6 Arranging and Organizing Objects

When you create or import an object, it might not be *exactly* where you want it on the page. Or the position might be fine, but the object's a little too large. It might also be rotated by a few unwanted degrees, or it's part of a group or on the wrong layer—you get the picture. This chapter covers the techniques to use in CorelDRAW to *transform* objects—both the manual approach and the "pinpoint precise numerical entry" approach are covered. You'll soon have the skills to compose elements on a page the way you want them, and then you can stop cursing at the cursor.

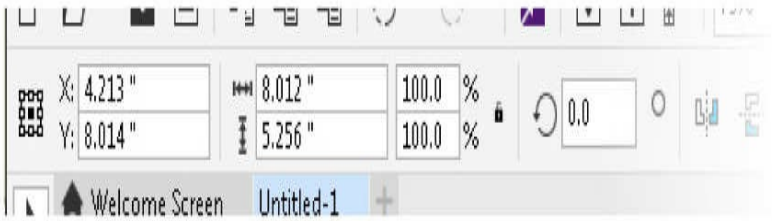
Note Download and extract all the files from the Chapter06.zip archive to follow the tutorials in this chapter.

Basic Object Selection

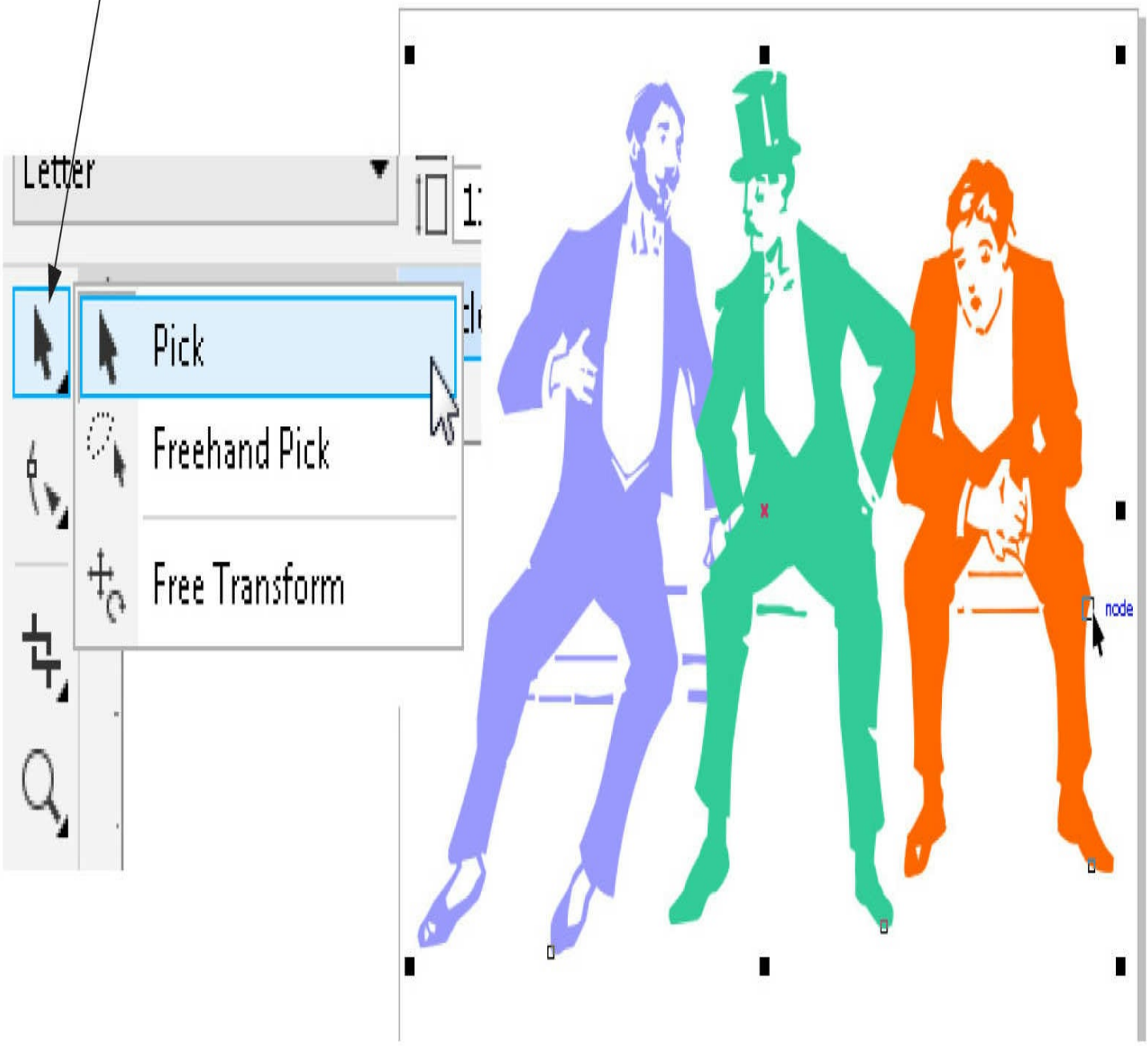
The Pick tool—by default, the tool at the top of the Toolbox—can be used to move, scale, and make other transformations when you click an object to select it and then drag to move the selection, for example. Use the SHIFT key as the modifier when you're selecting things on a page; you *add* to your existing selection by SHIFT-clicking other objects. If you've selected an object unintentionally, SHIFT-click on the object (which is already selected) to deselect it.

With one or more items selected, you'll notice that information about the selected shapes is displayed on the Status Bar. The other workspace area to watch is the Property Bar; it shows the position, size, and rotation of the selection. In addition to seeing info about your selection, you can also change transformations by entering numbers directly into the info boxes and then pressing ENTER. Also, if you press ALT-ENTER when something is selected, the Object Properties docker provides you with not only details about the object, but also the opportunity to quickly *change* many of the object's properties.

Property Bar



The Pick tool group



Status Bar

Pick Tool Selections

The Pick tool can be used for several things; the two most important are to choose an object (or several objects) and to create a *change* in the selected object(s) by moving it and adjusting its selection handles.

Clicking an object once selects it. While an object is selected, *selection handles* appear —the eight black markers surrounding the object, as shown in Figure 6-1. Additionally, depending on the type and properties of an object, you'll see *nodes* at various areas around the object, which indicate the first node in an object path or sub-path (of combined vector objects) when a vector object is selected or the edge of an object when a bitmap is selected. A small *X* marker appears at the centermost point of the object, indicating its center origin. This origin can be moved and is quite useful for defining a center of rotation for an object, and it's discussed later in this chapter.

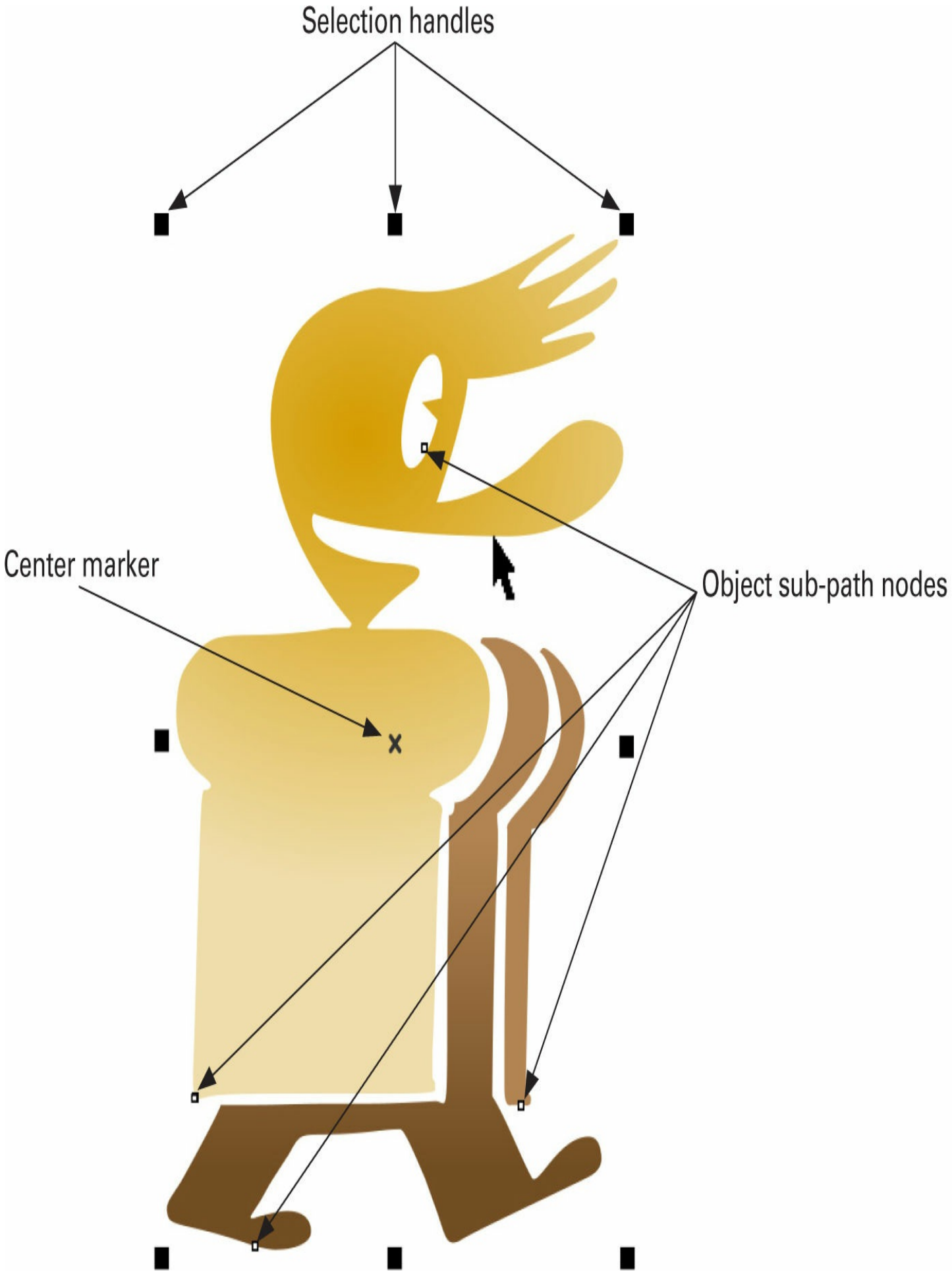

Selection handles
Center marker
Object sub-path nodes

FIGURE 6-1 **Select any object with a single click using the Pick tool.**

Note Nodes are edited using the Shape tool, covered in Chapter 9. The Pick tool has no effect on nodes.

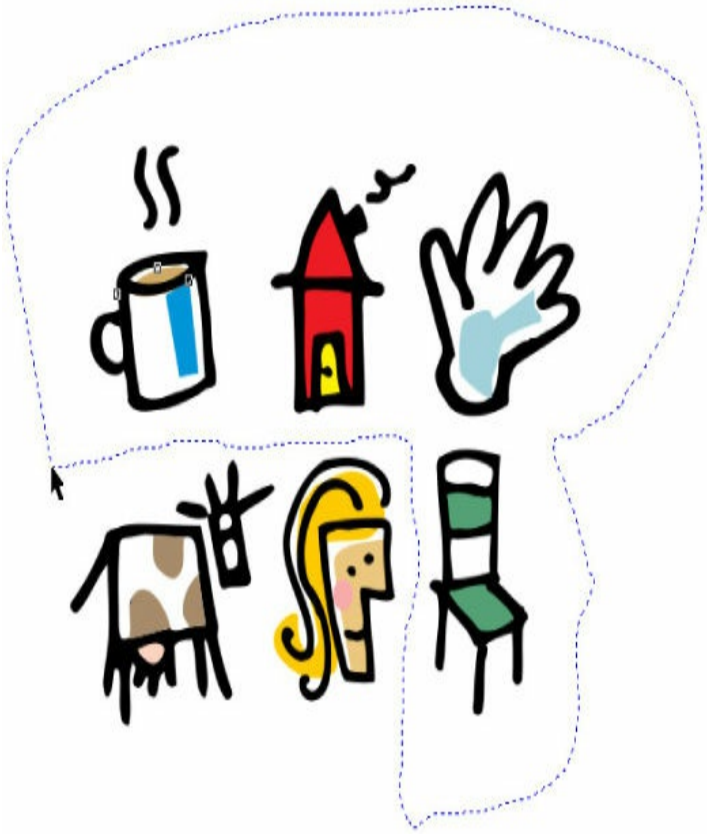
Tip Occasionally you'll create a shape with an outline stroke that's very narrow and has no fill, and you have trouble selecting the darned thing with the Pick tool. You're in luck because, by default, Treat All Objects As Filled is turned on. You don't need to select the outline because, with this option, you can click on an empty interior and the object is selected anyway. If you don't care for this option, go to the Options dialog (CTRL-J) and select Workspace | Toolbox | Pick Tool from the tree on the left. Clear the Treat All Objects As Filled check box and then click OK to close the dialog.

Picking and Freehand Picking

The Freehand Pick tool is located in the Pick tool group, and both new and experienced CorelDRAW users might want to give this selection tool a try; the Freehand Pick tool behaves exactly like the (regular) Pick tool after an object is selected, so you can move or perform other transformations without switching tools.

The main difference between these tools is that with the Pick tool, you must click-drag to define a rectangle that the desired objects are completely within. The Freehand Pick tool is used more like a shape-creation tool than a rectangle-creation tool; you can click-drag around objects, selecting some and avoiding others, regardless of how closely the objects neighbor one another. The illustration here visually demonstrates the different properties of the Pick and Freehand Pick tools.

Pick tool



Freehand Pick tool

Selection Techniques

You can use mouse and keyboard combinations while navigating through a collection of objects and for selecting more than one object at a time using the Pick tool. Many of these object-selection techniques can also be used in combination with each other. Here's how to select more than one object in one fell swoop:

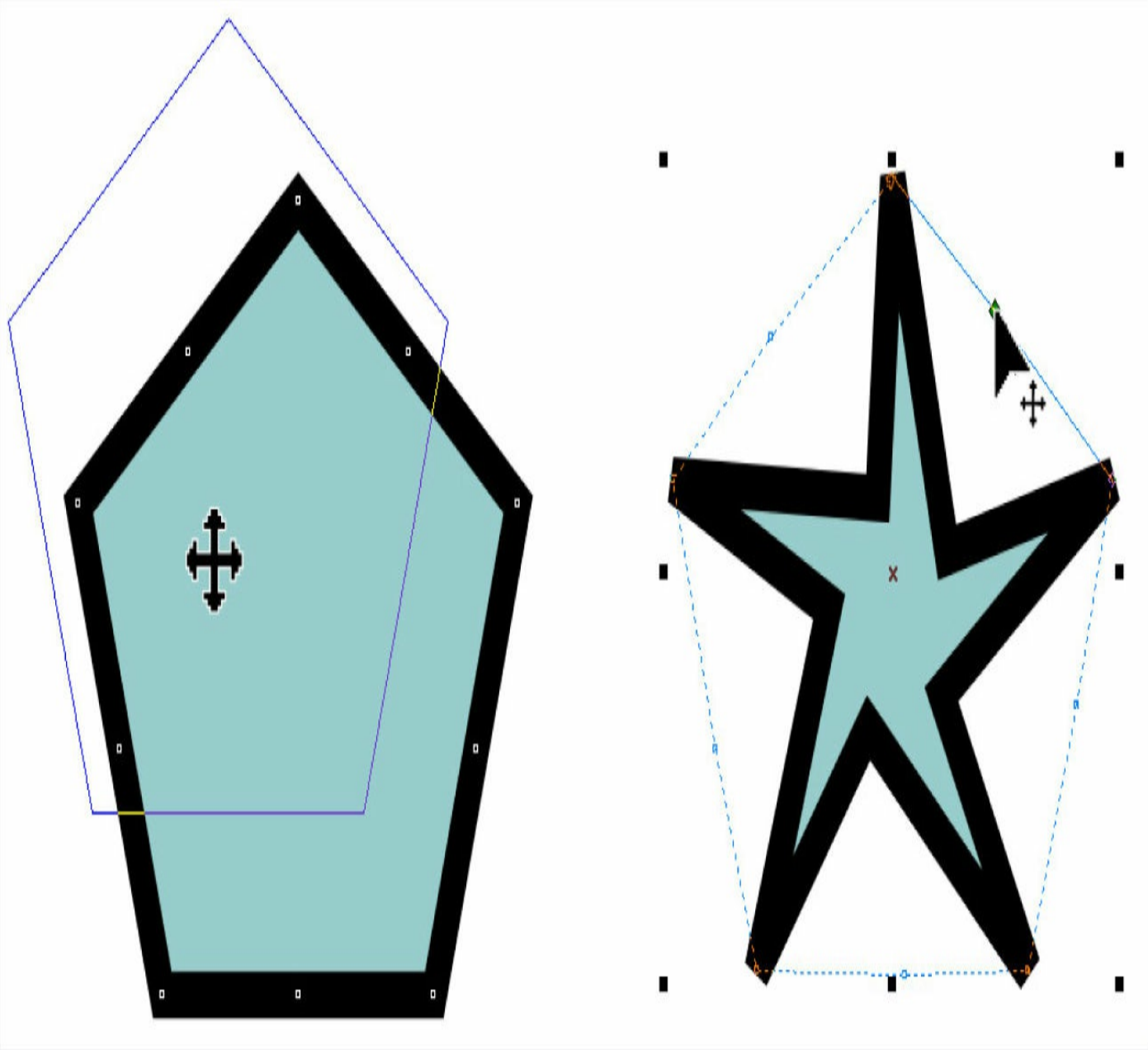
- **SHIFT-clicking to select** Holding the SHIFT key while clicking an unselected object adds it to your current selection. This also works in the reverse: holding SHIFT while clicking a selected object *deselects* the object. This technique works with both the Pick and Freehand Pick tools.
- **Marquee-selecting objects** To select all objects in a specific area, use the (regular) Pick tool and click-drag diagonally to surround the objects; a dashed blue outline representing the rectangular area being selected appears until you release the mouse button. When you do so, all object shapes completely within the area you define are selected.
- **Holding ALT while marquee-selecting** If you come to CorelDRAW from Adobe Illustrator, you can use the convention of selecting objects by merely touching a shape in a marquee-selection technique. Holding the ALT key as the modifier while click-dragging to marquee-select a specific area selects all objects within—and even ones whose *edge* you touch. Holding SHIFT-ALT while marquee-selecting causes the reverse to occur—deselecting any objects that are already selected.
- **Pressing TAB to select the next object** Suppose you have a bunch of objects in a document, but some of them overlap, and you're getting nowhere by attempting to click the one you need. Pressing the TAB key alone while the Pick tool is active selects a shape and selects the next single object arranged directly behind your current selection (whether or not it overlaps the current object). Holding SHIFT while pressing the TAB key selects the single object arranged directly in front of your current selection. This tabbing action works because each new object created is automatically ordered in front of the last created object. Tabbing cycles through single object selections on a page, whether you have a current object selected or none at all. The key is to begin tabbing *after* you've chosen the Pick tool.
- **ALT-clicking to select objects covered by other objects** To select an object that is ordered in back of and hidden by other objects, hold the ALT key while the Pick tool is selected and then click where the object is located. Each time you ALT-click with the Pick tool, objects that are ordered farther back in the stack are selected, enabling you to "dig" to select hidden objects.

The Pick Tool's Shape Tool State

If you're getting an idea that the Pick tool has a host of hidden features, you're right. One of these is its alternate state—the temporary Shape tool state. The Pick tool can temporarily act like the Shape tool while a single object is selected and when held over object nodes, but this isn't its normal behavior, and first you need to activate this feature in Options; choose Workspace | Display and then check Enable Node Tracking.

The temporary Shape tool state lets you move object nodes without changing tools, conveniently giving you control to modify selected characters in a line of Artistic text,

to edit open and closed paths, and to modify an ellipse, star, polygon as star, graph paper object, and even a bitmap. The next illustration shows Enable Node Tracking in action. When the Pick tool is outside of a shape, it looks like an arrow cursor. After an object is selected and the tool is over an object node, however, the tool changes to the Shape tool and you can move nodes.



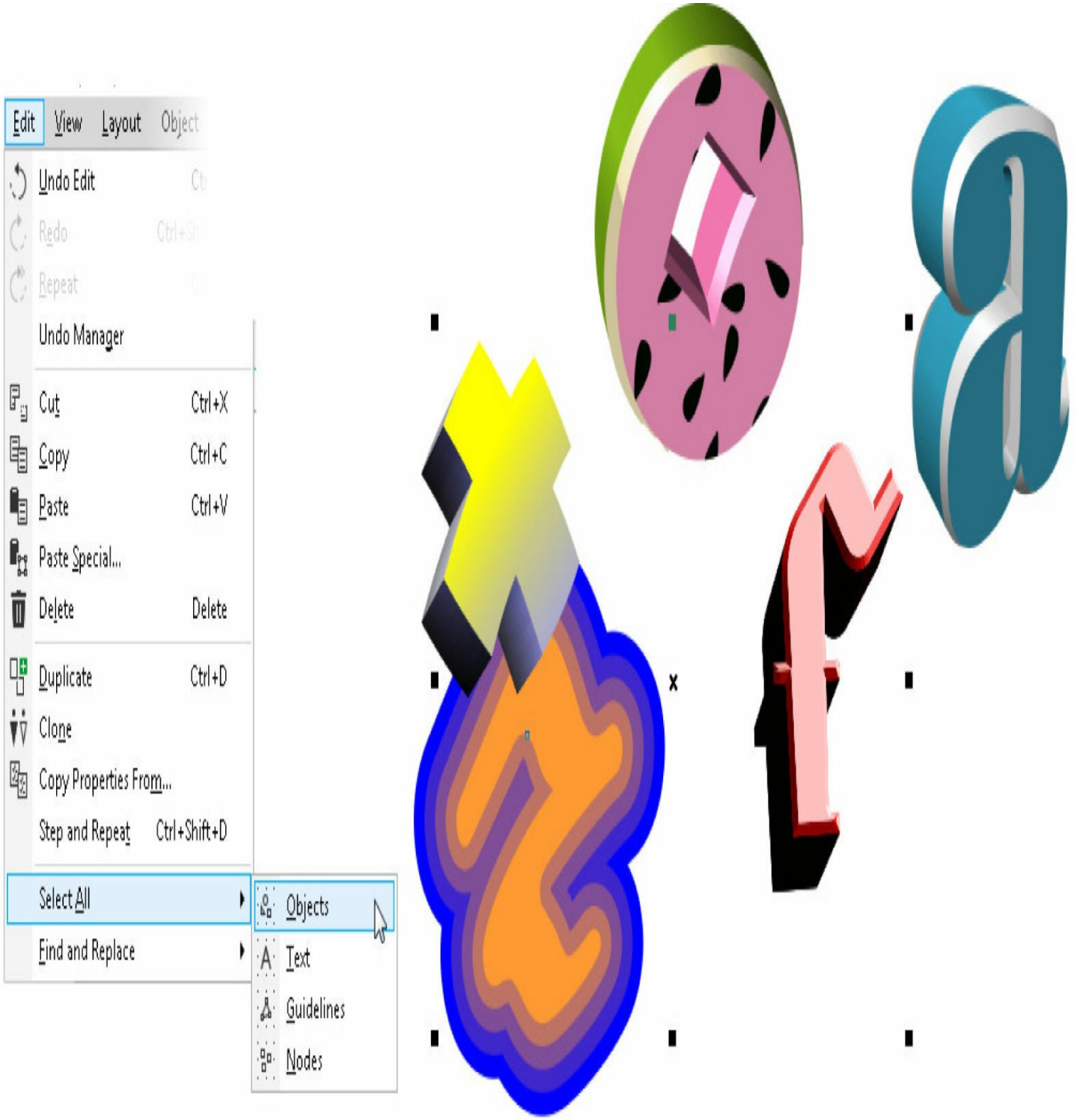
Pick tool moving selected object

Pick tool in Shape tool state selecting object with object node selected and moving the node

Tip Although you can select nodes with the Pick tool when Enable Node Tracking is active, you can't perform editing operations other than moving a node. To create curves from straight path segments and work with node control handles, you need to use the genuine Shape tool.

Selecting Objects by Type

So far, you've learned to select any objects on or off your page. But you can also select objects by their type (such as text objects, guidelines, and path nodes) using commands from the Select All menu, as shown in the following illustration. All text objects shown here are selected, and CorelDRAW is being very clever—it didn't select the *O* and the *a* because they are drawings and not text. You can extrude, add a perspective, and put any type of fill you like on text—*and it's still text*. See how effortless sifting through a page of objects can be? Each time you use a command from the Select All menu, a new selection is made (and any current selection of objects becomes *not* selected).



Caution You can't select what's locked or hidden. Check the status of layers with the Object Manager if an object is apparently welded to the page. Also, if click an immovable object and its selection handles are tiny lock icons, right-click over it and choose Unlock Object from the pop-up contextual menu. Any and all

objects can now be locked on an object-by-object basis in X8.

Here's how to use each of the commands:

- **Select All Objects** Choosing Edit | Select All | Objects selects all objects in your current document window. Quicker is the CTRL-A keyboard shortcut, which accomplishes the same thing and is easy to remember.

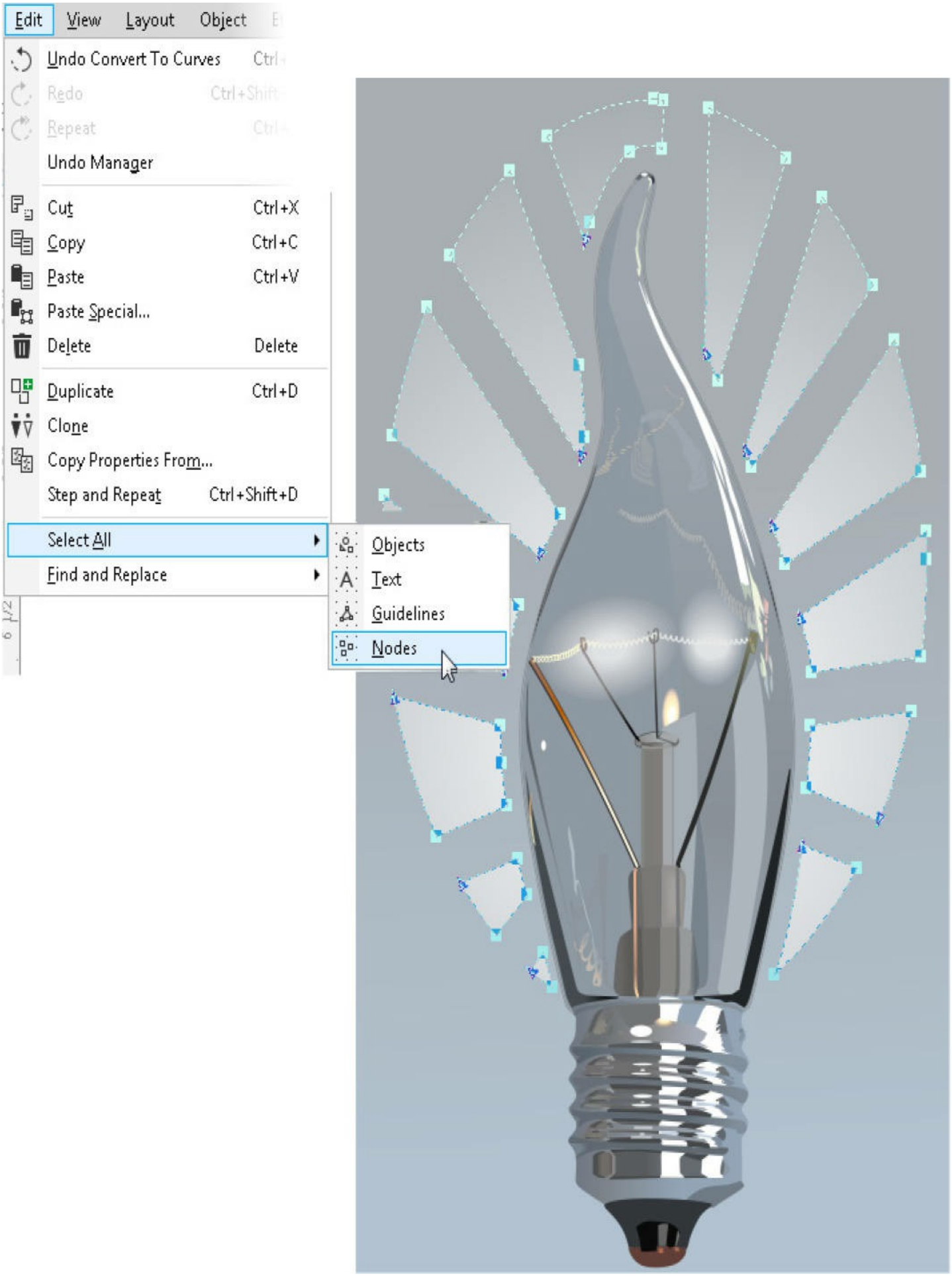
Tip Double-clicking the Pick tool in the Toolbox instantly selects all visible objects in your current document window view.

- **Select All Text** Choosing Edit | Select All | Text instantly selects all text objects both on and off the current document page. Both artistic and paragraph text objects are selected after this command is used (unless they have been grouped with other objects, in which case they are ignored). Text objects that have effects (such as Contour and Extrude effects) also are selected using this command.
- **Select All Guidelines** Guidelines are actually a class of document page objects, different from objects you draw, but objects nonetheless. To select all guidelines on your document page, choose Edit | Select All | Guidelines. Selected guidelines are indicated by a color change (red, by default). To select guidelines, they must be visible and cannot be locked. Probably the fastest way to unlock or unhide a bunch of guidelines is to double-click one using the Pick tool to display the Guidelines docker (*only* if the docker is closed and not docked to the Pasteboard edge). The Guidelines docker has options for locking/unlocking and hiding/revealing existing guides. If guidelines you've placed merely aren't visible on your page, and you're sure you laid some down in your last session, try choosing View | Guidelines.

Tip Guidelines can be created using a click-drag action from your ruler onto your document page. Rulers can be displayed and hidden via a neat new button on the Standard Bar, directly to the right of the View Full Screen button.

- **Select All Nodes** You can have the Shape tool or the Pick tool (which will magically change into the Shape tool) and an object selected (closed or open paths qualify) when using this Select command. Choose Edit | Select All | Nodes to select all the object's

path nodes, as shown next. For a quicker method in the same situation, use the CTRL-A shortcut when the Shape tool is your current tool. Special CorelDRAW objects, such as rectangles, ellipses, and polygons, can't be selected this way because their shapes are defined dynamically by "control points" instead of nodes.


Edit
View
Layout
Object
Undo Convert To Curves
Redo
Repeat
Undo Manager
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Paste Special...
Delete Delete
Duplicate Ctrl+D
Clone
Copy Properties From...
Step and Repeat Ctrl+Shift+D
Select All
Find and Replace
Objects
Text
Guidelines
Nodes

Tip Shapes are often made up of two or more paths that are combined. To select all the nodes on a combined path, first select the object and then double-click the Shape tool on the Toolbox.

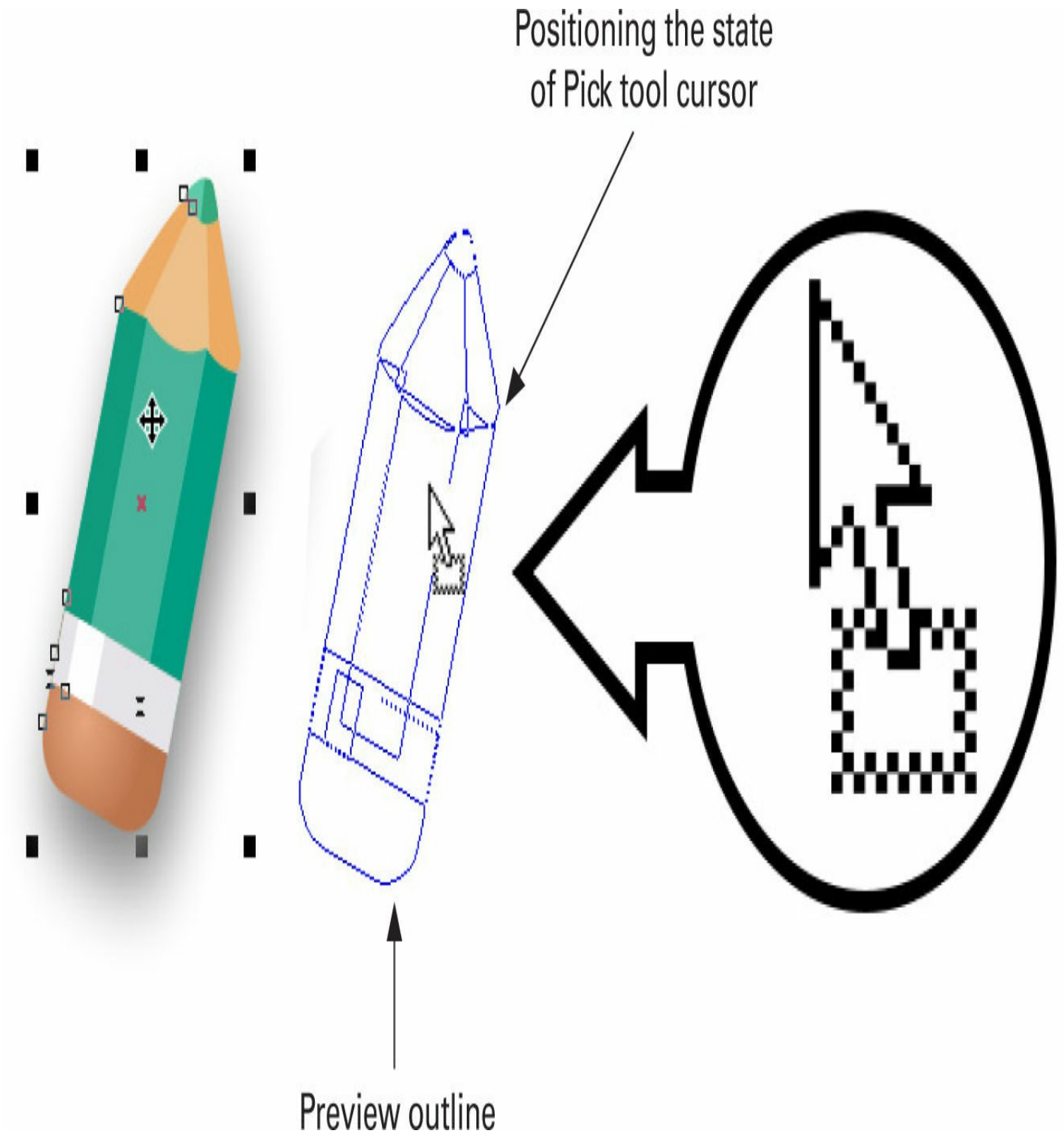
Moving Objects

When you're moving objects, it's important to lift using your legs and position yourself carefully to avoid back injury. However, when you're moving objects in *CorelDRAW*, it's a lot less stressful and heavy. You basically have two options for moving objects directly: using the Pick tool and dragging, and using the keyboard arrows to precision nudge objects in any of the four directions.

Tip For information on moving and transforming objects, see the section "Applying Precise Transformations," later in this chapter.

Using the Pick Tool

Holding the Pick tool over certain areas of a selected object activates the tool's positioning cursor, as shown in the following illustration. This means a click-drag action on the area will move your selected object(s) in any direction. As you drag your object, you'll see a preview outline, indicating its new position. When you release the mouse button, the move is complete.

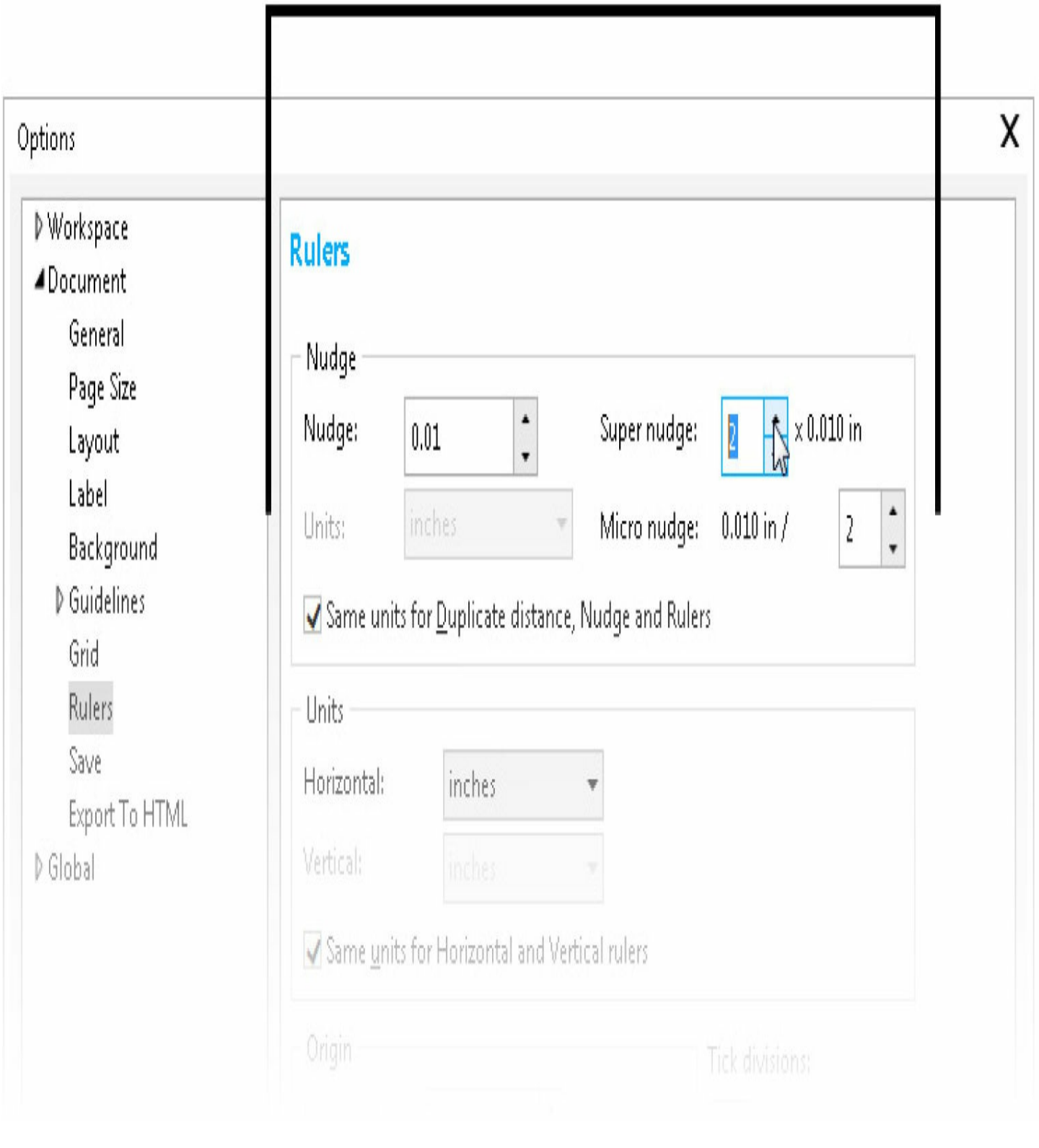


Tip If you're having difficulty selecting and/or moving an object because it's too small, you can increase your view magnification using the Zoom tool or you can use the keyboard nudge keys, covered next.

Using Nudge Keys

As an alternative to using the Pick tool, you can also move selected objects by a distance you specify by nudging them using your keyboard arrow keys. To nudge a selected object, press the UP, DOWN, LEFT, or RIGHT ARROW key. Your object will be moved by the nudge value specified on the Rulers page of the Options dialog. You can customize the Nudge distance by opening the Options dialog (CTRL-J), clicking to expand the tree directory under Workspace and Document, and clicking to display the Rulers options page, as shown here:

Nudge increment options



Tip You have eight possible directions in which to nudge your artwork. In addition to

using an ARROW key, you can also press two neighboring keys—such as LEFT and UP ARROW—to perform a *diagonal* nudge.

Using nudge keys, you can perform moves according to the Nudge value or by using larger or smaller values. These are referred to as *Super* and *Micro nudges*. Like "normal" nudges, these values are set on the Ruler options page. Here are the techniques for using Super and Micro nudges:

- **Super nudge** This action moves a selected object in larger increments than a normal nudge. To use Super nudge, hold SHIFT while pressing the UP, DOWN, LEFT, or RIGHT ARROW key on your keyboard. By default, this moves your selected object by twice the default value for a "normal" nudge distance, although as you can see in the preceding illustration, you can change that 2 to a larger value in the Super Nudge num box.
- **Micro nudge** The pint-sized version of a typical nudge is the Micro nudge, which moves your object in smaller increments. To use a Micro nudge, hold CTRL while pressing the UP, DOWN, LEFT, or RIGHT ARROW key on your keyboard. By default, Micro nudges move the selected object by one-half the default nudge distance, but again, this value's in the Micro Nudge num box and you can make it even smaller.

Transforming Objects

A *transformation* is any type of object shape or position change, short of actually editing the object's properties. This includes changing an object's position, size, skew, and/or rotating or reflecting it. Dragging an object directly in a document is more intuitive than precision transformations—but both approaches have their own special advantages. In this section, you'll learn how to apply transformations using both techniques.

Transforming Objects Using the Cursor

For the intuitive method, the Pick tool is what you need to transform objects by the simple act of click and dragging. Depending on the type of transformation you need to apply, you can click-drag any of the four black, square selection handles that surround the selected object or group of objects to change the size *proportionally*—by width only and by height only. Dragging any middle selection handle or side handle scales the object *disproportionately*—"smush" and "stretch" are the more common terms for disproportionate scaling, as shown in Figure 6-2.

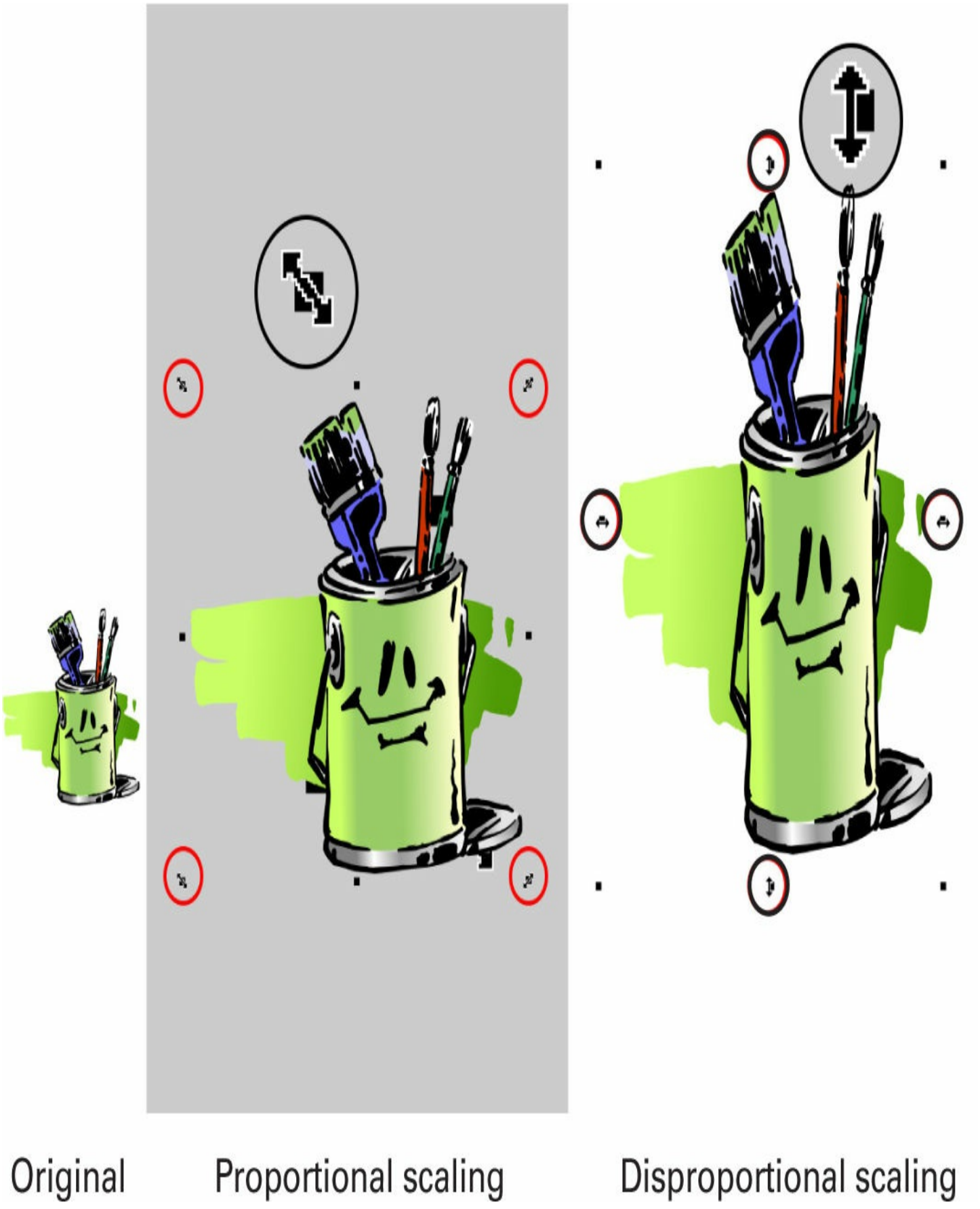


FIGURE 6-2 **Dragging these handles changes the size of an object proportionately or otherwise.**

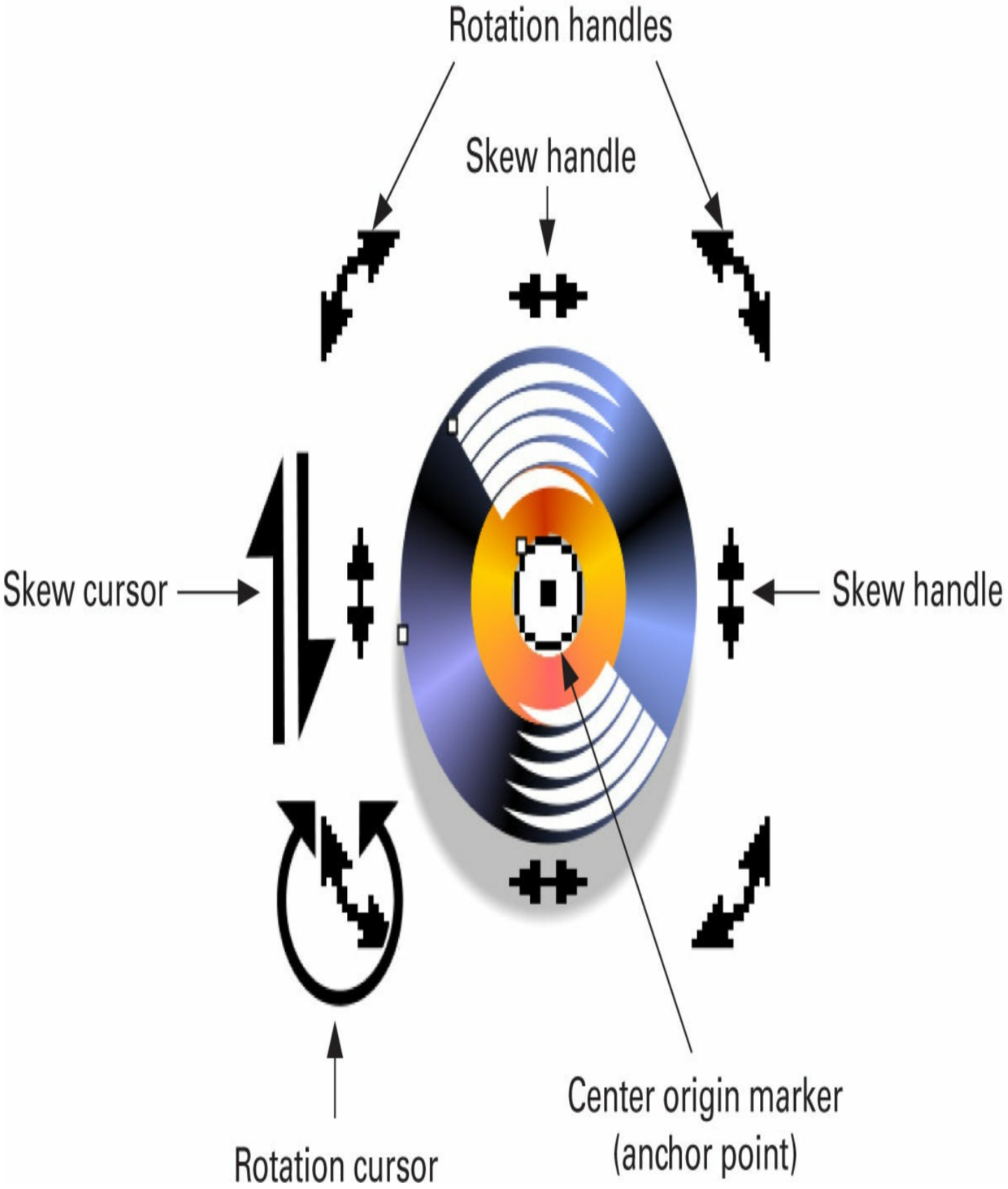
During transformations, CorelDRAW keeps track of the object's transformed size, position, width, height, scale, and rotation angle. CorelDRAW remembers your object's original shape from the time it was created, regardless of how many transformations have been applied to it. You can remove all transformations and restore the object to its original state in a single step: choose Object | Transformations | Clear Transformations to return your object to its original shape immediately.

While transforming objects, you can constrain certain shape properties by holding modifier keys. Here are the effects of holding modifier keys for constraining a transformed object's shape:

- **To change object size (scale)** Click-drag any corner handle to change an object's size *proportionally*, meaning the relative width and height remains in proportion to the original object's shape. Hold ALT while dragging any corner selection handle to change an object's shape *disproportionally*, meaning width and height change, regardless of original proportions.
- **To change width or height only** Click-drag any side, top, or bottom selection handle to change the size of the object in the drag direction. Hold SHIFT while doing this to change the width or height from the center of the object, or hold CTRL while dragging to change the width or height in 200 percent increments.

Tip When transforming an object using the Pick tool on any of the object's control handles, click the right mouse button during the transformation and then release both mouse buttons to "drop a copy." The active object you're dragging becomes a copy, applying the transformation to a duplicate, not the original. This technique is a quick and easy way to mirror a duplicate and make symmetrical compositions.

You can also rotate or skew an object using Pick tool states that become available after you click a selected object a second time—you click an object that is *already* selected once to display rotation and skew controls around the object. This action causes an object (or group of objects) to look like the illustration of the 45 here, an ancient analog sound device best known to listeners who remember Little Anthony and the Imperials.



You control the point around which objects are rotated or skewed by *moving* the center origin marker or anchor point of an object or group of objects. Your cursor will change to display either the rotation or skew cursor when held over a corner or side handle. A good

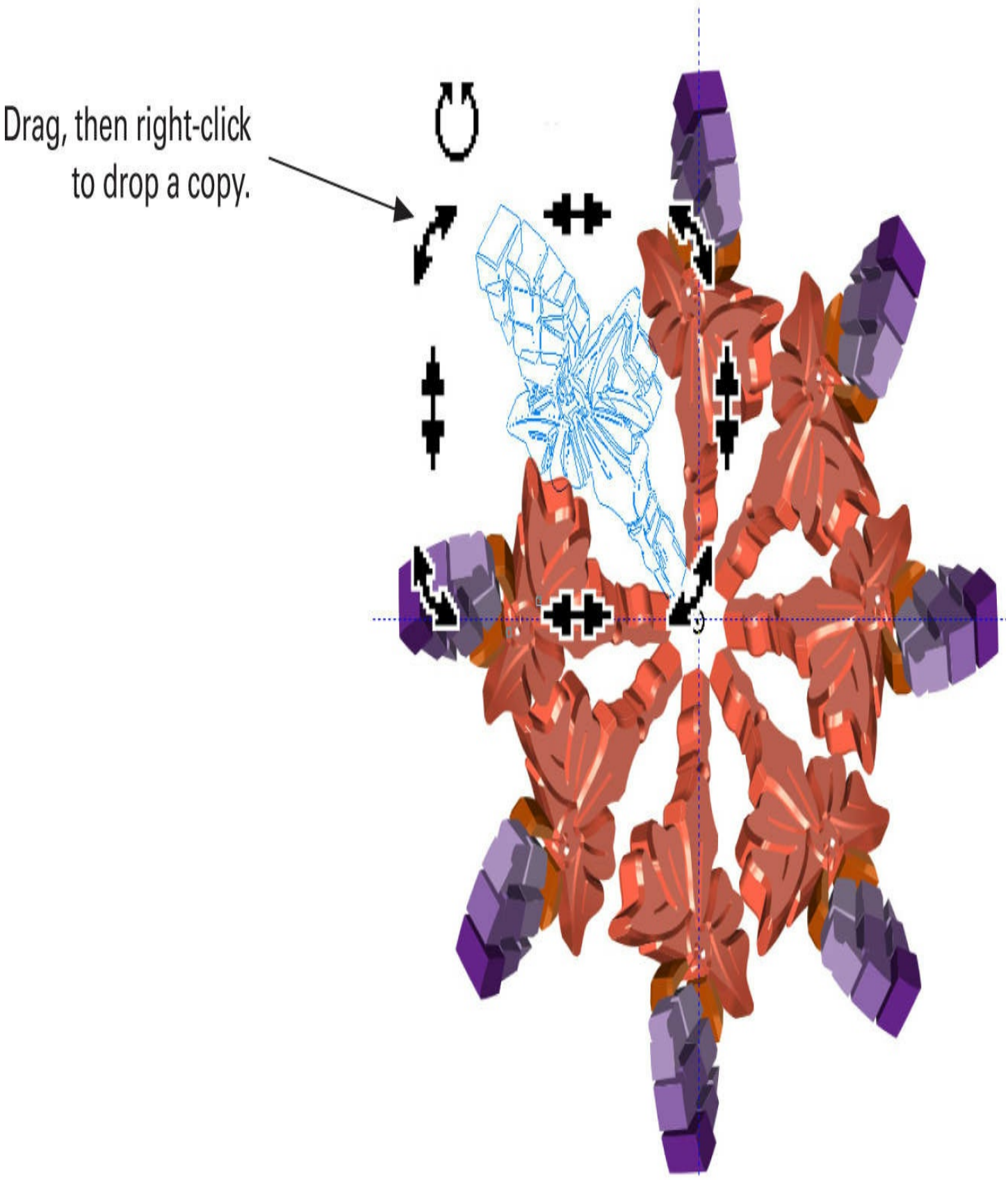
creative example of offsetting the original center of an object is covered in the following tutorial, where you'll make a circular pattern from a group of objects.

Off-center Object Rotation to Create a Design

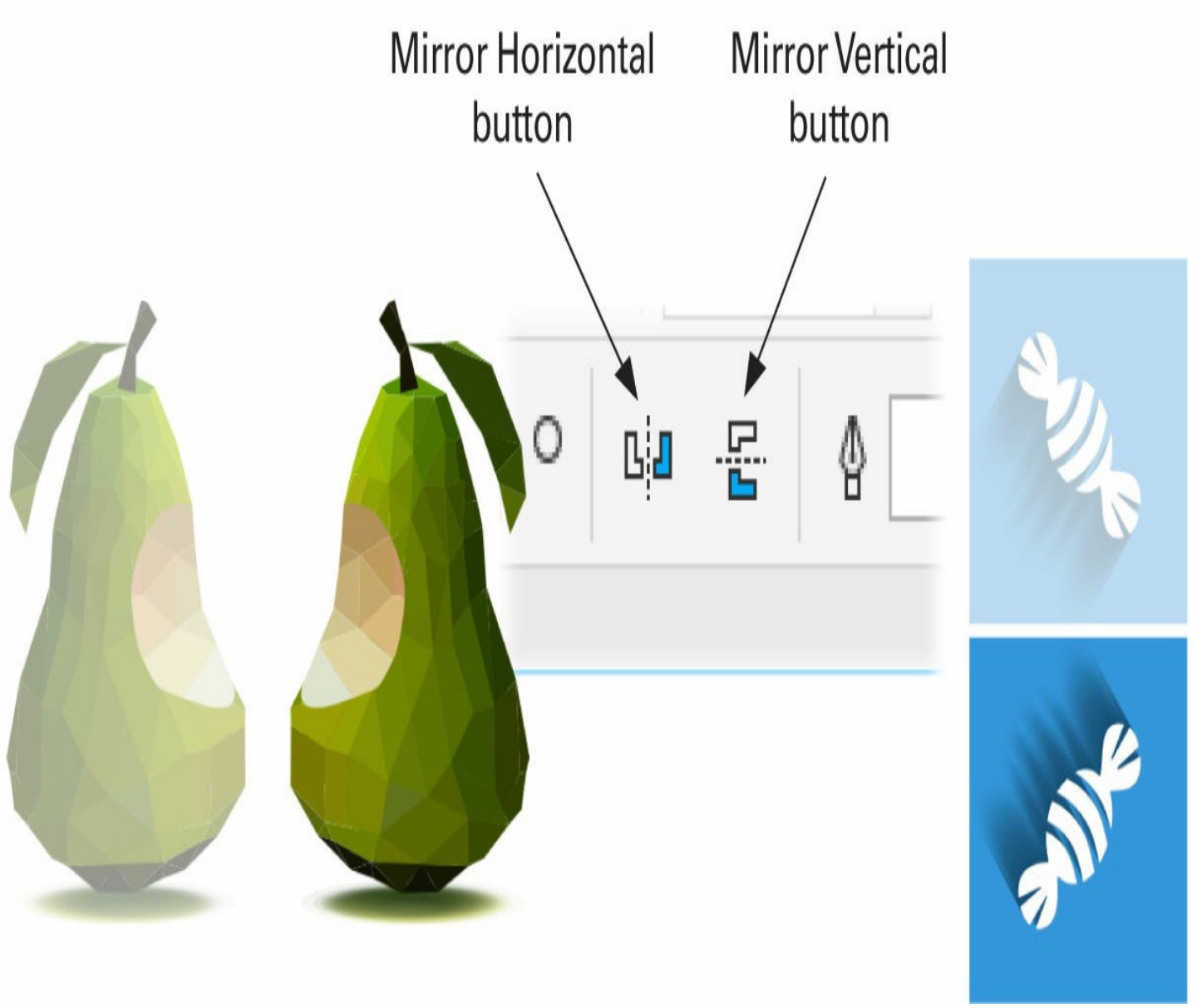
Tutorial

1. Open Art Nouveau Ornament.cdr. The page has guidelines that you'll use and a single grouped object, the source for the radial pattern you'll build.
2. With the Pick tool, click the object to select it, and then click the selected object (again) to put it into rotational and skew mode.
3. Drag the center rotation origin to the intersection of the guidelines.
4. Click-drag the top-right (bent double-arrowhead) handle downward until the light blue object preview is touching the original object at the middle of the red wing portion of the group of objects. Ideally, you'll wind up with a copy every 45 degrees or so.
5. Before releasing the mouse button, press the other mouse button, and then release both buttons to "drop a copy" of the original object. (Unless you've configured your mouse or other pointing device to accommodate left-handers, the primary mouse button is the left one, and the button you click briefly to drop a copy is the right one.)
6. Repeat steps 4 and 5 with the copy of the object, working clockwise until you've made a circle from copies of the pattern, as you can see in this next illustration.

Note If steps 4 and 5 seem like a lot of manual effort and you accept the idea that computers are supposed to be timesavers, instead of repeating the steps, you can use Edit | Repeat (CTRL-R) to quickly rotate and copy the rest of the grouped objects.

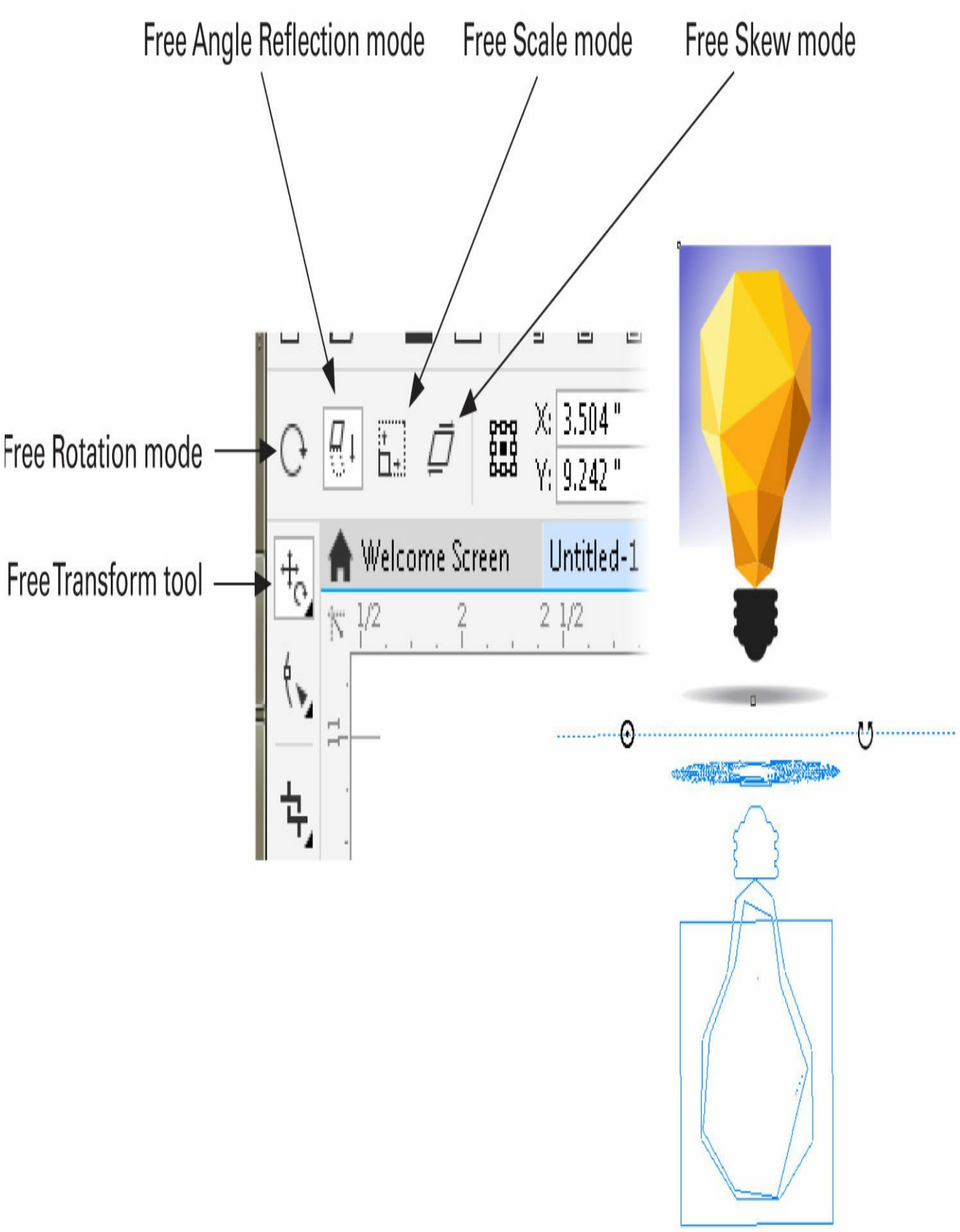

Drag, then right-click
to drop a copy.

Tip To flip a selected object quickly, either vertically or horizontally, use the Mirror Vertical and Mirror Horizontal buttons on the Property Bar while using the Pick tool.



Using the Free Transform Tool

The Free Transform tool is the middle ground between controlling transformations entirely with mouse gestures and using the hands-off controls of the Transformation docker. When you use the Free Transform tool, the Property Bar offers four transformation modes: Free Rotation, Free Angle Reflection, Free Scale, and Free Skew. The Free Angle Reflection mode is shown here to mirror the drawing's original location and left-to-right orientation.


Free Angle Reflection mode
Free Scale mode
Free Skew mode
Free Rotation mode
Free Transform tool
X: 3.504 "
Y: 9.242 "
Welcome Screen
Untitled-1
1/2
2
2 1/2

To transform a selected object in one of these four modes, click to select the mode and then use a click-drag action on your object. A live preview of the new object's shape appears. While you're using Rotation or Angle Reflection mode, a reference line appears as you drag to indicate the object's angle transformation from its original state.

Using the Free Transform tool and then applying a little transparency can yield compositions that contain believable reflections. The Free Transform tool works with bitmaps as well as native CorelDRAW vector objects.

Copying Effects with the Attributes Eyedropper Tool

In addition to properties such as outline color and effects such as perspective (covered in later chapters), you can copy transformations between objects using the Attributes Eyedropper tool. To do this, choose the tool, have both the objects in view, and then click the Transformations button on the Property Bar. Then check the individual properties you want to sample. For example, if you want to copy the scale of an object to a different object, put a check in the Size box in the Transformations list, making sure no other transformations, effects, or properties are checked. Click OK to close the flyout and save your choices. You then click the Attributes Eyedropper tool over an object whose scale you want to apply to a different object; the cursor turns into a paint bucket shape and you click over the target object to apply the transformation. The cursor will remain a bucket until you either click the Select Object Attributes button on the Property Bar or you change tools. Because of the persistent state of the applied (the paint bucket cursor) transformations, you can click over several *objects* with the cursor until you've finished your work and your need for the tool.

There are limitations to what the Attributes Eyedropper tool can copy and apply:

- You need to be careful to select the attributes you need copied and applied to other objects; the Properties, Transformations, and Effects drop-down selectors can, for example, copy a single color and then apply it to a single object, but the Attributes Eyedropper cannot sample several colors in a group and apply them in order to another group or single object. What it *can* do with single (compound or simple) objects, however, lies in the Transformations List. If you pick Scale and then sample from, as an example, a large object and then apply the tool to a single object, the target object will indeed scale in proportion to the sampled object.
- You can copy an attribute and apply it to a contour object because CorelDRAW sees this as one object. Similarly, a PowerClipped group of objects is seen as one object, as is an extruded shape. Blend objects are seen as two (or more) objects, so don't try applying an attribute to blend objects.

In the following set of steps, you'll get a better idea of the power of applying copied attributes. You're going to rotate a drawing of a knife (a PowerClipped group of shapes) and its shadow based on the angle of rotation of a different piece of flatware in the composition.

Dig in!

Straightening Objects via Attributes

Tutorial

Open Table Setting.cdr. Now, understand that the trick to "unrotating" the knife and its shadow lies in the fact that it was originally rotated, and CorelDRAW can read the information about the previous transformation. You cannot duplicate a transformation using an object that has had no transformation to begin with.

1. Choose the Attributes Eyedropper tool from the Toolbox. Click the Transformations drop-down list on the Property Bar and then ensure Rotation is the only option checked. All other boxes should be unchecked, including those in the Properties drop-down box.
2. Click the fork.
3. When the cursor is a paint bucket, click exactly over the knife. You'll see, as shown in Figure 6-3, that the knife almost magically straightens itself. By the way, you could also choose Object | Transformations | Clear Transformations to accomplish this with a selected object, but the Attributes Eyedropper tool proves faster a lot of times.

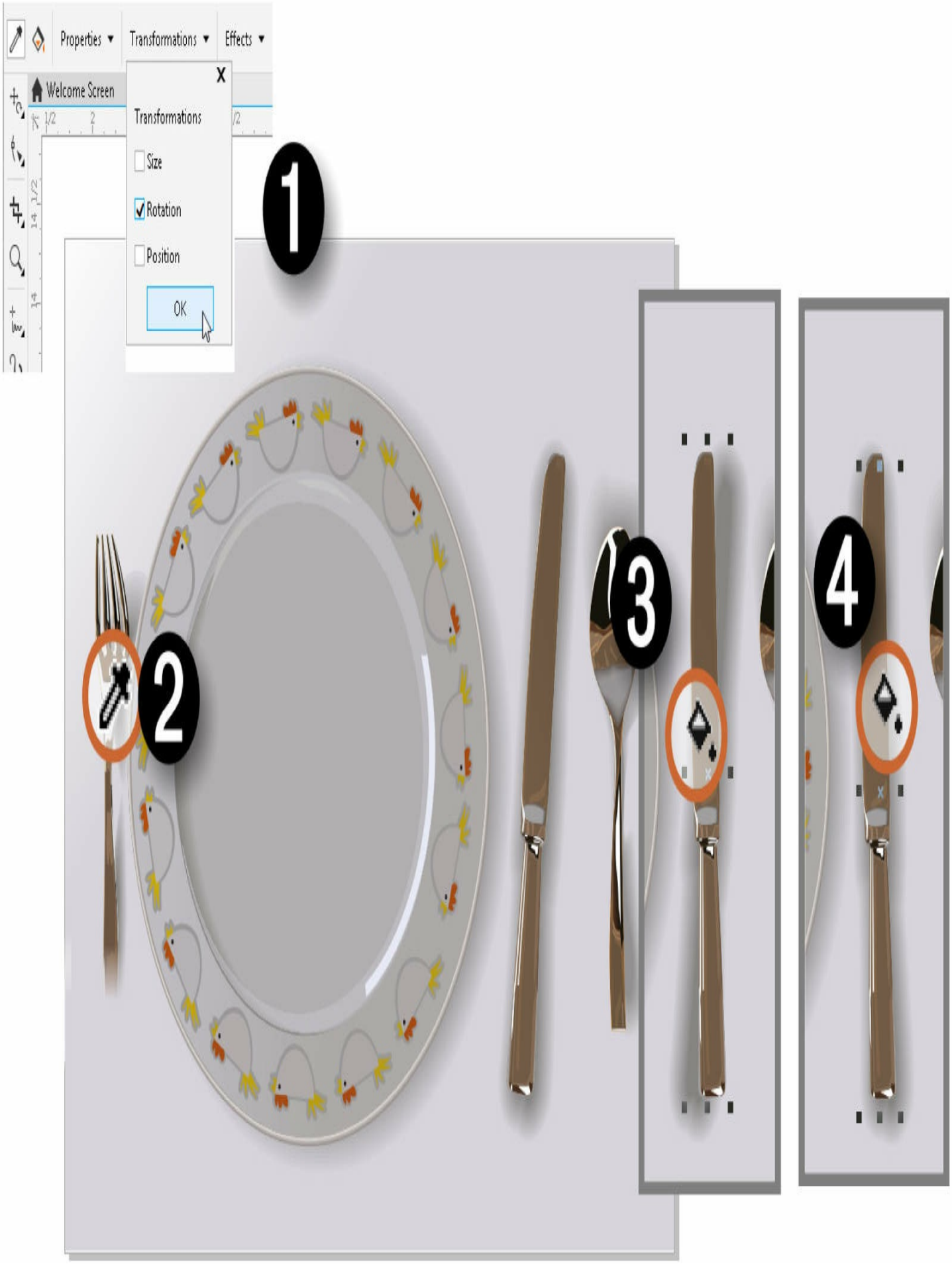

Properties
Transformations
Effects
Welcome Screen
Transformations
Size
Rotation
Position
OK
1
2
3
4

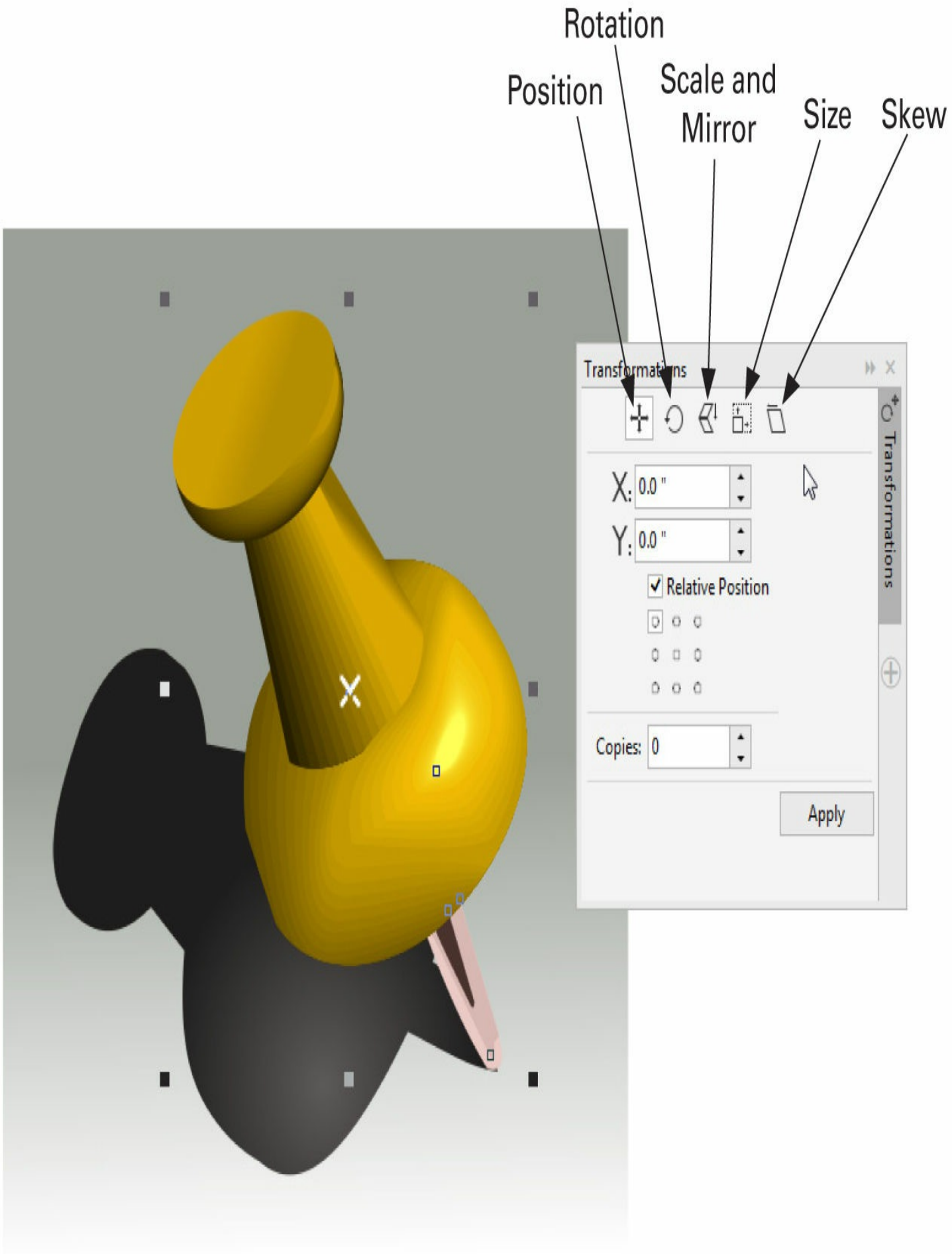
FIGURE 6-3 **Sampling and pasting attributes is a quick way to change scores of elements dramatically in a composition.**

4. Click over the shadow of the knife. You can now consider yourself a perfect host.

Applying Precise Transformations

The Transformations docker is terrific for applying multiple transformations with a single command. The docker has five Transformation buttons: Position (Move), Rotation, Scale and Mirror, Size, and Skew, as shown in this fantastic illustration, which you can open and experiment with. It's named Pushpin.cdr.

To open the Transformations docker, choose Window | Dockers or choose Objects | Transformations. When you click any submenu command, the entire docker appears docked to the right edge of the drawing window. The docker has been detached in this illustration.


Rotation
Position
Scale and
Mirror
Size
Skew
Transformations
X: 0.0 "
Y: 0.0 "
Relative Position
Copies: 0
Apply
Transformations

For all transformations, the procedure is the same: click the button for the type of transformation, enter the values you need, and then click the Apply button in the docker to transform the selected object(s). In this section, you'll learn what each area does for you and the options offered for each.

Note Options in the Transformations docker vary by transformation type. Over the next few pages, the examples show only the specific transformation being discussed.

Positioning (Moving) Objects

Options for the Position page will move your object selection a specified distance, either horizontally (x) or vertically (y), to a specific point on your document page, as shown in Figure 6-4.

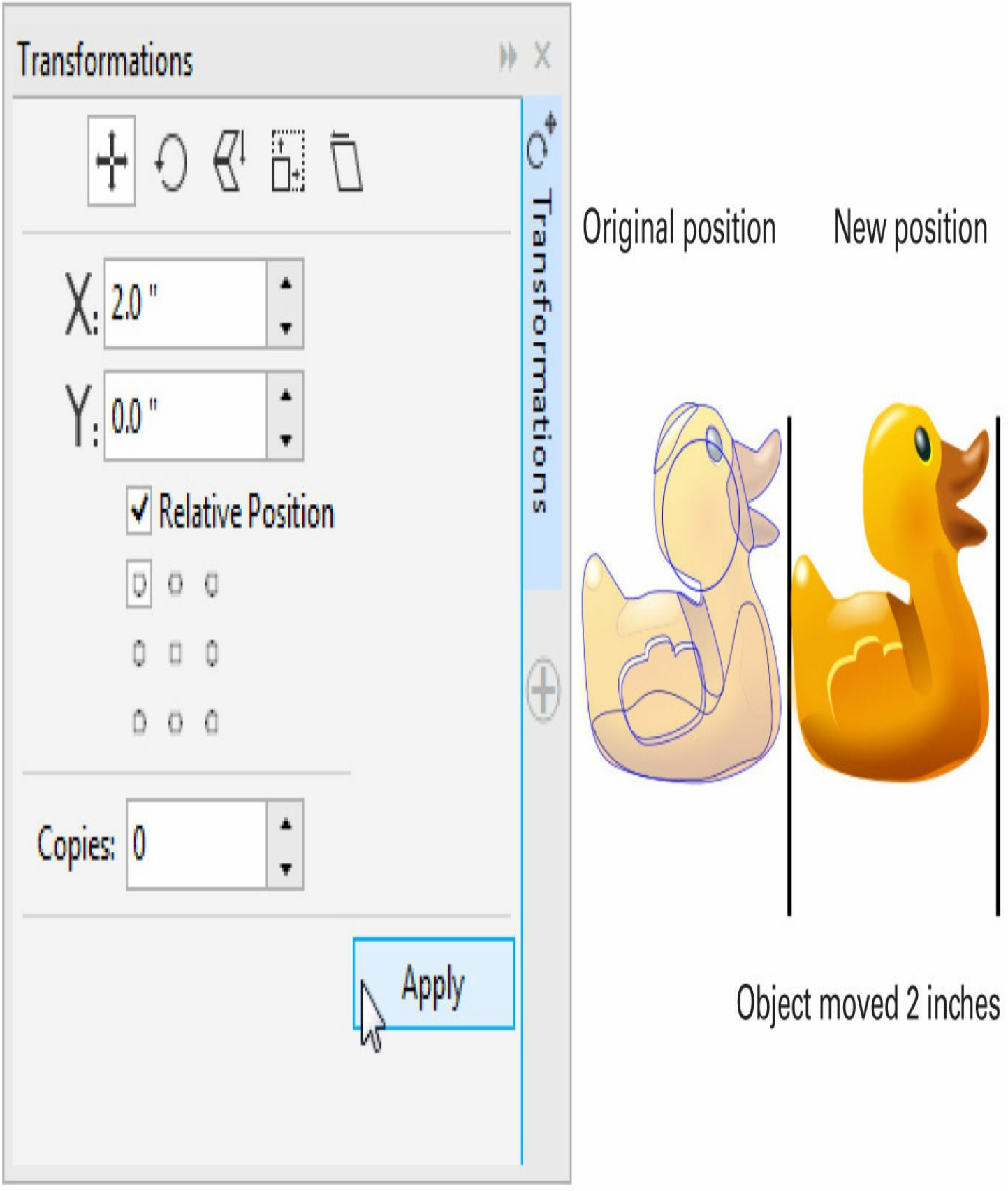


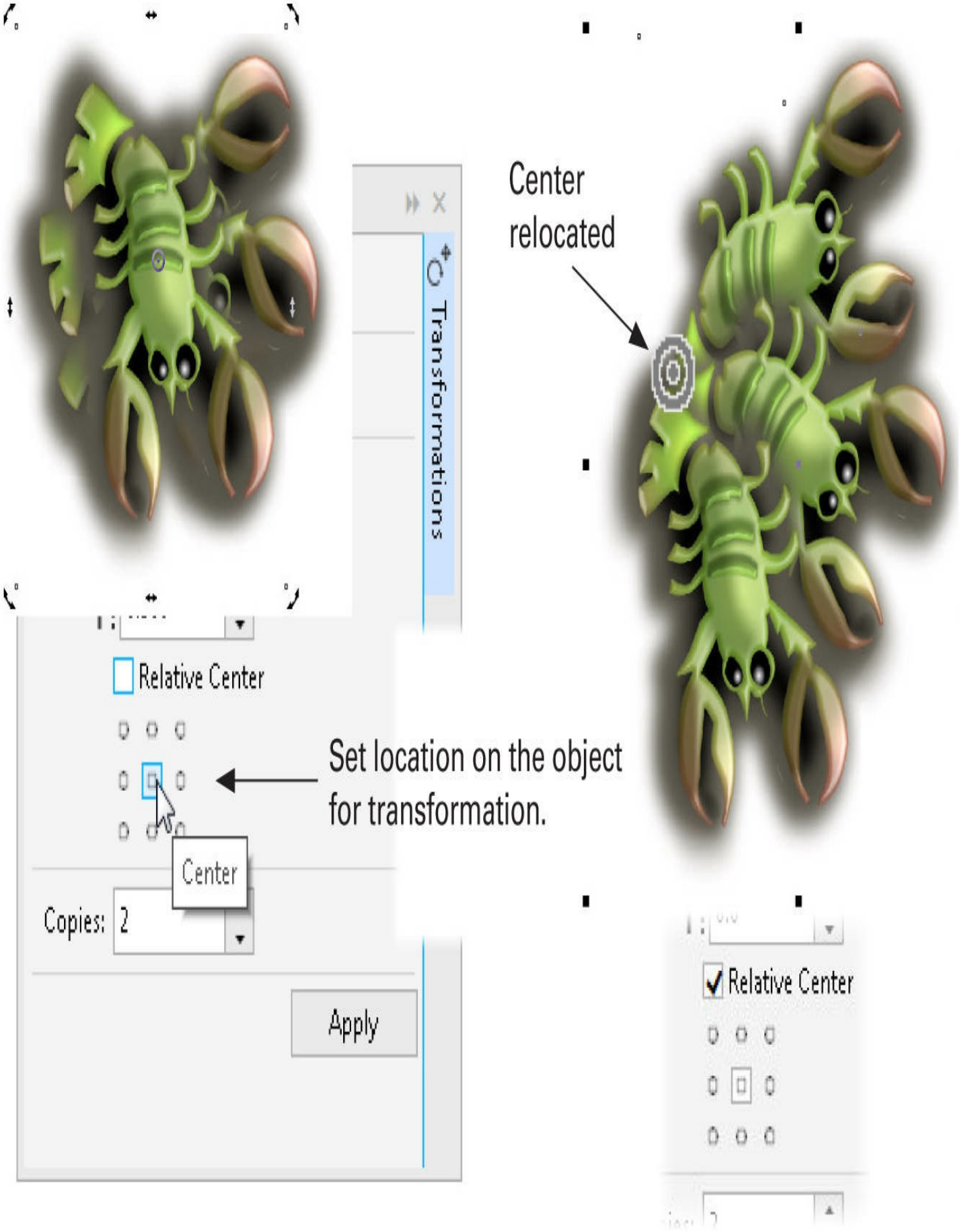
FIGURE 6-4 **This object was precisely moved by applying a Position transformation.**

While the Relative Position option is selected, entering new values and clicking the Apply button moves your objects by a specified distance. If the Relative Position option is *not* selected, you'll be moving your object to a specific location; for example, if you type **11** in the x (horizontal) field and then click Apply, your object moves to the 11" mark on the horizontal ruler.

If you specify a value greater than zero in the Copies field and use the Relative Position option, you create a duplicate object for every increment of the x value you've typed in.

Rotating Objects

On the Rotation page, you can enter exact angles of rotation based on degrees and in default increments of 5 using the spin boxes. Here, you see two very different results when using relative and absolute positioning and two copies of the lobster.

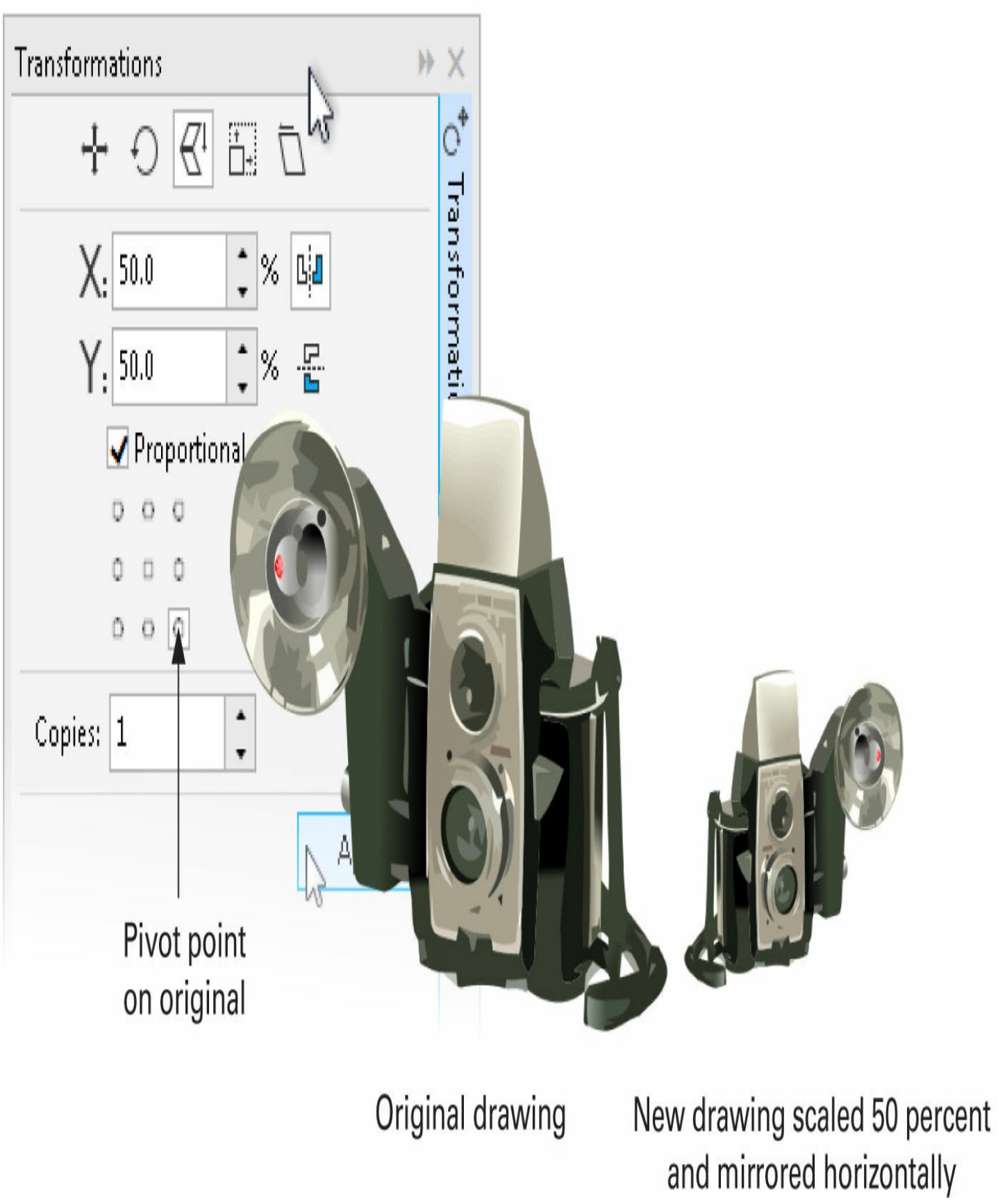

Transformations
Relative Center
Center
Copies: 2
Apply
Set location on the object for transformation.
Center relocated
Relative Center

Entering negative values rotates an object clockwise, whereas positive values cause counterclockwise rotation. Selecting the Relative Center option cause the object to be rotated around its center marker position. By default, the marker is at position x=0 and y=0; this is the object's geometric center. Entering new values has the same effect as moving the center marker position with the Pick tool, but with the advantage of mathematical precision. When Relative Center is not selected, the x and y values represent fixed page coordinates for the center of rotation.

Tip You can change the initial transformation point on an object by first clicking any of the nine mini-boxes above the Copies field. So, for example, if you want an object to rotate by 15 degrees, making seven copies, and you want to commence the process from the lower left of the object's bounding box, you first click the lower-left mini-box. This Windows 10 Metro ("flat") look makes it a little hard to see what you're doing: the selected mini-box takes on an outline box around it when selected instead of taking a check mark, but if you need this feature, this is a fast and easy option.

Scale and Mirror Objects

The Scale and Mirror transformation has features for entering precise changes in object size. You can also flip the object on either the x- or y-axis (or even both simultaneously), by clicking one of the two mirror buttons, as shown here.



When the Proportional option is selected, width and height scaling operations are locked to each other. This means that scaling the width or height by a given percentage value causes the adjacent value to be calculated automatically to preserve your selected

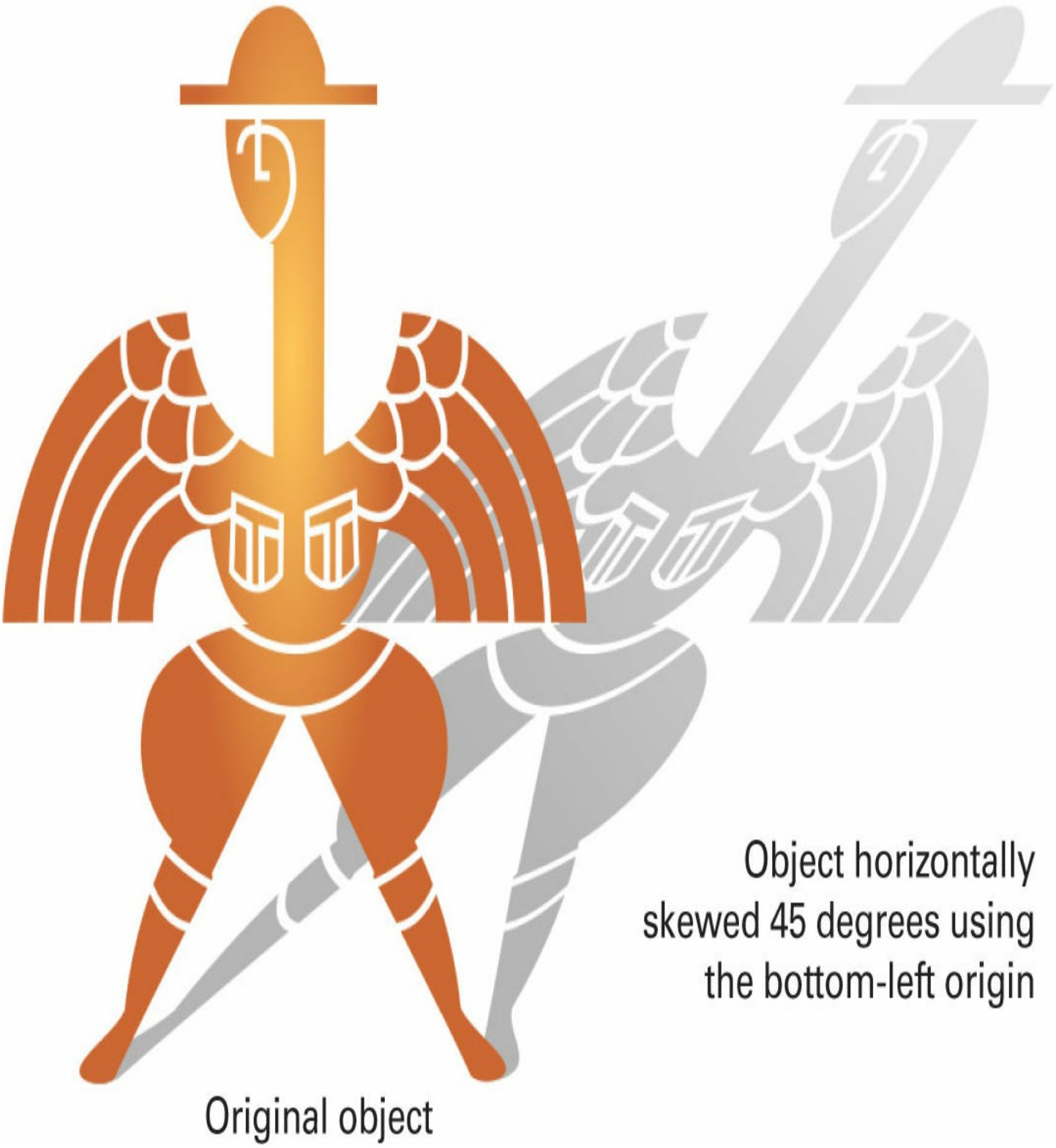
object's original proportions. When the Proportional option is unselected, your object's new horizontal and vertical scale values are unlinked, meaning you can apply scaling commands to either the width or height, independent of each other. Remember that the final position of any copies is determined by which of the mini-boxes above the Copies field you selected before clicking Apply.

Sizing Objects

This transformation type gives you the option to change either the x or y measure (or both) of an object selection based on the values entered. For example, entering **2** (inches) in the Width box and clicking the Apply button scales the selected object to a width of two inches. When the Proportional option is not selected, the width and height values can be changed independently. While it's selected, both width and height values are linked and calculated automatically to alter the size of the object proportionally.

Precision Skewing

The term *skew* means to change the position of two sides of a shape in a parallel fashion while leaving the other two sides alone; *slanting* is a more common synonym for skew. The Skew transformation also gives you the chance to apply both vertical and horizontal skew independently or simultaneously by entering degree measures, in turn, transforming the object on either the x- or y-axis. As with rotation commands, negative degree values produce clockwise skews, whereas positive values cause counterclockwise skews. Choosing the Use Anchor Point option lets you specify a left, center, right, top, bottom, side, or corner point as the point around which your objects are skewed, as shown here. The skewed copy more or less looks like a cast shadow of the original symbol, doesn't it?



Controlling the Order of Things

How your objects are ordered is another consideration when organizing drawing objects in a composition. The order of objects determines whether an object appears in front of—or behind—another object. Your page and the Pasteboard (the area surrounding your

document page) are always the *backmost* point, whereas your screen is always the frontmost point. All objects are layered between these two points.

When overlapping objects are ordered, they appear in front of or behind each other, according to their order. As you create each new object, it is put in front of all existing objects *on the current document layer*. Changing the object order lets you rearrange overlapping objects without changing their position on the page. To do this, CorelDRAW has a series of order commands that let you shuffle the order of objects in various ways. You'll find them in the Object | Order submenu, but you can also apply them using shortcut keys or the To Back Of Layer and To Front Of Layer buttons, available toward the far right on the Property Bar, when an object is selected.

Note The *hierarchy* of object ordering on a layer is very different than *object layers*. Although each layer has its own collection of objects that can be ordered in a sequence, the layers *themselves* can *also* be ordered. This means that if you're trying to control the ordering of two or more objects, check the Status Bar to make sure they're on the same layer.

Here's how each of the object order commands works:

- **To Front of Layer** This command shuffles your selected object(s) to the very front of the current layer. Press SHIFT-PAGE UP or choose Object | Order | To Front of Layer to apply it. The To Front command is also available as a Property Bar button when an object is selected.
- **To Back of Layer** This command shuffles your selected object(s) to the very back of the current layer. Press SHIFT-PAGE DOWN or choose Object | Order | To Back of Layer to apply it. The To Back command is also available as a Property Bar button while an object is selected.
- **Forward One** This command shuffles your selected object(s) forward by one in the object order of the current layer. Press CTRL-PAGE UP or choose Object | Order | Forward One to apply it.
- **Back One** This command shuffles your selected object(s) backward by one in the object order of the current layer. Press CTRL-PAGE DOWN or choose Object | Order | Back One to apply it.
- **In Front Of** This command is interactive and puts your selected object directly in front of any object you specify in the current layer order. A targeting cursor will appear, and you use it to choose which object to shuffle your selection in front of. Choose Object | Order | In Front Of to apply it.
- **Behind** This command also causes a targeting cursor to appear, enabling you to

specify which object you want your object selection to be shuffled behind in the object order on the current layer. Choose Object | Order | Behind to apply it.

- **Reverse Order** This command effectively shuffles the order of your selected object so that it's in the reverse of its current order on the layer. Front objects become back objects, and vice versa. For example, if your objects are numbered 1, 2, 3, and 4 from front to back, applying this command would reorder them to 4, 3, 2, and 1. Choose Object | Order | Reverse Order to apply it.

Tip When you change the object order using the Reverse Order command, grouped objects are considered a single object, so their relative order in the group will be preserved. To reorder objects within a group, you'll need to ungroup (CTRL-U) the objects first before applying the command.

Working with Views of a Document's Depth: Layers

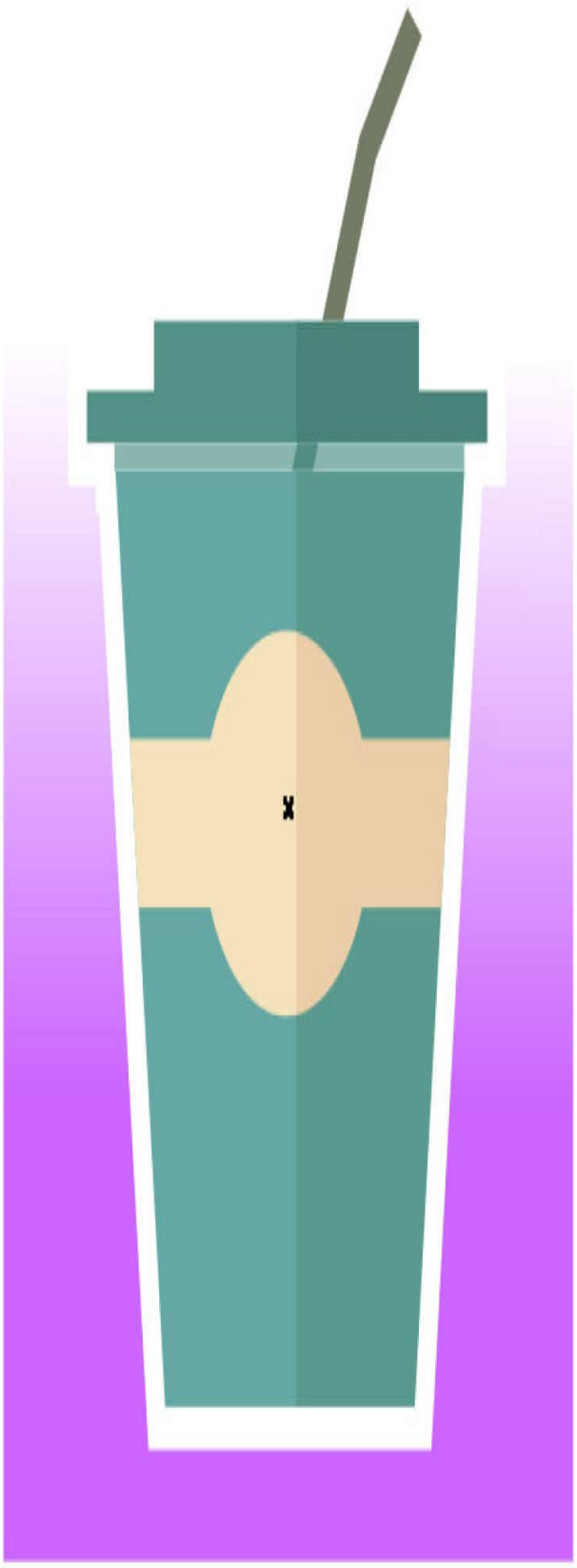
CorelDRAW's layer feature provides invaluable ways not only to organize but also to view complex drawings. You can create several layers and move shapes among layers. You can also name layers, control their order and appearance, change object ordering within layers, group objects, and quickly see object information. One immediate advantage to adopting layers in your composition work is that you can hide layers; suppose you have a lot of objects that need labels, and you need to print the objects with and without the labels. Put all the labels on a layer, hide the layer, print just the objects, and then unhide the layer and make a second print!

Exploring the Object Manager

The Object Manager docker is your resource for viewing layer content and using layer options. With the Object Manager, you can perform a whole range of actions: navigate document pages, create and name layers, select and move objects among layers, and set layers as editable, printable, and visible. To open the Object Manager docker, choose Windows | Docker | Object Manager. As mentioned in Chapter 4, a keyboard shortcut such as M is a good idea to assign to the Object Manager, unless you want it docked to the workspace window for all time.

The Object Manager shows a listing of the layers, each accompanied by options and a flyout menu. A Master Page also appears and includes default layers for controlling guides, the desktop, and grid objects. If more than one page is in a document, you can specify whether you want odd, even, or all pages in the file to have Master Pages; more on this later in the chapter. Figure 6-5 shows a drawing and what the Object Manager reports for

this composition. There is only one page; the drawing was created on two layers on Page 1, and you can see a main entry below Layer 2 that indicates a group of 10 objects. Actually, many more objects make up the paper cup illustration, but they are in subgroups within the entry that says “10 Objects”—as far as the Object Manager goes, you need to expand all the + boxes to see what really exists in the drawing aside from grouped objects, whose number is unknown until you look. As you dig through the groups on the Object Manager, you will see individual entries named curve, rectangle, polygon, and so on. The Object Manager is quite explicit about objects in groups, making locating an object a much easier task than in most other drawing programs.



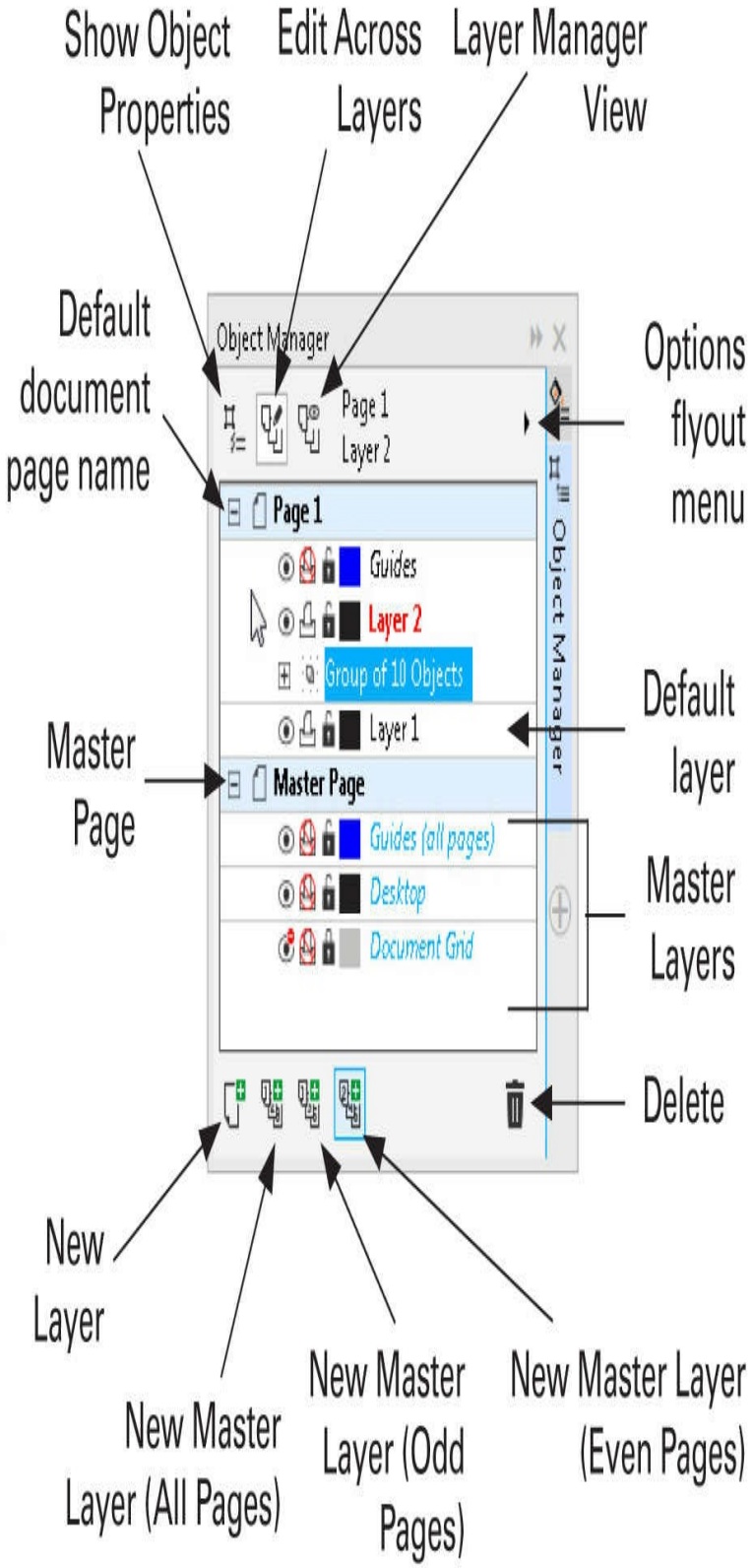
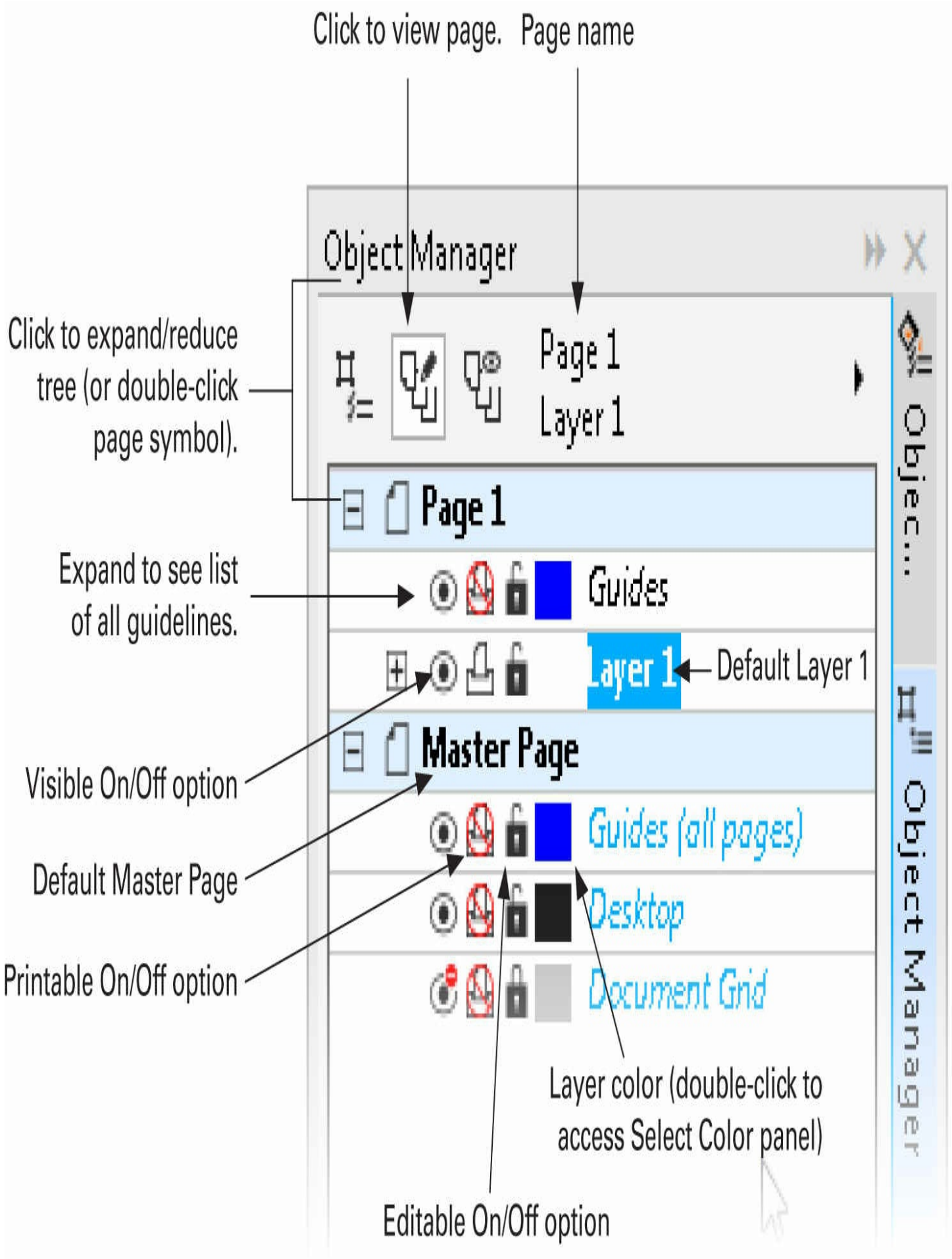

Show Object Properties
Edit Across Layers
Layer Manager View
Default document page name
Options flyout menu
Object Manager
Page 1
Layer 2
Page 1
Guides
Layer 2
Group of 10 Objects
Layer 1
Master Page
Guides (all pages)
Desktop
Document Grid
Object Manager
Master Page
Default layer
Master Layers
Delete
New Layer
New Master Layer (All Pages)
New Master Layer (Odd Pages)
New Master Layer (Even Pages)

FIGURE 6-5 **View information, as well as name and alter it, with the Object Manager.**

Note Having Master Pages for odd- and even-numbered pages in a multipage document makes page numbering and special elements belonging to a facing page easier than ever to compose.

Navigating Pages, Objects, and Layers

The best way to use the Object Manager docker to navigate through your document, select layers, and control layer options is by experimenting yourself; the following steps are a guide. You'll learn exactly how these operations are performed; look at the next illustration, which shows a default layer structure for a new document.

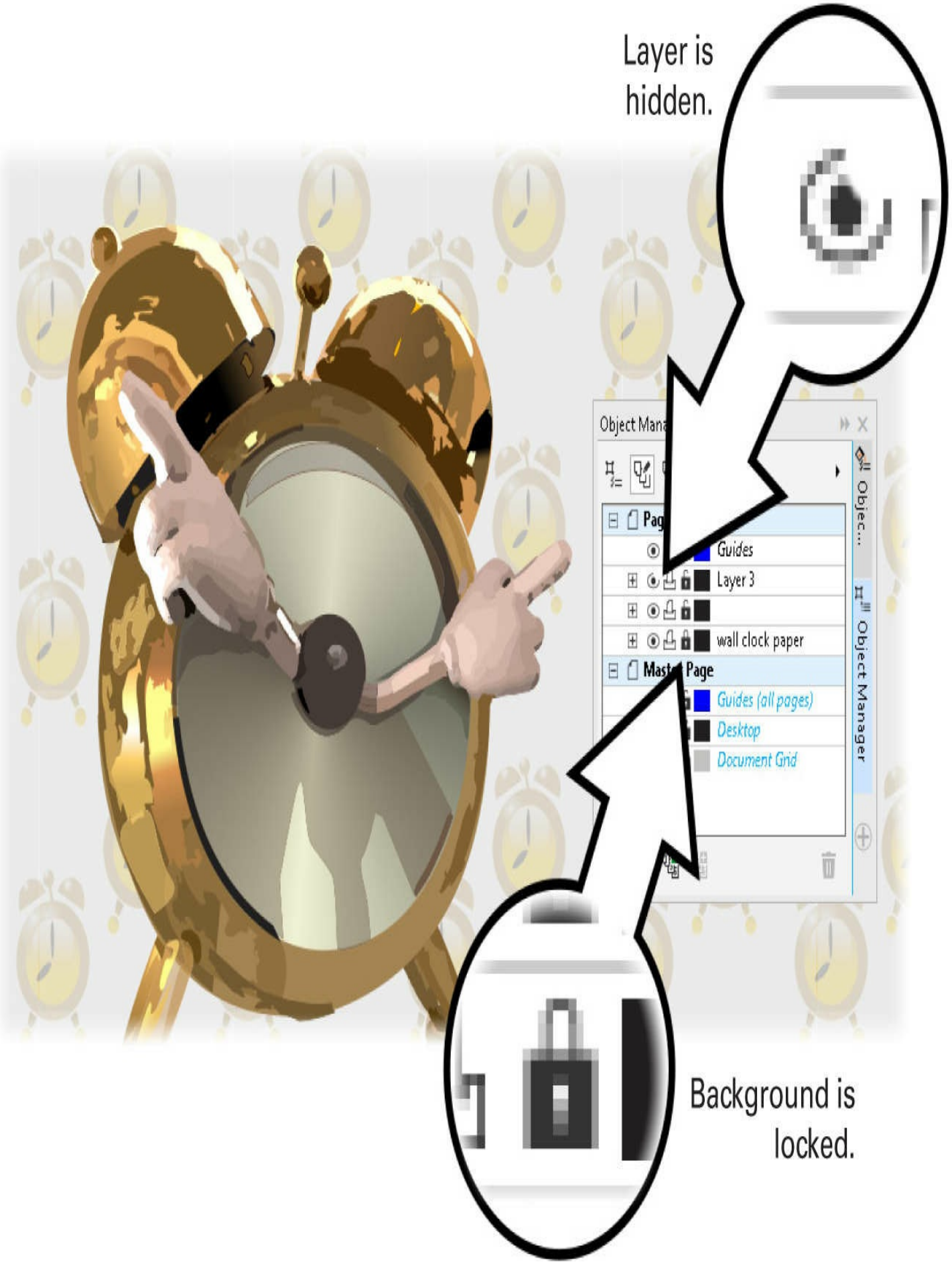

Click to view page.
Page name
Object Manager
Page 1
Layer 1
Page 1
Guides
Layer 1
Default Layer 1
Master Page
Guides (all pages)
Desktop
Document Grid
Click to expand/reduce tree (or double-click page symbol).
Expand to see list of all guidelines.
Visible On/Off option
Default Master Page
Printable On/Off option
Layer color (double-click to access Select Color panel)
Editable On/Off option
Object Manager

Navigating and Mastering Layers

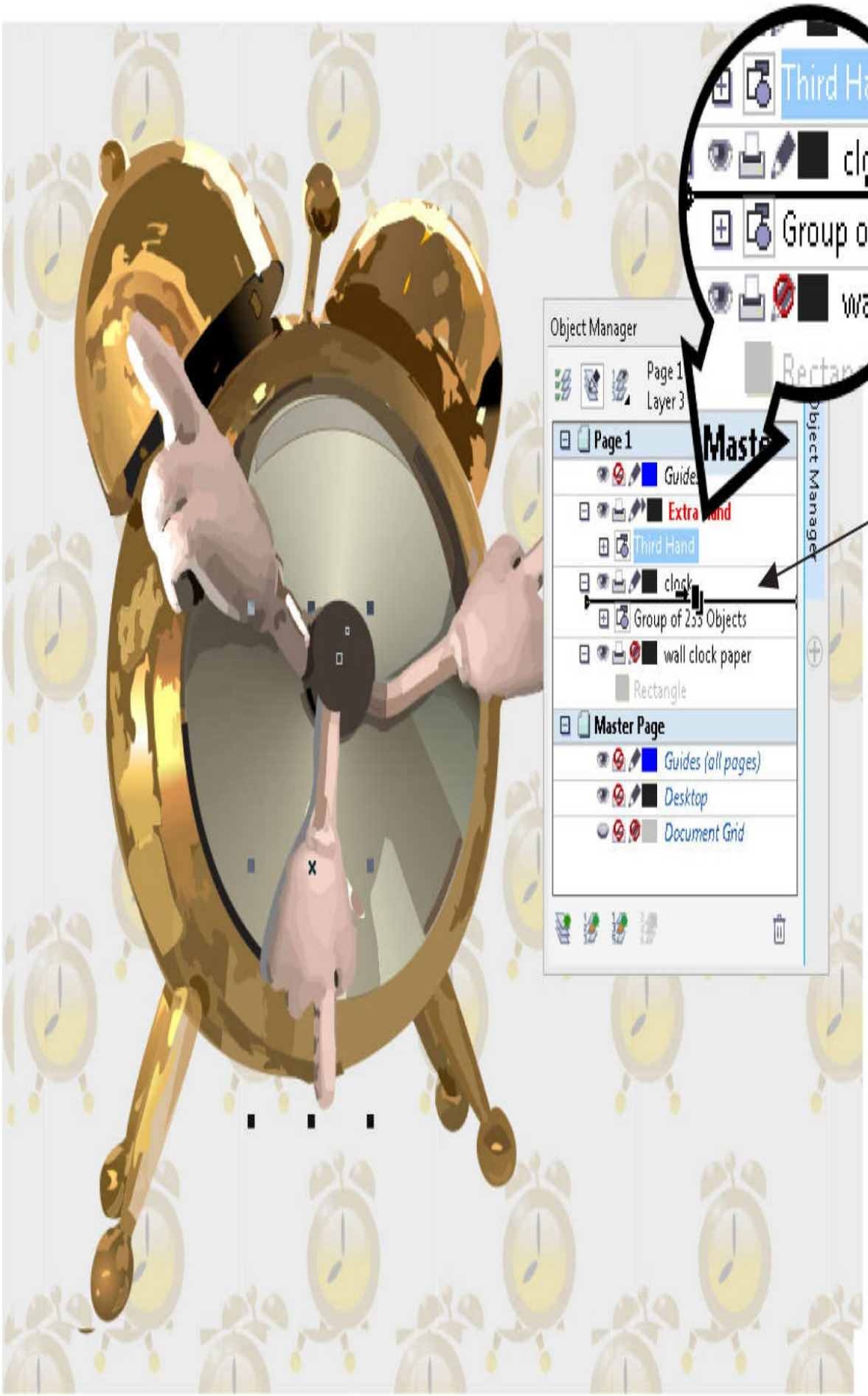
Tutorial

The next steps have no right or wrong execution, but rather they're simply exploration steps to get you comfortable working with layers. This is why an illustration has already been created for you; you just work the steps and see how any of several techniques can be applied to your own work, future and present.

1. Open Alarming.cdr in CorelDRAW.
2. Open the Object Manager docker: Window | Dockers | Object Manager. Look at the status of the layers. The background—the pattern fill of the clocks—is locked so it cannot be moved at present. Also, there's a layer on top with a default name, and it's hidden, which also means it's locked. Investigate a little now; unhide the top layer to see what's inside.


Layer is hidden.
Object Mana
Guides
Layer 3
wall clock paper
Master Page
Guides (all pages)
Desktop
Document Grid
Objec...
Object Manager
Background is locked.

3. Okay, I'm trying to be funny here—and hopefully succeeding. The layer contains a third hand; yet within the context of an alarm clock, it's really a "second hand." It's possible now to select the group of objects on Layer 3 by clicking them with the Pick tool, and if you click a second time, you can rotate the hand by dragging the rotation handles, and crank Time itself back to 1289 A.D.! Click twice (slowly, don't double-click) on the name of Layer 3 on the Object Manager and then type a name in the field that's more descriptive than "Layer 3" for future reference. Try **extra hand**, because why not?
4. Double-click the "extra hand" layer title to open its contents. The hand is several grouped objects, and they can be moved to the "clock" layer. First, rename the group: click twice on the "Group of 36 objects" and then type **third hand** in the field. Notice that control nodes are visible when a group or a single object is selected. Press SHIFT-F2 to "Zoom to Selected." Selecting items from the Object Manager is an easy way to select and then zoom into an object you want to work on.
5. Double-click the "clock" layer title to open it, and then drag the "third hand" group below the layer title, but above the "Group of 233 objects" entry. Layers have a hierarchy, and if you put the group below the "Group of 233 Objects," the third hand would be hidden from view by the 233 other objects.



Drag the group down to the "clock" layer.

6. Double-click the "extra hand" layer title. This action produces precisely nothing, which indicates that there is nothing nested within the layer. So it's okay to delete it—with the layer title highlighted, click Delete (the trash icon). Poof!

Caution There is no confirmation box with the Delete trash icon; it's similar to pressing the keyboard DELETE key. Be careful how you use it. To undo an inadvertent deletion, you need to click the workspace to put the document (and not the Object Manager) "in focus," and then press CTRL-Z (Edit | Undo).

7. Similarly, the background is expendable in this composition. Click the rectangle object on the locked layer; you can't because the layer is locked. Click the Lock or Unlock pencil icon with the red slash over it to make the layer editable, and then click the Delete button.

Tip Every object, down to single objects, on the Object Manager's list can be renamed. Consider giving a very important object a custom name in your own work. Then, at any time, you can locate the object by conducting a search with the Edit | Find and Replace feature, or just by scrolling through the list of objects.

8. Create a new layer by clicking the New Layer button. Name it and then drag its title to the bottom of the layer stack on this page.
9. Lock the clock layer.
0. Click the new layer highlighted on the Object Manager list, choose the Rectangle tool from the Toolbox, create a rectangle as a background for the clock, and then apply a fill. Figure 6-6 shows a linear gradient fill (covered in Chapter 12) and a blend with transparency added to the new background layer. See Chapter 14 for the scoop on blends and contours.

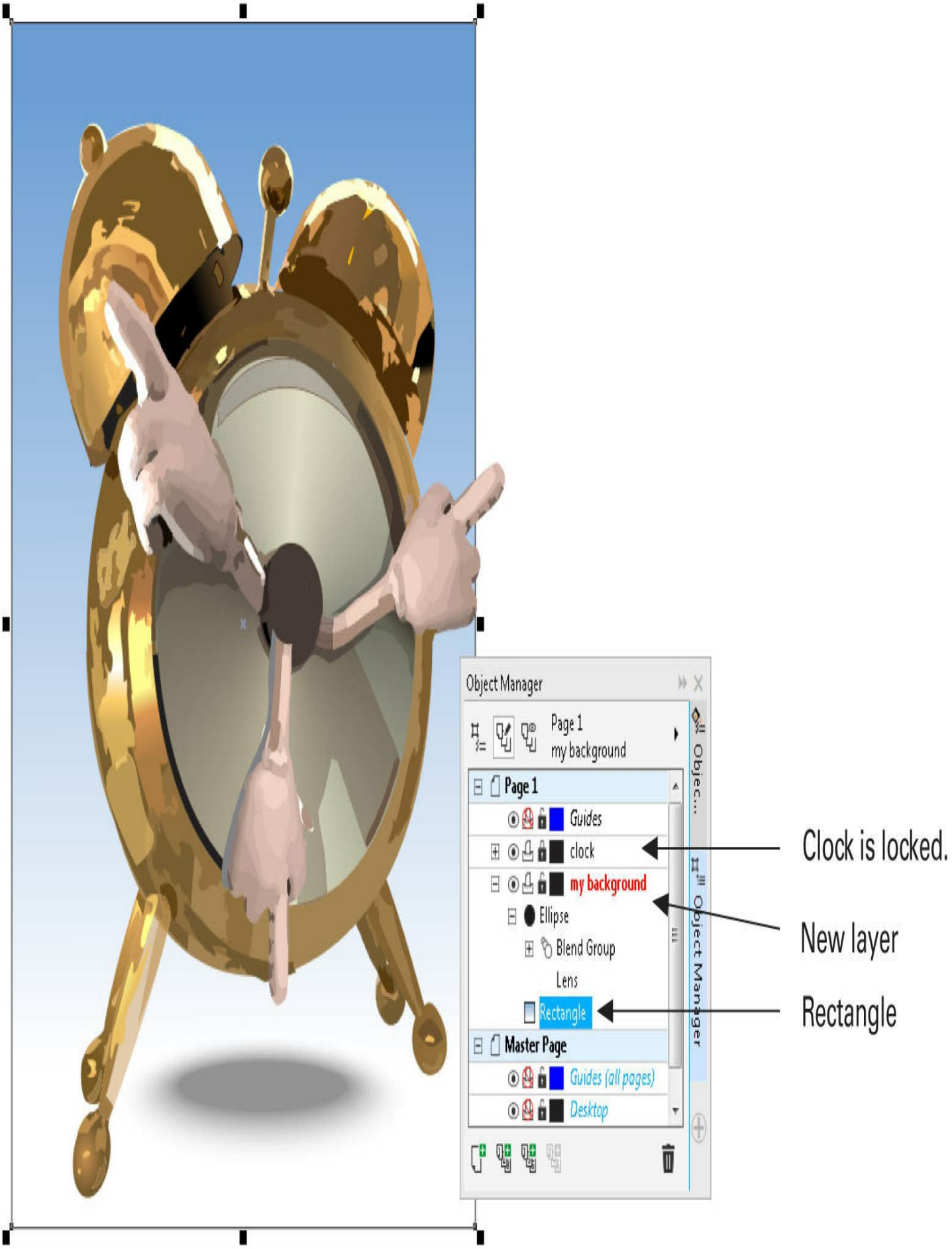

Object Manager
Page 1
my background
Page 1
Guides
clock
my background
Ellipse
Blend Group
Lens
Rectangle
Master Page
Guides (all pages)
Desktop
Objec...
Object Manager
Clock is locked.
New layer
Rectangle

FIGURE 6-6 **Working with layers takes full advantage of CorelDRAW's search capabilities and makes it easy to modify only certain elements in a complex drawing.**

Using Object Manager Editing and View States

Objects can be on different layers, and you can edit across layers in CorelDRAW. Create a new file that has objects on, let's say, three layers. This way, you can better learn through example about the editing and view states of CorelDRAW layers. Open the Object Manager docker. You'll see three view state buttons at the top of the docker—that's where information about viewing and editing behavior are set. Clicking each button toggles its state on or off. Each button has the following effects:

Tip You can use the Combine, Group, or Convert To Curves command on objects in the Object Manager docker by selecting the objects, right-clicking them, and choosing a command from the pop-up menu.

- **Show Object Properties** Click the Show Object Properties button to set whether you want to view a detailed name for a layer's contents (color, type of object, and so on) or just the name (either the default or your own custom name).
- **Edit Across Layers** Click the Edit Across Layers button to set whether objects can be selected, moved, and copied between layers. While cross-layer editing is disabled, objects appear grayed out, allowing only objects on your current page layer and/or the desktop to be selected or edited. While cross-layer editing is enabled, you can select, move, or edit any object on an unlocked layer.
- **Layer Manager View** The Layer Manager View button toggles your view to show only your document's layers. When you're working with complex drawings that have many pages, layers, and objects, using this view can make managing layer properties a lot easier. In this state, all page and object information is omitted.

Controlling Layer Properties

Using the Layer Properties dialog, you can control specific properties for each layer. To access these options, right-click a specific layer in the Object Manager docker and choose Properties from the pop-up menu. You can access properties directly from the pop-up menu or display a modeless dialog for defining the properties of a specific layer. There is a minor difference between using the dialog and the pop-up: the pop-up (right-click) menu has the Delete, Cut, Copy, and Paste commands. However, in X8, you can now rename

layers in the Layer Properties dialog in addition to the Object Manager.

Options in this dialog control the following layer properties:

- **Visible** This option enables you to toggle the view state of a layer between visible and hidden. You can also control the visibility of objects on a layer by clicking the Eye symbol to the left of the layer name.
- **Printable** This option toggles the printing state of objects on the layer on or off. You can also set whether layer objects are printable by clicking the printer symbol beside the layer in the Object Manager docker to toggle the printing state of objects on the layer.

Note Nonprinting layers will also not export. If you need objects selected on a nonprinting layer to be included when exporting, you need to turn on the layer's Printable option.

- **Editable** Use this option to lock or unlock all objects on a layer. While a layer is locked, its objects can't be edited (or even selected), which is a little different than the Lock (object) command. You can also set whether layer objects are editable by clicking the padlock symbol beside the layer in the Object Manager docker to toggle the editing state of objects on the layer.
- **Master Layer(s)** You can have layers for odd, even, and all pages in the Master Page entry on the Object Manager docker. You can create a new Master Layer, and you can also drag an existing layer from a page to the Master Page entry. Changing a layer to a Master Layer makes it part of the Master Page structure. Any objects on a Master Page appear on all pages. For details on working with Master Pages and Master Layers, see the next section.
- **Layer Color** This selector sets the color swatch as it appears in the docker listing directly to the left of a layer name, for easy recognition. Layer Color also determines object colors when viewed using Normal or Enhanced view while the Override Full Color View option is selected. You set the color coding for a layer by double-clicking the color indicator next to a layer name to open a typical color selector menu and then clicking any color from the drop-down color picker.

Working with Master Page Layers

Whenever a new document is created, a *Master Page* is automatically created. The Master Page isn't a physical page in your document, but instead a place where document objects can be placed so they appear on every page of your document. Objects on a Master Page layer are visible and printable on every page in your document, making this an extremely

powerful feature. For example, placing a text header or footer or a company logo on a Master Page layer is a quick and easy way to label all the pages in a pamphlet or brochure.

Moving any object onto a layer on the Master Page makes it a Master Page object and causes it to appear on each page. Let's try out this feature.

Working with Master Page Items

Tutorial

1. Open the Object Manager docker by choosing Window | Dockers | Object Manager.
2. Click the New Master Layer (All Pages) button—the second in the row of buttons at the bottom of the docker. A new layer is automatically added to the Master Page with the default name "Layer 1."
3. With this new Master Layer as your current layer (click the entry to make sure it's selected), create the object(s) you wish to appear on every page in its final position and appearance. By creating the object while the Master Layer is selected, the object automatically becomes a Master Layer object. You can also move objects from other pages onto the Master Layer by click-dragging them in the docker list from their position under a layer name to the Master Layer name.
4. Click to select the new Master Page object(s) on your document page. Notice that you can still select, move, and edit it. To toggle the lock/unlock state of your Master Layer object(s), click the Edit button (the padlock icon) beside the Master Page in the docker. Locking prevents any accidental editing of the Master Page object(s).
5. Add pages to your document by clicking the + button at the lower left of the workspace. As you browse through the pages, you'll see the same object on all pages.

Several default layers already exist on your document's Master Page for controlling special items that appear in your document, such as guides, Document Grid, and Desktop. These layers have the following purposes:

- **Guides Layer** This is a global layer for guides you create; if you click the Guides (all pages) entry on the Object Manager to select it, and then drag a guide onto the page, all pages in the document will display this guide. If you need a guide on only one page, you choose that Guides entry on the page you're working on, drag a guide from the rulers, and that guide belongs to that page and is not a Master Page item.

Tip You can move a local guide, a guide you created on a page, to the Master Guides entry on the Object Manager to make it global—it will then appear on every page of your document.

- **Document Grid** This controls the appearance of grid lines. You can control the grid color and visibility, but you can't make the Grid Layer printable, nor can you change its editable objects or add objects to that layer. Options in the Document Grid Properties dialog enable you to control the grid display color and to gain quick access to the Grid page of the Options dialog by clicking the Setup button in the dialog. To open the Document Grid Properties dialog, right-click the Document Grid under the Master Page in the Object Manager docker, and choose Properties from the pop-up menu.

Tip Document Grid visibility can be toggled on or off by clicking its eye icon on the Object Manager docker.

- **Desktop Layer** This is a global Desktop, the place outside of your drawing page. If you want to keep objects handy but don't want to print them on your page, drag the object to this entry on the Object Manager. If you put an object on the Desktop from a layer, you can't hide it or keep it from printing, but if it's explicitly placed on the Master Desktop, you can hide it, keep it from being edited, and keep it from printing.

Hopefully, this chapter has shown you how to transform not only objects, but also your skill level with CorelDRAW. You now know how to move, scale, rotate, and perform other operations on page objects and their duplicates. You also know how to manually transform and use the dockers and other features for precisely moving and aligning the elements you need for a terrific design. Chapter 7 takes you into *creating* these shapes that you now know how to move; you put Chapters 6 and 7 *together*, and your family's going to start missing you because you'll be having too much fun designing to sit down for regular dinners!

PART III Working with DRAWing Tools

7 Choosing (and Understanding) the Right Path Tools

If you thought learning to create basic shapes and modifying them in Chapter 5 was a fun learning experience, then hold on: basic shapes will basically get your work only so far. CorelDRAW's path building and editing tools are at your disposal to create *exactly* what you envision. The Curve Tools group on the Toolbox has tools that make any shape you can imagine (and some you *can't)* a snap to design. In the following sections, you'll work through the *editing* process of lines and their nodes, so there's no reason to draw something that's *close* to what you need. This chapter is the "DRAW" part of CorelDRAW. Incidentally, the Artistic Media pen is no longer part of this Curve Tools group; it has its own icon on the Toolbox, and the Smart Drawing tool is covered in Chapter 8 because it's of enormous use to novices whose jobs require them to instantly become graphics designers. *Experienced* users will enjoy Chapter 8, too!

Note Download and extract all the files from the Chapter 7.zip archive to follow the tutorials in this chapter.

Sidling Up to CorelDRAW's Curve Tools

The most basic shape you can draw in CorelDRAW (and any vector drawing program) is a *line:* a line is a path that passes through at least two *points*, called *nodes* in CorelDRAW. A line is actually a mathematical equation, and as such, it doesn't necessarily have an outline color and a width, and it doesn't even have to be a *straight* line. However, a line *does* have a *direction;* that is, the direction in which you draw the line. This might seem obvious or trivial, but vectors *do* have a direction, and you can get arrowheads on the wrong end of a line, and all sorts of unwanted stuff, if you fail to remember the basic properties of a vector graphic.

There are scores of different properties to which you can assign a line, such as