12 Options for Filling Objects

A shape without a fill on your drawing page is like a brand-new coloring book. To make a coloring book—and your CorelDRAW artwork—more complete, you need to *fill* your shapes with colors and textures. CorelDRAW has more than a half-dozen types of fills you can apply to your shapes, and these types have hundreds of variations. In computer graphics, you have over 16 million solid shades of color at your disposal; imagine what you can do with *blends, patterns*, and *textures* of colors! The worst part of filling CorelDRAW objects will be deciding on a style of fill. The *best* part, as you explore filling shapes in this chapter, is that it's very difficult to color outside of the lines.

Note Download and extract all the files from the Chapter12.zip archive to follow the tutorials in this chapter.

Examining the Fill Types

Each type of CorelDRAW fill has its own special characteristics:

- **Uniform** Uniform fills apply flat, solid color.
- **Fountain** Fountain fills make a color transition from one color to another, in different directions—sometimes also called a *gradient fill*. You can also create a fountain fill composed of more than two different colors. CorelDRAW ships with many preset fills, and this chapter demonstrates how to pick and apply them.
- **PostScript** PostScript fills are good for repeating patterns. Although PostScript is a *printing* technology, you don't need to print a CorelDRAW document to see a PostScript fill, and you can indeed export a PostScript-filled object to bitmap format and the fill will look fine. PostScript fills support transparency and are ideal for exporting to EPS file format to use in desktop publishing programs. And, naturally, a PostScript fill is valid for printing to a PostScript printer.

- **Pattern and texture** Pattern and texture fills can fill shapes with bitmaps, including photographs, and a large supply of preset bitmaps is included with CorelDRAW.
- **Mesh** Mesh fills take multicolored fills and present you with the option of "smearing" colors within the fill, much like finger painting.

Every fill type is applied in a slightly different way through the use of onscreen tools, docker windows, or the Interactive Fill and Mesh Fill tools (see Figure 12-1).

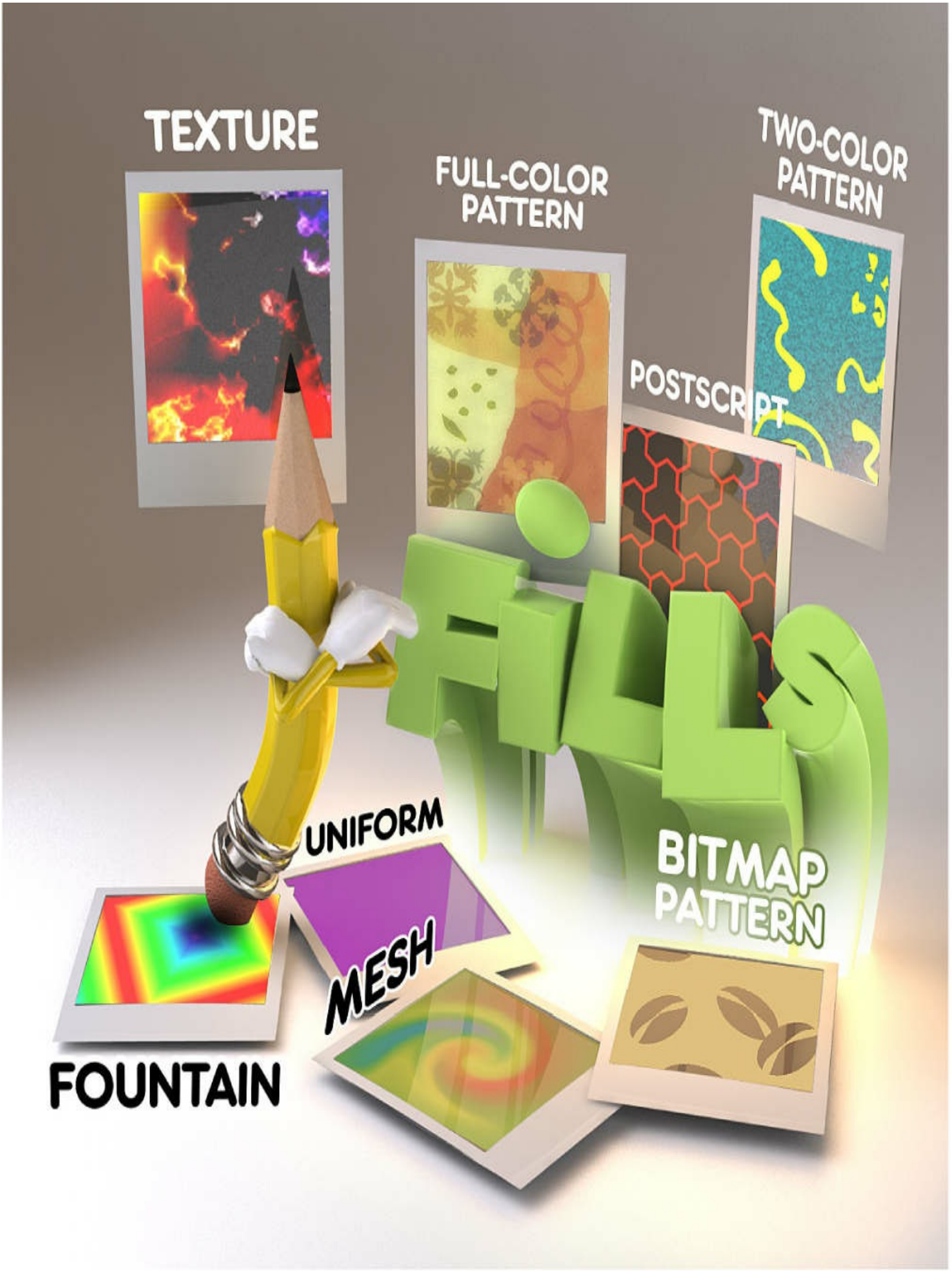
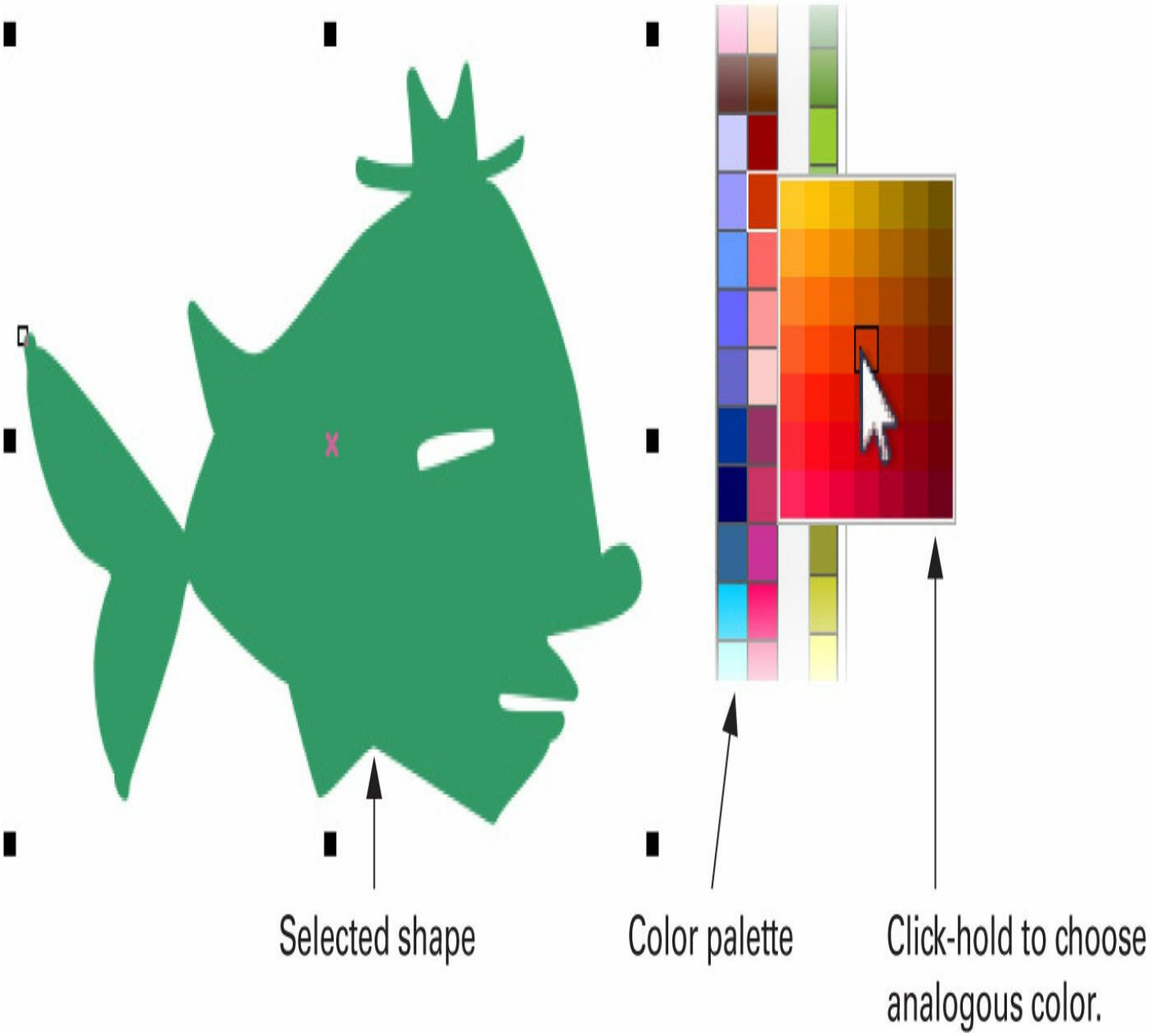

TEXTURE
FULL-COLOR PATTERN
TWO-COLOR PATTERN
POSTSCRIPT
FILLS
UNIFORM
MESH
BITMAP PATTERN
FOUNTAIN

FIGURE 12-1 **Fill your shapes in a composition with the fill type that draws attention to your design work.**

Using the Color Palette

For color selection, the color palette is an excellent starting point, and to apply a uniform (solid) fill to a selected object, just select an object with the Pick tool and then left-click a color on the color palette. You can also drag a color swatch from the color palette, drop it onto a shape—which *doesn't* have to be selected—and the object is filled.

You can choose not only a color from the color palette, but also a *shade* or a *tone* of that color. To pick a shade of a color on the color palette, you first select the object you want to fill, click-hold on a color swatch, and a small pop-up menu of shades and tones of that color appears, as shown next. While holding the mouse button, drag to the exact shade you want, release the mouse button, and the object is filled. This pop-up features shades that vary in *hue* from top to bottom, and in *brightness* from left to right. You have 49 possible colors at your cursor tip when you choose one color.

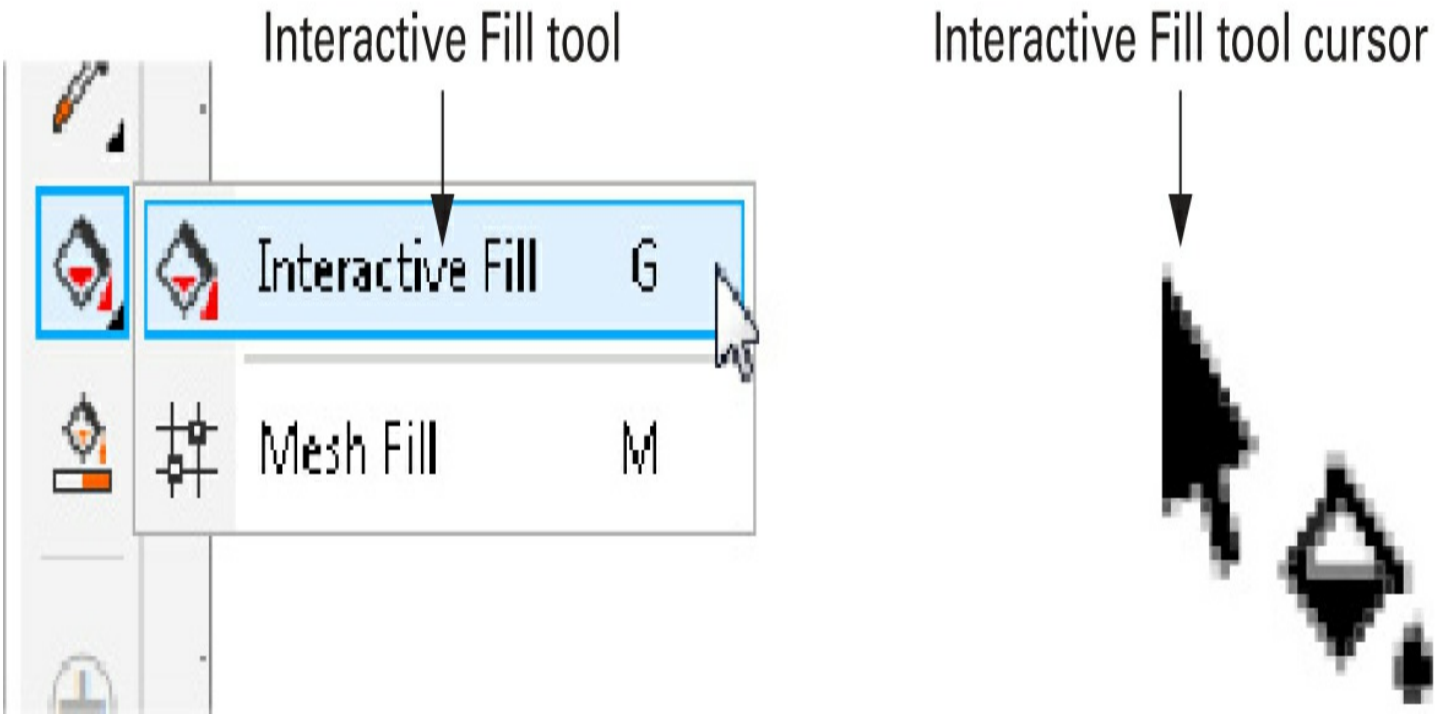


Uniform fills can also be assigned to all objects right from the get-go. With no objects selected in the drawing window, left-click a color you want to use for future Artistic Media (such as calligraphic pens), Artistic Text, callouts, dimension lines, graphics, Paragraph Text, or QR codes. CorelDRAW then displays a dialog that asks what sort of object you want filled as it's created from now on. Your choices for any properties you select when nothing is selected are objects, text, and both. You can also elect to cancel out of this operation.

From Uniform to Non-Uniform Object Filling

The quick way to apply any of the fill types is to use the Interactive Fill tool, shown next. You'll find it at the bottom of the Toolbox; to select it quickly, press G. You'll see a hint

here that the Interactive Fill tool is also a selection tool—the cursor is an arrow cursor with a paint bucket. You don't have to have already selected the object you want to fill when you use this tool. You can click an unselected, solid-filled object with the Interactive Fill tool to select it, and then a click-drag on the object, by default, applies the Linear-style fountain fill, making a transition from the current solid color to white. You can then change the colors used, or choose a different fill type from the Property Bar—and here's where CorelDRAW today makes applying different types of fills much easier than previous versions.



Suppose you just filled an object with the default Linear-style fountain fill. In version X8, there's more than one control node on the fill: a mini color and transparency picker pops up when you click over a color node. And all the fill types you can imagine are on the Property Bar. Additionally, you can change some controls for the fountain fill parameters, so this streamlined, fortified Fill tool will get you where you need to go in a jiffy. Figure 12-2 shows you what you'll see on your page when you click-drag with the Fill tool to create a linear gradient. The element names and what they do are described in a moment.

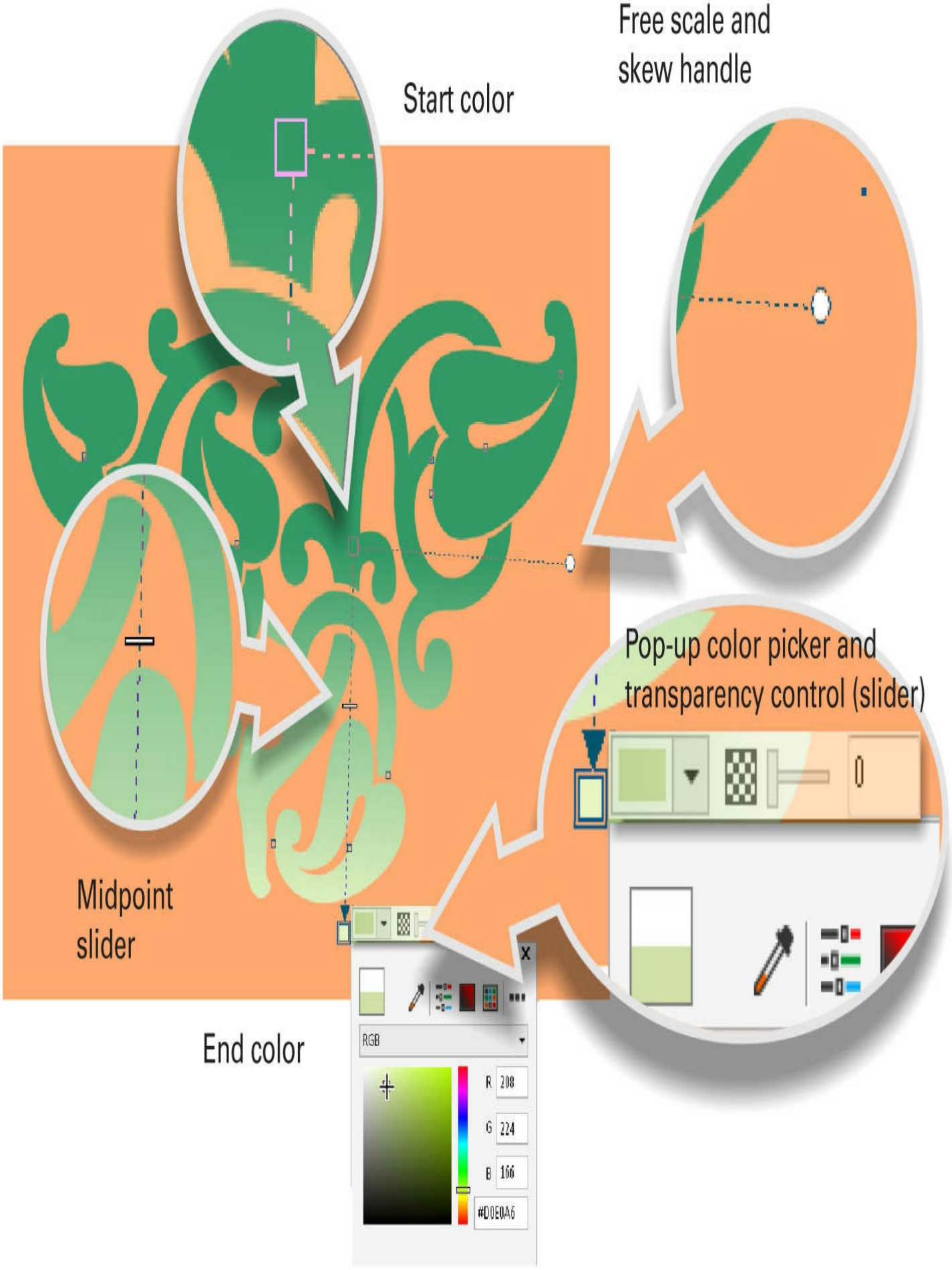
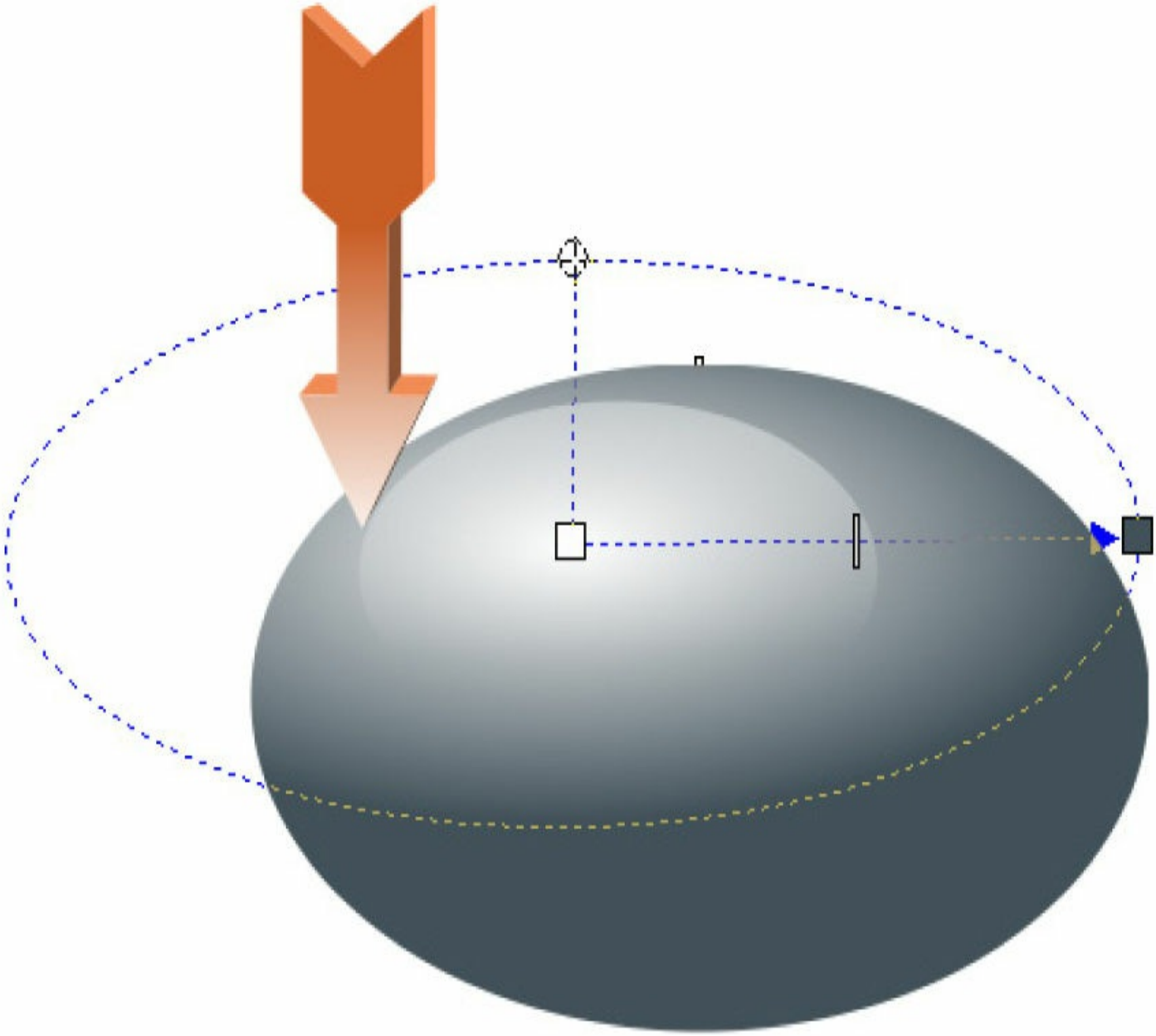

Free scale and
skew handle
Start color
Pop-up color picker and
transparency control (slider)
Midpoint
slider
End color
RGB
R 208
G 224
B 166
#D0E0A6

FIGURE 12-2 **The Fill tool properties include onscreen interactive features.**

- **Start and End color nodes** With an object filled with a fountain fill (also called a gradient), the fountain fill begins at a Start color node and transitions toward the End color node inside the object. With the Interactive Fill tool, you can click either the Start or End node and then choose a different color for them by using the pop-up mini color picker, by clicking a color on the color palette, or by click-dragging a color well from the palette onto one of the color nodes. In addition to defining a color, the Start and End nodes can be moved like little handles using the Fill tool in a click-drag gesture. Click-dragging the Start node moves the entire gradient; it's repositioned within the object. Click-dragging the End node does two things. If you drag in a circular motion, you change the angle of the fountain fill. If you click-drag toward or away from the Start color handle, you increase or decrease the contrast of the transition between the two colors.
- **Free Scale and Skew handle** The result you achieve by moving this round node is more obvious with, say, the Elliptical fountain fill style than Linear (see the following illustration). You can now skew and disproportionately scale a fountain fill. One of the most obvious benefits to this capability is that making an elliptical fill for elliptical objects is a breeze. If you drag the Free Scale and Skew node toward or away from the Start node, fill types such as elliptical and rectangular become obviously disproportional in their fountain fill characteristic; that is, not circular and not perfectly square. If you drag the Free Scale and Skew node in a direction other than a 90° angle to the line between the Start and End nodes, the fountain fill takes on a skewed appearance. This handle node operates independent from the Start/End nodes. If you drag the End node, the Free Scale node moves with it both distance-wise and rotationally. It stays parallel to the Start node if you move that one, as well.

Free Scale and Skew handle dragged down.
It is shorter now than the fountain fill transition line.



- **Midpoint slider** You drag this slider toward one color node or the other to establish where, within the filled object, the 50/50 blend of each color has arrived. Therefore, if you want the filled object to feature more of the Start color than the End color, you drag this slider toward the *End* color, so the distance is greater between the Start color and midpoint.
- **Pop-up color picker and transparency control slider** The pop-up color picker and transparency control slider only appear with fountain fill types of fills. When you click

a color node—and an outline appears around it, indicating it's selected and can be changed—you'll see a mini toolbar with a drop-down button that leads to a color picker and a transparency slider to the right. You can now set transparency values every time you select a color node in a fountain fill. This is definitely a feature you want to explore, because, in addition to an Eyedropper tool on the color picker, you can choose color modes (for example, HSB and CMYK; see Chapter 15 if you're unfamiliar with color spaces), and you can work with a click-drag color field or enter numerical values for color components.

While you're using the Interactive Fill tool, the Property Bar displays options that change depending on the type of fill you choose from the Fountain Fill types or which style of fill is the current one (fountain, bitmap, two-color—all covered later in this chapter). If your selected object features no fill color at all, the selector displays the type as No Fill and the Property Bar displays no options. Figure 12-3 shows the fountain fill options on the Property Bar; what these options do is discussed next. There are options for fill types *other* than fountain fills, which are also covered in this chapter, but let's discuss one type at a time.

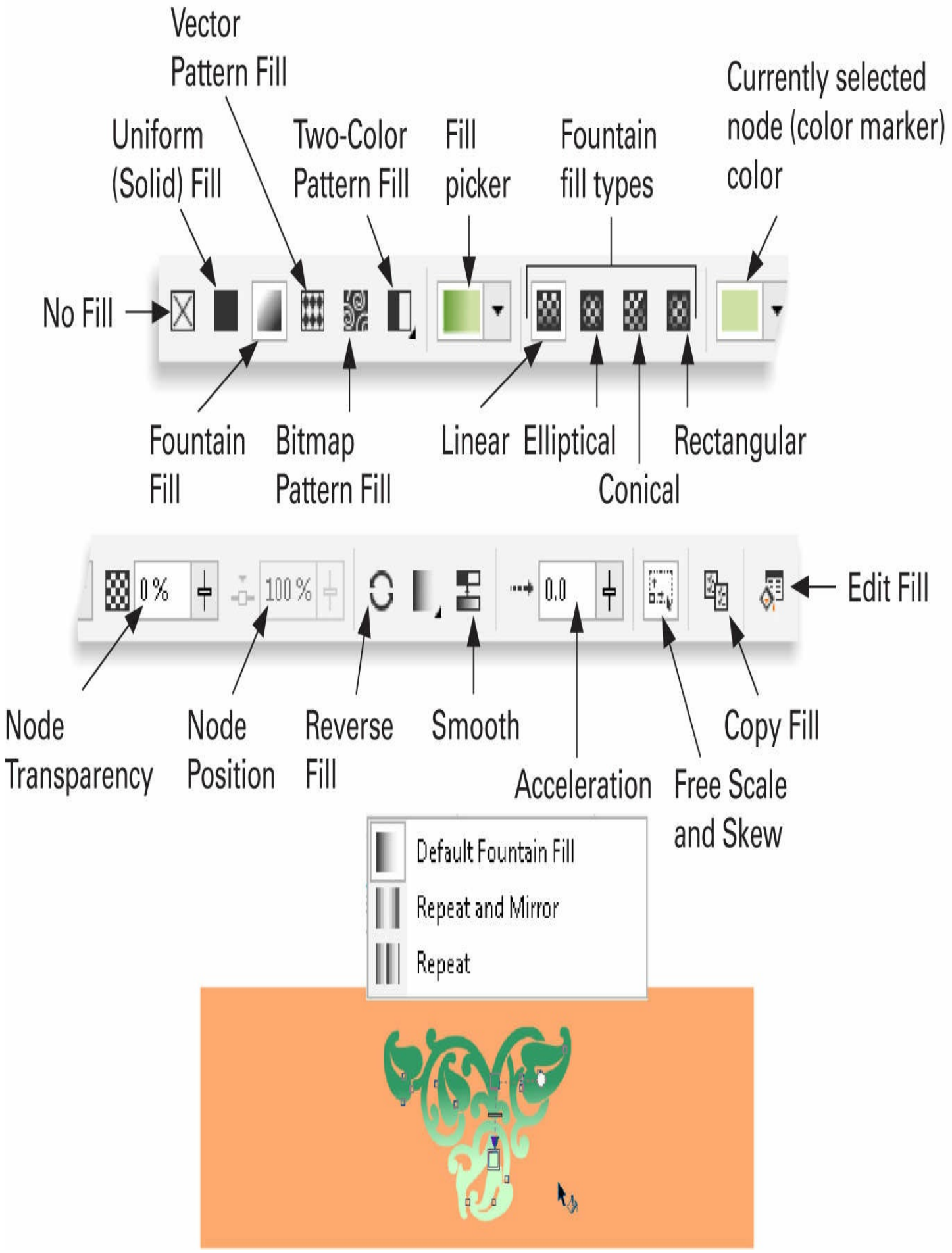

Vector
Pattern Fill
Uniform
(Solid) Fill
Two-Color
Pattern Fill
Fill
picker
Fountain
fill types
Currently selected
node (color marker)
color
No Fill
Fountain
Fill
Bitmap
Pattern Fill
Linear
Elliptical
Rectangular
Conical
0 %
100 %
0.0
Edit Fill
Node
Transparency
Node
Position
Reverse
Fill
Smooth
Acceleration
Free Scale
and Skew
Copy Fill
Default Fountain Fill
Repeat and Mirror
Repeat

FIGURE 12-3 The properties for fountain fills are available when the Fill tool is active. You can *change* fill types using the Property Bar.

Let's walk through the relevant options on the Property Bar now for fountain fills, and then practice what you've learned in a tutorial to follow.

- **Fountain Fill button** Only options for fountain fills are available when this button is depressed. If you click a different fill type, such as Vector Pattern Fill, fountain fill options disappear from the Property Bar. If you select an object that already has a fountain fill and you use the Fill tool to select it, the Fountain Fill button will immediately appear on the Property Bar in its depressed (on) position.
- **Fill picker** Read Chapter 1 if you're not familiar with Corel's community sharing and downloadable content. When you click to open the fill picker, the flyout reveals a mind-boggling collection of fills in different categories—for each fill type. As you see in Figure 12-4, there are two basic types of authors of these presets, and two locations where you acquire and use them.

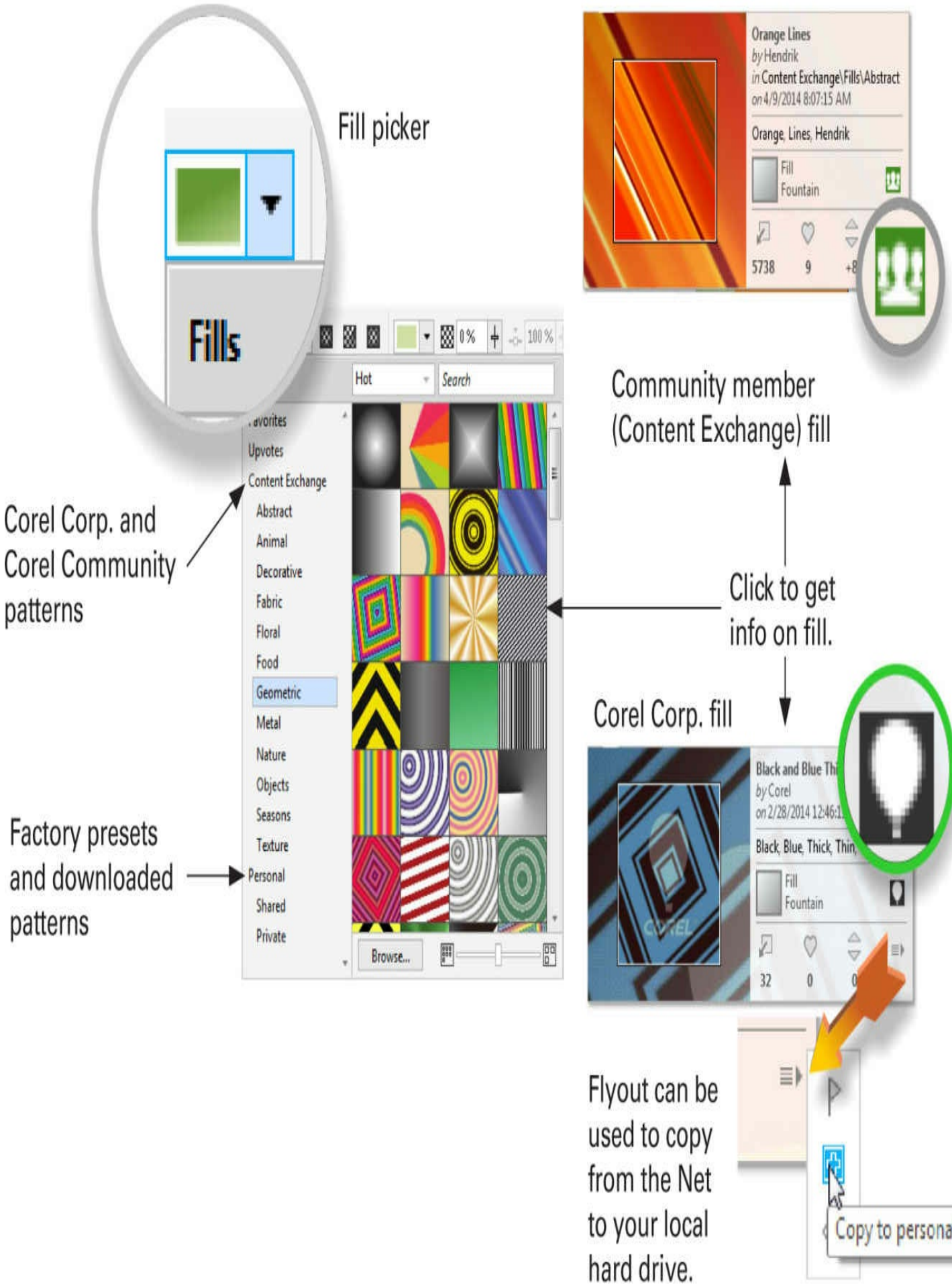

Fill picker
Fills
Orange Lines
by Hendrik
in Content Exchange\Fills\Abstract
on 4/9/2014 8:07:15 AM
Orange, Lines, Hendrik
Fill
Fountain
5738
9
Community member
(Content Exchange) fill
Hot
Search
Upvotes
Content Exchange
Abstract
Animal
Decorative
Fabric
Floral
Food
Geometric
Metal
Nature
Objects
Seasons
Texture
Personal
Shared
Private
Browse...
Corel Corp. and
Corel Community
patterns
Click to get
info on fill.
Corel Corp. fill
Black and Blue Thi
by Corel
Black, Blue, Thick, Thin,
Fill
Fountain
32
0
Factory presets
and downloaded
patterns
Flyout can be
used to copy
from the Net
to your local
hard drive.
Copy to personal

FIGURE 12-4 With an Internet connection, you can download scads of presets from the eight types of CorelDRAW object fills.

When you choose a fill type from the Property Bar and then click the down arrow next to the fill picker preview icon, you're presented with a number of themes of fills, within which you have numerous entries. Understand that if you purchased the download version of the Corel Graphics Suite, you don't have nearly as many preset fills at your disposal on your hard disk as you do when you download some from the Net. And because (again, see Chapter 1) you can connect to the Content Exchange, which is constantly updating and adding to themes, you might want to consider downloading fills you see potential for, or just apply them to an object you want to save and copy attributes from in the future.

Corel Corp. and the Corel Community are the two sources that created content in the form of fills. There's no difference in the functionality of the contributions, but you will find Corel-created fills in your *Personal* and *Private* folders because these fills are on your hard drive, and not on the Net.

- **To choose a fill you want to download to your Personal fill folder**: Click the fill thumbnail to reveal the large fill info dialog. Click the More options flyout icon at the lower right and then click the Copy to Personal icon. Alternatively, you can choose Window | Dockers | Tray and then drag a fill thumbnail directly into the Tray for future use locally—you won't need an active Internet connection.
- **To add a fill to an existing object on a page**: You drag a thumbnail to the center of the object on the page. Performing a preset download like this downloads the fill to the document, but not to a collection on your hard drive. You can always propagate more of the fill later by using the Attributes eyedropper, but this might be a hard approach for beginners, who will surely curse the author for suggesting this.

Strive for a balance between fills you've saved locally to your hard drive and those you'll want to use in the future. You can waste a lot of time copying thousands of different fills to your hard drive, but the upside is you'll be able to use them faster with no Internet between the artist and the fill. If you're in a rush at work (and who isn't), use the Favorites (the heart) icon on the More Options flyout to tag the preset to your Favorites folder, and then access the file at any time by choosing Favorites and waiting a moment while the program fetches the fill from Corel's servers.

- **Fountain fill types (Linear, Elliptical, Conical, and Rectangular)** Figure 12-5 shows the four types of fountain fills, along with callouts for the interactive options available for click-dragging screen elements. The *Linear* style is fairly self-evident: moving the Start node sets the beginning point for the Start color, and moving the End color node changes the angle, the end point, and to a certain extent the acceleration of

the fill from one color to the other. Acceleration is covered shortly in this chapter. *Elliptical* fountain fills begin as circular fills, and they can take on the elliptical appearance when you shorten or lengthen the distance between the Start node to the Free Scale and Skew handle. The *Conical* fountain fill is the only type whose Start and End nodes are precisely over one another, and this cannot be changed. You can choose to repeat and mirror the fill from the Property Bar, and you can also add intermediate color nodes (covered later) to soften the abrupt transition in this fill type. The *Rectangular* fountain fill is closely related to the Elliptical fill, except it has four corners within the design. It begins as a square pattern, and you can use the Free Scale and Skew handle to distort and create a rectangular and/or skewed color transition.

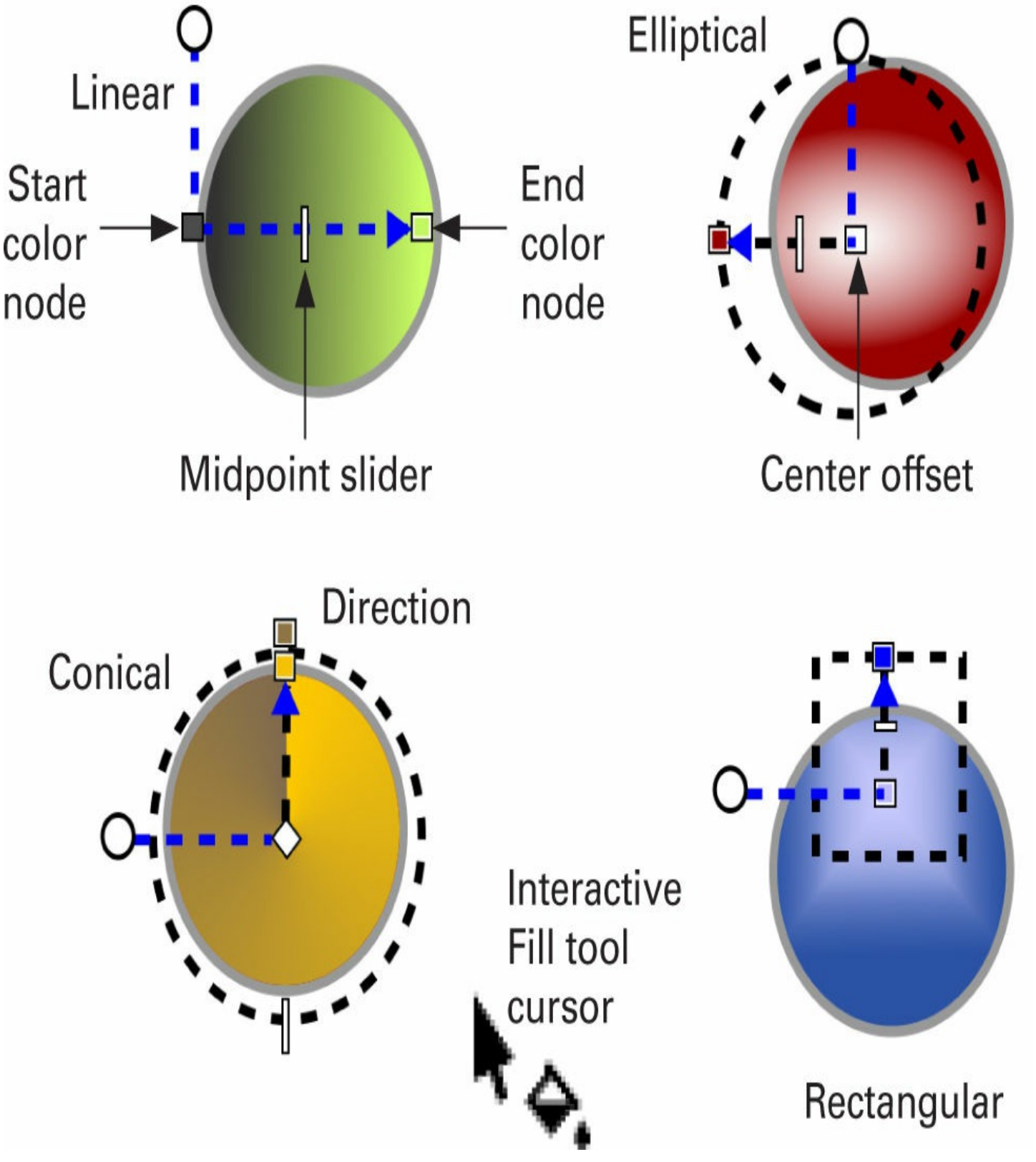
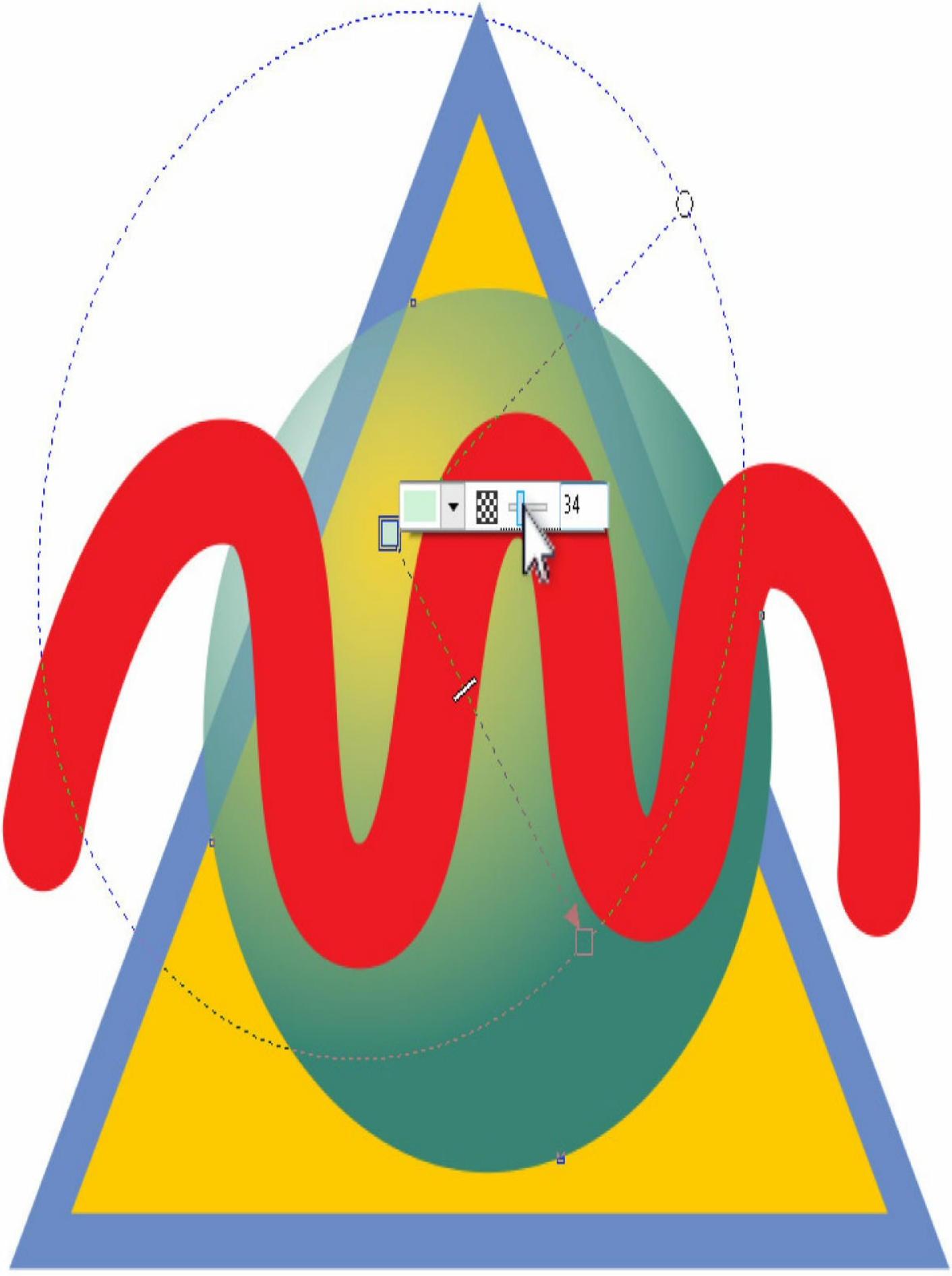


FIGURE 12-5 **There are four basic fountain fill choices, but there are many permutations when you use fountain fill options.**

- **Currently selected node (color node) color** To change the Start or End color in an applied fountain fill, it needs to be selected onscreen using the Interactive Fill tool. Because the color nodes serve more than one purpose—they mark both the color and the position of the color within the object—you'll be unintentionally confused in this guide when the term *node* is also called *marker, handle*, and, occasionally, *Phillip*. If you want to change the color when a node is selected, you can use the Property Bar or the color palette; if you want to move the node, you need to click-drag it to the desired position.
- **Node Transparency** Corel has gone all-out in this version, so every time you click a color node to alter its color, you can also change its opacity via a transparency slider. You can, in fact, have fountain fills that change opacity from left to right or from center to exterior, as shown here. You can see that the circle, sandwiched between the triangle and the squiggle, is not only lighter in color toward the 11 o'clock position, but it also allows parts of the underlying and obscured triangle to appear through. All you do is drag the pop-up slider from left to right.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Tip An object that has any of the four fountain fill types can also contain transparencies that are also any of the four fountain fill types. You can, therefore, build an elegantly shaded object by, for example, applying an Elliptical fountain fill to an object and then giving it a Linear transparency property. See Chapter 18 for more details on transparency.

- **Node Position** This combo box is only active when there are more than two color nodes along a fountain fill. When you've created several intermediate color nodes, you select one with the Fill tool, and this box can be used to reposition it precisely. To add a color node, you double-click the line between the Start and End color nodes.
- **Reverse Fill** If you've created a multicolor elliptical gradient, for example, it would be a royal pain to have to change all the nodes if you wanted to reverse the appearance of the colors. But you don't have to! All you do is click this button on the Property Bar to reverse color node order immediately.
- **Smooth** Because fountain fills are mathematically calculated as step progressions from one color to another, occasionally you might see the steps—called *color banding*—if the colors change dramatically over a very short distance. Enabling (depressing) this button makes an attempt to add more intermediate colors to make the steps less visible.
- **Acceleration** Acceleration might be called *contrast*—how fast toward the center of a fountain fill does the 50 percent blending point occur. Corel has called this the *Edge Pad* in previous versions of DRAW. When you need an abrupt change from the Start color to the End color, you increase the acceleration.
- **Free Scale and Skew** This button enables/disables the Free Transform function in fountain (and other) fills. By default, it's on, and you can see and work with the node onscreen within an object. Disabled, the screen element disappears and you're left with only Start and End color nodes (and the midpoint slider).
- **Copy Fill Properties** This option is common to many object fills in CorelDRAW. To use this feature, you have to have a target object (the object to which you want to apply a fancy fill) and an object with the desired fill. You first select the object you want to fill, then choose the Interactive Fill tool, and then click this button. You're presented with an oversized arrow cursor onscreen; click over the object you want to copy the fill from, and the action is completed.
- **Edit Fill** Gone is the dialog you used to have to drill down to by choosing the Fill Properties icon from the Toolbox. Clicking this button provides an onscreen dialog where everything you might want to do using the Property Bar is presented to you, but

with more options and a more precise way to fill objects through number boxes with fractional amounts out to three decimal places.

Tip If you want to change the fill properties of an object, but you're working with a tool other than the Fill tool, with the object selected, press ALT-ENTER and the Properties docker includes all the features from the Edit Fill dialog.

Customizing Your Fountain Fills

A default fountain fill features two colors, but you can *add* colors to customize any type of fountain fill. When you make multicolored fountain fills, the appearance of your artwork can change dramatically. To add a node, double-click with the Fill tool on the dashed line connecting the Start and End color nodes. The position of added colors is shown by node positions on the dashed line guide joining the two default colors. After you've added color nodes and clicked to select them on the object, the Property Bar will display their position and color.

You can add, move, and delete fountain fill colors you've added to a default fountain fill type in several ways, but you *must* have both the object and the Interactive Fill tool selected, or you'll wind up editing the object and not the fill. To explore doing this, follow the steps in this tutorial.

Editing a Fountain Fill In-Place

Tutorial

1. Select the object to be filled, choose the Interactive Fill tool (G), and then apply a fountain fill by choosing Linear, Elliptical, Conical, or Rectangular from the Property Bar.
2. With this fill applied, double-click a point on the guide between the two existing color nodes where you want to add a color node. Doing this adds a color that is based on an average of two existing node colors, so your custom fountain fill probably looks the same as the default fill.
3. Decide on a new intermediate color (choose one in this example from the color palette) and then drag a color from the color well (drag the swatch) onto your new node. You have a three-color gradient now.

4. Try a different technique to add a color node position and color at the same time: drag a color swatch directly onto the same fountain fill guide, but at a different location.
5. To reposition an added color, click-drag it along the guide path. As you do this, the color's node position changes, as indicated by the Node Position percentage value on the Property Bar.
6. To change any fountain fill color, click to select it and then choose a color from the Property Bar selector or click a color swatch on the color palette.
7. To delete an added color, right-click or double-click it on the guide. End and Start color nodes can't be deleted, but they can be assigned different colors, and you can make them invisible by choosing 100% transparency from the mini pop-up color mixer.

You can also add color when a color node position is selected; choose from the color selector to the right of the fountain fill types on the Property Bar.

Although fountain fills are useful and fun, we need to return to uniform colors for a while because color models, color components, and standards such as PANTONE colors, which are important for commercial print designers, haven't been addressed yet. The following section takes you way beyond the color palette and into the Edit Fill dialog.

Uniform Color Fill Options on the Property Bar

Uniform fills are like the paint chips at the hardware store; they're solid colors, no variations. A uniform fill floods an object within the boundaries of its outline with the color you choose. The color palette is a fast, easy way to assign a uniform color; however, when you choose the Fill tool, you have several different color models from which to choose. See Chapter 15 for some details on color theory; if you're already familiar with the CMYK printing color model, the intuitive HSB color model, and others, you'll feel right at home using the Property Bar to mix up color values and, better still, entering values a client might give you for that big advertising job. Figure 12-6 shows the Edit Fill dialog, and if any of the callouts seem unfamiliar, a plain and frank discussion follows that'll get you from novice to expert in no time.

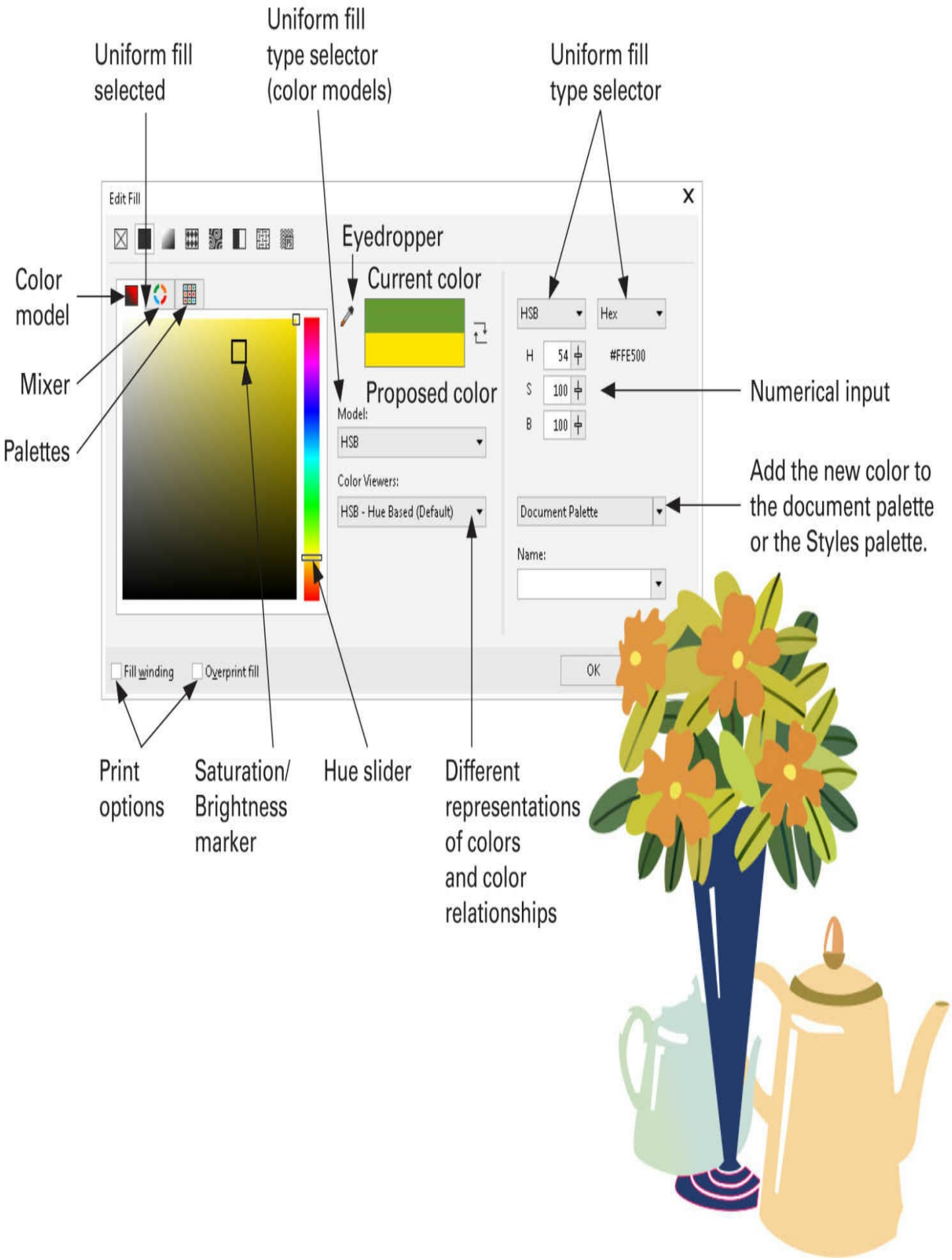

Uniform fill selected
Uniform fill type selector (color models)
Uniform fill type selector
Edit Fill
Eyedropper
Current color
Color model
Mixer
Palettes
Proposed color
Model:
HSB
Color Viewers:
HSB - Hue Based (Default)
HSB
Hex
H 54
#FFE500
S 100
B 100
Numerical input
Add the new color to the document palette or the Styles palette.
Document Palette
Name:
Fill winding
Overprint fill
OK
Print options
Saturation/ Brightness marker
Hue slider
Different representations of colors and color relationships

FIGURE 12-6 The Edit Fill dialog is where you specify an exact color and an exact color space for that color, such as printing CMYK and web page RGB models.

Tip HSB and RGB color models occupy the same *color space*, the extent to which a color can be expressed onscreen. Therefore, you can arrive at an identical color using either color mode. This means you can switch color models for a filled object, and between RGB and HSB there will be no real color change.

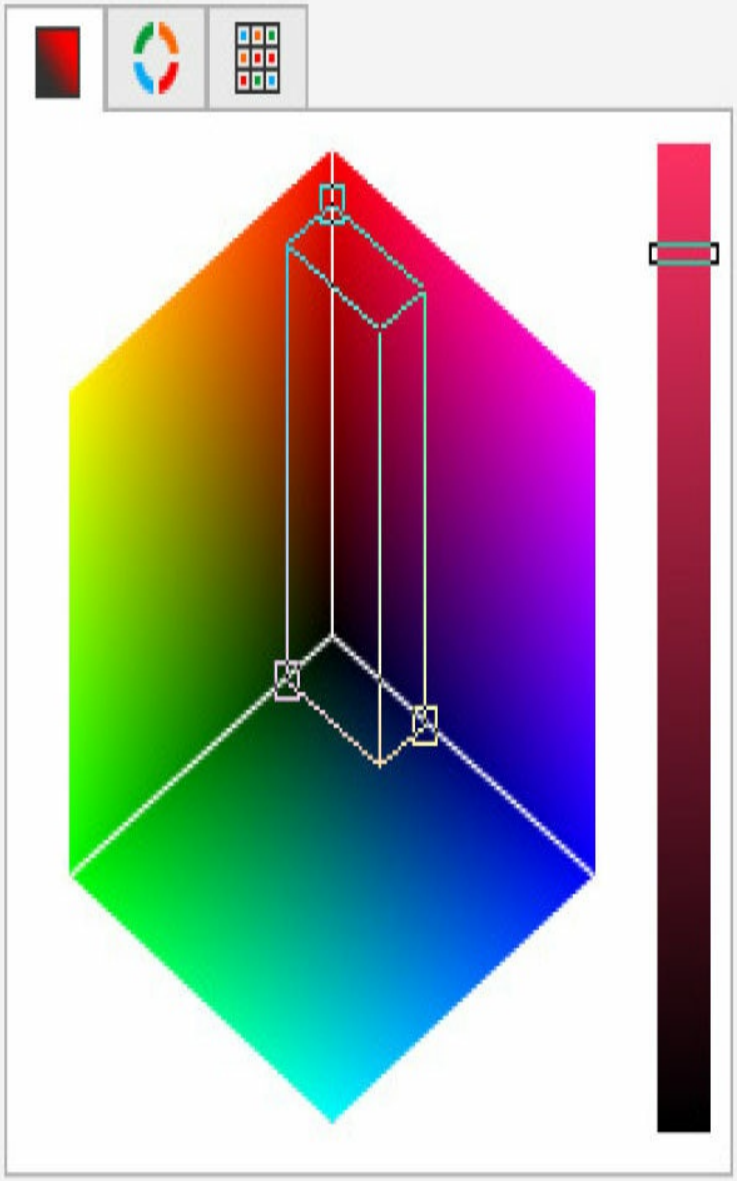
When a uniform color is filling a selected object and you enter the Edit Fill dialog, you'll see the following areas and controls:

- **Color model** Figure 12-6 shows the author working in RGB color space; therefore, HSB has been chosen from the color model drop-down list, which offers three different *views* for specifying a color by dragging your cursor through a color field and a color slider. Two additional color selection layouts and two other mixers are covered in this section. In the HSB hue-based color viewer, colors are specified by first dragging the Hue slider to the hue you want, and then dragging a small onscreen marker through the Saturation/Brightness field to the left of the Hue slider.
- **Hue slider** In the HSB configuration for defining a color, the *H* stands for *Hue*, and the Hue slider is offered in the hue-based color viewer in the Edit Fill dialog. Hue is the predominantly recognizable aspect of HSB color; red is a hue, orange is a hue, but an exotic home-decorating color such as Pale Salmon is *not* a hue but rather a brightness and saturation-altered variation of a red hue. Hues might be described as "pure" colors; they can't get any brighter, and they can't get any more saturated.
- **Saturation/Brightness marker** This is the small square in the color field when the HSB hue-based color viewer is chosen. Move this around within the field to designate a specific brightness and saturation for the current hue. Dragging the marker to the left makes a hue paler, whereas dragging it to the right makes the hue more saturated. Dragging up and down increases or decreases the brightness of a hue. If you want pure black and forgot that it's on the color palette (I'm kidding here), based on what you've read so far, you'd set the Hue slider to any color you like, and then drag the brightness and saturation marker all the way down (no brightness) and all the way to the left (no saturation).
- **Uniform fill type selector (color models)** This drop-down list, titled simply "Model," offers HSB, RGB, HLS (basically the same as HSB and RGB), CMYK, Grayscale, and other color models. Depending on your work on a specific piece, you

might choose Grayscale for final output to a laser printer or CMYK for commercial output. A *color model* defines a space, an expressible perimeter of available colors. For example, the CMYK color space is smaller than LAB color, and that's why an illustration created in LAB color mode looks dull when printed to CMYK colors—some of the LAB colors need to be shifted into a narrower color space and the "closest match" is chosen by DRAW. More on this in Chapter 15. Always choose your color model, and always set up your document when you choose New Document according to your intended final output.

- **Uniform fill type selector and Numerical input** This area is basically the same as the color-picking visual input on the left of this dialog, but you use number values instead of click-dragging to define a color. Not to worry: as you change the values in this area, you *will* see your proposed color to the left. You are shown duplicate fields in this area for a very important reason: you might need to know, for example, what the equivalent of a selected color is in a "different language." For example, suppose your boss tells you a specific color for a logo using RGB values. No problem: you type them into the fields and save the color to the color palette. However, now suppose the commercial printer now wants to know what this logo color is in CMYK values. You can see both sets of color components values if you set one field to RGB and the other to CMYK. Take the rest of the day off; that was easy!
- **Different representations of colors and color relationships** The Color Viewers drop-down list presents different ways to manipulate the components of colors graphically to accommodate the way you work—or the way your client might want you to work. In the illustration here, RGB 3D Additive is selected in the Color Viewers drop-down, and you can see an entirely different way to make up a color, based on red, green, and blue primary color markers that add brightness when dragged away from the center of the hexagon as well as mix with the other primary colors when dragged toward each extreme. Additionally, a slider controls the brightness of all the RGB markers simultaneously. You have several different views of color relationships; pick the one that makes the most sense to you.

Edit Fill



Model:

RGB

Color Viewers:

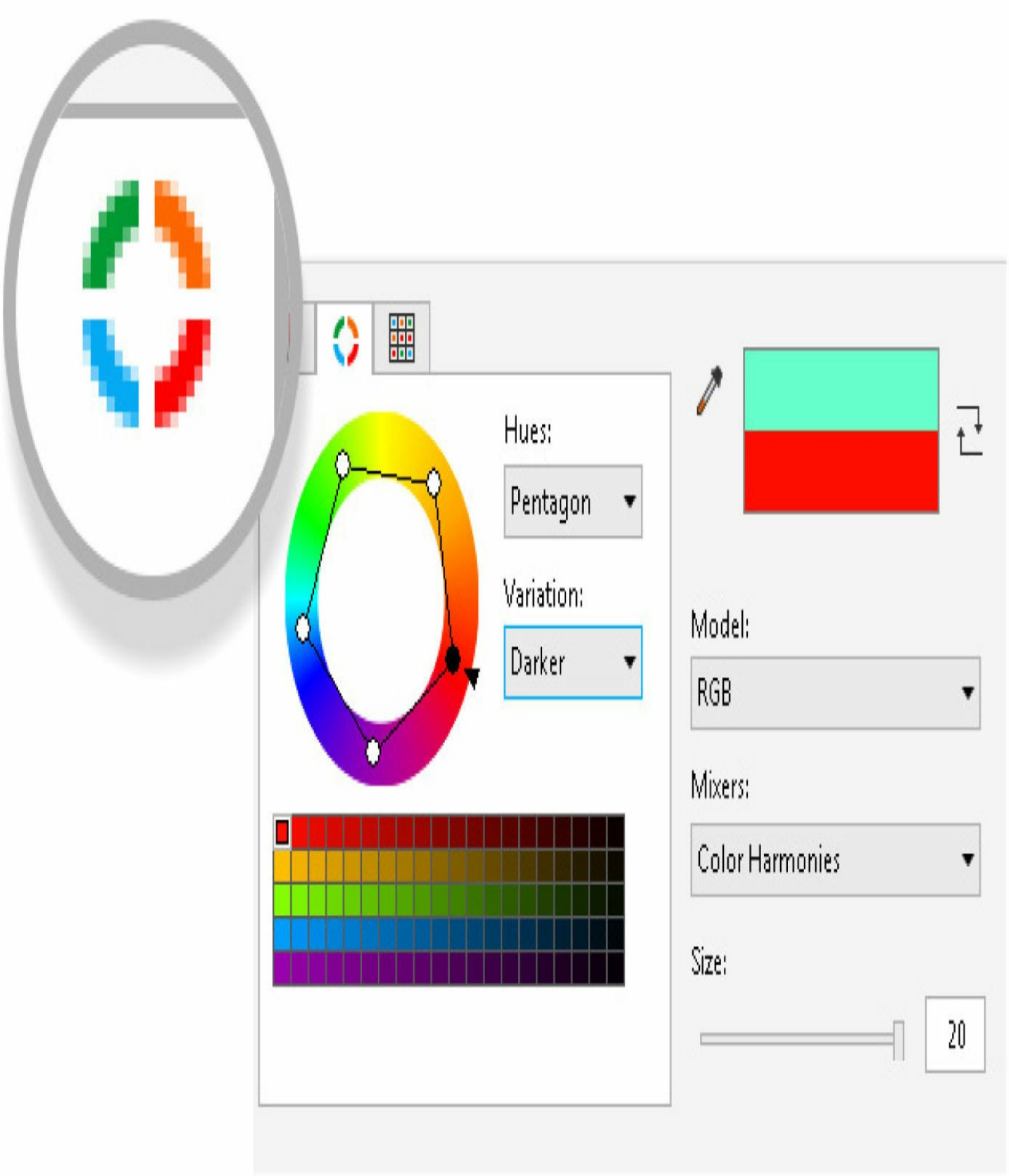
RGB - 3D Additive

HSB - Hue Based (Default)
HSB - Brightness Based
HSB - Wheel Based
RGB - 3D Additive
CMY - 3D Subtractive
CMYK - 3D Subtractive

Fill winding

Overprint fill

- **Add the new color to the document palette or the Color Styles palette** These are your two choices when you click Add to Palette. When you've arrived at the color of your dreams, you might want to add the color to the document palette—the horizontal strip at the bottom of the interface, not the default color palette that's vertically attached outside of the drawing window. Once the custom color is added to the document palette, you can double-click the newly created swatch on the document palette at the bottom of the window and enter a new name for it. Your other choice, aside from not adding the color to any palette, is to add the color to the Color Styles palette, a vertical strip that pops up to the right of the default color palette when you choose Window | Color Palettes | Color Styles Palette. See Chapter 15 for more details.
- **Color Mixer** The Color Mixer tab (enlarged in the following illustration so you can find it) provides an artistic way to define a color, not based on empirical values but instead on how colors compare and relate to one another. You have your choice of the uncomplicated Complementary color arrangement that shows the "color opposite" of the current color, along with variations of both colors in a selection box below the arrangement of colors. The Variation drop-down offers Lighter (to define tints of a specific color), Warmer, Darker, and other options. For a more complex arrangement, you can choose Rectangle from the Hues drop-down, and drag any of the white makers at the corner of the rectangle to skew toward a narrower selection of hues and drag the black triangle node around outside of the circle to set the baseline hue to then create variations and other harmonic comparisons of colors. Although it's initially a challenge, you might grow to love working with harmonies as a color basis because you're choosing colors by emotion—how they impress you—instead of by numerical values.



- **Print options** Two checkboxes, Fill Winding and Overprint Fill, pertain to commercial printing and not web work or personal printing. *Fill Winding* refers to the *Winding Path Rule:* if you follow a combined path, the fill should go to your left. This means that, potentially, a combined path such as a donut could have its inner subpath

going in the same direction as its outer path. You might not even notice this, but when printed to PostScript technology, the donut would wind up being filled—and not with raspberry jelly. Checking Fill Winding helps alleviate this potential problem. *Overprint Fill* usually has the opposite effect that artists want when printing artwork. By default, overlapping colors are knocked out—colors printed after the latest color in multicolor printing do not mix together. If you enable Overprint Fill, overlapping colors (cyan and yellow, for example, in CMYK printing) will produce green when areas overlap accidentally or intentionally. Unless you have experience with commercial presses, leave this box unchecked.

- **Current color and proposed color** This handy feature is for visually comparing the current color you've chosen against the color you've mixed up and intend to use to replace the current color. To the right of these fields is a little recycle icon: it swaps the colors onscreen so you can preview what the object will look like before making a final decision to click OK and apply the new color.
- **Eyedropper** You will find instances of the Eyedropper tool all over the place in DRAW, and it's quite welcome in the Edit Fill dialog because the dialog isn't *modeless*—your cursor can't "step outside of the box" to adjust something on the page. But the Eyedropper tool can be moved anywhere to sample a color in your drawing, on the page, on the interface, and even outside the interface in a different program or on your desktop.

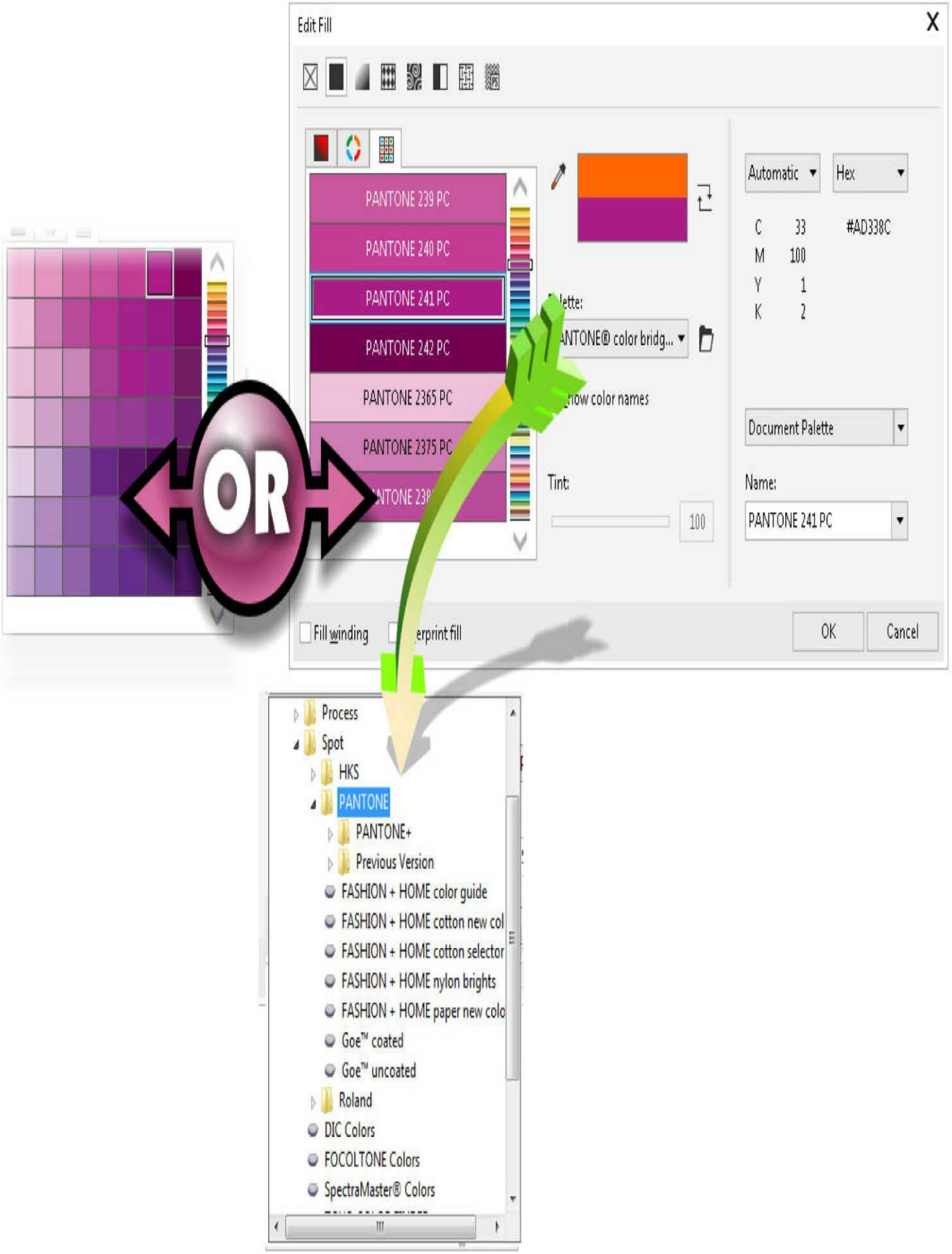
Swatches and Preset CMYK "Color Chips"

Spot color is the printing process used to add a color to packages—for example, that cannot be reproduced using standard press inks, such as that reflective silver logo on a box of cereal. The third tab in the Edit Fill dialog is for viewing preset swatches from several preset catalogs—from simple grayscale values to PANTONE. Not all the libraries here are based on the Cyan, Magenta, Yellow, and Black (also called the *Key* color) color model. If you or your client has specified a standard color, however (let's pretend it's from a PANTONE Color Bridge process color swatch book), using that color in a design is not a brain-teaser:

1. Open the Edit Fill dialog, click the Swatches tab, and then select the color library from which the color was chosen.
2. Begin typing the number value of the PANTONE color in the Name field; doing this performs an automatic search. In the illustration following these steps, **241** was typed in the Name field, and the swatch book immediately went to that swatch.
3. Solid colors are used as an *additional* color to the Cyan, Magenta, Yellow, and Key *process* colors in traditional commercial press printing. They're used as spot colors—a metallic gold burst of pigment that says "New!" on a cereal box, for example. Because spot colors are added as a separate ink in the composition, you can choose a

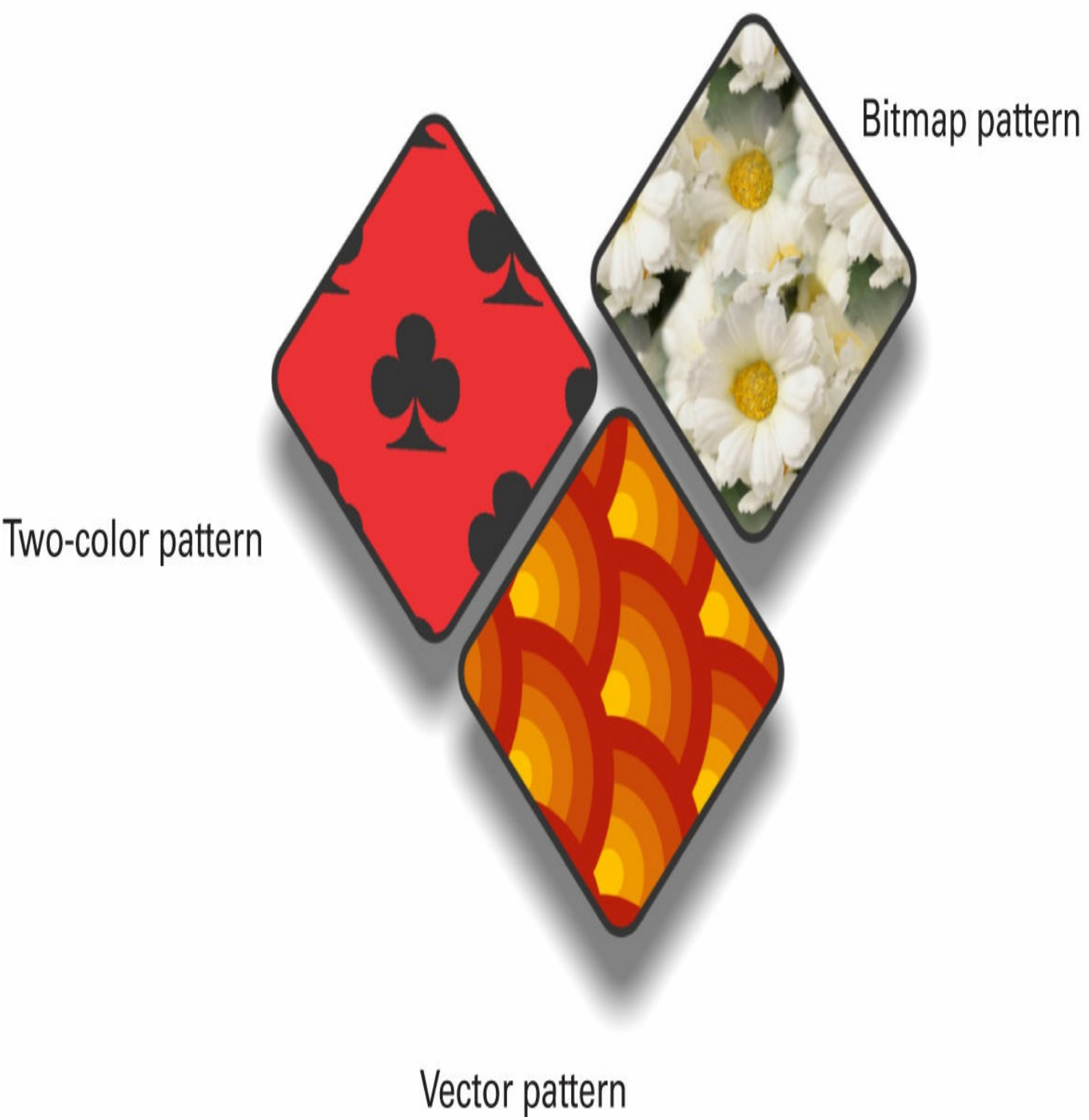
tint of these colors by using the Tint slider to specify the amount of this color expressed as a halftone screen on the printed page. Again, Chapter 15 has more info on printing than can be presented in this chapter on color, but the two are related.

As you can see here, color swatches, similar to those paint chips you see in hardware and home improvement stores, are presented as names in the color field as well.


Edit Fill
PANTONE 239 PC
PANTONE 240 PC
PANTONE 241 PC
PANTONE 242 PC
PANTONE 2365 PC
PANTONE 2375 PC
Automatic
Hex
C 33
M 100
Y 1
K 2
#AD338C
Document Palette
Name:
PANTONE 241 PC
Tint:
100
Fill winding
OK
Cancel
OR
Process
Spot
HKS
PANTONE
PANTONE+
Previous Version
FASHION + HOME color guide
FASHION + HOME cotton new col
FASHION + HOME cotton selector
FASHION + HOME nylon brights
FASHION + HOME paper new colo
Goe™ coated
Goe™ uncoated
Roland
DIC Colors
FOCOLTONE Colors
SpectraMaster® Colors

Applying Pattern Fills

Pattern fills are rectangular-shaped tiles that repeat vertically and horizontally to fill a closed-path object completely. They come in three different varieties: two-color, vector, and bitmap patterns. Each has its own unique qualities, shown here.



Two-Color Pattern Fills

When you decide that a two-color fill will suit your object, the Property Bar displays a host of options you can use to apply dramatic changes to the fill's appearance. Figure 12-7 shows what the control handles look like for the pattern fill, and it details the options offered on the Property Bar for two-color fills.

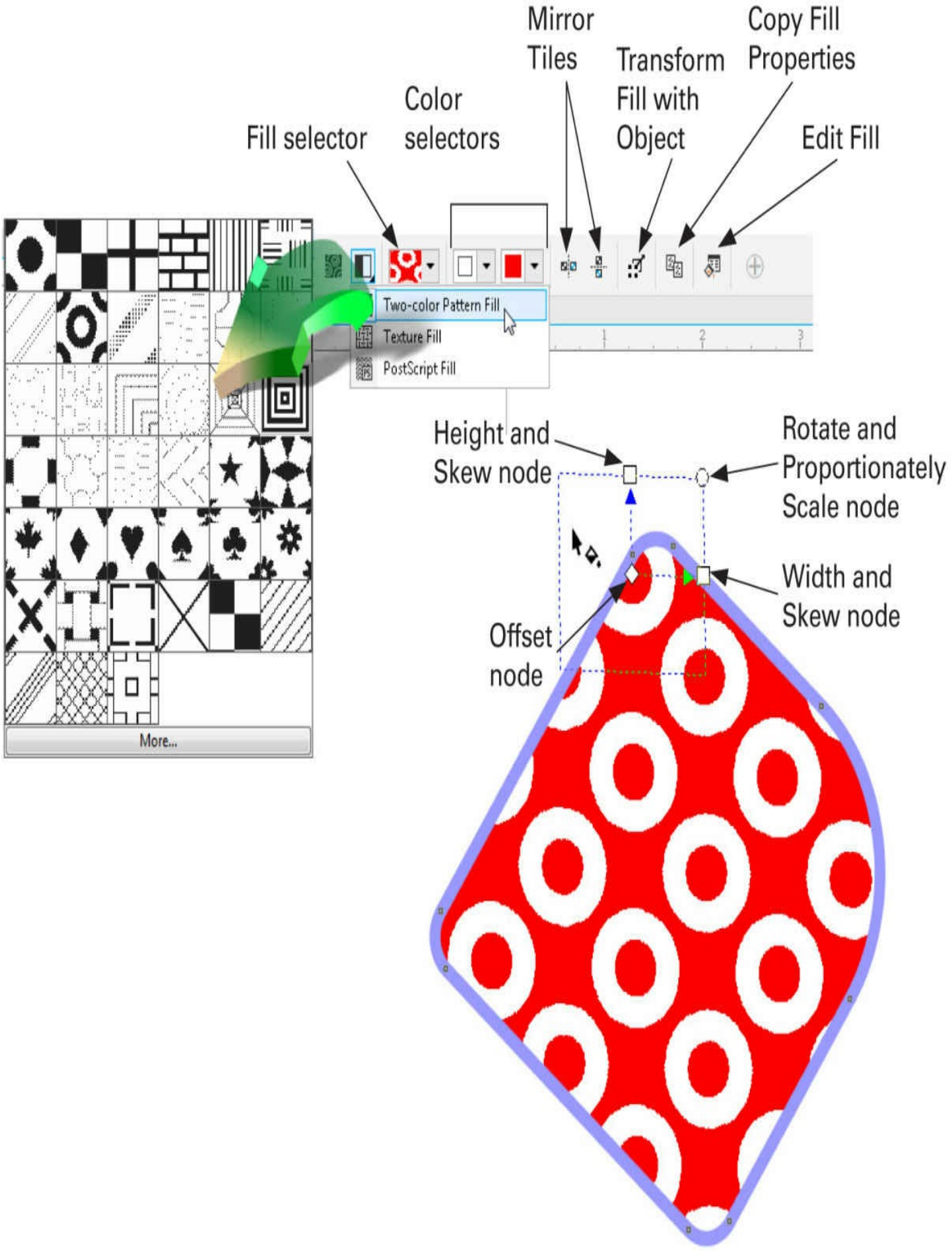

Mirror Tiles
Copy Fill Properties
Transform Fill with Object
Color selectors
Fill selector
Edit Fill
Two-color Pattern Fill
Texture Fill
PostScript Fill
More...
Height and Skew node
Rotate and Proportionately Scale node
Width and Skew node
Offset node

FIGURE 12-7 Two-color patterns are ideal for filling clothing on cartoons and for simple walls and other structures in drawings.

The Property Bar offers options for the type of pattern, colors used, and general appearance of the two-color pattern. The interactive control nodes around the pattern control the pattern's frequency, degree of rotation, and other things covered right now:

- **Fill selector** Use this drop-down box to choose from existing pattern fill libraries. Notice that there is a More… button at the bottom of the Selector flyout. Clicking this takes you to a pattern-making utility where you can create an original two-color pattern that you can save and apply later.
- **Color selectors** When you've chosen a two-color pattern, these two selectors let you set colors other than black and white for the pattern.
- **Transform Fill with Object** When this option is active, transformations applied to your object will also be applied to your fill pattern. This feature is useful when you need to scale an object larger and don't want your pattern to "shrink"! Stretching and squashing a pattern within an object is possible when you specify that the fill should be reproportioned according to what you do to the object itself.
- **Mirror Tiles** You have your choice of vertical or horizontal mirroring (or both), and the result is most apparent when the two-color design does *not* feature symmetrical objects. The circle pattern shown in Figure 12-7 doesn't change when horizontal mirroring is applied because the circles are both vertically and horizontally symmetrical. However, choose a pattern featuring a horizontally asymmetrical pattern element such as a club from a pack of playing cards. Then if you choose vertical mirroring, every other row of clubs is turned upside down. Mirroring is a good feature for producing symmetrical patterns but also is great when you want a more visually interesting fill than, say, polka dots.
- **Copy Fill Properties** This is a persistent button when the Fill tool is selected. As with fountain fills, you select an unfilled object, click the Copy Fill button, and then click the cursor over an object on the page whose fill you want to copy to the unfilled object.
- **Edit Fill** As with most pattern-filled options, the Edit Fill dialog has almost identical features to those found on the Property Bar, except it has numerical fields for precise size, rotation, skew, and other pattern properties.
- **Offset node** Within the filled shape when using the Fill tool, you drag on this node to establish a center to the design. This feature is terrific if the pattern appears just a little lopsided within the "window" that is your object through which the pattern peeks.
- **Stretch and Skew node** These two node handles, arranged at right angles to each other, by default, control how much the pattern inside the object is stretched or skewed.

Moving one node controls the vertical stretch and skew, and the other controls the horizontal. If only one node is moved away from the default position, the pattern's shape is disproportionally altered. Although they are not true perspective controls, they can be used as a simple way to change a brick-wall fill into a brick road.

Note Two-color patterns are limited to *exactly* two colors, with no additional edge colors to create antialiasing. This means the edges of the design will be harsh if you export your work to a bitmap format such as TIFF and PNG. The best way to cope with this limitation is to export to high resolution, such as 300 dpi. Then the rough edges will still be there, but harder to make out at a 1:1 viewing resolution.

Vector Pattern Fills

You have access to scores of beautifully designed vector shapes created by the Corel staff and the Corel Community when you click the Vector Pattern Fill selector button on the Property Bar. However, the pattern itself already has color applied and cannot be altered. Additionally, these full-color fills cannot be extracted as vector shapes from the pattern. Therefore, when making your own vector fill, save a copy of your pattern to CDR file format for editing in the future, and forget about the Break Apart and Convert To Curves commands in an attempt to reduce a full-color pattern to its vector component shapes.

Bitmap Pattern Fills

Bitmap patterns are carefully edited bitmaps; some of the presets are taken from photos, others are paintings, and all of them are relatively small in dimension. The difference between a full-color fill and a bitmap fill is that the vector-based pattern tiles for the full-color fills can be resized without losing design detail or focus or introducing noise. However, enlarging bitmap pattern tiles carries the same caveat as enlarging any bitmap—the more you enlarge it, the better the chances are that the component pixels will eventually become visible. You can scale bitmaps down but not up—computers are "smart," but they can't create extra visual data from data that wasn't there to begin with.

Controlling Pattern Fills Interactively

Knowing what you do now about the editability of patterns when applied to objects, it's time for a little hands-on tutorial to demonstrate how to edit the look of an applied pattern fill by adjusting the interactive markers and using the various Property Bar options common to a pattern style.

The interactive handles surrounding a pattern fill help you to set the tile size, offset, skew, and rotation of the pattern. To experience this firsthand, open Platonic.cdr and work

with the uncompleted group of objects. The image on the right is just for reference.

Customizing a Pattern Fill

Tutorial

1. Select an object in the group on the left, and then choose the Interactive Fill tool (G).
2. Choose Two-Color Pattern from the Fill Type selector. Choose the first sample entry, the polka dot pattern. Because the object you selected was already filled with a uniform color, the polka dot pattern is probably very light gray against white. Don't worry; you'll change this shortly.
3. Click the Front Color button on the Property Bar and—just so we don't drag this tutorial out into next week—rather than trying to define an appropriate gold polka-dot color with the color picker drop-down, click the Eyedropper tool and then go sample the color used in the corresponding finished design on the right. If you have the spare time, experiment with foreground and background colors as applied to your own pattern work.
4. Repeat step 3 with the Back Color button, choosing a medium purple with the Eyedropper and applying it to your current pattern fill.
5. Drag the Rotation/Tile Size handle toward the center of the selected object until the polka dot pattern repeats about four times.
6. Drag the diamond-shaped center origin handle slightly in any direction. Notice that the center origin of the pattern changes.
7. Drag the Stretch and Skew node to the right to stretch the polka dots a little, creating perspective within this composition.
8. Use the right Stretch and Skew node to skew the pattern a little to the left, so it is about the same angle as the selected object. Then, use the Scale/Rotate node again to achieve the proper angle for this object.
9. That's all you need to know about editing to finish this composition! Repeat steps 3–8, varying the front and back colors to complete filling in other objects.

Figure 12-8 shows the node handles around a two-color pattern fill.

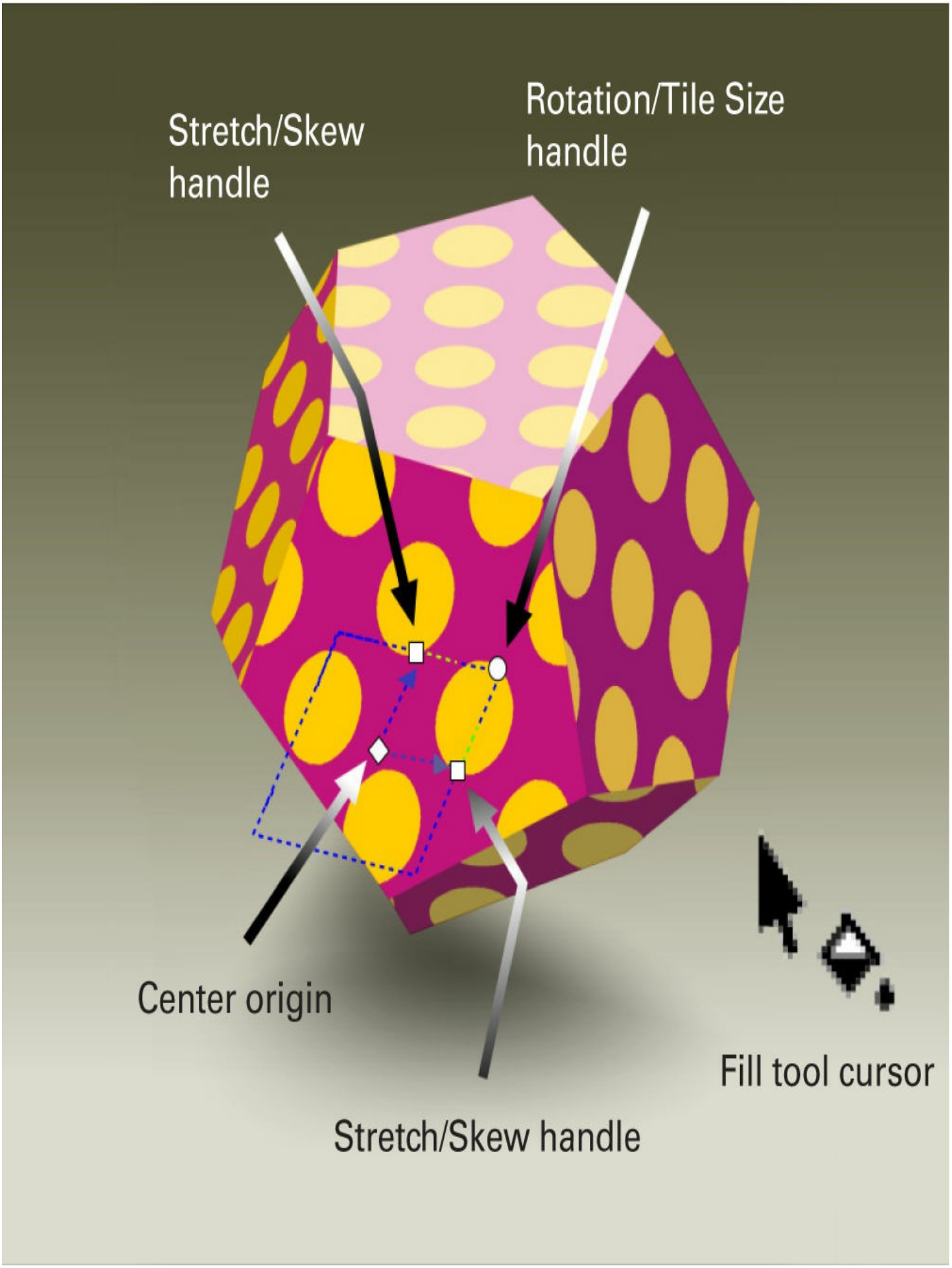

Stretch/Skew handle
Rotation/Tile Size handle
Center origin
Fill tool cursor
Stretch/Skew handle

FIGURE 12-8 The nodes surrounding a two-color pattern fill are there for you to control the pattern's colors, size, and skew.

Tip One important feature found in the Edit Fill dialog that *doesn't* appear on the Property Bar is Row and Column Offsets. By default, pattern tiles join to appear seamless. However, you can *intentionally* ruin the pattern (or just create an "interesting" one) by offsetting the pattern seams through either of these two options. To apply an offset, choose either Row or Column as the offset option, and enter a value between 0 and 100 percent.

Create Your Own Two-Color and Full-Color Patterns

Two-color patterns are harder to think up than they are to create, and the details are covered right after this section. Full-color vector or bitmap patterns are created by sampling an area on the page. With your desired pattern created, draw a new object outside of the pattern area and make sure it's selected. Open the Object Properties docker (ALT-ENTER) and click the Fill button at the top. Select either the Vector Pattern Fill or the Bitmap Pattern Fill option. Click the New From Document icon located to the right of the pattern list. Move your cursor into the document and drag a selection around the desired pattern area, but don't include the new object you created. It will have a default fill automatically applied to it when you click the Vector or Bitmap Pattern Fill button. After the pattern area is selected, click the Accept icon floating underneath the box. If you clicked the Vector Pattern Fill button, you now click the Save As New button in the docker, where you can name it, tag it with keywords, and elect to share it with Content Exchange. If you clicked the Bitmap Pattern Fill button when selecting your pattern, click the floating Accept icon to display a Convert To Bitmap dialog. Here, you can assign resolution, color mode, and more to the pattern. Saving a bitmap pattern is the same as for vector patterns—click the Save As New button in the Object Properties docker. To apply a custom pattern, click either the Vector or Bitmap Fill Pattern button and the Fill Picker drop-down list on the Property Bar. Click the Browse button at the bottom and navigate to your saved pattern. Saved patterns are located in My Documents\Corel\Corel Content\Fills. Note that both vector and bitmap fills are shown, and that your fill type will change to a vector pattern fill if you choose a saved vector file, and to a bitmap pattern fill if you choose a bitmap pattern. Both kinds of pattern fills have the same file extension (.fill), so it might be wise to include the word *vector* or *bitmap* in your filename when you initially save a pattern as either type.

Two-color patterns, on the other hand, are created using a special editor box displayed

by clicking the More button at the bottom of the First Fill Pattern or Color button on the Property Bar. As you can see in Figure 12-9, two-color patterns are created by choosing a tile size, a cursor size, and then left-dragging and/or clicking to set the foreground pattern; right-clicks and right-click-drags act like an eraser. Two-color patterns you create are immediately applied to a selected object, unlike full-color patterns, which are saved to a .fill file on hard disk. Although you are creating a black-and-white pattern in the Editor, two-color patterns can be any two colors; you apply the pattern and then use the Property Bar's mini-palettes to define the two colors.

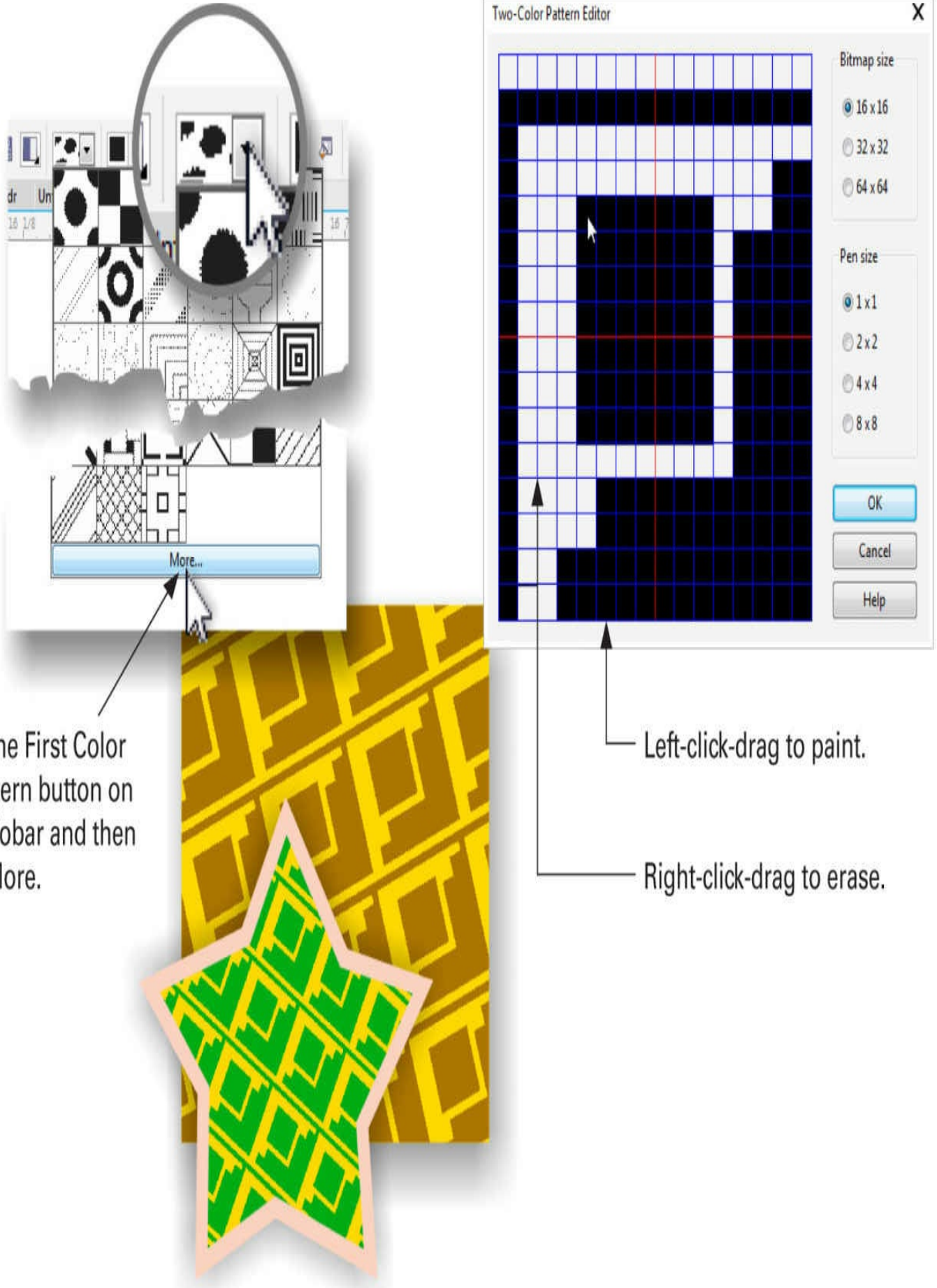

Two-Color Pattern Editor
X
Bitmap size
16 x 16
32 x 32
64 x 64
Pen size
1 x 1
2 x 2
4 x 4
8 x 8
OK
Cancel
Help
More...
Click the First Color or Pattern button on the Infobar and then click More.
Left-click-drag to paint.
Right-click-drag to erase.

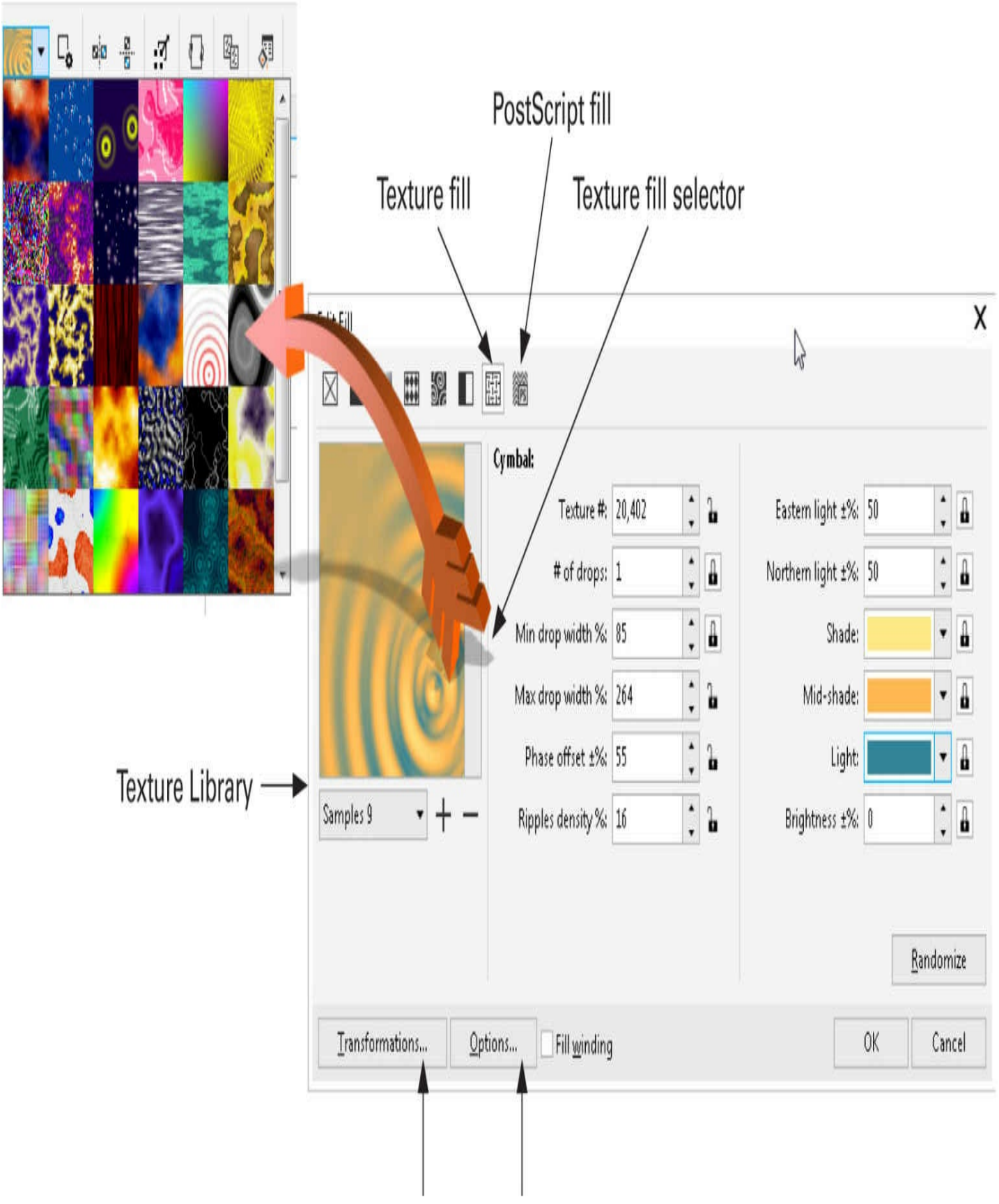
FIGURE 12-9 **Create your own two-color pattern in the Two-Color Pattern Editor.**

Tip You can also create patterns by using the Tools | Create | Pattern Fill menu command. This command lets you capture a screen area and use it as an RGB Color (24-bit), Black and White (1-bit), 16 Colors (4-bit), Grayscale (8-bit), Paletted (8-bit), or CMYK Color (32-bit) pattern. And it is here you can elect to share it with Content Exchange—part of the Corel Community—or not.

Applying Texture Fills

PostScript and (fractal) texture fill types aren't "out in the open" in version X8—they're still available, but you need to click Edit Fill with the Fill tool active to locate these fill types. For users new to CorelDRAW, draw a rectangle, select the Fill tool, apply any type of fill just so the Edit Fill button appears, and click the Edit Fill button on the Property Bar. Let's review texture fills. Here's the Edit Fill dialog when the Texture Fill type has been selected, along with a labeled layout of the options.

Tip Although it's one more thing to remember in this feature-filled program, you can also access PostScript and texture fills on the Property Bar by click-holding the Two-Color Pattern Fill button.


PostScript fill
Texture fill
Texture fill selector
Texture Library
Cymbal:
Texture #: 20,402
# of drops: 1
Min drop width %: 85
Max drop width %: 264
Phase offset ±%: 55
Ripples density %: 16
Eastern light ±%: 50
Northern light ±%: 50
Shade:
Mid-shade:
Light:
Brightness ±%: 0
Samples 9
Randomize
Transformations...
Options...
Fill winding
OK
Cancel
Mirror, Rotate, Dimensions,
Skew, Transform with Object
Dimensions and Resolution
(for scaling and printing)

The strange and wonderful thing about Corel's texture fills is that they are math-based bitmap images that can be scaled without any loss of detail because the math belongs to the *fractal* family of imaging. Fractal fills are resolution independent in a certain way—the closer you zoom in, the more detail you'll see in any one given shape. The textures are based on more than a hundred different styles, ranging from bubbles to clouds.

For the artist, all you really need to know about fractal (texture) fills is that you have an awful lot of customization controls that change as you choose various samples from different collections. In the previous illustration, the "Cymbal" preset was originally a fairy hideous color combination, so I experimented with different colors and a slightly different Ripples Density setting and then I clicked the plus (+) button—a button common to most content collections in DRAW that's used to add and save a custom texture or whatever to a collection for later use.

The interactive nodes surrounding a texture fill are the same as those for pattern fills; they're there for you to set the size, offset, skew, and rotation of the texture. If you have experience manipulating pattern fills by click-dragging the control nodes above the object, you'll discover bitmap fills are exactly the same. However, because these are *bitmap-based* textures, rotating or scaling them to a larger size will degrade the image. This is a moot point, though, if you use the Options button at the bottom of the Edit Fill box to set the fractal resolution to a high value such as 300 dpi.

Applying PostScript Fills

PostScript fills are vector based and use PostScript page-descriptor language to create a variety of patterns, from black and white to full color. Each PostScript fill included with CorelDRAW has individual variables that control the appearance of the pattern, much the same way as you can customize texture fills. PostScript pattern styles come in a variety of patterns, as shown here, and they also come as nonrepeating fills.

Like accessing texture fills, you must select an unfilled object, choose the Fill tool, and then click the Edit Fill button on the Property Bar to get access to the PostScript fill type and the available options—presets, line widths, pattern element size, and color options, depending on the specific preset.

The image you see onscreen is an accurate representation of the actual pattern that will be printed; again, PostScript is a printing technology, but Corel Corporation has made the technology viewable in CorelDRAW and printable without the need for a PostScript

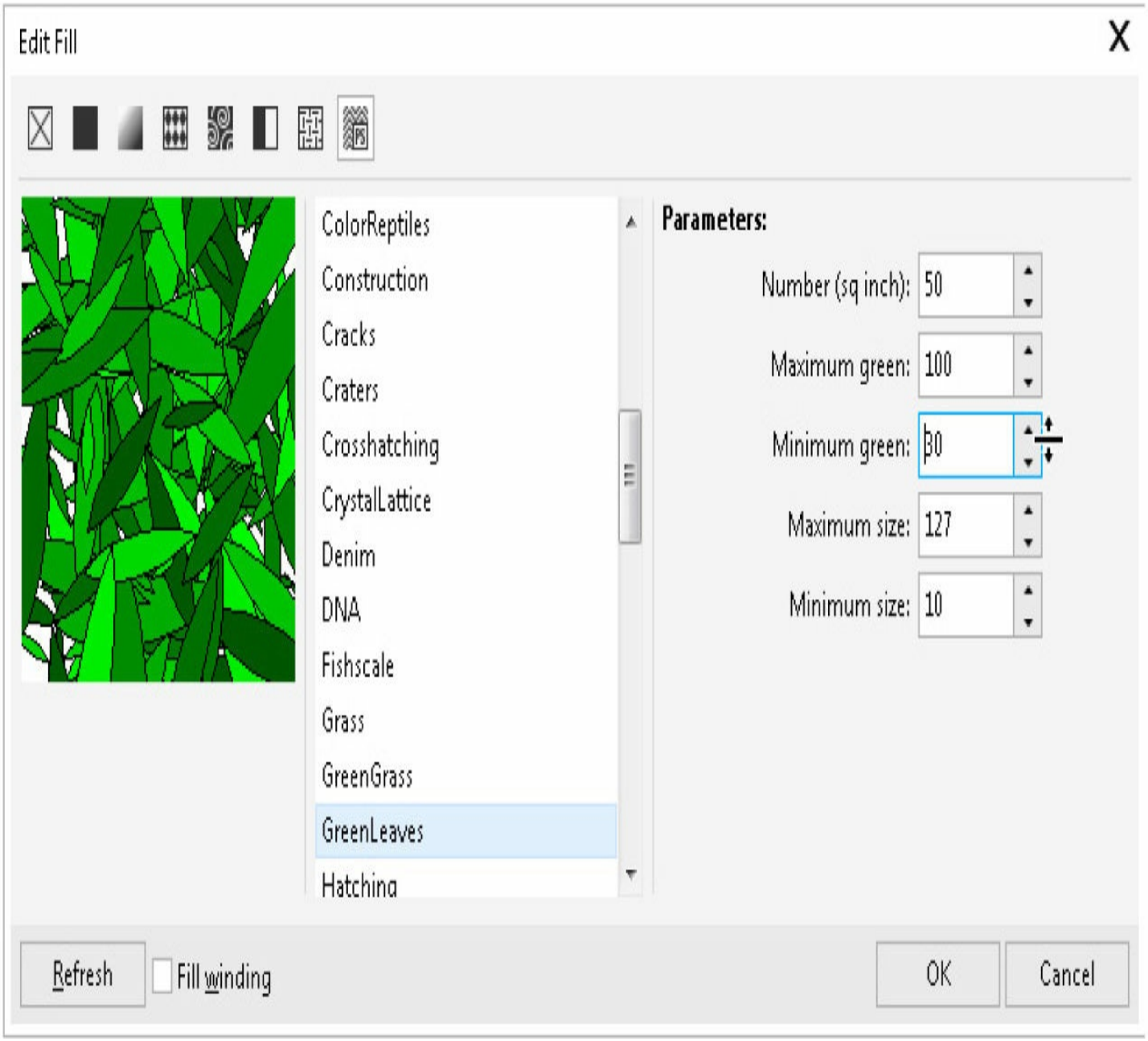
printer. On that note, it should be mentioned that PostScript fills will print exceptionally well to any PostScript device; that's what the fills are intended for, but you don't necessarily have to use PostScript. However, you *must* be using Enhanced View to see it (choose View | Enhanced).

To apply a PostScript fill, follow these steps:

1. Create and then select the object to apply any PostScript texture fill to, and then click-hold the Two-Color Pattern Fill button on the Property Bar. The first in a collection of fills immediately fills the object, and you can choose other preset patterns from the PostScript patterns drop-down list.

Tip For fill types such as PostScript that have no More… button, go to the Edit Fill box and double-click the Edit Fill dialog's fill icon on the status bar, toward the right of the bar below the local color palette.

2. Click the Edit Fill button on the Property Bar—you can only modify the PostScript fill so much from the Property Bar. In the Edit Fill dialog, click the PostScript button.
3. There is a Refresh button that forces a redraw of the current pattern when you make changes, but you will see an unchanged preset right away when entering this set of options in the Edit Fill dialog, and if you move the Edit Fill dialog to the side, you can see a preview of the fill in the selected object on the page.
4. Notice that each fill has its own set of parameters that can be changed. For example, the GreenLeaves preset is chosen in the next illustration; however, the leaves are too small and there's not enough variation in the greens to suit a specific assignment. The solution is to decrease the number of leaves per square inch, thus increasing each leaf's relative size, and to lower the Minimum Green setting, so a wider expression of the preset's green color is visible.
5. Click Refresh to refresh the preview. If it looks good, you can click OK to get back to your work!



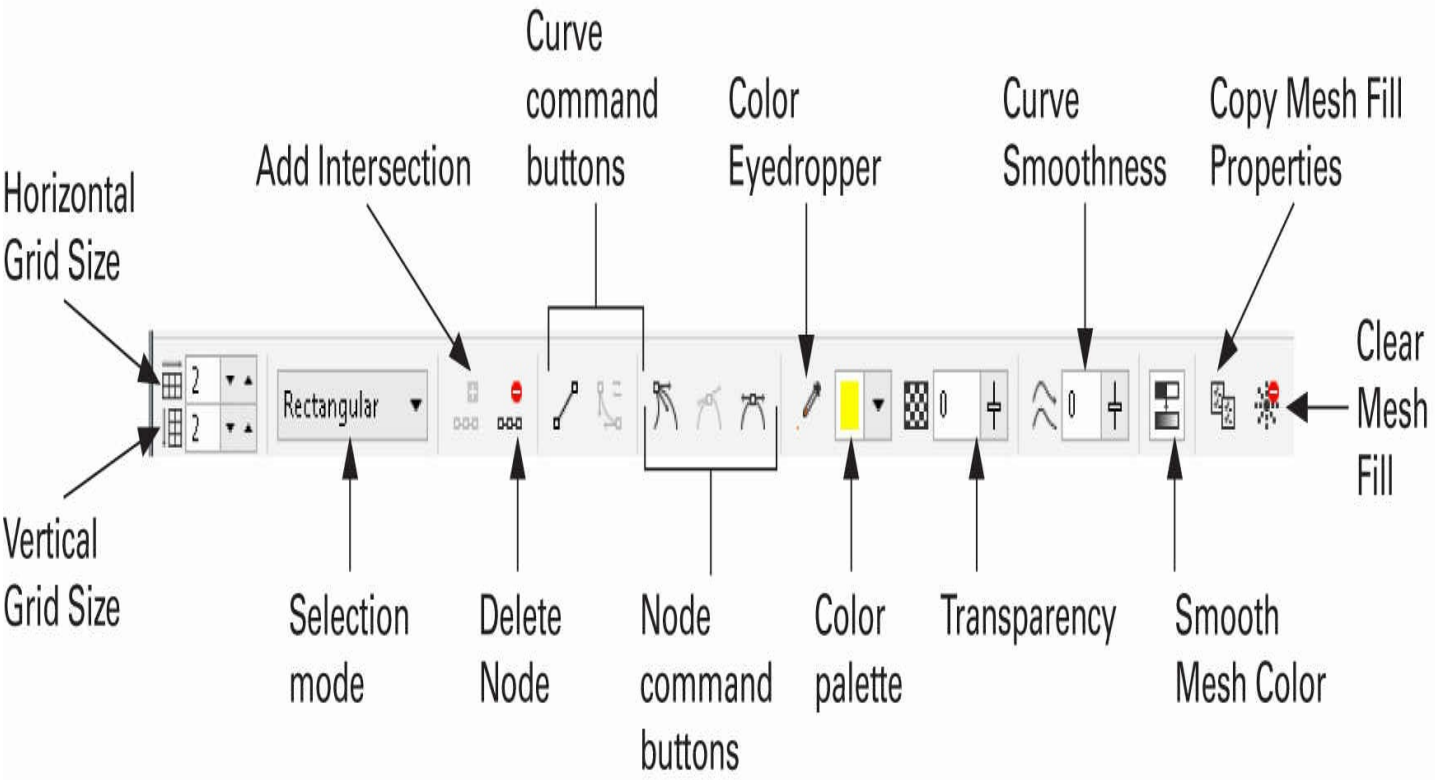
PostScript fills are great for schematic and roadmap illustrations, and if you use no background color when you customize many of the fills, the fills support transparency. So you can actually apply, for example, crosshatching over a color-filled object to enhance the shading.

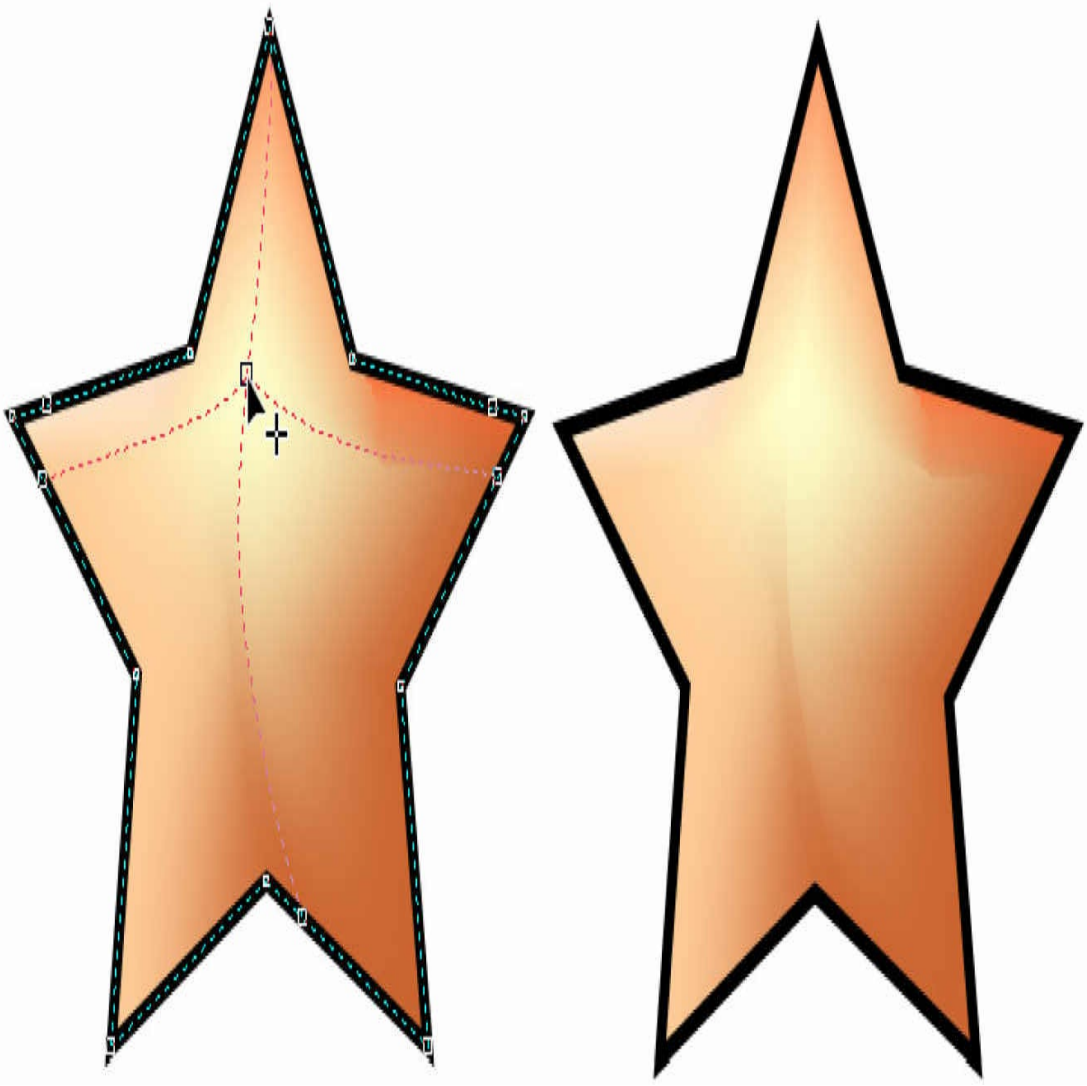
Working with Mesh Fills

Mesh fills can be used to create the effect of several blending-color fountain fills over a mesh of vertical and horizontal Bézier curves. Editing a mesh grid creates a sort of fill that doesn't really look like a fountain fill but instead looks very much like a *painting*. Mesh fills make it easy to create, as you'll see in the following illustrations, most of the visual complexity of a reflective sphere—*using only one object and one fill*. Add to the visual

complexity the capability to set transparency levels to each patch of a mesh fill individually, and in no time you'll be creating scenes that look like paintings, using a fraction of the number of individual objects you'd imagine. You'll find the Interactive Mesh Fill tool in the Toolbox grouped with the Interactive Fill tool, or you can press M for speedy selection.

With the Mesh Fill tool selected, the Property Bar features a number of options, shown next, for controlling this truly unique fill type. Many of these options will look familiar to those who work with the Shape tool to edit paths because, essentially, a mesh fill defines different color areas in a vector, resolution-independent way. Use these options to set the vertical and horizontal size in the mesh grid, to change node and path properties, and to set the smoothness of curves.


Horizontal Grid Size
Vertical Grid Size
Add Intersection
Curve command buttons
Color Eyedropper
Curve Smoothness
Copy Mesh Fill Properties
Clear Mesh Fill
Rectangular
Selection mode
Delete Node
Node command buttons
Color palette
Transparency
Smooth Mesh Color



Believe it or not, the star in the previous illustration has one scalable fill, made up of nine colors that blend into one another according to how the color nodes are moved around the interior of the circle. Acceleration between color nodes is done by dragging on the color node handles. It might not be apparent in the black-and-white edition of this guide, but if you try it out on your copy of DRAW, you'll instantly see and understand the complexity of the result of this tool!

Applying a mesh grid to an object is a quick operation. Mesh fills are dynamic, so they can be edited and reedited at any time. Editing the shape and color of a mesh grid can be a little bit of a challenge your first time out, but being able to smear and almost paint on a fill will make the effort worthwhile to you and your work. Node- and curve-editing actions needed to move fill areas are the same as for Bézier curves. For information on how to do this, see Chapter 9.

Mesh Fill Options

On the Property Bar, when the Mesh Fill tool and an object are selected, you have control over the following attributes:

- **Frequency of the patches** By default, a new mesh fill is created on an object with two horizontal and two vertical sets of patches. These patches are linked at the edges by paths and at their vertices by nodes. You can use the numerical entry fields or the spin boxes with these fields to increase or decrease the number of columns and rows of patches. Manually, if you left-click and then right-click the icon created, you have the option to create a node or an intersection by choosing from the pop-up menu.

Tip You can double-click a path segment to create a new intersection. This method might be faster for you.

- **Add Intersection/Delete Node** When you've clicked on a path segment and a node appears, you can add an intersection, either by clicking the Add Intersection button or by pressing + on the numerical keypad. When you add an intersection, you add a row or a column to the mesh fill, depending on whether you've added a point to a vertical or a horizontal mesh path segment. You must first select a node to then delete it. Clicking the Delete Node button or pressing DELETE on your keyboard removes both the mesh node and its associated intersecting path segments—reducing the number of columns or rows of mesh patches. Deleting nodes can yield unanticipated results, so give some thought before you delete a node.
- **Curve and Node command buttons** By default, path segments that make up the mesh

fill are curves, bound by nodes that have the Smooth property. To change a path segment to a line, you use the Convert To Line command button; click Convert To Curve to create the opposite property. Nodes can be changed to a Cusp, Smooth, or Symmetrical property by clicking the associated Property Bar button; the commands can also be found on the right-click pop-up menu when you select a node with your cursor.

- **Curve Smoothness** Suppose you've added far too many nodes to a path segment and your mesh fill looks like a bad accident in one area. If you marquee-select the nodes that bind this path segment, the Curve Smoothness slider and numerical entry field act like the Node Reduction feature in CorelDRAW. You reduce the number of superfluous nodes (CorelDRAW decides on the meaning of "superfluous"; you yourself have no control) by entering a value or using the slider.
- **Selection mode** By default, you can select nodes in Rectangular mode, which means you marquee-drag a rectangular shape with your cursor to select nodes and then change their properties, such as color, position, and transparency. Your other selection choice is Freehand; in this mode, your cursor behaves like a real-world lasso, and you are unconstrained by a selection shape for nodes. Additionally, you can SHIFT-click and select non-neighboring nodes to edit. When using Freehand mode, you can't select patches—selecting patches by clicking within them is only available in Rectangular selection mode.
- **Smooth Mesh Color** This toggle on/off button can produce smoother color blends in your fill without changing the position or properties of the mesh nodes and curve path segments.
- **Color Eyedropper** When a patch or node is selected, you can choose a color anywhere on screen by dragging the Color Eyedropper tool over to any point.
- **Color palette** The mini color palette flyout on the Property Bar lets you select colors for selected nodes and patches. Click the flyout button to access the default color palette or choose from other preinstalled CorelDRAW palettes. Clicking a color well on the (regular) color palette applies color, too.

When working with the mesh fill, you'll get far more predictable results if you apply colors to the nodes instead of dropping colors onto patches. Also bear in mind that regardless of how you create a shape, the mesh fill makes the object "soft"—the control nodes that make the closed path of the object are also mesh fill nodes. So, unavoidably, if you want to move a node you've colored in *at the edge* of the object, you're also *moving the associated path segment*. This is fun and creative stuff, actually, and if you need the fill to be soft with the object's original shape intact, you can put your finished object inside a container by using the Object | PowerClip | Place In Frame feature.

Sampling Fills

With an Eyedropper tool, you can click on a color on the page, and the sampled color immediately becomes the foreground color on the toolbar. You can then use this sampled color somewhere else in your drawing.

CorelDRAW has two Eyedropper tools, though, and each one has a specific purpose.

Applying the Color Eyedropper

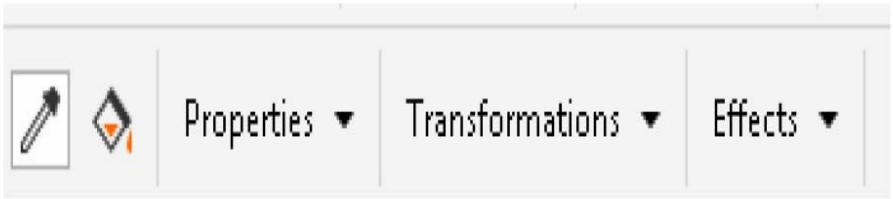
The Color Eyedropper is your "standard" Eyedropper tool, and it operates as you probably anticipate, with one or two notable enhancements that Corel has given it. To sample a color and apply it to one or more other objects, you select the tool from the Eyedropper group on the Toolbox. Now here's where something cool comes into play: bitmap images can have millions of colors, but high-resolution images impress us as having a predominant color in an area, such as the leaves on a tree, when, in actuality, at a pixel level, there are dozens of different green colors that leave the human eye with but a single color impression.

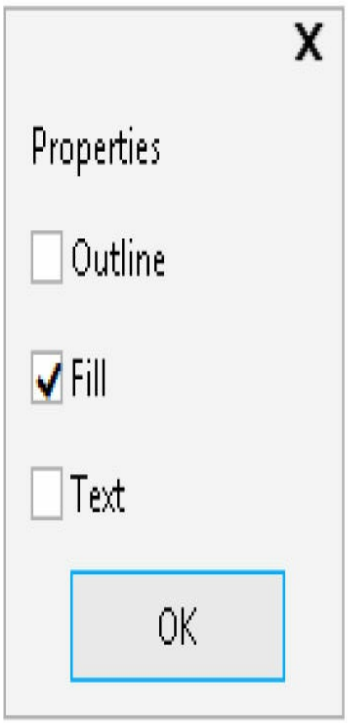
The Color Eyedropper offers Sample Size on the Property Bar. You can choose from a precise 1×1 pixel sampling size, a 2×2 pixel average, and a 5×5 pixel average color sample. When sampling from bitmap images and even fountain fills, increase the Sample Size on the Property Bar to capture the color your brain sees, not the precise color under your cursor.

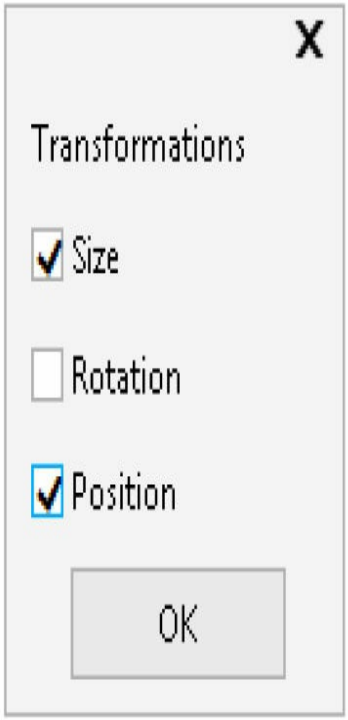
With the Color Eyedropper, unlike many other graphics programs, once you've sampled, it's not a one-pop deal to then fill another object. The filling part of the Attributes Eyedropper is persistent—you'll see a bucket icon on the Property Bar that stands for "Fill," and you can continue to fill two or a hundred objects on your page until you want to reset the sample color, in which case you click the Eyedropper button to the left of the paint bucket icon.

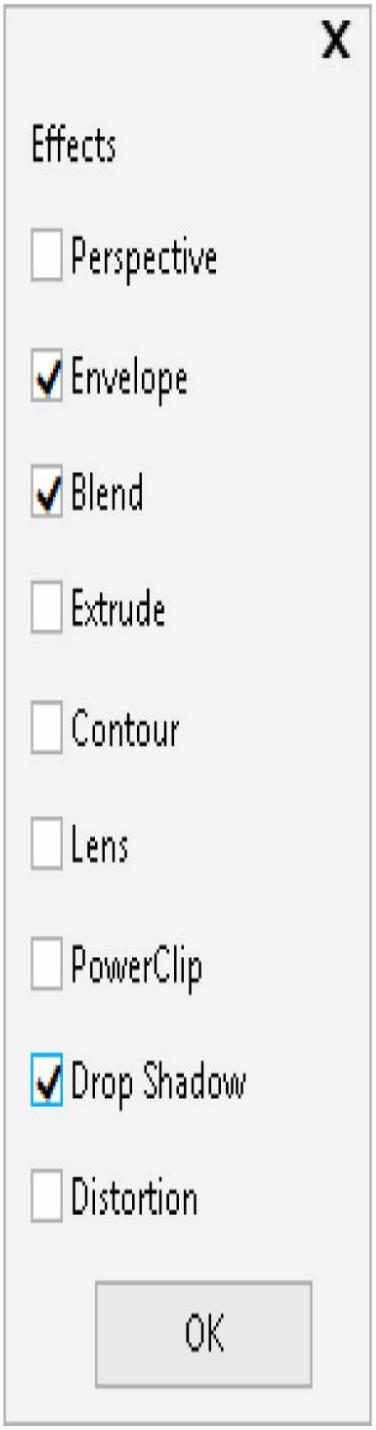
Using the Attributes Eyedropper Tool

The Color Eyedropper's cousin tool, the Attributes Eyedropper, is used to sample and apply fills such as fountain and texture fills and some the others, excluding the mesh fill. Choose the Attributes Eyedropper from the Toolbox, and three drop-down categories are presented to you: Properties, Transformations, and Effects (as shown next). Just as a point to ponder and revel in: if you've dressed up a rectangle with a fountain fill, a dashed outline, and a drop shadow, it would take about two clicks to apply all these same trappings to one or several "ordinary" objects you've created on the page. What a timesaver, eh?


Properties
Transformations
Effects


Properties
Outline
Fill
Text
OK


Transformations
Size
Rotation
Position
OK


Effects
Perspective
Envelope
Blend
Extrude
Contour
Lens
PowerClip
Drop Shadow
Distortion
OK

Tip As an alternative to using the Attributes Eyedropper tool, you can drag an object using the right mouse button and then drop it on top of an object to which you want to apply any fill style. A pop-up menu appears when you've released the right mouse button, and you then can choose Copy Fill, Outline, or All Properties. The position of the source object does not move when you use this drag technique.

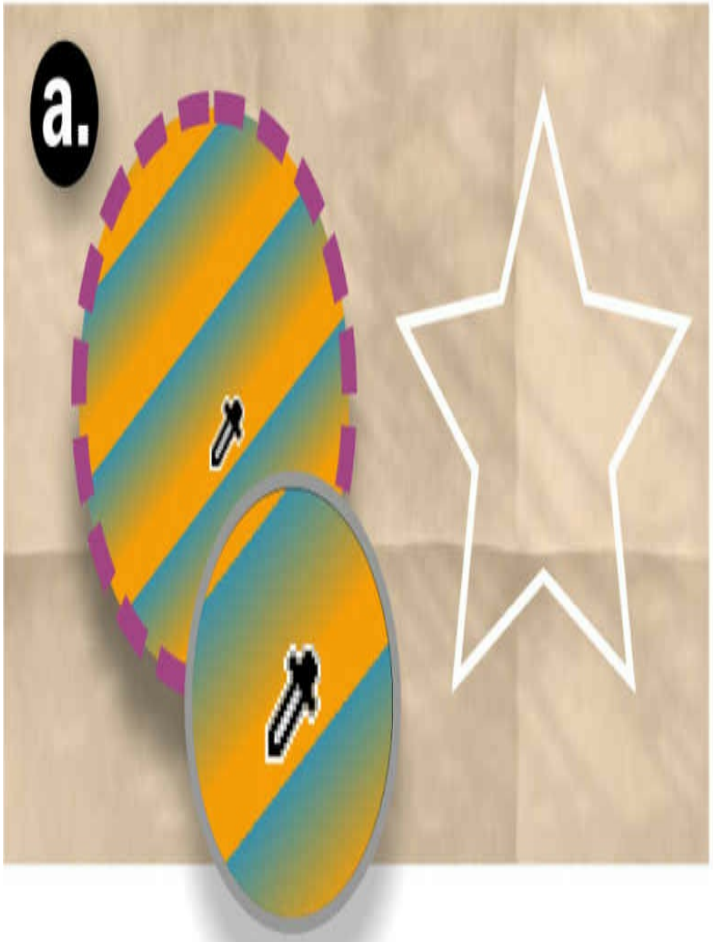
Here's a brief tutorial to demonstrate the utility of the Attributes Eyedropper.

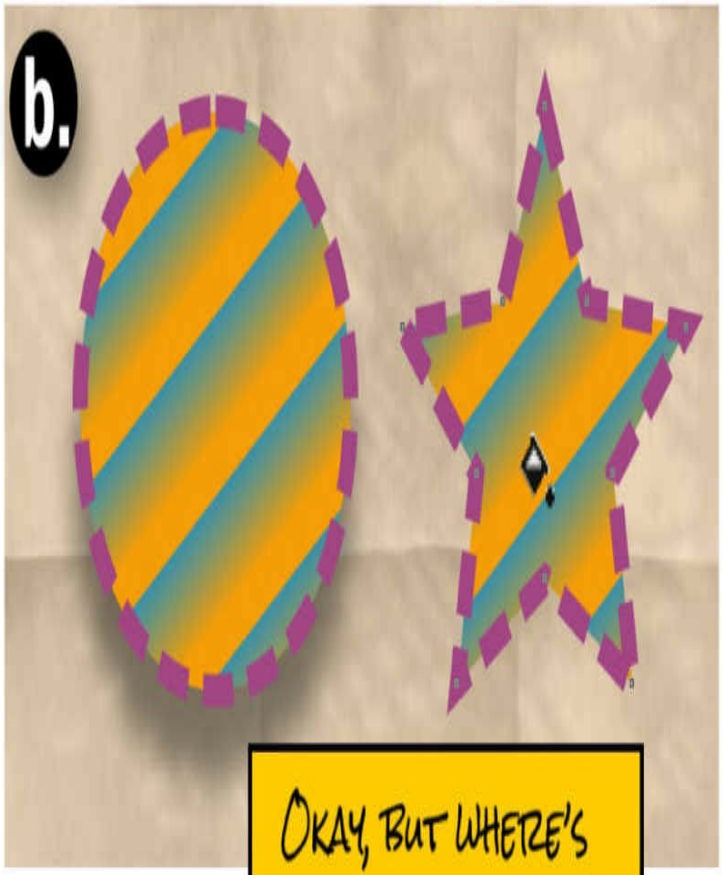
Dropping a Property

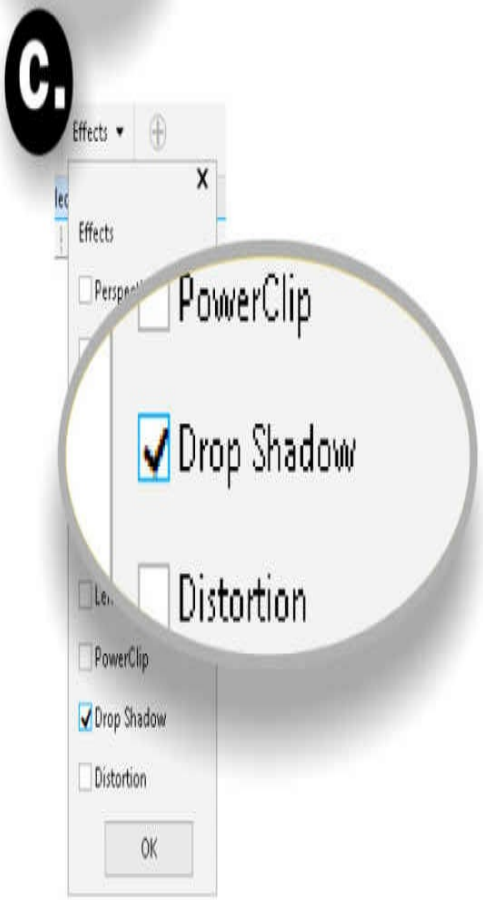
Tutorial

1. Open Fancy Circle.cdr. You'll note that in front of a small locked bitmap background, there's an elegantly decorated circle to the left of a minimalist star. Your mission—should you decided to accept it, Jim—is to make the star look like the circle without changing its shape.
2. Choose the Attributes Eyedropper tool from the group in the Toolbox.
3. Click the Eyedropper cursor over the circle. Good—the circle's outline and fill properties are copied, as shown in callout "a" in Figure 12-10, and your cursor is now a paint bucket, all set to fill that star.
4. Click over the star. No, wait a moment. That circle has a drop shadow under it, doesn't it? (See callout "b" in Figure 12-10.) Also, that's not an attribute property, but rather an effect, and I told you earlier that, by default, none of the attributes in the Effects list are checked.
5. Go up to the Property Bar and then click the Effects button, marked as "c" in the figure. Put a checkmark beside the Drop Shadow entry *and then click OK*. If you don't click OK, the box will close without registering this change in sampling parameters.
6. Well, darn. Because your list of attributes has changed, you need to go back to Eyedropper mode (click the Eyedropper icon on the Property Bar) and sample that circle again.
7. Click over the star shape with the Attributes Eyedropper tool's paint bucket cursor and, yep, the star looks related to the circle. You can create new objects and even bold text now, and fill them the same way you just dressed up the star with the circle's attributes—or not. Figure 12-10 shows the steps you've run through here, with the grand finale

marked with a “d” (for DONE!) .


a.


b.
OKAY, BUT WHERE'S THE DROPSHADOW?!


c.
Effects
Effects
PowerClip
Drop Shadow
Distortion
PowerClip
Drop Shadow
Distortion
OK


d.
SUCCESS!

FIGURE 12-10 **Use the Attributes Eyedropper to copy and add several different custom properties from one object to another. And another. And….**

If you've had your fill, it's okay, because so have your objects. You've learned in this chapter how to tap into CorelDRAW fills, and, hopefully, you've also seen how important fills can be to your drawings. Fills can actually contribute to the visual robustness of a composition more than the shape of the objects. Take a cardboard box, for example. The shape of the box isn't that interesting and takes only a few seconds to draw. But the *texture* of a cardboard box is where the object gets its character and mood.

Outline properties and attributes are covered in the following chapter. Believe it or not, you can do as much with customizing the thing that goes *around* an object as with the object itself.

13 Applying Strokes to Paths

Chapter 12 covers only half the story about how you can flesh out a visual idea by using CorelDRAW. Although an object can usually live its life just fine without an outline, the attributes you can apply to a path can add a touch of refinement to an illustration. The right outline color can visually separate different objects. Additionally, you can simulate calligraphic strokes without using Artistic Media when you know the options on the Object Properties docker. You can even make a path a dashed line, complete with arrowheads for fancy presentations and elegant maps. In fact, an outline, especially an open outline, can live its life in your work just fine without defining a filled object. You don't have to draw the line with fills and effects in your CorelDRAW artwork. This chapter shows you the ins and outs of properties you apply to your paths, from beginning to end.

Download and extract all the files from the Chapter13.zip archive to follow the tutorials in this chapter.

Applying Outline Pen Properties

By default, when you create an open or closed path, it's given a 0.5 point width in black (and this has been known to change from version to version), with mitered (90° angle) corners, square line caps, and no fancy extras. Part of the rationale for this default is that vector paths can't really be seen without some sort of width. In contrast, bitmap artwork, by definition, is made up of pixels, written to screen and file; so when a user draws an outline, it always has a width (it's always visible). Happily, vector drawing programs can display a wide range of path properties, and unlike with bitmap outlines, you can change your mind at any time and easily alter the property of an outline.

In CorelDRAW, you can apply properties such as color, stroke width, and other fun stuff to an open or closed path (and even to open paths that don't touch each other but have been unified using the Object| Combine command). The following sections explore your options and point out the smartest and most convenient way to travel in the document window to