

# Full Color

*“Color can increase  
the velocity of  
comprehension.”*

Jan White

Today's technology lets us use millions of colors in our documents. Used carefully, color helps a document communicate better, and makes it more inviting. Used without restraint, it renders documents confusing and unattractive.

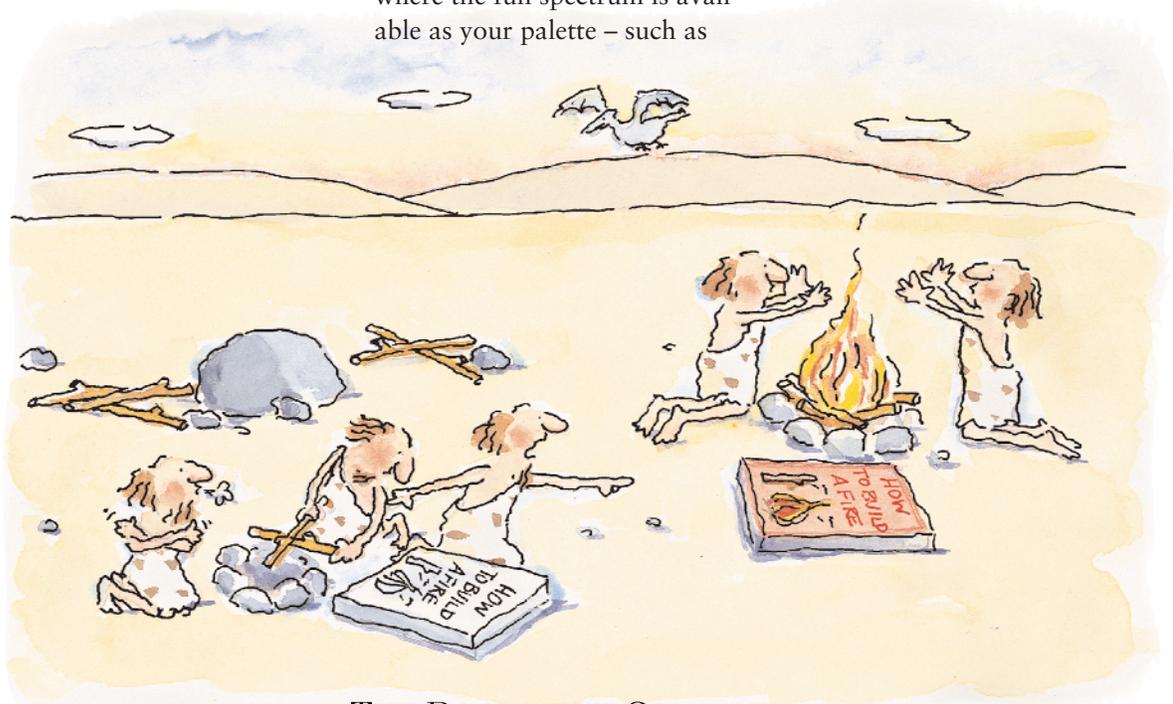
Full color can be more useful when presenting complex information or color images. Make sure, though, that any additional cost associated with full color can be justified by the greater impact.

This article will help you make decisions about color in situations where the full spectrum is available as your palette – such as

when you are producing slides for a presentation or designing a report with a full-color printer.

The main thing to remember is that each color in a document ought to have a meaning. The fewer colors you use, the easier it is for the reader to grasp each meaning and understand the document. Imagine a traffic light with a dozen differently colored lights!

Adding color to documents is a lot easier to do when you think of it as a process of adding value rather than just decoration.



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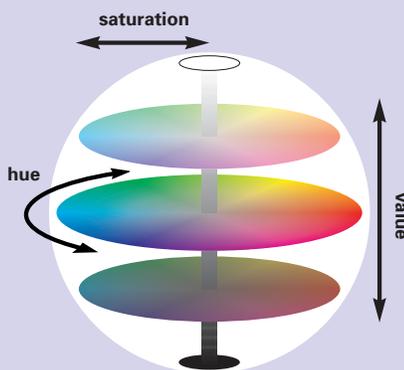
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## Colorful language

**Hue** – What we normally refer to as color. It is the quality that distinguishes red from blue.

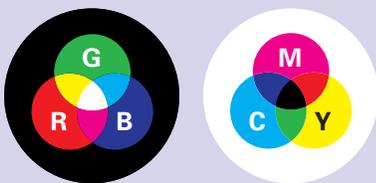
**Saturation** (chroma) – The purity or intensity of a hue, or the amount of gray in it. It is the quality that distinguishes pale yellow from bright yellow and blue-gray from bright blue.

**Value** (brightness) – How light or dark a color appears. It is the quality that distinguishes royal blue from navy blue.



**RGB** – Red, green and blue are the additive primary colors of light and the basis of transmitted color systems such as monitors.

**CMYK** – Cyan, magenta and yellow are the subtractive primary colors and, with black, are the basis of full-color offset presses and most digital color printers.



**Pantone®** – An international color matching standard comprising hundreds of named and numbered colors.

*Use as few colors as you need*



## A functional commodity

Color is a valuable commodity, providing it has a function in the document. Apply color as though you were color coding information in a document.

If you use color simply to add visual appeal, make sure that it is done tastefully and that your document remains readable and clear.

## Somewhere under the rainbow

Use as few colors as you need – not as many as you have! In documents that are exclusively text, you'll rarely need more than one color other than black.

In a business environment, it's best to err on the side of conservative choice and use of colors.

## Picking palettes

Once you've determined the number of colors you'll need, choose them.

- For most documents, **black should be the predominant color** for text.
- **Contrast** between colors is the key to setting them apart.

For colored text on a colored background in a slide, maximize legibility by creating a large difference in value between the colors (e.g., yellow on dark blue).

For a group of colors in, say, a pie chart, you can establish a **family resemblance** by varying their hues while keeping their values close, or using different values (shades) of the same hue.

- For a **highlight color** used with black text, saturated colors of medium to dark value, like bright red, are best.
- Generally, avoid pastel and grayish, **unsaturated colors** since they are more difficult to differentiate, especially for text. Dark unsaturated colors make sophisticated slide backgrounds, however.
- As with all aspects of document design, **experiment** with a number of possibilities to see which works best.

## Color in text

Whatever the function of your colors, it is important to use them consistently. Otherwise, the meaning of the color will be diluted, or, worse, the document will be confusing.

- **Navigation** – Applying color systematically to headings and other elements on the page helps readers understand the document’s structure and locate their place in it.

To keep the number of colors to a minimum, one color can be used for multiple levels of headings, providing that the headings are clearly distinguished in other respects – font, size, etc.

- **Identification** – Color can identify different kinds of information. For example, you can use red to identify actions to be taken. But if you do, try not to use red within the text for other purposes.
- **Emphasis** – Setting some text in color in the midst of black text calls **attention** to it, but don’t overdo it. (Just remember the boy who cried, “Wolf!”)

Make sure the colors you choose for these functions contrast well with both the background color (for legibility) and the predominant text color (for distinction). For many documents, this means a white background, black text, and one or more medium to dark saturated colors.

(For more information on color, see *Documents at Work* No. 8, *Highlight Color*.)

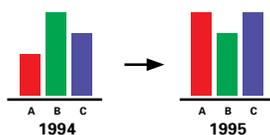
## Color in graphics

Color is indispensable in graphs, charts, diagrams, maps, illustrations and many other information graphics.

- Establish a **color coding** system, and then stick to it within each graphic, if not throughout the entire document.

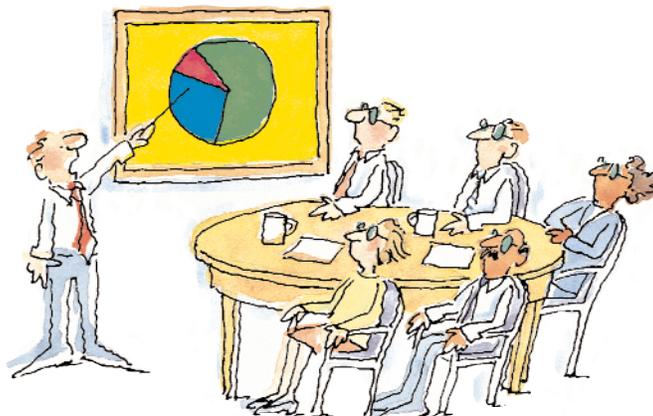
You’ll need to balance the desire to code each type of information with a unique color with the fact that it is hard to quickly differentiate among more than six or seven colors. So don’t forget to label charts and diagrams.

- If you want readers to **compare** a statistic over some variable such as time, be sure to represent those statistics in the same color.



(These points will be covered in more detail in a forthcoming article on Numbers, Tables and Diagrams.)

### Keep your colors under control



## Background noises

Most text is printed on a white background. It is plain but easy to read. But we might consider colored backgrounds to add life to a page or slide.

- **Background tints** can separate parts of a page. Make sure that any text on a color is still legible – even black can disappear on a dark background. If the background color is dark enough, make the type white.
- Watch out for some pairs of colors that **vibrate**, making it difficult to read the text. Red and blue of similar saturation and value creates a real problem.



- **Avoid text on images** – unless you are sure that your message will not be obscured by the dark or detailed parts of the image. You may have to put your text in a box.

## Colorful items

Here are a few things about color to remember from time to time.

- If color plays an integral part in understanding a document, make sure that the effect is not lost if the page has to be **photocopied** on a black-and-white copier, or if the reader is **color-blind**. Wherever possible, use shapes, symbols, textures and typography to provide secondary coding.
- If your documents are meant for a discriminating audience, you may want to seek the advice of a professional **graphic designer**.

## Techno color limitations

Technical limitations should affect your choice of color.

- **Paper** – For text, particularly small text, use colors that use a solid (100%) tint of at least one of the primary pigments (cyan, magenta and yellow). Otherwise, the type will not have sharp edges and will be hard to read. There are many saturated colors that can be seen on RGB monitors but cannot be exactly matched by CMYK printers.
- **Acetates** – Follow the same advice as for paper, but make sure your colors are light enough to permit enough light to pass through the layers of pigment on the acetate.
- **Video tape** – Stay away from highly saturated colors, particularly red. Finely detailed patterns can also cause a problem.
- **Computer video** – Desktop monitors, laptop screens and LCD panels produce colors differently. Test your colors on the device you will use to show your presentation. If the presentation is to be recorded onto video tape, choose your colors carefully.

## QuickCheck

- Is color used carefully and attractively?
- Are the colors functional and used consistently?
- Is the text legible in the medium in which it will be viewed?
- Does the use of color follow any corporate standards that may apply?
- Will there be a problem photocopying it on a black-and-white copier?
- Does the final document or slide look good?

## Further reading

*Color for Impact* by Jan White, available only from the author: (203) 227-2774

*Color for the Electronic Age* by Jan White

“Designer’s Guide to Using Color”  
*Step-by-Step Graphics*, Vol. 7, No. 2

Other related articles in the *Documents at Work* series cover highlight color, design, and graphics and tables.

## Further information

For further information or ideas for future topics, please contact:  
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