

GD 127 Graphic Design Workflow

Notes on Unit 5—The Magic of COLOR

No device or technique for reproducing color comes even close to the ability of the human eye to perceive color

Computer screens, photographs, proofs, illustrations and every other device or system used to design a printing job can produce more colors than a printing press.

PROPERTIES OF COLOR

Hue--pure color

Chroma--saturation, intensity--Adding a compliment

Value--lightness or darkness--Adding black (shade) or white (tint)

WARM/COOL

Warm, Cool and Clean

Warm--Yellows, reds and oranges

Cool--Blues, greens and some grays

Clean

RGB/CMYK Page 74 visuals

RGB Red, Blue, Green

Additive Color

Used for monitor

CMYK Cyan, Magenta, Yellow, Black

Subtractive Color

Used for commercial printing ink on paper

SPOT/PROCESS

Spot Color

Blending different inks into one ink resulting in the specified hue.

Matching ink to a specified Pantone Number

Process Color/ Four Color/Full Color

Reproducing full color using Process color uses dot patterns of the four process colors to simulate any desired hue as shown in Visual 5-10 on page 78. Use CMYK to reproduce color photos and illustrations

Full color images and photographs are reproduced using CMYK by making color separations. Separating the image into four color separations.

Spot Color/Basic Ink colors

See Box 5-4 on page 72

Pantone Violet

Warm red Pantone 185

Cool red, Pantone 199

Burgundy, Pantone, 201

Blue, Pantone 286

Green Pantone 347

Brown, Pantone 469

Color Builds page 81

To overlap two or more screen tints to create a new color.

Builds from Spot color

Builds from Process color

Pleasing color--newsprint quality-newsletters, newspaper inserts inexpensive

Matching a color--specifying a pantone number or supplying the printer with a color swatch and asking him to match it

Match original--color must match an original scene, product or unique swatch.

Quality

Pleasing color--Basic quality

Match color--Premium and some good quality

Match original--Showcase quality

Dot Gain

During the many steps from image design to printing, dots tend to get bigger.

Printers call this growth dot gain, also know as tone value increase.

Dot gain may affect the outcome of printing jobs in the following ways:

Halftones and separations lose detail

Colors shift in separations

Screen tints print too dark

Color builds don't match swatches

Chokes and spreads don't function properly

Fine lines drop out when printed as reverses

Many aspects of print production influence dot gain. The following are most important:

Paper

Printing method

Type of press

Colorants

Screen Ruling

Screen Pattern

Press chemistry