Right Brain vs Left Brain: Bridging Creative Design and Print Execution

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This presentation is dedicated to our friend, Kevin O’Connor.
Art vs Manufacturing

Graphic art is a creative process that would like to ignore technical limitations.

Printing is a mechanical process with rules, tolerances and limits. It can influenced by a number of variables, not all of which can easily be controlled.
The Reality of Print and Packaging

Printing and packaging has become commoditized

Vendors are chosen on price or previous relationship most often

40% of printers only contact with a company is with the purchasing department.
What printers wish designers knew

- Design brief, what should be in it
- Proofing
- Press checks/approvals
- Color language for designers

What is the most common reason a job needs reprinting? COLOR
What designers think printers know

- What the design will look like EXACTLY when it’s printed.
- How to interpret color instructions.
Design brief

- The design brief is a tool used to determine the scope of a project:
  - The goal
  - The budget
  - The audience
  - Everything that gives the project the best chance of success

- And that includes how it will be executed

75% of graphic jobs begin with a brief
But only 33% of printers meet with the designer before the job starts
Design brief

Why should a designer communicate with a printer?

- To get the best results
- To avoid costly reprints
- To increase creativity

What print-related information should be on a brief?
Every design brief should include a section that talks about print and execution:

- Print method
- Number of colors available
- Spot vs process vs ECG
- Printers specifications
- Substrate

The more information you have the better.
Design brief

When designers understand what the printer specifications are and what is achievable on press early in the creative process, the project is likely to print as expected.
Design brief
Printing methods: Lithography

- Lithography is also called offset printing
- Is used for mass production
- Image on plates, transferred to rubber blankets/rolles and then on print media
Design brief

Printing methods: Examples of lithography

- Most standard magazines
- Most large run full color print jobs
- Packaging cartons
Design brief
Printing methods: Rotogravure

- A type of intaglio printing process: the cylinder comes into direct contact with the paper
Design brief
Printing methods: Examples of roto gravure

- Very large volumes for catalogs and magazines
- Increasingly used in packaging, especially in Asia
Design brief
Printing methods: Flexography

- A greener solution as it uses water-based inks
- Requires large runs although may not be able to do the size runs that Roto can do
- Flexography can be used with non-porous substrates
Design brief

Printing methods: Examples of flexography

- Food packaging because it uses food safe inks and dries fast
- Medical Packaging, for the same reasons.
- Compatible with many substrates i.e. foil wrappers, hygienic bags, plastic, and cardboard packaging
- Corrugated boxes and flexible packaging
Design brief: Color management

Of all the things that can go wrong.....

- Competing color priorities
- When a brand displays inaccurate colors
- Return of catalog products due to color
- The cost of an too many colors needed to print correctly

On press, in a signature conflict, 75% of printers will match the brand colors first. 25% prioritize the colors of the product.
Design brief: Color management

Spot colors

• Spot color (usually) is one ink to match a color (and not a mix of several)

• Pantone is the industry standard to define one-color inks.

• Pros and cons of using spot colors:
  • Better color consistency and fidelity
  • Not often used for continuous tone images
  • Eliminates registrations issues
  • Can be considerably more expensive
Design brief: Color management

4/color process

• Combining cyan, magenta, yellow and black yields virtually all colors and is always used to reproduce color photography on press

• Pros and cons of 4-color process:
  • Used for continuous tone images
  • Usually less expensive
  • Consistency is more challenging
  • Requires precise registration
Design brief: Expanded color gamut

• Combining cyan, magenta, yellow, orange, green, violet/blue, and black yields virtually all colors and is more accurate when reproducing pantone/spot colors.

• Pros and cons of ECG process:
  • Best used for more accurate brand and/or solid colors
  • Usually less expensive
  • Consistency is more challenging
  • Requires precise registration
Design brief: Color management

In order to choose the best color strategy, it is critical to consult a printer before executing a concept/design. However, you are more likely to:

- Use spot colors or ECG for packaging
- 4/color process in catalogs and most mid-level brochures and other collateral
- Also in large and grand format printing
- A combination of 4 color and spot for packaging that combine continuous tone photographic images and critical brand colors
- Find ECG in packaging but is expanding into other areas
Design brief: Print specifications

- Print specifications define the capabilities of a print method
- They are supplied by the printer
  - Based on printer tests or press fingerprints
  - Industry standard such as GRACoL, SWOP, ISO, G7, CxF, etc.
  - By the type of press and transfer materials

Examples:
- Minimum (reverse) type size and line width
- Bleeds
- Bar width reduction
Design brief: Substrates

- “Paper is the fifth color” (all whites are not the same).
- To avoid disappointing results, discuss your paper choices with your printer.
- For packaging the substrate may not be something that can be changed.
Design brief: Substrates

- Find out how you can leverage the substrate. For example:
  - Use foil with and without a white
  - Add a spot varnish to make a certain area gloss or matte
Proofing

Proofs are used as reference on press, mostly for color

- There are different kinds of proofs
- Well managed inkjet proofs will match process color very closely on press but can be challenging for spots
- Proofs won’t take paper color and texture into account

Proofs are never going to match what is on press exactly but they will give you a reasonable target to aim for.
Proofing

Inkjet proofs
• Epson, HP, Canon, with a RIP
• Can be in-house
• Color managed (profile based)
• Many proofing papers available to emulate a press sheet

Press/Plate Proofs
• Typically done with Gravure cylinders
• Can be expensive
• Effective for proofing content but maybe not color
• Usually done for high end packaging
Proofing

Ink Draw Downs

• Must be done on the actual substrate
• Varnishes or coatings should be applied to the draw down
• Overprinted spot colors should be applied in lay-down sequence
Press checks

MOST IMPORTANT RULE: NEVER use a press check to make changes that should have been made earlier

- Not for “brighter” colors
- Not for type changes
- Not for design changes

- ONLY to insure that the color matches the contract proof
- Or to make decisions to balance color on a signature
How to talk about color
How to talk about color

- Color cannot be accurately communicated verbally through descriptions because everyone sees it differently.
- Color may be communicated visually with a color sample, ink draw downs, Pantone swatches, and contract proofs.
- They cannot be described in subjective terms such as “zingy” “popping” ”lilac” etc.
How to talk about color

Color may be communicated quantitatively by referencing its three attributes:

- Temperature: Warm, cool, etc.
- Chroma: Brightness or dullness of a color
- Lightness: Intensity of a color
## How to talk about color

<table>
<thead>
<tr>
<th>Designer</th>
<th>Printer</th>
</tr>
</thead>
<tbody>
<tr>
<td>It needs to pop more!!</td>
<td>The color should be brighter</td>
</tr>
<tr>
<td>Is the color correct?</td>
<td>We are within Delta E</td>
</tr>
<tr>
<td>Color looks dirty</td>
<td>Too dark or reduce black</td>
</tr>
<tr>
<td>Should look summery</td>
<td>Add warmth</td>
</tr>
<tr>
<td>It looks fuzzy</td>
<td>Registration is off</td>
</tr>
<tr>
<td>That color is really strong/weak</td>
<td>Color/ink saturation</td>
</tr>
<tr>
<td>It should be opalescent/shiny/flat</td>
<td>Metal ink or special finish</td>
</tr>
</tbody>
</table>
Communicate

- Designers should (select and) consult with a printer at the start of a project
- Designs should be seen by the printer before they are final
- Incorporate feedback
- Establish a line of communication based on trust and goodwill

90% of designers do NOT discuss the project with the printer at the beginning of a project.
Questions?

color 20
get the answers here
Thank you for attending!

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