FIGURE S5.1 Tim Belonax, *A Machine for Typographic Generation*. Client: *The THING Quarterly*, 2012.

SECTION 5

EFFECTIVE WORK HABITS

THIS LAST SECTION again aims to merge art, design, and technology in a way that fuses separate parts of the craft, history/theory, and reflection triad. As readers, learners, and educators, we have all experienced how this process can be challenging, because it's easy for the technical part of the learning curve to overshadow the places from which an artist or designer is inspired (historical visual works and theories or principles). In Section 4, Typography, for instance, learning the nuances of type might have seemed more important than memorizing the shortcuts in the applications used to set type. Different schools deal with this dilemma in different ways: Some separate the "skills" classes into smaller sections taught by seemingly "less important" staff (diminishing the value of craft or those who specialize in being able to articulate this important aspect of the digital realm, in my opinion); others offer a combined lecture/lab model in which the instructor meanders from one end of the spectrum (history, let's say) to the other (an Adobe Photoshop tutorial), often without connecting the dots between the

two. As mentioned in the book's introduction, this is the pedagogical gap this text aims to fill.

For this section, consider what it means to *work effectively*—specifically when the tools at your fingertips are primarily digital. Arrange your workspace ergonomically. Learn as many keyboard shortcuts as you can, because pressing keys is less stressful on your wrist than moving a mouse or using a trackpad, and it results in making fewer errors. Consider what it means to be *effective* (or strategic) in an era of cut, copy, and paste.

ERGONOMICS

This may seem obvious, but all too often I hear of students and friends who set up their computing workstations without thinking about their health and safety. Here are a few guidelines to keep in mind while designing an ergonomically correct work environment:

- **Height** The height of the monitor should be at eye level, and the keyboard should be aligned with your elbows. You can adjust your desktop or seat and use a keyboard pad to reap the benefits of this essential positioning guideline. Proper positioning of the monitor will help to alleviate neck and shoulder cramping. Proper positioning of the keyboard (possibly with a pad) will align your wrists to avoid carpal tunnel or other repetitive stress injuries.
- **Light** You should have enough light to see the monitor without squinting your eyes or sensing glare from the screen. In some cases, this might require a set of multiple lights positioned around your workstation.
- **Seat** The seat of your chair should be comfortable. Your knees should be at a 90-degree angle to the floor. You may find more comfort by adding a small pillow or rolled towel to support your lower back.
- **Feet** Your feet should be flat on the floor or resting flat on an elevated surface if the floor is unreachable.
- **Breaks** Take frequent breaks. Set a timer if you need to remind yourself to move every hour. Stretch your back, shoulders, and legs, and give your eyes a break from short-distance viewing.

AUTOMATION

Automation can result from the invention of new technological processes. From Henry Ford's mass production of the Model T in 1908 to ATMs (automatic teller machines) popularized in the late 20th century, automatic processes imply a combination of a human nudge and a computerized system for completing a set of directions. In literary circles, "automation" is found in *automatic writing*. Arthur Conan Doyle and Jane Roberts believed that they

channeled spirits and that they themselves became the automaton. Automatic writing is also referred to as *stream of consciousness writing*, without a spiritual connotation. This was a method practiced by Virginia Woolf and James Joyce, the latter for "finding" his characters without the noise of the conceptual mind. The French group Oulipo also used rule-based writing techniques to "automatically" create or inspire new textual works.

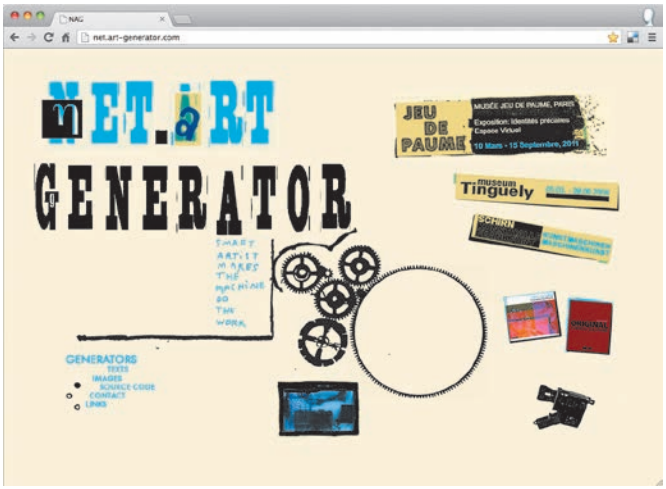


FIGURE S5.2 *net.art generator*, Cornelia Sollfrank (since 1997), net.art-generator.com. Also see: www.youtube.com/watch?v=43y2k5j7oIU.

Automation can also refer to mechanical processes that hint at artificial intelligence. An art or design practice that relies on systematic automation certainly has relatives from the era of conceptual art, in which the directive created by the artist was executed, knowingly or unknowingly, by participants. Sol LeWitt's wall drawings were drawn by the gallery staff based on a set of directions from the artist. Stanley Brouwn's *This Way Brouwn* series of hand-drawn maps by passersby exemplify this type of conceptually driven artifact, produced "automatically" (or, at least, according to a set of rules) by nearly anyone but the artist who originated the idea.

Automation also suggests generative art, which is created by some automatic or rule-driven processes. Typically, there are some basic themes to the character or nature of the work of art, and as it develops, it mutates based on the system inherent to the process. Digital artists may mistakenly think of generative art as "software art," although this is not accurate. Generative systems are biological and can be produced in all areas of expression from music to literature to digital art. In response to Cornelia Sollfrank's *net.art generator* (**FIGURE S5.2**), Sarah Cook articulates how technology has transformed from a system for delivering media to a system for creating it:

> In the cultural sphere, technology is often misunderstood as merely a delivery medium for fixed content (one needs to think only of the progression in information transmission from the telegraph, to the telephone, to the television). "Generative art" turns this idea on its head—wherein not only is the content not fixed in advance, but the technology is the medium for that variable and manipulated content [1].

REFERENCE [1] Sarah Cook, "What would artificial intelligence find aesthetically pleasing? The burning question of generative art and its audience," 2003. net.art-generator.com/publications_cook_en.html.

While you won't create (or program) "software art" in these chapters, you'll learn about automatic processes available to you in the Photoshop Actions

panel. You can use this panel to direct Photoshop to perform a series of steps on one or several images. Most of the time, the goal is to re-create the same effect with a Photoshop action, so this particular automatic process lacks the transformative quality common to generative art. In Chapter 13, however, you'll learn to give directions to the computer (via Photoshop) and reap the benefits of an incredibly effective working process for common digital imaging commands.

PRINTING

Printing can be as easy as clicking the Print button (for instance, if you're printing a Word document or PDF file) and as complicated as you can imagine if you're trying to match colors to a proof or print on the front and back of the page to create a book or pamphlet. You learned about RGB and CMYK color spaces in Chapter 6, *Color Models*. In Chapter 14, *Pagination and Printing*, you'll revisit the Actions panel from Adobe Bridge before learning to manually paginate the printing of a booklet in Adobe InDesign.

GENERATIVE ART RESOURCES

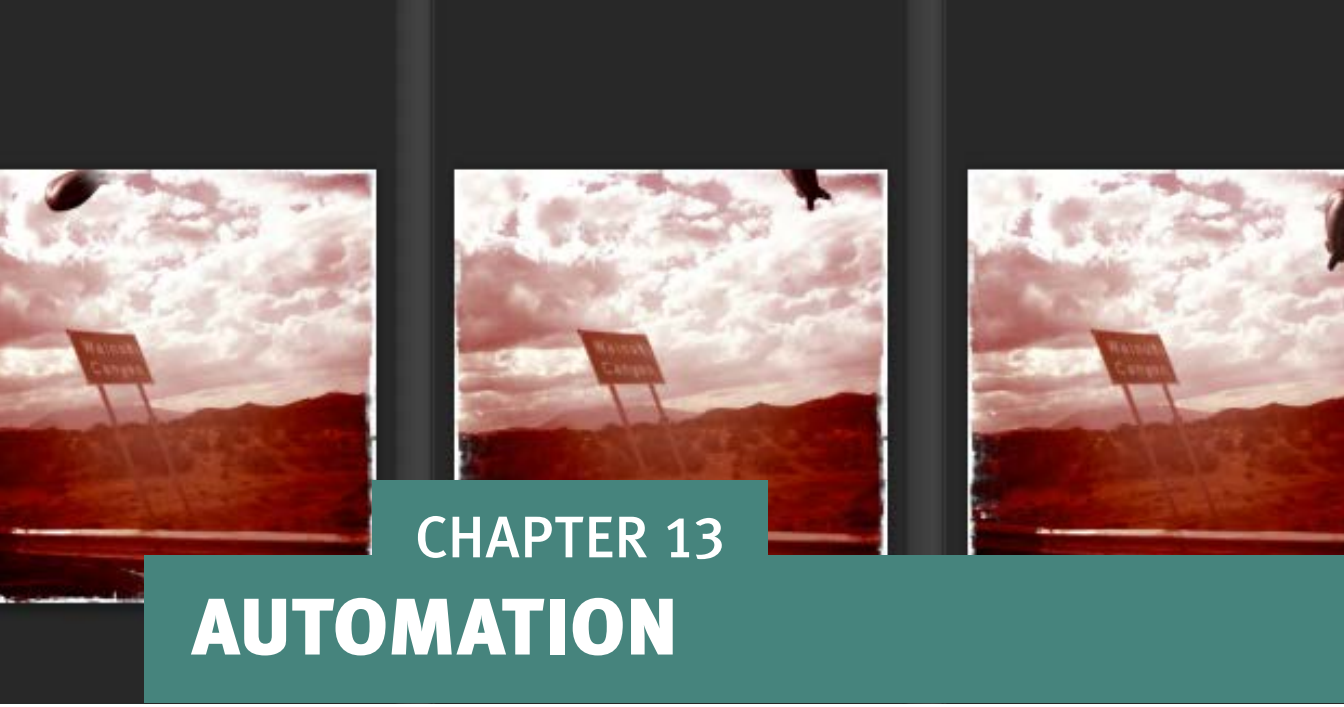
- "Generative Art—Computers, Data, and Humanity" (*Off Book*, PBS), youtu.be/x0OK1Gil83s
- "Getting Started with Generative Art" (by Jeya, Media Militia), mediamilitia.com/getting-started-with-generative-art
- Inspirational artists include Joshua Davis, Ben Fry, Golan Levin, John Maeda, Mark Napier, Casey Reas, and Scott Snibbe

Printing is a craft for which there are many techniques. What you make with your prints can span a wide conceptual and aesthetic range. Letterforms or basic lines and shapes are used in spreadsheets and text documents, posters and brochures, activist publications, artists' books developed for exhibition purposes, and more. Tim Belonax's *The Thing* contribution for SASE #3, *A Machine for Typographic Generation*, fits both themes in this section: automation and printing (see **FIGURE S5.1** at the beginning of this section). His machine encourages viewers/users to develop letterforms from a stencil system he created. Belonax's machine is one that results in hand-drawn letters, a quality that contemporary artists' books or graphically designed ephemera miss, due to the popularity and ease of production of digital output.

REVISION

Revision is as much a part of the creative process as brainstorming and commanding the tools of a craft to execute your vision. It simply cannot be denied, and when you're developing your own projects, you should always budget more time for revision than you think you may need. In any expressive media, the revision process begins as soon as you make a decision. Some people have a set regime, while others revise based on reactions to their first (or tenth) attempt. Revision is personal—everyone has his or her own way of editing.

The *Coda* contains a series of contributions and interviews with artists and designers about their revision processes. These stories demonstrate the effectiveness of revision and many ways to approach it.



CHAPTER 13
AUTOMATION

THE EXERCISES IN this chapter will explore the automation features of the Adobe Photoshop Actions panel. They will compare tasks that can be automated in Photoshop with a task that mandates human collaboration with the application. You'll duplicate and save copies of a single file, and then you'll use Adobe Bridge to rename and view your work. The final result will be a set of files prepared for publication in a printed flipbook. You'll assemble the book by creating a document featuring multi-page layout using Adobe InDesign in Chapter 14, ***Pagination and Printing***.

As you'll learn in this chapter, some aspects of image production can be automated. However, other commands require human decision-making that cannot be easily expressed in code. Using the Photoshop Actions panel, you'll create macros (called ***actions***) to apply a set of commands to a single file or group of files. This programming alludes to the complexity of artificial intelligence: if only Photoshop were "smart" enough to edit images without our involvement, we could be on perpetual holiday.

ARTIFICIAL ARTIFICIAL INTELLIGENCE

Although studies in artificial intelligence are constantly evolving, the field's history includes paranoia and hoaxes. The automated chess-playing machine, also known as *The Turk*, was a notable artificial intelligence hoax created by Wolfgang von Kempelen in the 18th century. Benjamin Franklin and Napoleon Bonaparte each played chess against The Turk, losing the game to what appeared to be a robotic chess-playing device. In reality, the game was orchestrated from within the body of the table on which it was set—by a human **(FIGURE 13.1)**.

Fast-forward to November 2005, when Amazon.com launched the Mechanical Turk website (Mturk.com), a virtual job board with the tagline, "Artificial artificial intelligence." The Mturk website alludes to von Kempelen's Turk hoax, whereby instead of humans moving chess pieces, humans are hired (usually for pennies) to complete tasks that are simple for humans but too complex for a computer to be programmed to fulfill. Anyone can sign up as a worker or employer to engage in this *crowdsourcing* phenomenon. Crowdsourcing is similar to outsourcing. While outsourcing implies hiring people from far away geographical locations, the crowd is, similarly, a virtual mob of "others," distanced by the anonymity of the virtual platform. As an analogy to the Photoshop Actions panel, the types of jobs offered on Mturk.com belong in the category of commands that cannot be programmed as a Photoshop action. The difference between programmable actions or commands and those that require human interaction for proper completion is complicated. Artists have created work responding to this complexity in the form of performance (see the work of the artist Stelarc), collage (see Constructivist collages such as El Lissitzky's *The Constructor*), video (such as Tim Gruchy's *Scout*), and web projects, as described below.

LINK See Tim Gruchy's Scout at youtu.be/WPM8u8i3xBE.

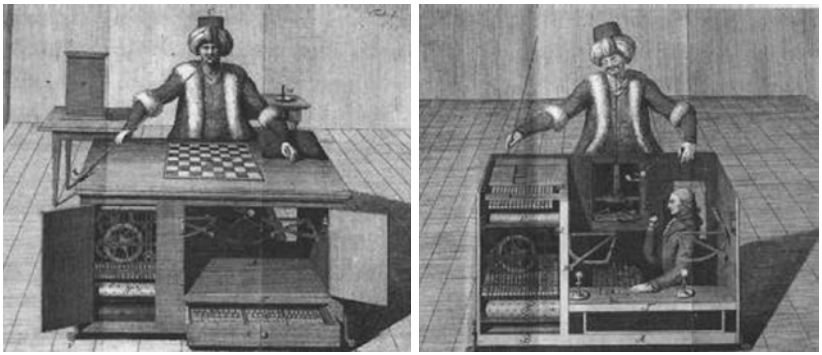


FIGURE 13.1 Karl Gottlieb von Windisch, copper engravings from the book *Briefe über den Schachspieler des Herrn von Kempelen, nebst drey Kupferstichen die diese berühmte Maschine vorstellen*, 1783. The History Collection/Alamy Stock Photo.

Companies facilitate Mturk.com's crowdsourcing initiative in a variety of ways. Patricia Marx offers a witty narration of her use of the Task Rabbit website, and mentions Get Friday, Catch Friday, Ask Sunday, and Tasks Everyday in "Outsource Yourself" [1].

REFERENCE [1] Patricia Marx, "Outsource Yourself," The New Yorker, newyorker.com/magazine/2013/01/14/outsource-yourself

Aaron Koblin uses the workforce available on Mturk.com to create collaborative multimedia projects **(FIGURES 13.2 AND 13.3)**. For both *The Sheep Market* (2006) and *Bicycle Built for Two Thousand* (2009), Koblin asked workers to contribute one small human action (a drawing of a sheep facing left and a voice recording that matches a few notes, respectively), for which the contributors were paid in pennies through Amazon's interface. Koblin then compiled these small actions (drawings and voice recordings) into a larger project that required further editing by the artist.

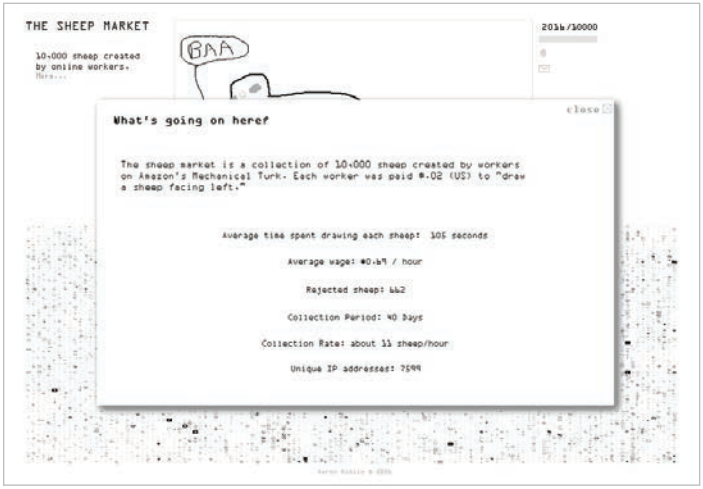


FIGURE 13.2 Aaron Koblin, *The Sheep Market*, 2006.

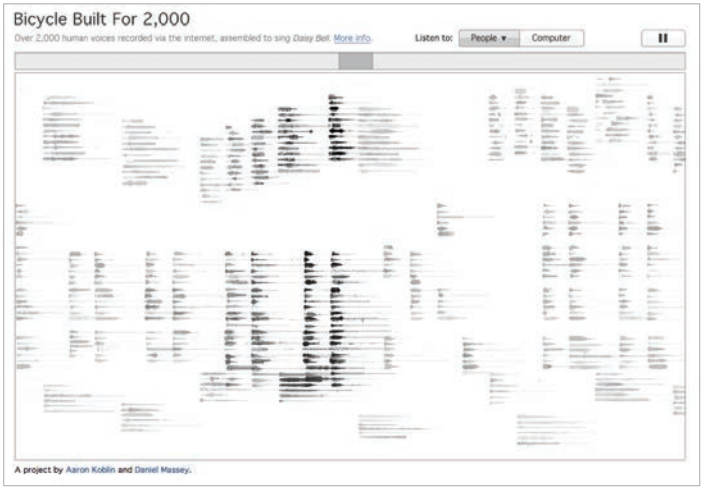


FIGURE 13.3 Aaron Koblin and Daniel Massey, *Bicycle Built for Two Thousand*, 2009.

READY, SET, ACTIONS!

While there are many ways to accomplish a single task in Photoshop, efficient practices include using key commands and, when appropriate, the Actions panel. There are three basic stages in developing Photoshop actions:

1. **Record an action.** Actions are created by recording a set of image file manipulations in an open Photoshop document. The Actions panel is an important tool for production artists, as the repeated application of a set of commands (for instance, those specific to file output) is a common task. Imagine preparing hundreds of high-resolution images for display on the web. This process would take hours if you approached the task one file at a time. Your workflow would be more efficient if instead you created an action that saved the series of repetitive commands and then automatically applied it to each image in the group. After the action is recorded and saved, you can apply it to the entire group of images while you take a coffee break.
2. **Stop recording the action.** It may seem outlandish to mention this, but many new students make the mistake of forgetting to click the Stop icon. If you do, the Actions panel will continue to record everything you do—adding steps or commands you didn't intend to be part of your action. When you're recording an action, focus on the task at hand. Once you've finished the steps you'd like to include in the recording, click the Stop icon to stop and save the action.
3. **Play the action.** Photoshop actions can be played on a single, open file in Photoshop or on a selection of files or even a folder of files from Bridge.

In Chapter 14, *Pagination and Printing*, you'll learn to assemble your book using Adobe InDesign after you have created a batch action from Bridge to Photoshop.

The following exercises demonstrate creating actions for commands that can be automated, as well as the types of tasks that cannot be automated. The result is a short flipbook or faux stop-motion animation. Your flipbook will be only 10 pages long for the purpose of keeping these exercises to a minimum time allotment. A longer book of approximately 60 to 80 pages would flip more easily.

WHAT YOU'LL NEED

Download the following source materials to complete the exercises in this chapter:

- ✔ The **chapter13-workfiles.zip file** from the Chapter 13 downloads area on the companion website includes the **chapter13-start.psd** file with a **Background** layer and *balloon-original* layer group.

Pay close attention to details as you create, save, and play your new action.

WHAT YOU'LL MAKE

In the exercises in this chapter, you'll start with one Photoshop file and end up with a folder of TIFF images to print as a flipbook. You'll use the Actions panel to facilitate a sequence of programmable steps and modify each file by hand when you reach a point in the workflow that is not programmable (**FIGURE 13.4**). You'll use the folder of images created in this chapter to begin the exercises in Chapter 14.

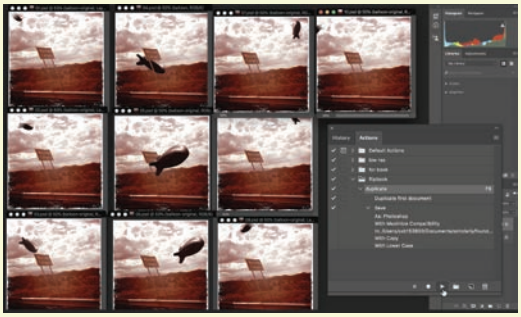


FIGURE 13.4 In these exercises, you'll create an action to duplicate files and then add unique modifications to each individual file.

IMAGE CREDITS I created the background image to act as the "stage" on which the balloon flies. The balloon image is Alfred T. Palmer's Parris Island, S.C., barrage balloon, 1942, LOC Call number: LC-USW36-226. You can download it in its original format from the Library of Congress Flickr photostream at www.flickr.com/photos/library_of_congress/2178246585.

EXERCISE 1 CREATE AN ACTION

The Actions panel includes presets (none of which I've ever used) in the *Default Actions* set. For the following exercises, you'll create a new set to store actions created for this project. Then you will create an action named **duplicate** that copies and saves a file.

1. Open **chapter13-start.psd** in Photoshop, and display the Actions panel by clicking the Actions icon (I think of the sideways triangle as a reference to the Play button) towards the right of the application window or by choosing Window > Actions.
2. Collapse the *Default Actions* set (**FIGURE 13.5**).
3. Click the Create New Set icon at the bottom of the Actions panel, name it *flipbook*, and click the OK button (**FIGURE 13.6**). Notice the new set in the Actions panel.

WORKSPACE > PHOTOGRAPHY Open Photoshop and set the workspace to Photography using the Workspace Switcher in the Options bar or by choosing Window > Workspace > Photography.

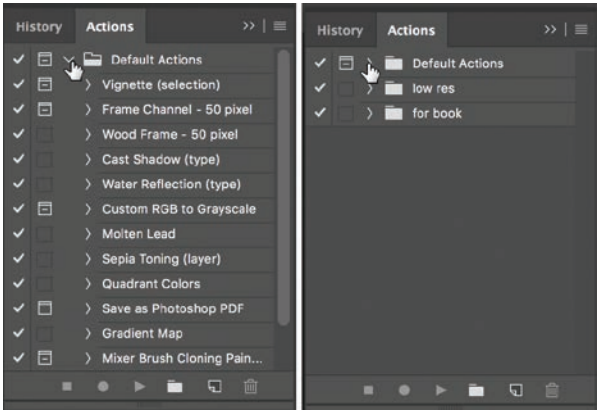


FIGURE 13.5 Collapse or expand sets in the Action panel. You can see that I have saved a couple of action sets in my panel.

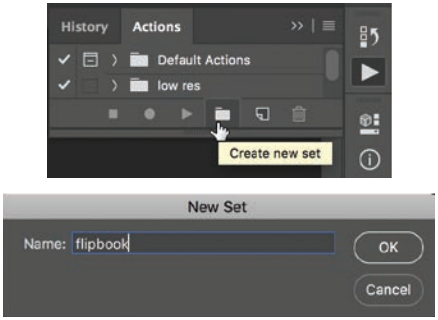


FIGURE 13.6 Create a new action set.

SCREENCAST 13-1 REVIEW OF THE PEN TOOL, LAYER MASKS, AND ADJUSTMENT LAYERS

The file you'll use to develop your flipbook action has been somewhat prepared for you to save time and reduce redundancy in the text. View this chapter's screencast to see how I used the Pen tool and a layer mask to isolate the balloon and make the color modifications within the *balloon-original* layer group. This material is introduced in Section 3, *Digital Manipulation and ~~Free~~ Fair Use*.

All screencasts are available on the companion website, www.digitalart-design.com, or on the Vimeo playlist, http://bit.ly/foundations-demos.

KEYBOARD SHORTCUT If the F9 key is unavailable (perhaps it's being used for something else on your system), you can choose any available function key. However, in Exercise 2, Step 4, you'll need to substitute pressing the key you assigned in lieu of F9.

4. Notice the *flipbook* set is selected—as you create a new action, it will be added to this set. Click the Create New Action icon at the bottom of the Actions panel, name it **duplicate**, assign it the function key F9 and the color Red, and click the Record button (**FIGURE 13.7**).

   Notice that you're now recording! There is a red Recording icon in the bottom of the Actions panel that you probably didn't notice was gray before now (**FIGURE 13.8**).

5. In the following mini-steps, you'll create or record or program (use whichever verb will help you remember to stop recording when you're done) your action:

   A. Choose Image > Duplicate. Don't change the default name. (It will be the same name as your current file with an added dash and the word "copy.") Click the OK button.

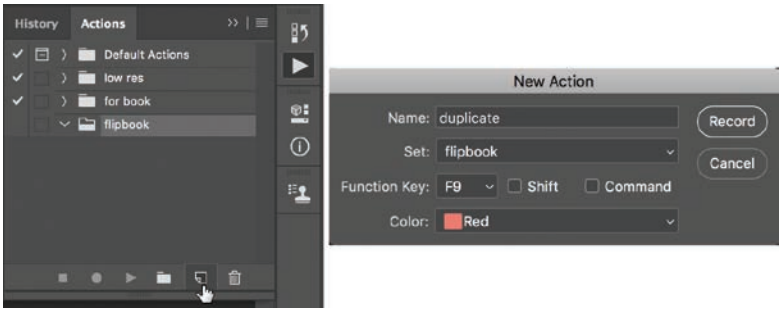


FIGURE 13.7 When you create a new action, you'll exit the dialog box by clicking the Record button. Don't forget to stop recording when you're finished!

FIGURE 13.8 The Recording icon is red when you're recording your action.

B. Choose File > Save As and *do not* rename the file. Instead, select Save: As A Copy (FIGURE 13.9). The name of the file will be **chapter13-start copy.psd**. Navigate to the **chapter13-start** folder if your file is not already set to save in this location, and click the Save button.

C. Click the Stop icon at the bottom of the Actions panel to stop recording your first action (FIGURE 13.10).

WATCH OUT! If you're new to creating actions, you'll inevitably forget to stop recording when you first try doing this on your own. Be mindful of this common mistake. If the Record icon is red, you're still recording!

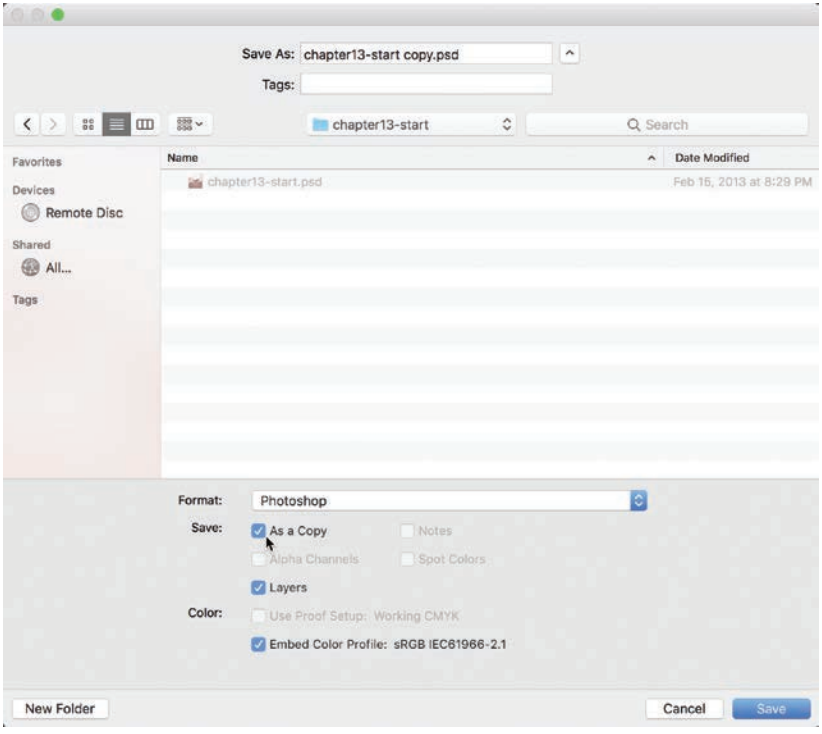


FIGURE 13.9 If you use the Save As command when you record an action, make sure that you don't change the name of the file.

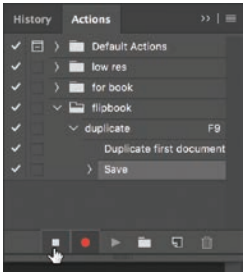


FIGURE 13.10 Click the Stop icon to finish making an action.

SAVING WHILE CREATING AN ACTION

Be careful about applying the Save or Save As commands when you're recording a new action. Here are some tips to keep in mind:

- If you record the Save command (File > Save), then you'll overwrite the original file.
- If you don't change the file name, it's safe to record the Save As command (File > Save As) and change the location for the new, saved file.
- If you add the Save As command to your action, you can always check the path in the recorded action once you're finished to see where the file is saved and whether you accidentally assigned a name to it **(FIGURE 13.11)**. If you notice that the Save or Save As command includes a file name, delete and rerecord this part of the action. Click the Trash icon in the bottom of the Actions panel to delete an action or a part of an action, and click the Record icon to record within an action. (Don't forget to click the Stop icon when you're done!)

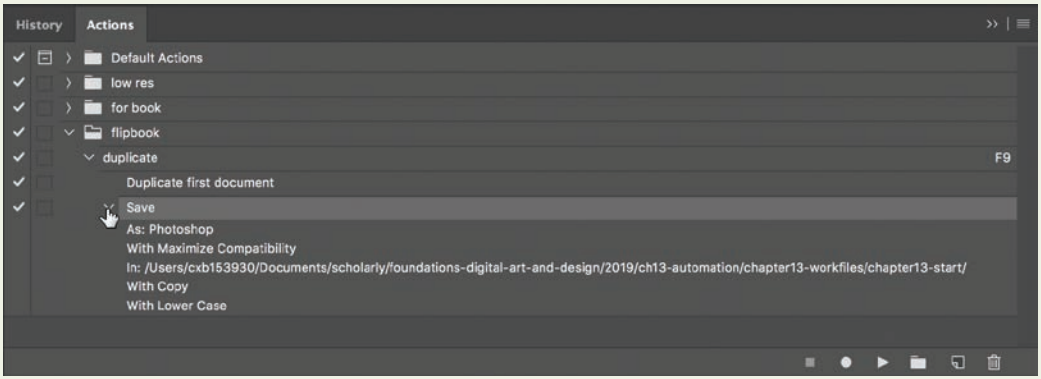


FIGURE 13.11 Expand the Save command in the **duplicate** action to see the file path you saved in your action. My file path is long. Among the many locations it includes are the name of the folder where I have been saving files for this book and the **chapter13-start** folder.

EXERCISE 2 PLAY AN ACTION

You can play an action on a single open file or on a folder of files in what's called a *batch*. For this exercise, you'll simply apply the **duplicate** action repeatedly, using three methods on an open file. In Chapter 14, you'll learn to apply an action to a batch of files.

1. Notice that you now have the original start file open, as well as a copy. Close the original start file to preserve it. (You may want to start anew later.)
2. With the **chapter13-start copy.psd** open and active, click the name of the **duplicate** action once to select it, then click the Play icon in the bottom of the Actions panel **(FIGURE 13.12)**.

Within a second or two, a new tab is created for the duplicate document, named **chapter13-start copy 2.psd**.

3. Now play that action again using a different method: Instead of clicking the Play icon, press the F9 key on your keypad. Remember, mouse clicks are less effective than keystrokes. Now you have a third tab for **chapter13-start copy 3.psd**.
4. Play the action one more time using a different method before deciding which way you prefer to work. Click the top-right Actions panel menu, and choose Button Mode to display each saved action as a clickable button (FIGURE 13.13). Mine is at the bottom of the left column of buttons, yours will likely also be at the bottom of the list of buttons—remember that you set it in red, which should make it easy to spot.
5. Click the duplicate button one time (FIGURE 13.14). Now you have a fourth tab for **chapter13-start copy 4.psd**.

KEYBOARD SHORTCUT
If the F9 key was unavailable when you created your action in Exercise 1, Step 4, you may have assigned a different function key to this action. Press that key instead of F9 to play your action.

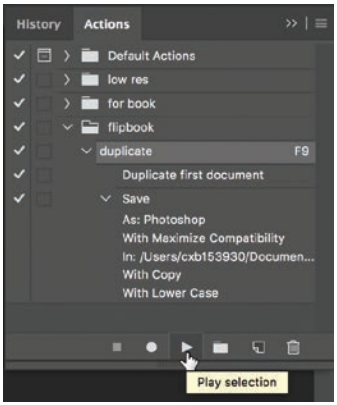


FIGURE 13.12 Play an action using the Play icon in the Actions panel.

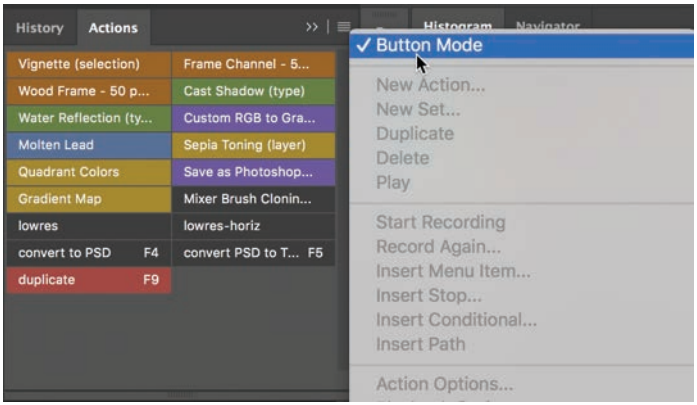


FIGURE 13.13 Enter Button mode using the Actions panel menu.

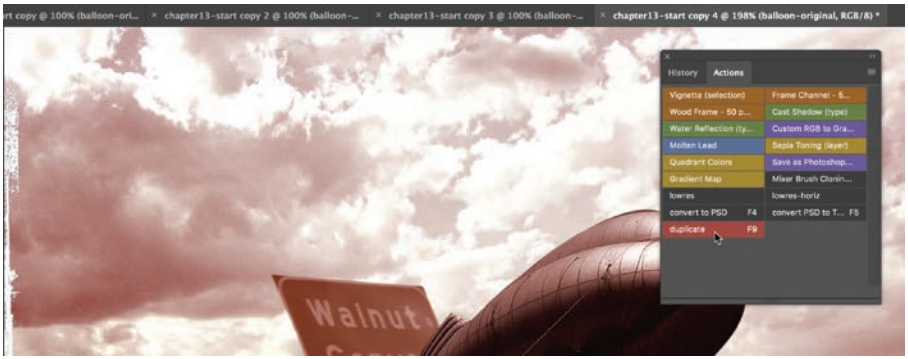


FIGURE 13.14 Play the **duplicate** action by clicking its button in Button mode. Now you should have created four copies of the original file.

6. Choose the work habit you find most effective, and use the **duplicate** action to create six more copies of the file. You'll have 10 copies of the file in total. (The last file will be named **chapter13-start copy 10.psd**.)

SAVING AND LOADING ACTIONS

The Action panel will store sets of actions that you create on your computer. But, if you're working in a shared computer lab or need to deinstall or reinstall Photoshop, you won't see your actions. It's wise to save your actions for later use, regardless of where you're working. Saving and loading actions to the Actions panel is simple. Start by viewing Actions in the default mode (not Button mode). Click on any action set, then open the Actions panel menu and choose Save Actions to save a set of actions as an .atn file **(FIGURE 13.15)**. Load Actions is also visible in this menu—choose it to open (or "load") a saved action file (.atn) from your hard drive.

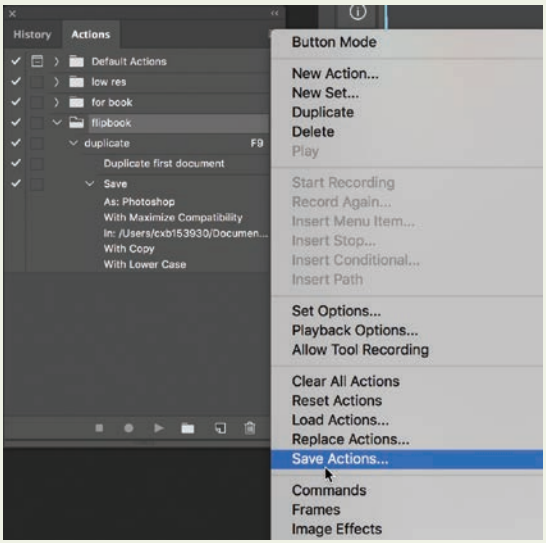


FIGURE 13.15 Save a set of actions using the Actions panel menu.

EXERCISE 3 BATCH RENAME REVISITED

Do you remember renaming a set of files using Bridge from the exercises in Chapter 4, *Creating and Organizing Digital Photographs?* If not, review Chapter 4, Exercise 7, or watch Screencast 4-1 *Renaming and Ranking Files in Bridge* before you complete the next steps.

1. Close all of the open files in Photoshop—they're all saved to your **chapter13-start** folder. Do this quickly by pressing **Command-W/Ctrl-W** to close the window and **Command-D/Ctrl-D** to activate the Don't Save choice.

2. Drag the **chapter13-start** folder to the Bridge icon to open Bridge and view these files. Or, open Bridge and navigate to where you saved these new images.
3. Set Bridge to use the Essentials workspace by clicking the button in the Application Frame or choosing Window > Workspace > Essentials.
4. Select one of the **chapter13-start.psd** files, then hold the Shift key to add to the selection until all 10 of the duplicate files that you created are selected.
5. Choose Tools > Batch Rename.
6. Rename the files to a simple two-digit sequence number, and save them in a results folder. To do this, click the Move To Other Folder button in the Destination Folder area and browse to a results folder on your hard drive—you may want to make a new one with your name or initials on it (FIGURE 13.16). In the New Filenames area, you may need to click the Minus icon to the right of the list of naming conventions to simplify the file name. Click the Rename button.

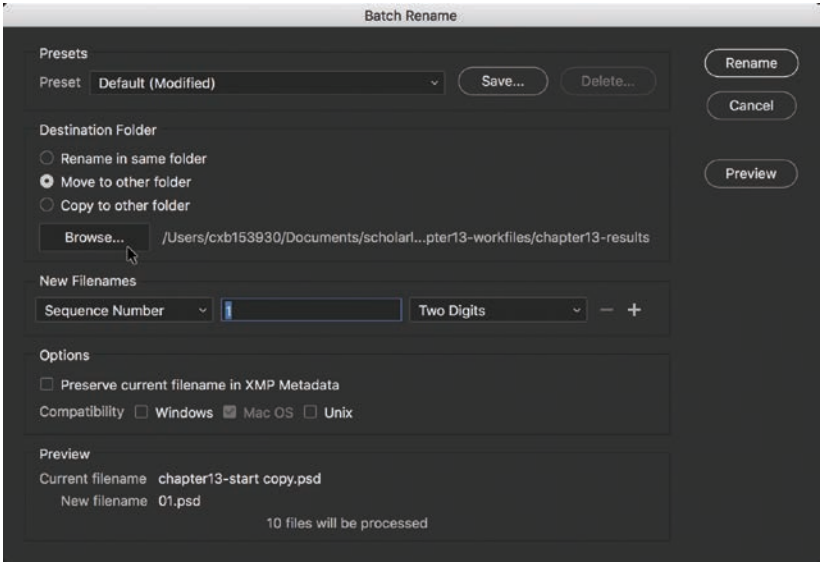


FIGURE 13.16 Use the Batch Rename dialog box to create a new file name with two-digit sequence numbers. I saved my files in the **chapter13-results** folder that is shared with you on the companion website. In the rename process, you should point Bridge to a new folder with your name or initials on it so it is easy for you to locate your results.

7. Locate the results folder in the Bridge content window, then open all 10 files (now named **01.psd**, **02.psd**, and so on, through **10.psd**) in Photoshop. If your setup is similar to mine, you'll have to click back a folder level to the **chapter13-workfiles** folder, then click into the **chapter13-results** folder to view all 10 selected files in Bridge after renaming them. Select all 10 files, then double-click one of the selected files. This will prompt Bridge to open all 10 files in Photoshop. (Click OK through the warning message.)

If you're working in a computer lab, your lab technician may not have set the preferences in Bridge such that the files open in Photoshop. You can use whatever technique is effective to open all 10 files in Photoshop.

EXERCISE 4 FLOAT FILES IN WINDOWS

In theory, you could have simply chosen Window > Arrange > Tile without floating the images, but I've found that for some reason my files appeared out of order when I excluded the float step. Watch out for this in Step 5.

You'll begin this set of steps by setting up your workspace to see each document as if it were the frame of a movie (or in your case, a flipbook).

1. With all 10 files open in tabs, choose Window > Arrange > Float All In Windows (**FIGURE 13.17**).
2. Choose Window > Arrange > Tile (**FIGURE 13.18**).
3. Activate one of the windows and reduce the zoom so you can see the entire composition in the space. (I ended up at 50%, but you may reduce to a lower or higher percentage depending on your screen resolution.)
4. Choose Window > Arrange > Match Zoom (**FIGURE 13.19**).

FIGURE 13.17 Float All In Windows will result in a stack of documents.

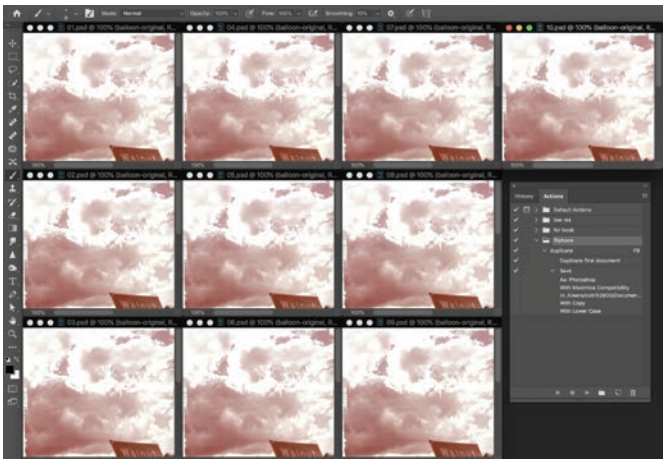


FIGURE 13.18 Tile the stacked documents so you can see each composition.

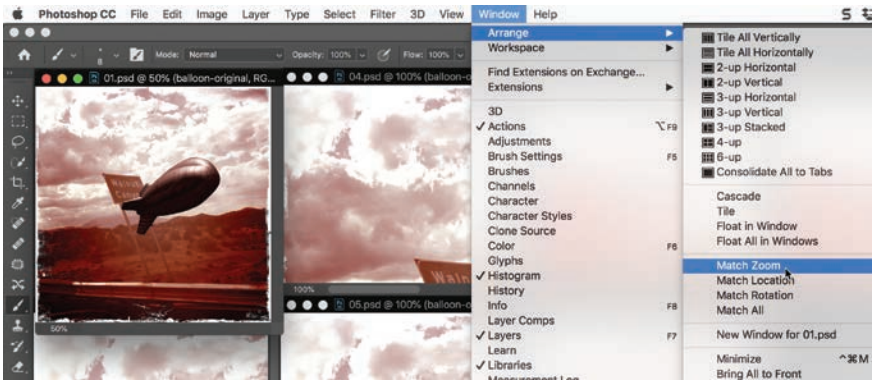


FIGURE 13.19 Use Match Zoom to see all the open documents at the same zoom level when they're tiled in separate windows.

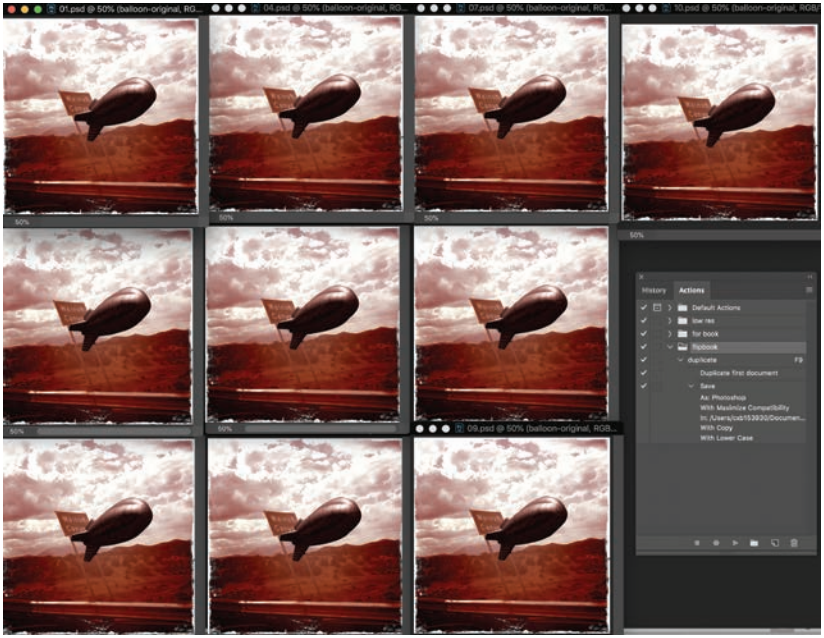


FIGURE 13.20 I dragged the bottom edge of each document down in order to see the entire composition, then moved the second and third row of documents down towards the bottom of my screen.

5. Now all 10 documents are open. If you need to, rearrange each window so that you can clearly see each composition (**FIGURE 13.20**).
6. Look at the layout of your documents. Where is **01.psd** located and where is **10.psd** on the screen? Mine are in a logical order as long as I read from the top to the bottom of each column, starting on the left and ending on the right with the last file (**10.psd**). If yours are not logically ordered, choose File > Close All and then try this exercise again from Step 1. Alternatively, drag the windows to rearrange the document locations so the order makes sense to you.

EXERCISE 5 NONPROGRAMMABLE MODIFICATIONS

The final steps are to modify where the balloon appears in each composition. This is something that you can't program with an action, as it requires your eye and brain to perceive and sculpt the space.

1. Click the document **01.psd** to activate it. Make sure that the *balloon-original* layer group is selected. Use the Move tool combined with Edit > Free Transform (**Command-T/Ctrl-T**) to move, scale, and rotate the balloon in whatever way you like. I started my flipbook with the balloon coming in from the left side of the document, high in the sky. You might also apply a layer mask to blend the balloon into the clouds (**FIGURE 13.21**).

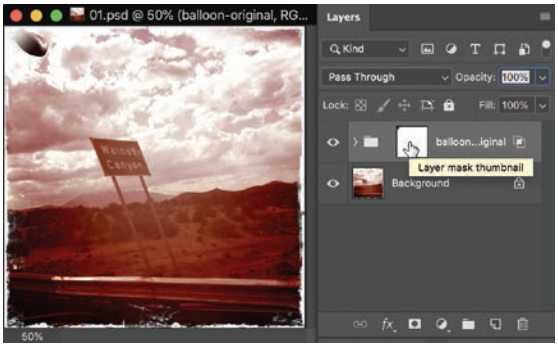


FIGURE 13.21 Modify the first composition with Free Transform and a layer mask on the *balloon-original* layer group.

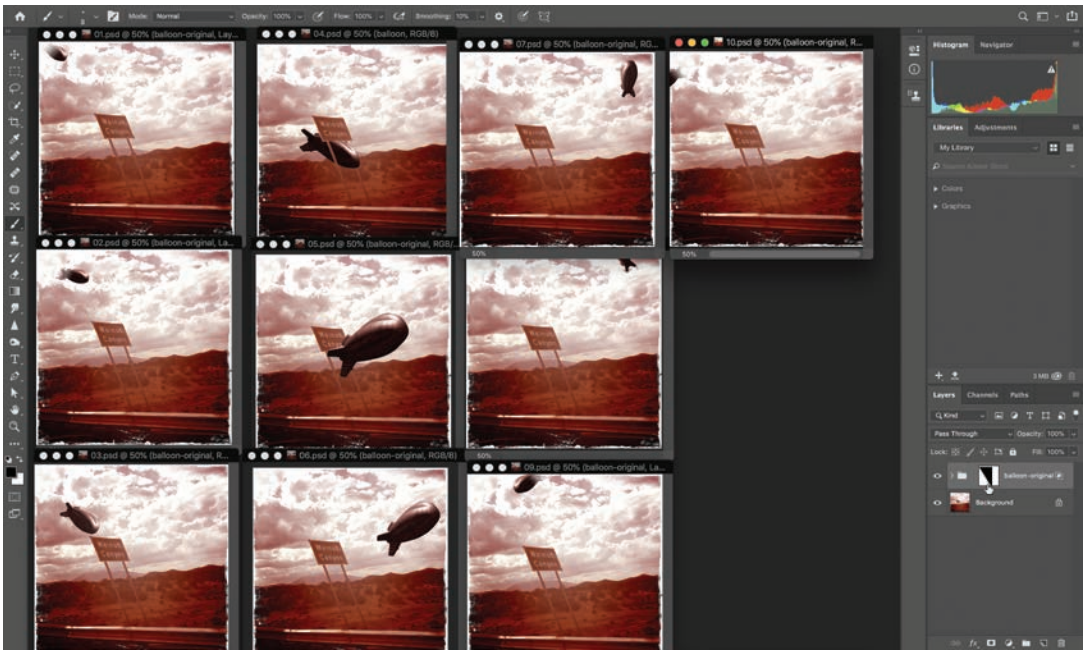


FIGURE 13.22 Modify each document separately to craft your flipbook illustration.

2. Press **Command-S/Ctrl-S** to save **01.psd** when you're finished modifying the composition.
3. Activate **02.psd**, and manipulate the balloon on the composition to suggest movement. Save the file when you're done.
4. Repeat these manipulations in each of the 10 documents. You might add masks; reduce the opacity of the balloon; change the balloon's rotation, placement, or size; or add imagery or color to the documents (FIGURE 13.22).
5. Make sure that all of your files are saved, then choose File > Close All.

EXERCISE 6 WATCH THE SEQUENCE PLAY IN BRIDGE

Although the final result will be a printed booklet, you can preview how your balloon "actor" moves across the "stage" (the background layer) using the Filmstrip workspace in Bridge.

1. If Bridge is still open, press **Command-Tab/Alt-Tab** to toggle to Bridge. Otherwise, open Adobe Bridge.
2. Navigate to the folder where you stored your renamed images. Activate the Filmstrip workspace. Click the Filmstrip button in the Application Bar or choose Window > Workspace > Filmstrip.
3. If the files are not displaying in the correct order in the Content area, choose Sort By Filename from the menu at the right end of the Application bar, or move the files to the left or right so they appear in sequential order.
4. Click the first file **(01.psd)** to select it. Press the Right Arrow key and hold it as Bridge displays each subsequent file in the Preview area.

LAB CHALLENGE

Write a story that's not physically possible in the analog world. Use digital manipulation tools to create a visual narrative that defies the rules of gravity, permanence, or time. Illustrate your story in a flipbook. Develop an action to create as much of the page content as can be automated, then complete the individual pages in Photoshop or Illustrator.