

# How to find the perfect color



Getting that just-right color is part art, part science. We'll show you. *Continued* ►

# How to find the perfect color

Hidden in your photo is the color palette you need. Here's how to get it out.

No single visual element has more effect on a viewer than color. Color gets attention, sets a mood, sends a message. But what colors are the right ones? The key is that *color is relational*. Colors don't exist in a vacuum but are always seen with other colors. Because of this, you can design a color-coordinated document based on the colors in any element on the page. Here's how.



**Here's the situation: We have an academic schedule for a women's college to design, and for a photo we have this no-nonsense, freckle-faced model. The goal is to look fresh, alive and personal (no buildings and grounds shots) while conveying the sense that the program is serious and businesslike. A note of trendiness will be good. Color is involved in all of it.**



## Look close, closer, closest

Every photo has a natural color palette. First step is to find it and organize it. Zoom in on your photo, and you'll be astonished by how many colors you see.



At normal viewing distance (left) we see a few dozen colors: skin tones, red hair, blue eyes, blue jacket, but zoom closer, and we see millions! First step is to reduce all those colors to a manageable few; you want 16, 32, 64 tops. In Photoshop, first duplicate the photo layer (so you don't lose the original), then select Filter> Pixelate> Mosaic (right). A large Cell Size gives you very few colors; if you need more, reduce the size.

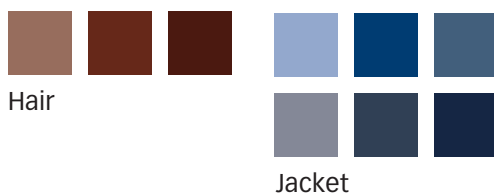


## Pull out the colors

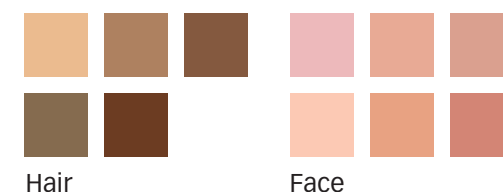
Now extract colors with the eyedropper tool. Work from the biggest color (the one you see most of) to the smallest. For contrast, pick up dark, medium and light pixels of each.

Work first on the big colors. These are the ones you see at a glance; her skin and hair colors and blue jacket. Then do the small colors—her eyes, lips, the highlights in her hair and soft shadows. You can see in this image a light side and a shadow side; it's subtle, but pay attention. Finish each area before moving on. Sort your results by color, then each color by value (light to dark). Discard lookalikes. You'll be thrilled by what you find.

### Shadow side



### Light side



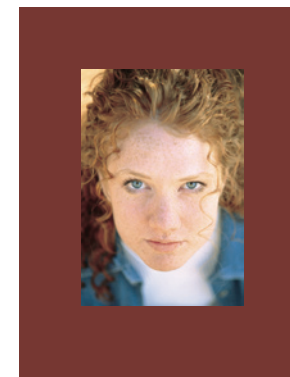
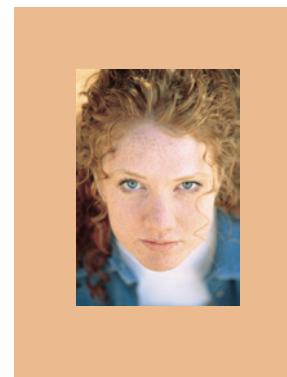
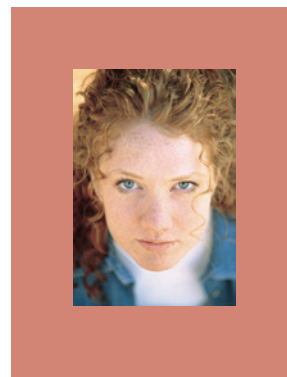
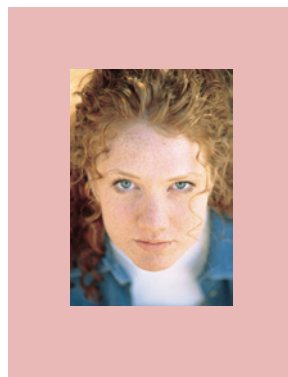
## Try each one on

Place the photo on a swatch of each color. The results are pretty, aren't they? What's fun is that this will always look good, because the colors you're using are *already there*.



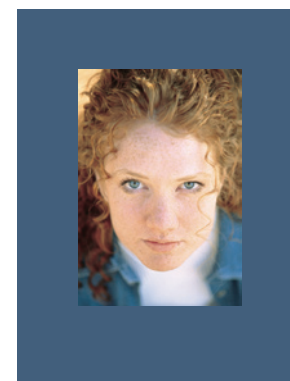
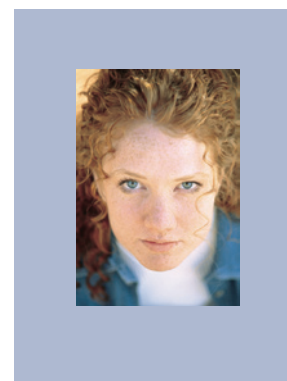
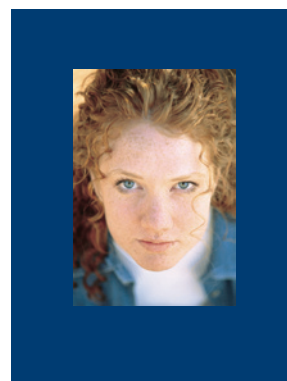
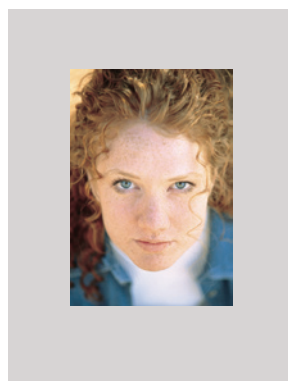
### Warm colors

These are the warm colors—pinks, salmons, sepias, browns—of the red-haired model. The warmer colors make her look softer and more feminine. These colors would be good for a cosmetic message or a caring message.



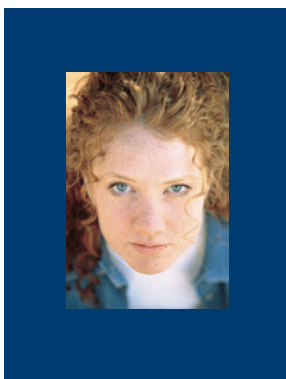
### Cool colors

The cool colors—blues, mainly—make for a more serious, businesslike relationship and convey a direct, to-the-point message. Note that as the values get darker, her face gets perceptually brighter and appears to rise off the page toward you.



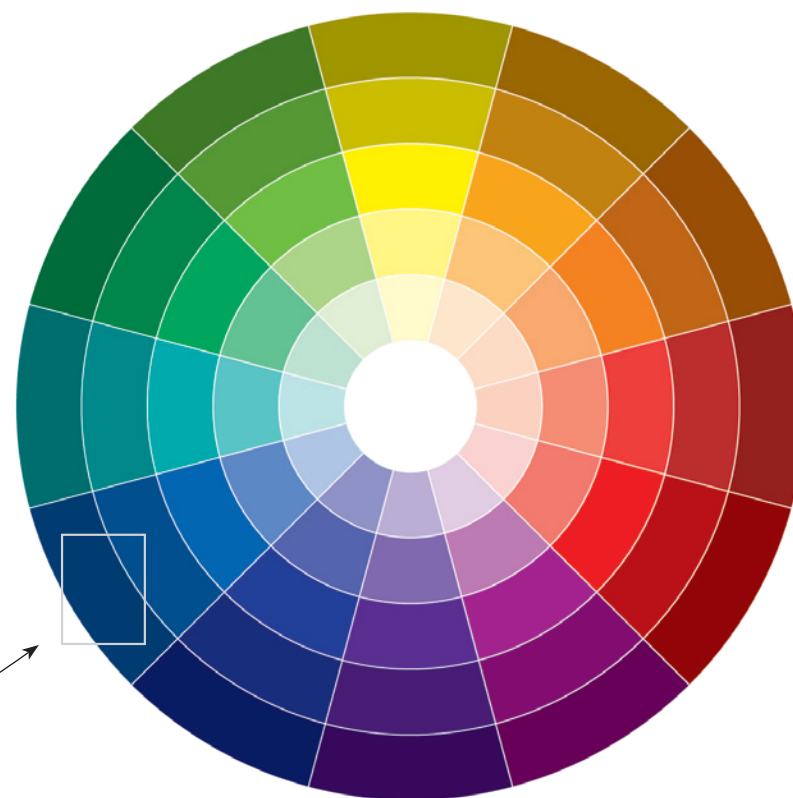
## Add to the colors

The next step is to add more colors. Select any of the colors, and locate it on the color wheel. The purpose of a color wheel is to show you a color's relationship to other colors.



**Pick any of the photo's colors—let's use this blue—and find its general vicinity\* on the color wheel. We'll call this the base color. We already know that the base color goes with the photo. Our job now is to find colors that go with the base color. Keep in mind that if type or other graphic is involved (pretty typical), you'll need both dark and light colors for contrast.**

\*Because the wheel is deliberately basic, you will rarely make an exact match. It's only a guide.





## Create color palettes

From your base color, you can now create an exciting range of coordinated color palettes. Values can mix. For example, *medium* blue works with *light* teal and *dark* violet.



### Monochromatic

First are the dark, medium and light values of the base color. This is a monochromatic palette. It has no color depth, but it provides the contrast of dark, medium and light that's so important to good design.



### Analogous

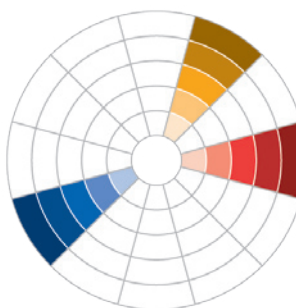
One color step either side of the base color are its analogous colors. Analogous colors share undertones (here, blue-green, blue, and blue-violet), which create beautiful, low-contrast harmony. Analogous palettes are rich and always easy to work with.





### Complement

Directly opposite the base color is its complement—in this case, the orange range. What the complement brings is *contrast*. A color and its complement convey energy, vigor and excitement. Typically, the complement is used in a smaller amount as an accent; a spot of orange on a blue field, as shown above.



### Split complement

One step either way are the complement's own analogous colors. This palette is called a split complement. Its strength is in the low-contrast beauty of analogous colors, plus the added punctuation of an opposite color. In this case, the blue would most likely be used as the accent.



**Complement/analogous**

This mixed palette is the same as the split complement but with more color. Its added range yields soft, rich harmony on the warm side and sharp, icy contrast on the cold side, an intense and exciting combination.

**Analogous/complement**

Colors analogous to our base color make cool harmony punctuated by a hot spot of complementary color. Keep in mind that opposites of the same *value* tend to fight but complement when different (below). This is why you want to eyedropper dark, medium and light values of each color.



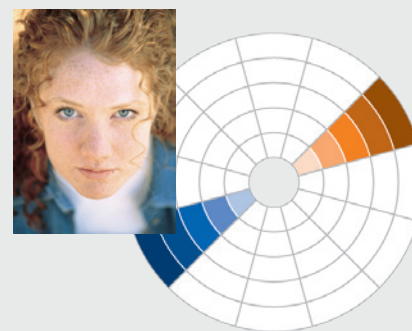
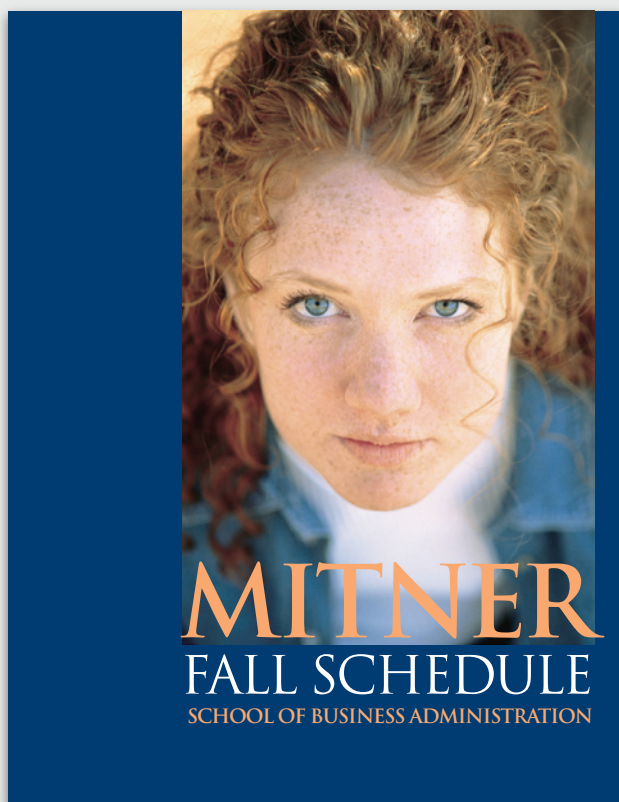
**Opposite colors,  
same value**



**Opposite colors,  
different values**

## Edit and apply

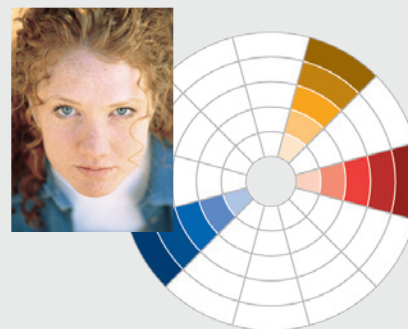
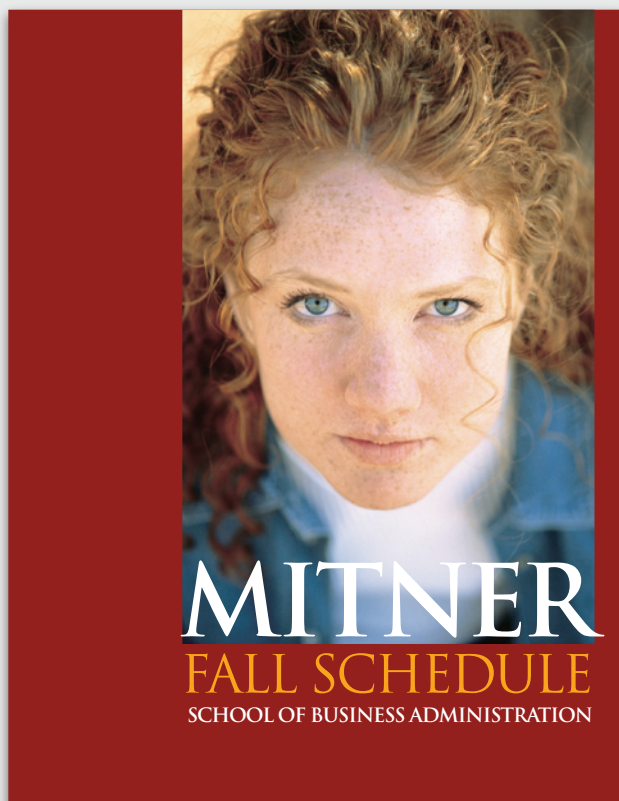
Design the page, and now it's time to make color choices. How to pick? The key is to think *message*. Weigh each against the original purpose by asking, *which colors meet the goal?*\*



**All business**—Blue is everyone's favorite color. What's interesting here is that blue and orange are native to the photo, giving it excellent natural contrast. The blue background swallows her jacket, allowing her intense gaze to lift right off the page. Handsome and businesslike.

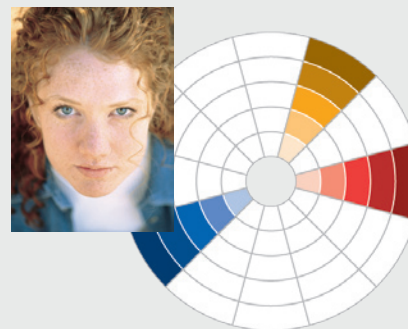
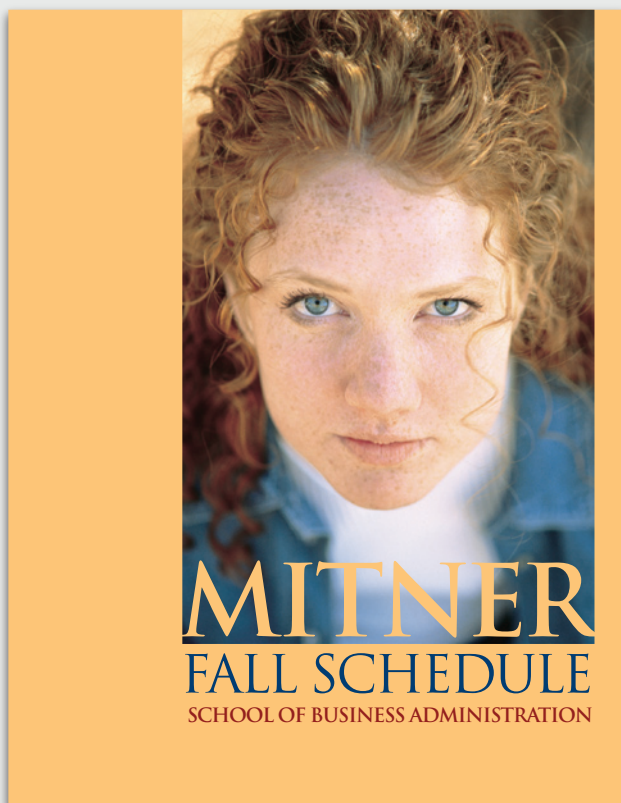


\*Review the design goal on [page 2](#)



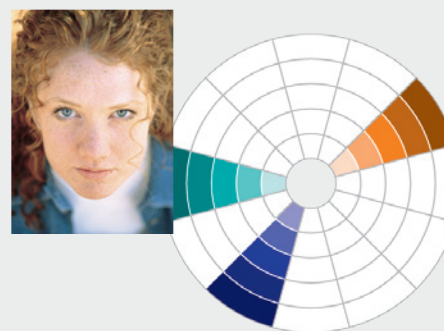
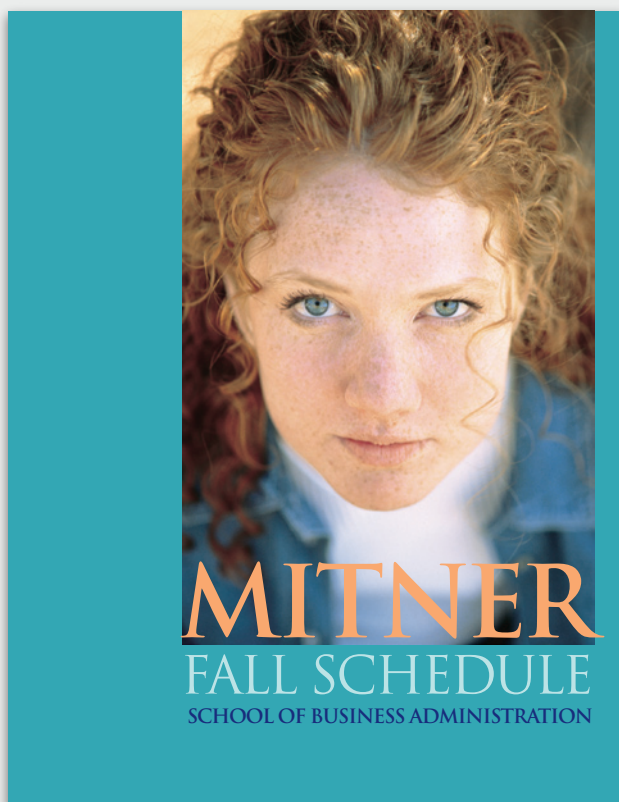
**Serious**—This palette began in the deep red of her hair, and for an accent took two steps toward yellow. Her eyes and jacket, which on blue receded into the background, now stand in contrast. Note that the red in her hair is a mere highlight, but filling the page it acquires real weight. Serious, warm, draws the reader in.





**Intense**—The highlights in her hair carry this page; the blue accent lends contrast and depth. An unexpected point of interest is the yellow headline, which seems cut out of the photo. Dimensionally flat, this mix is intense and engaging (and would win the design contest), but it takes a daring client to choose it.

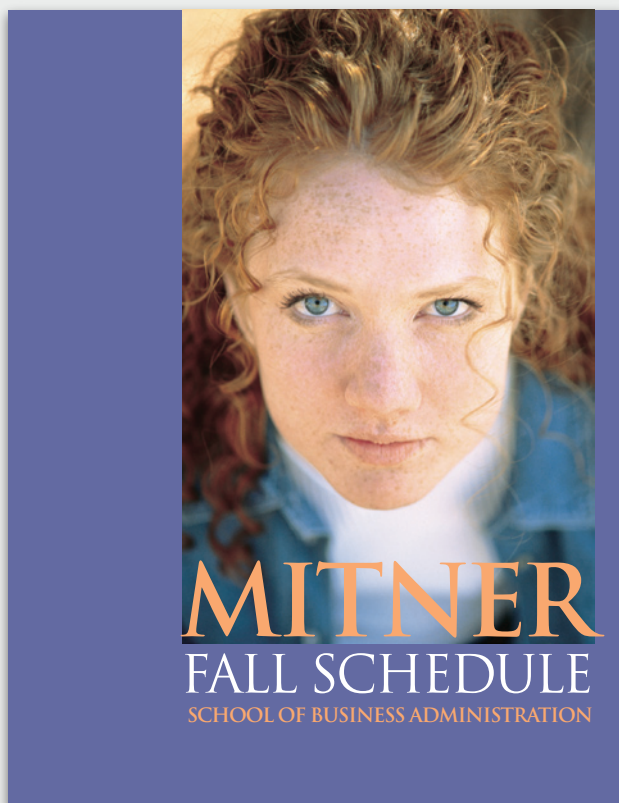




**Casual**—Analogous to the blue—a step toward green—is teal, a beautiful color not in the photo. Its difference adds depth and vibrancy and relaxes the message somewhat; it's trendier now, more approachable. Her eyes, which against blue looked blue, now look green. Type color, still light orange, is a soft contrast.



**Reminder: Values mix. You can always use dark, medium and light of any color. Note here both medium and light teal.**



**Pretty**—One step the other way is blue-violet, another color not in the photo. Blue-violet is a shift toward red; the result is a slightly flatter image, because face, hair and background are now more alike. Blue-violet is a cool color normally associated with softness, femininity, and springtime (with undertones of freshness).





## Article resources



### Typefaces

1 (a–b) [Trajan Bold](#) | a) 36 pt, b) 8 pt

2 [Trajan Regular](#) | 18 pt

### Images

3 [Rubberball.com](#)

### Colors

- 4 C0 M40 Y60 K0
- 5 C100 M60 Y0 K45
- 6 C0 M40 Y100 K0
- 7 C0 M90 Y80 K45
- 8 C0 M25 Y60 K0
- 9 C60 M0 Y20 K15
- 10 C30 M0 Y12 K0
- 11 C100 M90 Y0 K25
- 12 C60 M50 Y0 K15



### Subscribe to Before & After

Did you enjoy this article? Subscribe, and become a more capable, confident designer for pennies per article. To learn more, go to <http://www.bamagazine.com/Subscribe>

### E-mail this article

To pass along a free copy of this article to others, [click here](#).

### Join our e-list

To be notified by e-mail of new articles as they become available, go to <http://www.bamagazine.com/email>

### Before & After magazine

Before & After has been sharing its practical approach to graphic design since 1990. Because our modern world has made designers of us all (ready or not), Before & After is dedicated to making graphic design understandable, useful and even fun for everyone.

**John McWade** Publisher and creative director

**Gaye McWade** Associate publisher

**Vincent Pascual** Staff designer

**Dexter Mark Abellera** Staff designer

Editorial board **Gwen Amos, Carl Winther**

### Before & After magazine

323 Lincoln Street, Roseville, CA 95678

**Telephone** 916-784-3880

**Fax** 916-784-3995

**E-mail** [mailbox@bamagazine.com](mailto:mailbox@bamagazine.com)

**www** <http://www.bamagazine.com>

**Copyright ©2005 Before & After magazine, ISSN 1049-0035. All rights reserved**

You may pass this article around, but you may not alter it, and you may not charge for it. You may quote brief sections for review. If you do this, please credit Before & After magazine, and [let us know](#). To feature free Before & After articles on your Web site, [please contact us](#). For permission to include all or part of this article in another work, [please contact us](#).

## Before & After is made to fit your binder

Before & After articles are intended for permanent reference. All are titled and numbered.

For the current table of contents, [click here](#). To save time and paper, a paper-saver format of this article, suitable for one- or two-sided printing, is provided on the following pages.

### For presentation format

[Print: \(Specify pages 1–16\)](#)



### Print

Format: Landscape  
Page Size: Fit to Page

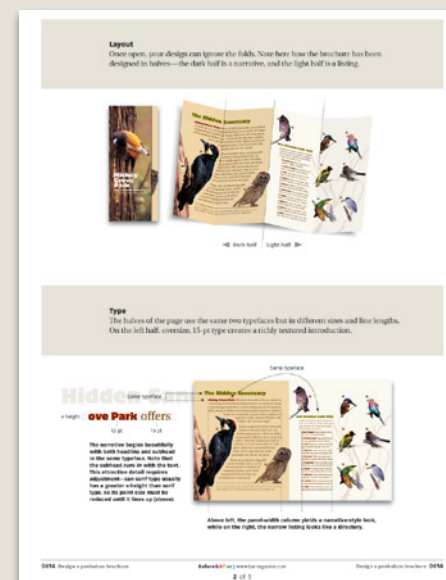


### Save

Presentation format or  
Paper-saver format

### For paper-saver format

[Print: \(Specify pages 18–24\)](#)



# How to find the perfect color



Getting that just-right color is part art, part science. We'll show you.

No single visual element has more effect on a viewer than color. Color gets attention, sets a mood, sends a message. But what colors are the right ones? The key is that *color is relational*. Colors don't exist in a vacuum but are always seen with other colors. Because of this, you can design a color-coordinated document based on the colors in any element on the page. Here's how.



**Here's the situation:** We have an academic schedule for a women's college to design, and for a photo we have this no-nonsense, freckle-faced model. The goal is to look fresh, alive and personal (no buildings and grounds shots) while conveying the sense that the program is serious and businesslike. A note of trendiness will be good. Color is involved in all of it.



## Look close, closer, closest

Every photo has a natural color palette. First step is to find it and organize it. Zoom in on your photo, and you'll be astonished by how many colors you see.



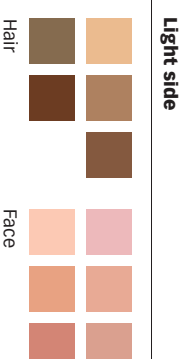
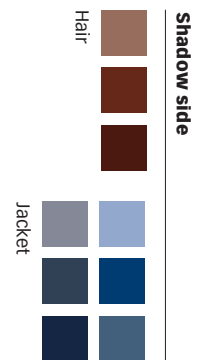
At normal viewing distance (left) we see a few dozen colors: skin tones, red hair, blue eyes, blue jacket, but zoom closer, and we see millions! First step is to reduce all those colors to a manageable few. You want 16, 32, 64 tops. In Photoshop, first duplicate the photo layer (so you don't lose the original), then select Filter> Pixelate> Mosaic (right). A large Cell Size gives you very few colors: if you need more, reduce the size.



## Pull out the colors

Now extract colors with the eyedropper tool. Work from the biggest color (the one you see most of) to the smallest. For contrast, pick up dark, medium and light pixels of each.

Work first on the big colors. These are the ones you see at a glance: her skin and hair colors and blue jacket. Then do the small colors—her eyes, lips, the highlights in her hair and soft shadows. You can see in this image a light side and a shadow side; it's subtle, but pay attention. Finish each area before moving on. Sort your results by color, then each color by value (light to dark). Discard lookalikes. You'll be thrilled by what you find.



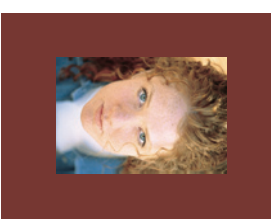
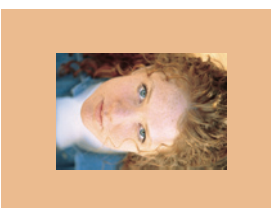
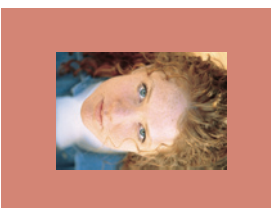
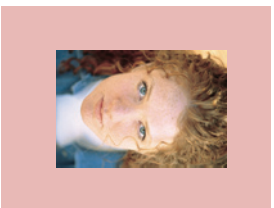
## Try each one on

Place the photo on a swatch of each color. The results are pretty, aren't they? What's fun is that this will always look good, because the colors you're using are *already there*.



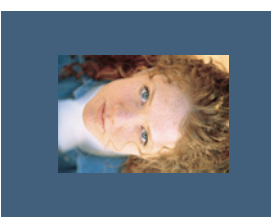
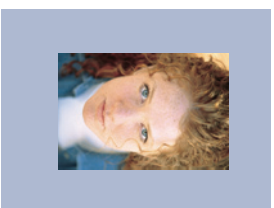
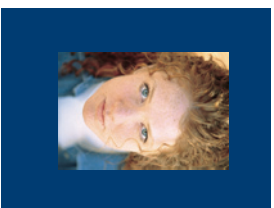
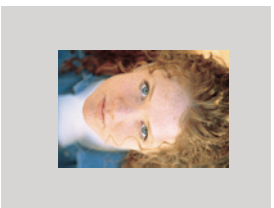
### Warm colors

These are the warm colors—pinks, salmon, sepias, browns—of the red-haired model. The warmer colors make her look softer and more feminine. These colors would be good for a cosmetic message or a caring message.



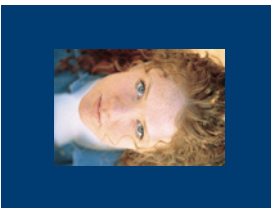
### Cool colors

The cool colors—blues, mainly—make for a more serious, businesslike relationship and convey a direct, to-the-point message. Note that as the values get darker, her face gets perceptually brighter and appears to rise off the page toward you.



## Add to the colors

The next step is to add more colors. Select any of the colors, and locate it on the color wheel. The purpose of a color wheel is to show you a color's relationship to other colors.



**Pick any of the photo's colors—let's use this blue—and find its general vicinity\* on the color wheel. We'll call this the base color. We already know that the base color goes with the photo. Our job now is to find colors that go with the base color. Keep in mind that if type or other graphic is involved (pretty typical), you'll need both dark and light colors for contrast.**

\*Because the wheel is deliberately basic, you will rarely make an exact match. It's only a guide.



## Create color palettes

From your base color, you can now create an exciting range of coordinated color palettes. Values can mix. For example, *medium* blue works with *light* teal and *dark* violet.



### Monochromatic

First are the dark, medium and light values of the base color. This is a monochromatic palette. It has no color depth, but it provides the contrast of dark, medium and light that's so important to good design.



### Analogous

One color step either side of the base color are its analogous colors. Analogous colors share undertones (here, blue-green, blue, and blue-violet), which create beautiful, low-contrast harmony. Analogous palettes are rich and always easy to work with.



### Complement

Directly opposite the base color is its complement—in this case, the orange range. What the complement brings is *contrast*. A color and its complement convey energy, vigor and excitement. Typically, the complement is used in a smaller amount as an accent, a spot of orange on a blue field, as shown above.



### Split complement

One step either way are the complement's own analogous colors. This palette is called a split complement. Its strength is in the low-contrast beauty of analogous colors, plus the added punctuation of an opposite color. In this case, the blue would most likely be used as the accent.







### Complement/analogous

This mixed palette is the same as the split complement but with more color. Its added range yields soft, rich harmony on the warm side and sharp, icy contrast on the cold side, an intense and exciting combination.



### Analogous/complement

Colors analogous to our base color make cool harmony punctuated by a hot spot of complementary color. Keep in mind that opposites of the same value tend to fight but complement when different (below). This is why you want to eyedropper dark, medium and light values of each color.



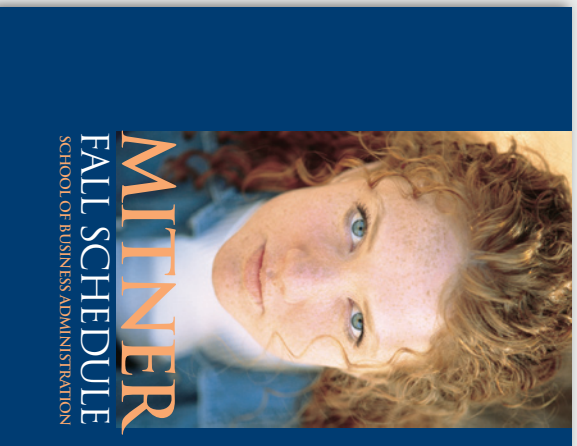
Opposite colors,  
same value



Opposite colors,  
different values

## Edit and apply

Design the page, and now it's time to make color choices. How to pick? The key is to think *message*. Weigh each against the original purpose by asking, *which colors meet the goal?* \*

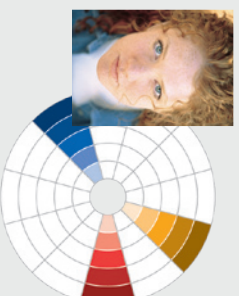
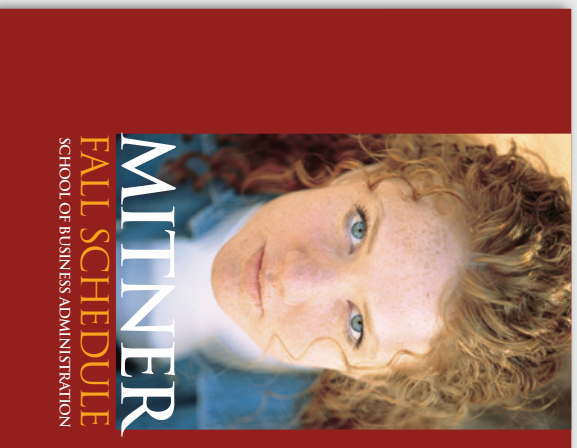


**All business**—Blue is everyone's favorite color. What's interesting here is that blue and orange are native to the photo, giving it excellent natural contrast. The blue background swallows her jacket, allowing her intense gaze to lift right off the page. Handsome and businesslike.

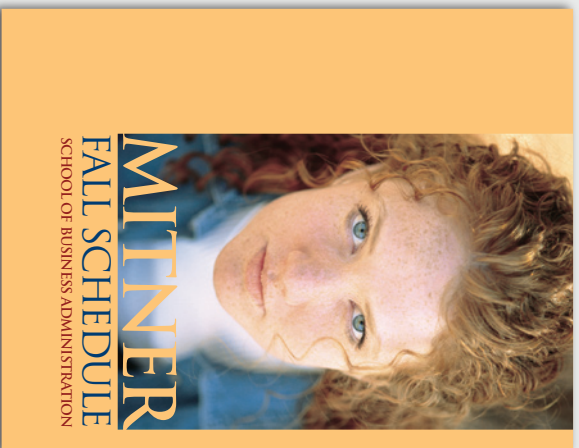


\*Review the design goal on [page 2](#)



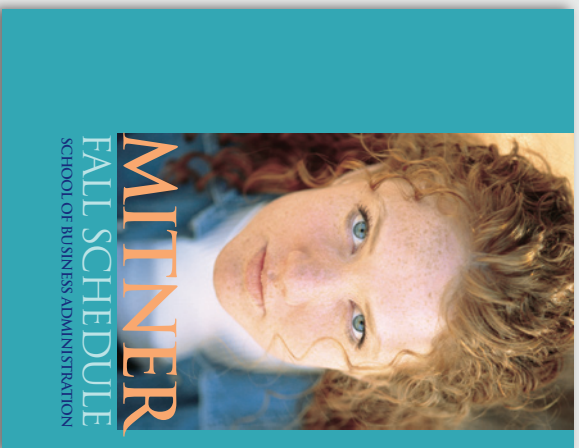


**Serious**—This palette began in the deep red of her hair, and for an accent took two steps toward yellow. Her eyes and jacket, which on blue receded into the background, now stand in contrast. Note that the red in her hair is a mere highlight, but filling the page it acquires real weight. Serious, warm, draws the reader in.



**Intense**—The highlights in her hair carry this page; the blue accent lends contrast and depth. An unexpected point of interest is the yellow headline, which seems cut out of the photo. Dimensionally flat, this mix is intense and engaging (and would win the design contest), but it takes a daring client to choose it.

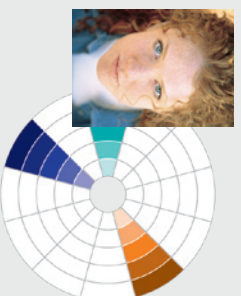
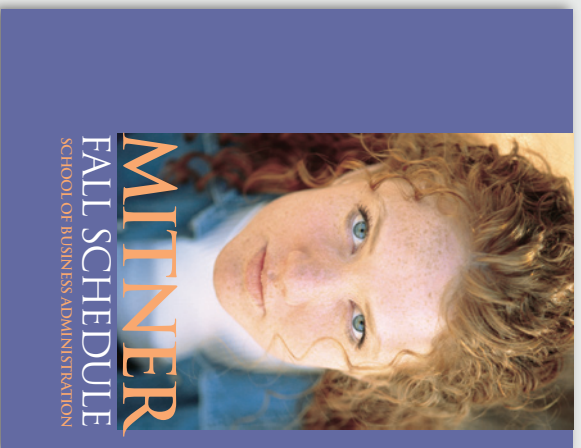




**Casual**—Analogous to the blue—a step toward green—is teal, a beautiful color not in the photo. Its difference adds depth and vibrancy and relaxes the message somewhat; it's trendier now, more approachable. Her eyes, which against blue looked blue, now look green. Type color, still light orange, is a soft contrast.

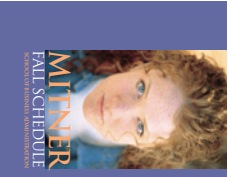
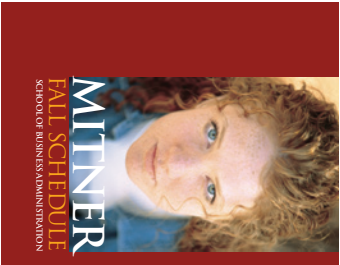
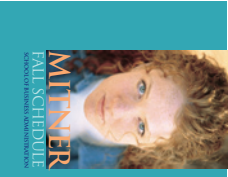

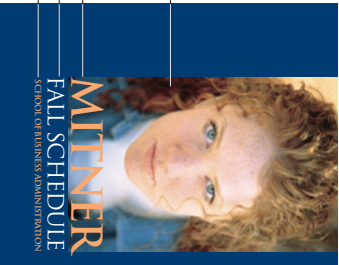


**Reminder: Values mix. You can always use dark, medium and light of any color. Note here both medium and light teal.**



**Pretty**—One step the other way is blue-violet, another color not in the photo. Blue-violet is a shift toward red; the result is a slightly flatter image, because face, hair and background are now more alike. Blue-violet is a cool color normally associated with softness, femininity, and springtime (with undertones of freshness).





**Typefaces**  
1 (a–b) Trajan Bold | a) 36 pt, b) 8 pt  
2 Trajan Regular | 18 pt

**Images**  
3 Rubberball.com

**Colors**  
4 C0 M40 Y60 K0  
5 C100 M60 Y0 K45  
6 C0 M40 Y100 K0  
7 C0 M90 Y80 K45  
8 C0 M25 Y60 K0  
9 C60 M0 Y20 K15  
10 C30 M0 Y12 K0  
11 C100 M90 Y0 K25  
12 C60 M50 Y0 K15

Subscribe to Before & After

Did you enjoy this article? Subscribe, and become a more capable, confident designer for pennies per article. To learn more, go to <http://www.bamagazine.com/Subscribe>

E-mail this article

To pass along a free copy of this article to others, [click here](#).

Join our e-list

To be notified by e-mail of new articles as they become available, go to <http://www.bamagazine.com/email>

Before & After magazine

Before & After has been sharing its practical approach to graphic design since 1990. Because our modern world has made designers of us all (ready or not), Before & After is dedicated to making graphic design understandable, useful and even fun for everyone.

**John McWade** Publisher and creative director  
**Gaye McWade** Associate publisher  
**Vincent Pascual** Staff designer  
**Dexter Mark Abellera** Staff designer  
Editorial board **Gwen Amos, Carl Winther**

**Before & After magazine**  
323 Lincoln Street, Roseville, CA 95678  
Telephone 916-784-3880  
Fax 916-784-3995  
E-mail [malbox@bamagazine.com](mailto:mailto:malbox@bamagazine.com)  
[www http://www.bamagazine.com](http://www.bamagazine.com)

Copyright ©2005 Before & After magazine, ISSN 1049-0035. All rights reserved

You may pass this article around, but you may not alter it, and you may not charge for it. You may quote brief sections for review. If you do this, please credit Before & After magazine, and [let us know](#). To feature free Before & After articles on your Web site, [please contact us](#). For permission to include all or part of this article in another work, [please contact us](#).