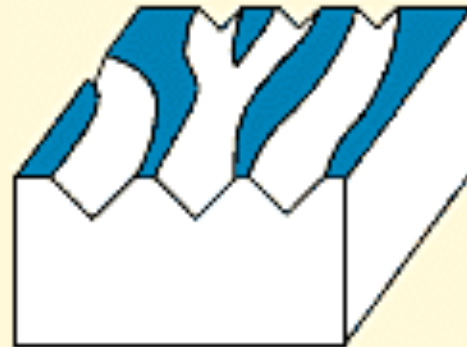
Review Print Samples

- Digital
- Sheet Fed
- Web
- Lenticular
- Flexography
- Other
- Specialty

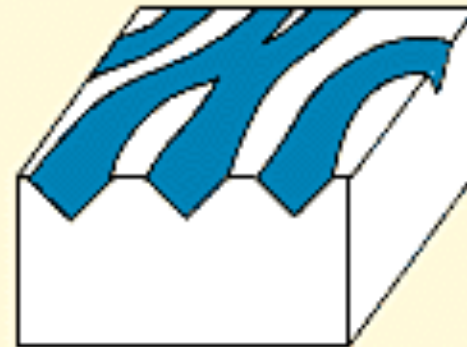
FOUR MAJOR TYPES OF PRINTING



Planography:
prints what is
drawn on the
surface



Relief:
prints what
is left of the
original surface



Intaglio:
prints what
is below the
surface



Stencil:
prints through
open areas in
screen

Planographic: Offset Lithography

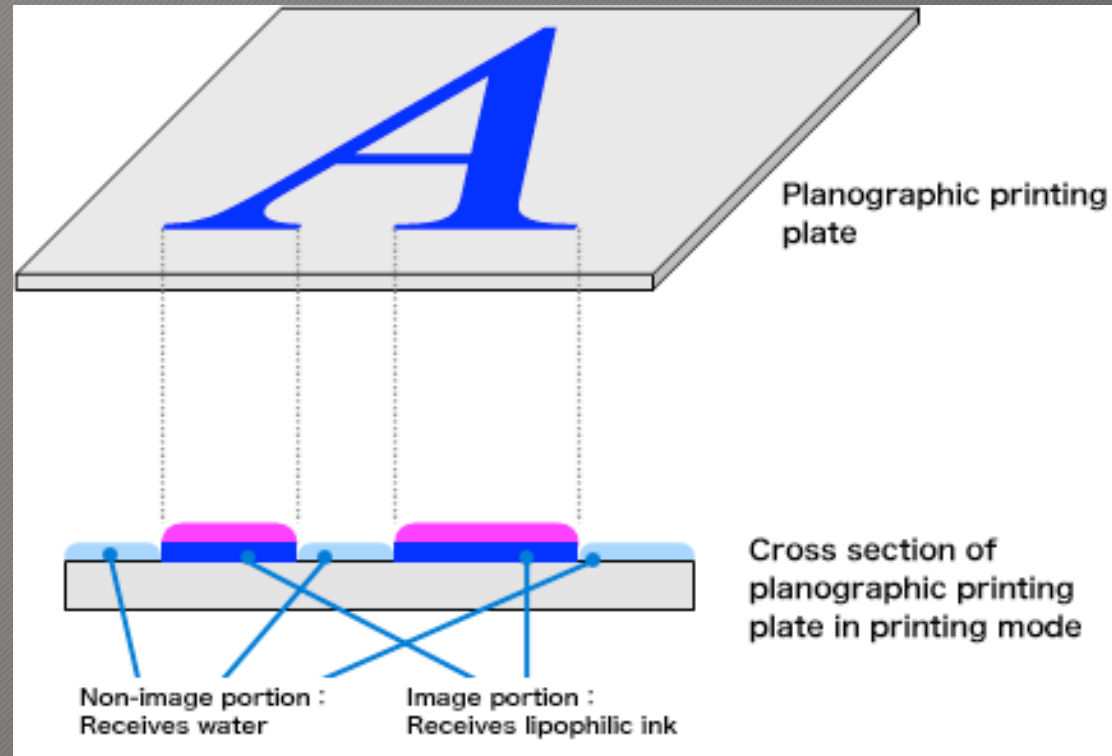
<https://www.britannica.com/technology/lithography>

<https://www.definitions.net/definition/planographic%20printing>

Planographic Printing

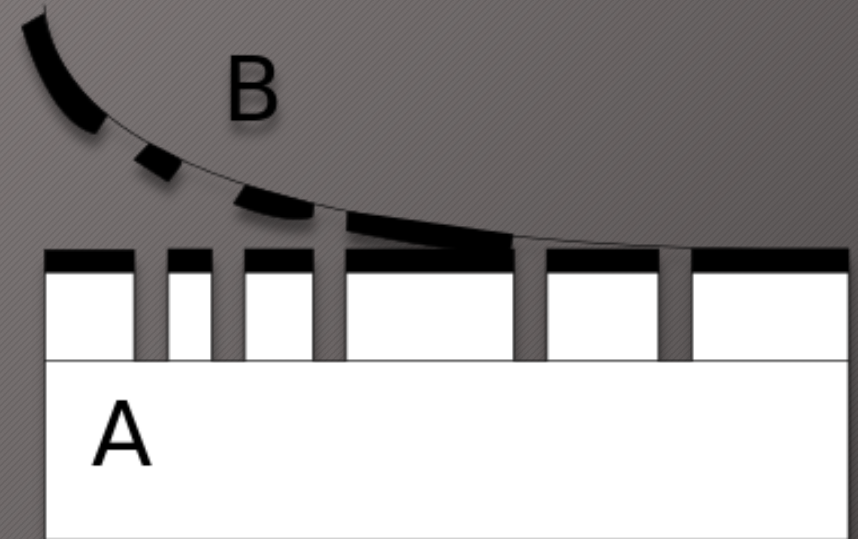
Basic Principles: Oil and water do not mix.

An image carrier that is formed using an ultra thin sensitive coating that is adhered to a grained substrate, creating a planographic surface with both **hydrophilic** and **oleophilic** properties that can be mounted on a press plate cylinder and work in conjunction with various fountain solutions and inks to generate an image which is ultimately transferred to a printed substrate.



Relief Printing

- Relief printing is a family of printing methods where a printing block, plate or matrix that has had ink applied to its surface, but not to any recessed areas, is brought into contact with paper.

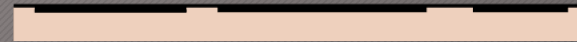
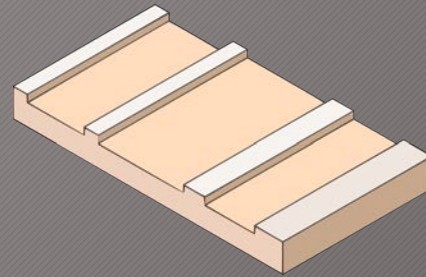


Intaglio - Gravure Printing

Intaglio:

Gravure and steel-die engraving.

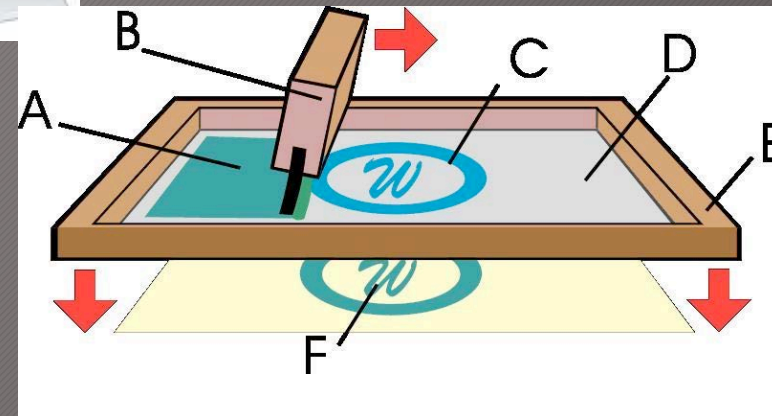
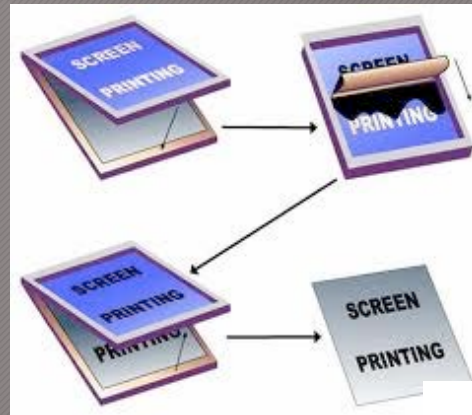
Intaglio is a family of printmaking techniques in which the image is incised into a surface, known as the matrix or plate, and the incised line or area holds the ink. Normally, copper or zinc plates are used as a surface, and the incisions are created by etching, engraving, drypoint, aquatint or mezzotint.



Screen/Porous Printing

Porous:

Screen and stencil duplicator - In stencil and screen printing, also known as porous printing, ink is brushed or squeezed through a stencil image on a fine screen onto paper or other surface such as metal, glass, or textile. The screen holds the image area, which may carry either pictorial or typographic material.



The Printing Top Line

Letterpress (Relief Printing)

Standard for printing from 1440's to 1970's

Flexography (Relief Printing) – Developed around 1905 by C.A. Holweg of France.

The Printing Top Line

Rotogravure (Intaglio Printing) – Developed in 1890 by Karel Klic in England.

Silk Screen (Stencil Printing) – Derived from the 1907 silk screen printing patent of Samuel Simon in England

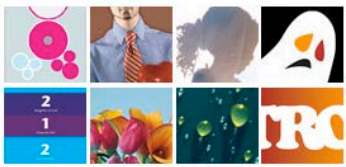
Printing Processes

The Ed Series

Sheetfed

http://edliveshere.com/example/print_it/14

Ed #11 | Examples | Content



Ed #11 Print It

● sheetfed
○ web
○ digital

Sheetfed at work

SIZE
Up to 74" wide

SPEED
8,000–18,000 impressions per hour

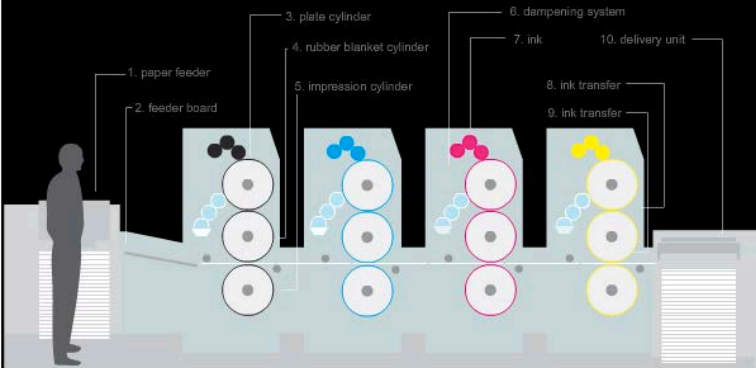
UNITS
Up to 12

SCREENS
133–300+ lines per inch (lpi)

FINISHING
In line or off line folding and trimming;
off line binding, coating, embossing,
die cutting, stamping

ADVANTAGES
Higher resolutions, more paper and
finishing options

Roll over the press to see it in action and learn its many functions.




1. paper feeder
2. feeder board
3. plate cylinder
4. rubber blanket cylinder
5. impression cylinder
6. dampening system
7. ink
8. ink transfer
9. ink transfer
10. delivery unit

SHARE ORDER SAVE

Web

http://edliveshere.com/example/print_it/14


Ed #11 | Examples | Content



On presses

Doing the job right starts with the right equipment. So which is right for you? **Rollover the presses to learn more.**

More info:
[Press Types »](#)

SHARE ORDER SAVE 

Ed #11 Print It

sheetfed
 web
 digital

Web at work

SIZE
Up to 88.6" wide

SPEED
Up to 100,000 impressions per hour

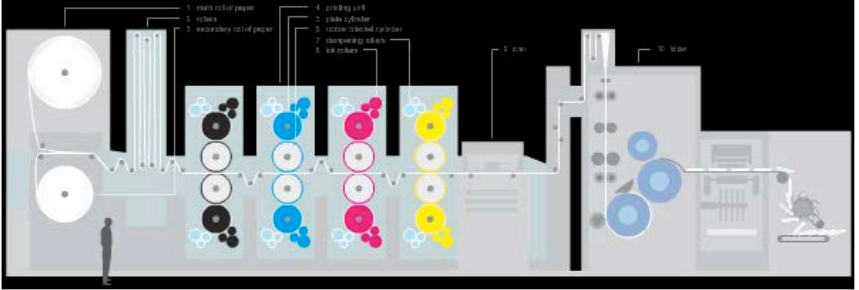
UNITS
Up to 8 (heatset)

SCREENS
100-200 lpi (heatset)

FINISHING
In line folding, glue binding, stitching and perforating; in some cases, addressing and converting

ADVANTAGES
Speed; accommodates lightweight papers

Roll over the press to see it in action and learn its many functions.



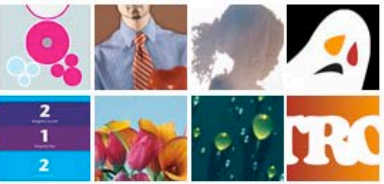
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Digital

http://edliveshere.com/example/print_it/14


Ed #11 Examples Content



On presses

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More info:
[Press Types »](#)

[SHARE](#) [ORDER](#) [SAVE](#) 

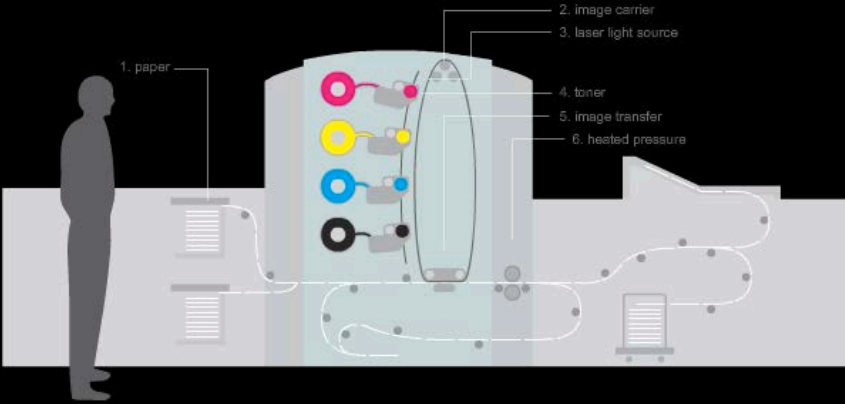
Ed #11 Print It

sheetfed
 web
 digital

Digital at work

Although there are a number of different types of toner-based digital presses (see Ed #8), many share the same basic elements. Roll over the press to see it in action and learn its many functions.

SIZE Up to 14.3" x 20.5" sheet size	SCREENS Up to 230 lpi/800 x 800 dpi
SPEED Varies widely; four-color up to 4,000 duplex (two-sided) sheets per hour; two-color, up to 8,000 duplex sheets per hour	FINISHING In line collating, stapling; various off line techniques
UNITS Up to 7	ADVANTAGES Fast turnaround, short runs, variable data



1. paper
2. image carrier
3. laser light source
4. toner
5. image transfer
6. heated pressure

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The Processes

Part 3 Snapshot

What You Should Know about the Major
Printing Processes

Mid-Term Assignment

Develop a multi-part project, the project needs to contain files that are PRINT ready for the following media. A newspaper ad, a magazine ad, a printed flyer or brochure and a movie style poster. You need to email 3 items, any combination of the items listed or others like a business card, letter head or window signage can be presented.

First draft PDF's are due on March 9th, via email. The files need to be sent as PDF files and at this stage do not need to be print ready but must contain all require printer's marks, color bars and embedded fonts and images.

Next Session

Color, guest speaker on color, color management.



Print Production for Designers

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