



# Beginning Adobe Experience Design

Quickly Design and Prototype  
Websites and Mobile Apps

—  
Rob Huddleston



Apress®

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***Beginning Adobe Experience Design: Quickly Design and Prototype Websites and Mobile Apps***

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Rocklin, California, USA

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*To Kelley, Jessica, and Xander with all my love*



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# About the Author

**Rob Huddleston** has been designing and developing web pages for almost 25 years, and has been teaching on those topics for over 15 years. He is currently on the Design Faculty at the Art Institute of California, where he teaches web and graphic design. He is the author of nine previous books, and currently also writes as a Core Contributor for GeekDad.com. He lives in Northern California with his wife and two children.



# About the Technical Reviewer

**Jim Babbage's** two passions—teaching and photography—led him to a career in commercial photography. With the release of Photoshop 2.5, Jim became involved in the world of digital imaging, and he soon began designing for the web in addition to taking photographs. Jim is a regular contributor to [Community MX](#), where he has written articles and tutorials on Fireworks, Dreamweaver, Photoshop, and general web and photography topics. He has authored several books including *Adobe Fireworks Classroom in a Book* for CS4 and CS5 (Adobe Press), and *Adobe Fireworks CS4 How-Tos: 100 Essential Techniques* (Adobe Press). Jim also has several Fireworks [videos](#) available on Lynda.com. He teaches imaging, web design, and photography at Centennial College, and web design at Humber College. He is a partner at [Newmedia Services](#), and has been a guest speaker at TODCon and a presenter at Adobe MAX.

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## CHAPTER 1



# Overview of the Web and Mobile Design Process

When building a website or mobile application, content is king. You might be able to convince people to visit your site once or download your app, but without engaging, relevant content, they aren't going to come back to your site, or will likely quickly uninstall your app.

But how you present that content matters as well. And the presentation of that content is your design. A well-designed site or app is going to be easier and more enjoyable to use than a poorly designed site or app.

Design matters. But design is also hard. It takes years of study to master the intricacies of layout, typography, color theory, and the rest. It also takes practice. Lots and lots of practice. As with all artists, most of what designers produce is not great. But it's only by working through those bad designs that we can discover the great ones.

While this book focuses on a single design tool, Adobe XD, understanding the process of designing for the web and for mobile is an important first step. In this chapter, we will examine the basics of designing websites and apps, focusing on the challenges and potential solutions designers face.

## The Challenges of Designing for the Web

From its earliest days, the web has presented designers with some unique challenges. Many of these have been solved in the roughly quarter century that designers have been working on the web, but many are potentially unsolvable.

### The Web Wasn't Designed for Design

The first challenge: design wasn't a consideration when the web was built. Tim Berners-Lee, the man who invented the web, was a physicist who created the web primarily as a way for scientists to be able to better collaborate on the internet. The web wasn't really intended as a way to sell books or connect with long-lost high school friends or see lots and lots of pictures of cats.

Because of this, solutions for designing for the web had to be added on later. First, there were attempts to handle this with new, mostly horrible HTML tags and attributes like `<font>` and `bgcolor`. And there were attempts to create complex layouts by forcing HTML tags that were never intended for layout—tables—to (badly) service that need. Later, all of that awfulness was replaced by Cascading Style Sheets, or CSS. Finally, we had a language specifically created to allow designers to make web pages pretty (and more usable).

But even CSS has a major flaw (well, to be honest, it has a lot of flaws, but let's just focus on one for the moment): it's code. To be clear, I have nothing against code. I consider myself to be much more of a programmer than a designer. But designing in code is tough. It takes a lot of work, it's hard to make quick changes, and it requires that you think about what something will look like without being able to directly see what it will look like until a bit later.

There are certainly folks who have mastered this skill and do what the web community refers to as “designing in the browser,” but they are the exception.

Adobe XD is specifically designed to help fill this need, by allowing you to create designs in a more traditional design environment, and without ever requiring that you touch any code at all.

## Designing for Screens

When print designers create flyers for clients, they have total control over what those flyers will look like. They know that every time a flyer is printed, it will be a particular size. They know that every time it is printed, it will use specific colors (often printed with specific inks). They know it will be printed on an exact weight of paper with a specific brightness.

This kind of control is pretty great, and it's the first, and often hardest, thing that print designers have to learn to give up when they begin designing for the web, because for the most part, the way our web pages will look on our users' screens is out of our control.

We cannot know what size screen each user may have. When I began designing for the web in the mid-1990s, designers had to worry about a few screen resolutions on maybe a dozen or so screen sizes. The web was confined to desktop and laptop computers. We had to worry about two operating systems and basically two browsers.

But today, there are not only dozens and dozens of screen resolutions, but literally hundreds of screen sizes. Today, we can't know if a user is going to view a web page on their 65-inch television or their 27-inch computer monitor or their 4-inch smartphone. (Although we can know that more people in the world access the web on mobile devices than on desktop and laptop screens).

We cannot know how big our page will be. We cannot know how the screen is going to handle color. Our users may be on a desktop running one of four or five versions of Windows, or a laptop using one of several versions of macOS/OSX. They might be on an iPhone using iOS 8, or an iPad using iOS 6, or on an Android phone running Jelly Bean, Kit-Kit, Lollipop, Marshmallow, Nougat, or Oreo. That phone might have a 3-inch screen with barely 400 pixels of resolution or a high-density 5-inch screen with thousands of pixels.

The monitor might be color corrected to render bright, beautiful colors, but odds are good it isn't. The user might have the brightness turned down on their monitor to reduce glare and eye strain, making the colors on our site dull and boring, or they might be on their phone late at night with the brightness turned all the way up (hopefully not disturbing anyone else in the room).

And they might be viewing our site on Internet Explorer, or Microsoft Edge, or Google Chrome, or Mozilla Firefox, or Apple Safari. They might be on Android's slightly different version of Chrome, or they might have gone into the Google Play Store and downloaded some other browser you've never even heard of.

The point of all of this is that we have absolutely no control over how our web page is seen by our users. This presents, without any question, the biggest design challenge for the web: how do you create something that is beautiful and usable with all of these unknown factors at play?

As we will see in Chapter 6, Adobe XD allows you to create your designs on any screen size you want, allowing you to think through this toughest of design challenges.

## Designing for Interaction

Another thing that separates web design from print design is interaction. While it can be argued that people do interact with print—a good designer is certainly going to take into account how a customer might move from one page to the next in a catalog—interaction design did not really become a thing until the web and mobile apps came along.

Interaction design is thinking not just about how a particular page of a site looks and feels, but also about what happens when a user clicks a link to get from one page to the next. Interaction designers think and plan for what happens when a user clicks something on a page, or hovers their mouse over an element. They think about how drop-down menus should work.

All of this requires designing in an interface that allows you to see these interactions take place. While you can sort of simulate some of these things in traditional design tools, Adobe XD's prototyping tools, which we will explore in Part III of this book, are designed to allow you to work through interaction design issues and visualize potential solutions.

## Mobile App Design

Just as Tim Berners-Lee didn't envision the cat-obsessed environment he was creating with the web, Steve Jobs didn't think he was creating an entirely new industry when he released the first iPhone in 1997. Although smartphones had been around for a while, and the idea of running apps on those phones that were built just for that environment was likewise nothing new, the iPhone and the massive explosion of the use of smartphones created unexpected and unprecedented demand for apps.

Because many clients see an app as a logical extension of their overall digital strategy, the same designers who are being tasked with creating the look-and-feel of a company's website are often asked to create the look-and-feel of a company's app. In many ways, designing an app isn't all that different from designing a website. We must figure out solutions to all of the challenges previously mentioned regarding web design—multiple operating systems running on thousands of different screen sizes.

Apps generally provide us with the ability to tap into, and thus design for, device-specific features that may not be available on a website. For instance, an app might allow a user to take a picture of something on the phone's camera, and then somehow integrate that into the app's interface. So, the app designer needs to think about what the button to launch the camera will look like, what the interface will be when the phone returns control back to the app after having taken the picture, and how the user can make use of the picture in the app.

Regardless, the similarities between web design and app design are such that once you understand one, getting good at the other generally isn't too hard. And so, it makes sense that you can use the same tool for both. XD's mobile app tools will be visited in more detail in Chapter 8.

## Using Comps and Prototypes to Design Live Sites and Apps

Usually, the first time a client sees what their site or app will look like, it is in the form of a high-fidelity *comp*. This is a design that shows the client a faithful rendering of the page, with all the colors, type choices, and images in place.

For the past several years, Adobe Photoshop has been the go-to tool for many designers to create these comps. Comps are useful as a way to show non-designers your vision for the page, and Photoshop allows for this kind of rendering of a design. However, all the capabilities that allow Photoshop to do this were basically tacked on to the program after Adobe recognized the need to compete in this market. But as great as Photoshop is at a huge number of things, it has never been that great in creating web comps. The simple ability to show a design at different screen sizes is a very recent addition to the program.

But even comps rendered in a tool that specializes in creating web comps, such as Sketch, still have a big limitation: they lack interaction. It's fine for a client to see what a page looks like when it loads, and then, in a separate image, what it will look like when the drop-down menu expands over a portion of the page, but that's not nearly the same thing as letting the client actually click that menu item and experience that menu dropping down over the page. And this is where prototyping comes in.

A *prototype* takes the high-fidelity comp and adds some, or perhaps all, of the interactions, allowing the client to click around and test out the site or app as if it were already live and online (or installed on their device).

Neither a comp nor a prototype can substitute for the real thing, of course, particularly in cases where the content on the site will be generated by users, but before developers spend hours writing all the code, comps and prototypes allow both the designer and the client to make sure everything looks right and that most things are planned to work right.

Once that sign-off is complete, it's up to the developers to take the prototype and create the real site or app and take it live. And this is decidedly *not* what Adobe XD exists for. Over the years, attempts have been made to create tools that try to do it all: let designers create their vision through drawing tools, and magically translate those drawings into good, editable code. And to date, that isn't something that has ever really worked. So, in creating XD, Adobe has made the conscious decision to avoid this issue altogether. XD is not intended to be a tool to save developers from having to write code,

and more importantly, it isn't a tool for designers who want to be able to create live sites or apps without learning code. Instead, XD is purpose-built for designers to create a vision of what the final product should look like, and to share that vision with others. Later, the developers will go in and use totally different tools to make the site actually work or to publish the app.

## Summary

In this chapter, we've explored the basic concepts behind designing for the web. We looked at how the web didn't anticipate design, the challenges of designing for an unknowably huge array of screen sizes and resolutions, and designing for the interactivity that digital allows. We also examined a few of the concepts related to designing mobile apps.

In the next chapter, we will begin to explore Adobe XD itself.

## CHAPTER 2



# Introduction to Adobe Experience Design

In this chapter, we will explore how Adobe XD fits in the designer's workflow, examine how to download and install XD on your computer, and go over the interface and tools available in the program.

## Adobe XD in the Workflow

At my school, we teach web designers to follow a workflow that employers and alumni working in the field have said matches that used by professionals in the field.

The process of designing for the web usually begins with a meeting between the client and the designer to identify the client's needs and begin answering questions such as what they want in their website, what problems in their business they hope their site will solve, and the like. From there, the designer begins research, looking into not only the existing design assets the client may already have (logos and other branding, printed materials that have content that may need to get translated to the web, an existing website that needs updating, and the like), but also what kinds of things others in the same industry or similar industries are doing. The designer may also need to research the industry itself, if they are not personally familiar with it. (I often tell new students that this is one of the more exciting things about being a designer: you will get to explore all kinds of different industries and learn a little about them).

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■ **Note** For clarity's sake, I'm going to refer to "website" throughout this section, but pretty much all of these steps need to be followed when creating a mobile app.

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Once the research is complete, the designer can begin the actual design process, making decisions about things like colors and typography. Sometimes, the client may insist on keeping their own existing branding or designate specific design requirements, so these choices may be constrained by that, while at other times the website might be part of an overall rebranding of the company, giving everyone a lot more freedom to explore.



At some point along the way here, the designer and client need to decide about the overall structure of the website. How many pages will there be? What content will be on each page? How will the site be structured? There are also technical decisions to be discussed here, such as what technologies might be utilized (will the site rely on static HTML, or use something like WordPress?), how the files will be organized, and how the team will keep themselves organized.

Content needs to be generated here as well. Images need to be created or purchased. Text needs to be written. Whether this is done by the designers, copywriters, or the clients themselves, the more content available at the beginning of the process, the better.

Most likely, the result of this round of the process will be a wireframe. Wireframes are often rendered in blacks and grays, with simple boxes representing images and squiggly lines representing the text. The point of the wireframe is to give everyone (possibly including the client) a good feel for the overall layout of the pages and how the content will fit.

While it's possible to do wireframes in Adobe XD, that's not really what it's built for, so most likely you will continue using whatever tools you have used in the past to do all the steps up to this point. But once the wireframe is done, designers today often launch Photoshop to begin the work of creating a design comp. They bring in the pictures and text and, working off the wireframes and all the research and early design steps, create an image of what the site would look like.

It's here that you will now consider using Adobe XD instead. (Don't worry about the folks behind Photoshop losing the business. They'll be fine with you switching to XD. I promise.) Instead of creating that comp in Photoshop, you can now create it in XD. There are a lot of advantages to doing so, but I won't go into detail about them here because, well, that's the purpose of the rest of the book.

Going back to the old workflow for a moment, once the Photoshop comp was completed, shown to the client, and approved, there was a step that was often skipped for lack of tools to do it easily: prototyping. In recent years, a few prototyping tools, such as InvisionApp, have come along, and so more and more designers are presenting their clients with interactive prototypes they can use to see how the site will actually function, but old habits die hard, so lots of time this step is still passed over.

With XD, you no longer need to skip this step: as soon as you complete your comp, you can wire it up to create a prototype. In fact, you may even hold off on showing the client the comp until the prototype is done, so that you can get both approved at once.

Once the comp and prototype are approved, XD steps out of the picture again and we go back to the old system: the comps are turned over to the developers, who then code the site using whatever coding tools they prefer.

In the end, you can really see XD as filling that one specific role in the middle of this process: instead of designing the comp in Photoshop and then switching to a third-party application such as InvisionApp to handle the prototype, or skipping the prototyping step altogether, you can now complete both the comp and the prototype in XD. But otherwise, using XD won't change your overall design process that much. Everything that comes before the comp stage and everything that comes after the prototyping stage remain the same.

## Downloading and Installing Adobe XD

Adobe XD is available for those using macOS or Windows 10 computers. It is part of the Creative Cloud, so it comes standard with a Creative Cloud subscription. If you do not subscribe to Creative Cloud already, you can do so on the Adobe website.

If you do not wish to pay for a subscription right now, you can download XD as a seven-day trial.

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■ **Note** You can only use XD on Windows computers running Windows 10, with the Anniversary Update or later. It will not work on any older version of Windows. On the Apple side, you must be using macOS 10.10 (Yosemite) or later.

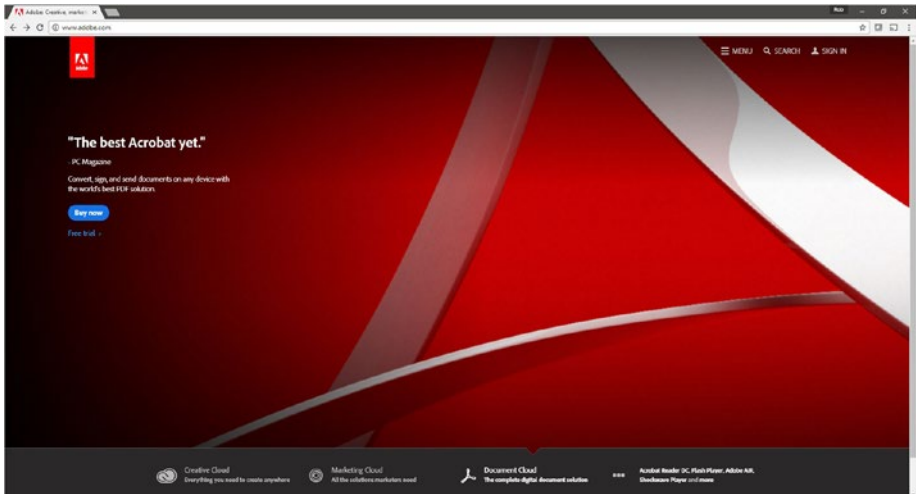
---

To download and use the trial version of XD, you need an Adobe ID. If you do not currently have an Adobe ID, follow these steps to create one. If you already have an Adobe account, skip to the next section. If you already subscribe to Creative Cloud, skip to the “Installing XD from a Creative Cloud Account” section.

## CREATING AN ADOBE ACCOUNT

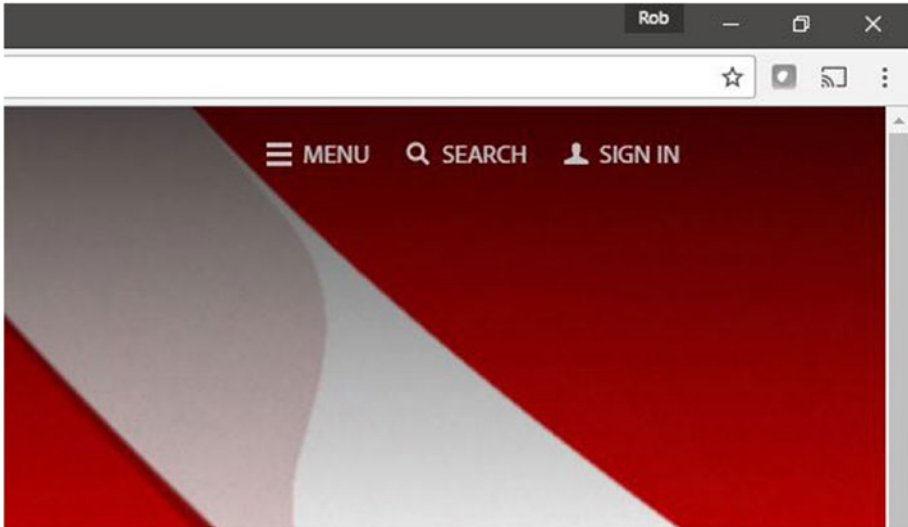
Creating an Adobe account is free, so you don’t need to spend any money. Proceed as follows:

1. Go to <http://www.adobe.com>, as shown Figure 2-1. (Note that the graphics on Adobe’s home page change frequently, so the page will likely look different when you visit, but all of the links should be in the same place as shown in Figure 2-1).



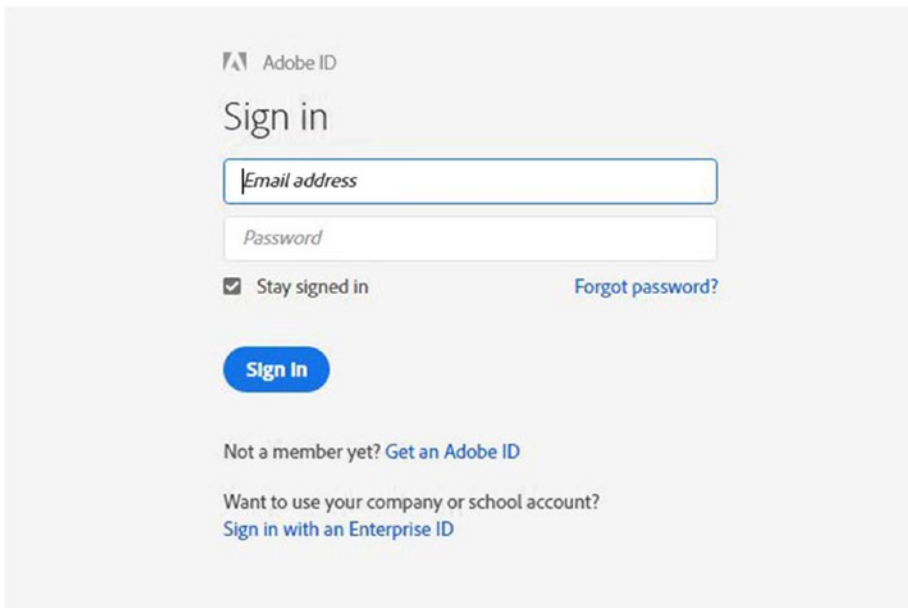
**Figure 2-1.** Adobe landing page

2. Click the Sign In link in the top right corner (see Figure 2-2).



**Figure 2-2.** Sign In link

3. Click Get an Adobe ID (see Figure 2-3).



**Figure 2-3.** Get an Adobe ID link

4. Complete the form and click Sign up (see Figure 2-4).

Adobe ID

## Sign up

First name Last name

Email address

Password

United States

Date of birth ⓘ

Month Day Year

By clicking "Sign up" I agree that:

- I have read and accepted the [Terms of Use](#) and [Privacy Policy](#).
- Adobe may keep me informed via email about products and services. [Learn more](#).

**Sign up**

Already have an Adobe ID? [Sign In](#)

**Figure 2-4.** Sign Up form

5. Check the e-mail account for the address you provided, open the e-mail from Adobe, and click the link in the e-mail to confirm your account.

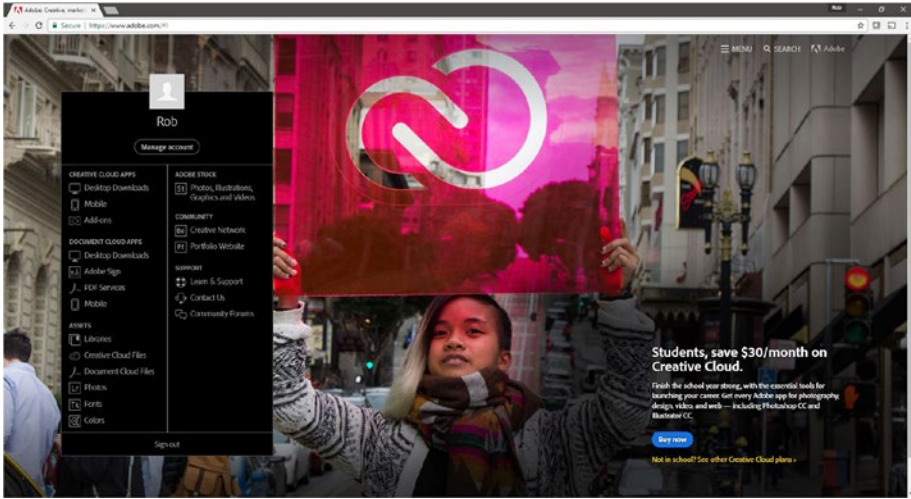
Once you have your Adobe account, you will need to log in to access the download link.

## DOWNLOADING THE ADOBE XD TRIAL

1. Go to <http://www.adobe.com>. See Figure 2-1.
2. Click the Sign In link in the top right corner. See Figure 2-2.
3. Enter your e-mail address (which is your Adobe ID) and password. See Figure 2-3.

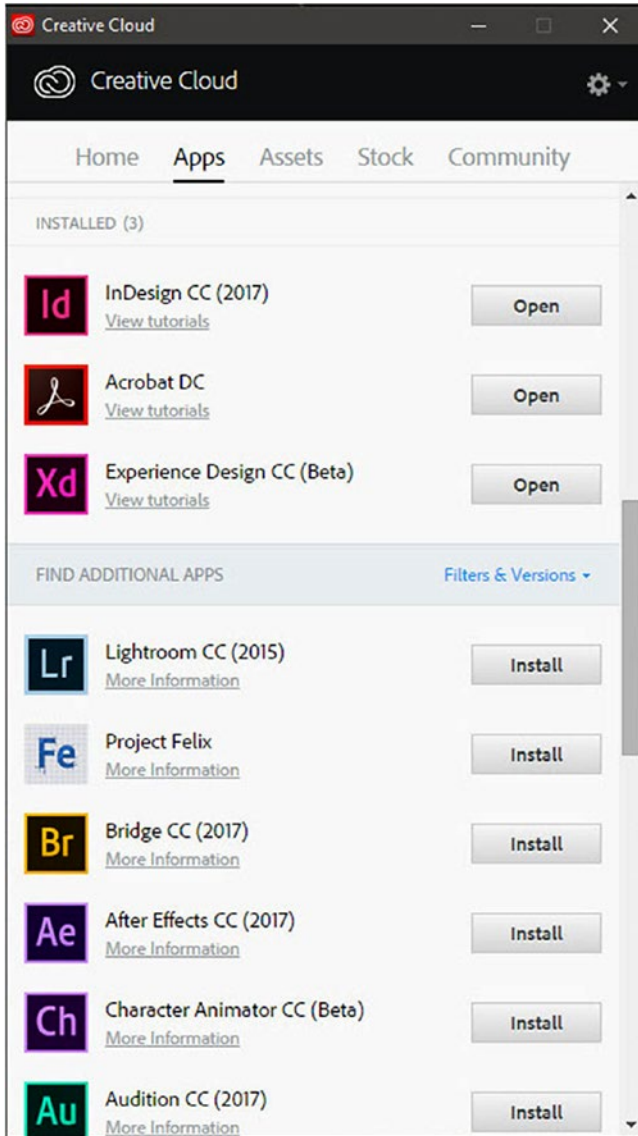
4. Click Sign In. See Figure 2-3.

Adobe's home page will load in the browser, as shown in Figure 2-5.



**Figure 2-5.** Adobe home page

5. Click Desktop Downloads in the Creative Cloud Apps section.
6. Click Download under Adobe XD.
7. If you already have the Creative Cloud app installed on your computer, it will launch. If you do not, you will be prompted to download and install it before continuing.
8. Select Adobe XD from the list of apps and click Install (see Figure 2-6).



**Figure 2-6.** *The Creative Cloud app*

## INSTALLING XD FROM A CREATIVE CLOUD ACCOUNT

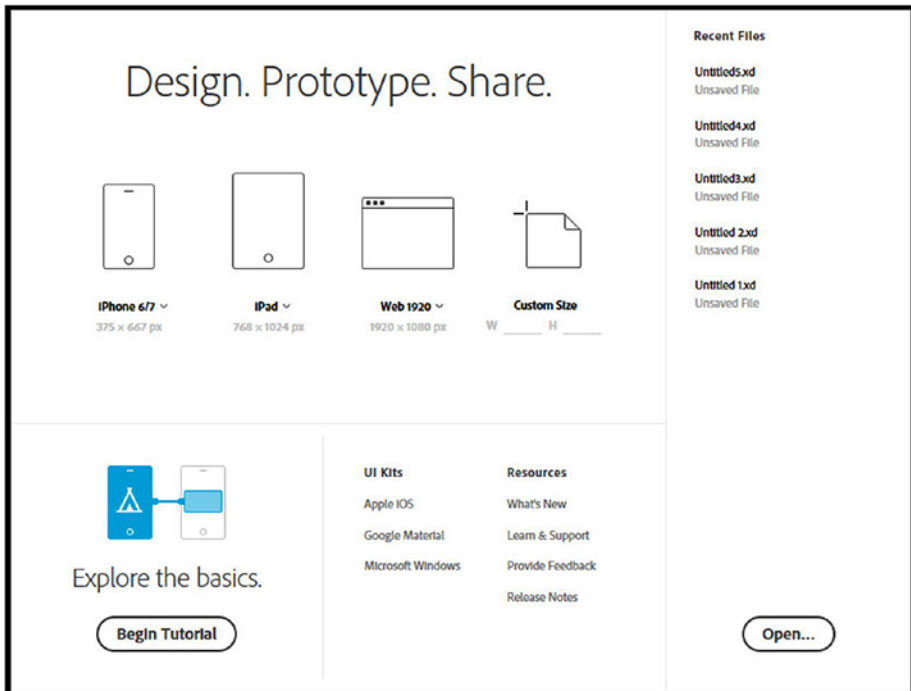
If you already subscribe to Creative Cloud, you can download and install XD as part of your subscription.

1. Launch the Creative Cloud app on your computer (see Figure 2-6).
2. Click Install next to Experience Design CC.

## New Document Setup

Over the course of the book, we are going to build a design for a travel company website. The first step is to set up a new document, which we cover in this section.

To get started, open Adobe XD if it isn't already open. On the start screen, you have four options for the starting artboard in your new document, as shown in Figure 2-7: a mobile phone, a tablet, a website, or a custom size. It's important to note that these options are *not* to create a document of that size, but instead to create the initial artboard in a document. Any document you create can (and almost certainly will) contain multiple artboards.



**Figure 2-7.** The Adobe XD start screen

You can either click the icon directly to create an artboard of the size indicated, or click the small drop-down arrow next to the artboard name to choose from other options. For example, if you click the drop-down arrow next to the iPhone 6/7 option, you'll see that artboard presets are available for the iPhone 6/7 Plus, iPhone S/SE, and Android Mobile.

The one exception is the fourth option: Custom Size. This allows you to create a document with a size of your choosing by simply typing the desired width and height.

While the design we eventually build will use a custom size, for now we are going to use the default option for a web page, so simply click the icon above Web 1920.

## The Design Workspace in Adobe XD

The XD interface is divided into two workspaces: Design and Prototype. In this section, we'll explore the Design workspace, shown in Figure 2-8; the following section will look at the tools available in the Prototype workspace.



**Figure 2-8.** *The XD Design workspace*

Right away, you'll notice that the XD interface is considerably simpler than other programs you may be familiar with, particularly other Adobe programs. To an extent, this is because XD is still under development, and many tools have yet to be added; but more than that, XD is a tightly focused tool that does one thing and does it well, so there's simply no need for dozens of tools or menu options.

### WINDOWS AND MAC DIFFERENCES

For the first year of its existence, XD was only available for Mac. To this day, most of the primary development of the program is done on the Mac side, and then features are added to the Windows version. So, the Windows version will always be slightly behind the Mac. Most of the screenshots in this book are taken on Windows, since everything in the Windows version is present on Macs, but not vice versa. Where needed, I will provide screenshots of the Mac version to point out the differences.



At the top of the screen, you'll see two tabs: Design and Prototype. They are used to switch between the workspaces. Going down the left side of the screen is the toolbar, shown in Figure 2-9. The toolbar consists of eight tools. The first is the Select tool, for selecting and moving objects. Then, we have the Rectangle, Ellipse and Line tools for drawing basic shapes. Then, we have the Pen tool for drawing vector shapes, the Text tool, the Artboard tool, and the Zoom tool.



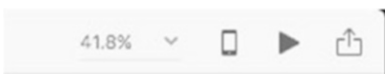
**Figure 2-9.** *The Mac version of the toolbar*

At the bottom of toolbar are two extra buttons: Symbols and Layers (see Figure 2-10). We'll explore both in detail in Chapter 3.



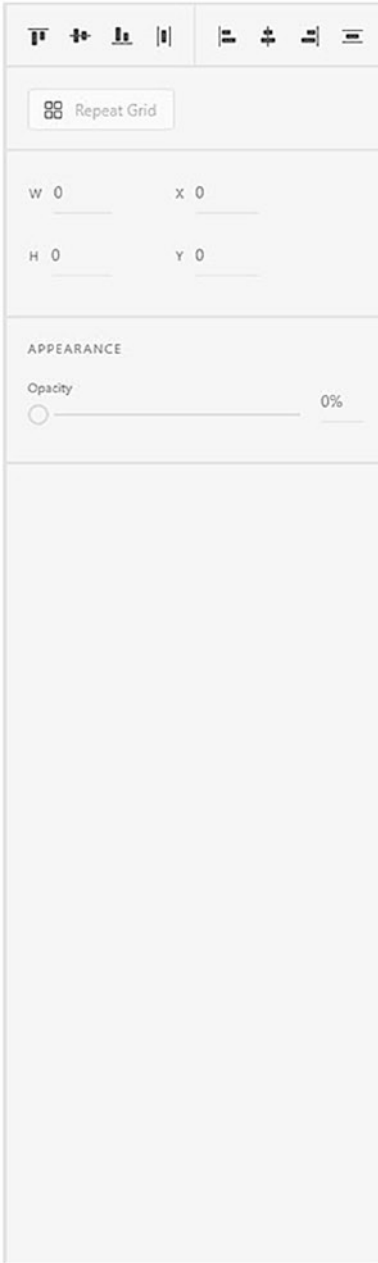
**Figure 2-10.** *The Symbols and Layers buttons*

If you look in the top right corner, you'll see three more buttons, shown in Figure 2-11. The first allows you to see and change your current zoom level. Honestly, I never use this for anything other than reference as to my current magnification, because I prefer zooming using the keyboard (which we'll get to soon). The button that resembles a smartphone allows you to preview your prototype on a mobile device, a feature we will explore in Chapter 9. The black triangle is a play button, used in prototyping, and next to that we have the Share Online button, which we will explore in Chapter 9.



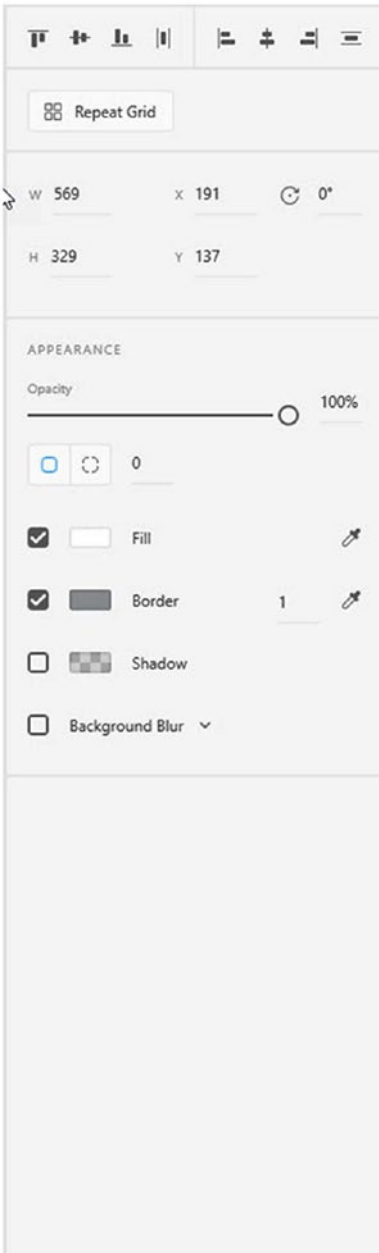
**Figure 2-11.** *The buttons in the top right corner of the screen*

Below these tools is the Properties panel. Unlike in other Adobe products, this panel is not customizable, nor can it be individually opened and closed. It is context-sensitive, though, so the options available will change depending on the tool you have selected. For example, Figure 2-12 shows the panel when the Select tool is active.



**Figure 2-12.** The Properties panel with the Select tool active

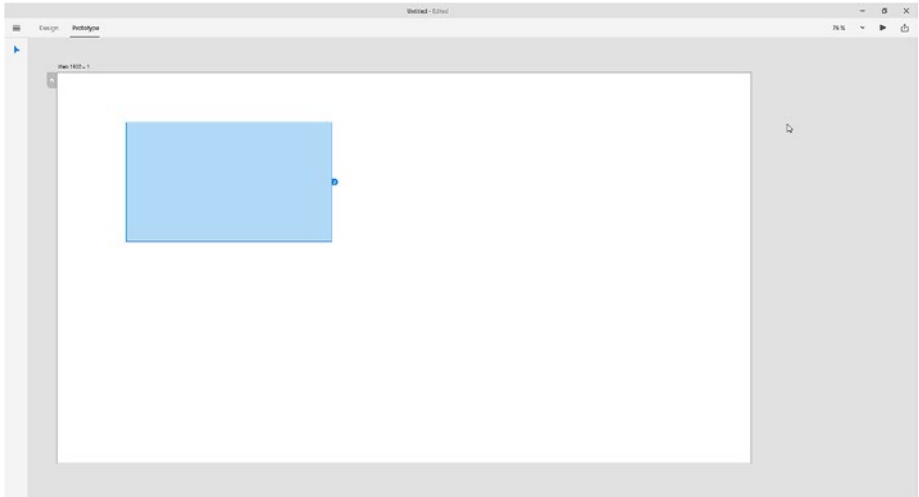
Figure 2-13 shows the same panel when you have a rectangle selected on the artboard.



**Figure 2-13.** *The Properties panel for a rectangle*

## The Prototype Workspace

The Prototype workspace is even simpler than the Design workspace (see Figure 2-14). Almost all of the tools are gone, leaving only the Select tool on the toolbar and the Zoom, Device Preview, and Share buttons in the top right. The Properties panel goes away entirely.



**Figure 2-14.** *The Prototype workspace*

The key difference here is the addition of a button on the currently selected object on the artboard: a small blue tab with an arrow. Clicking this will allow you to drag a connector to another object or, more often, artboard, and then set up a behavior. This is the primary way we create prototypes in XD, and is something we'll explore in more detail in Chapter 9.

## Using the Keyboard

Keyboard shortcuts dramatically speed up your work in any program, and XD is no exception.

### Basic Keyboard Shortcuts

XD supports the standard file system shortcuts: Ctrl/Cmd-S for Save, Ctrl/Cmd-N for New, and Ctrl/Cmd-O for Open. Because each document you open in XD opens in a new window, there is no Close command.

When creating a document for the first time, there is no difference between Save and Save As; both prompt you to give the file a new name. However, after you have saved the document once, Save (Ctrl/Cmd-S) simply saves the changes, while Save As—Ctrl/Cmd-Shift-S—creates a copy of the document under a new name.

As with basically every other program, Ctrl/Cmd-Z is Undo. You can use this shortcut repeatedly to go back as many steps as you need, up to the last time you saved the document.

XD also uses the industry-standard Ctrl/Cmd-C for Copy, Ctrl/Cmd-X for Cut, and Ctrl/Cmd-V for paste.

## Selecting Tools

All of the tools can be selected by simply pressing a single letter on your keyboard. As you can see from Table 2-1, most of the tool selection keys make perfect sense: they correspond to the first letter of the tool's name. (It's important to note that the third tool down is an Ellipse tool, not a Circle or Oval tool, so you select it with E.)

**Table 2-1.** *Tool Selection Keys*

| Tool      | Keyboard Selector |
|-----------|-------------------|
| Select    | V                 |
| Rectangle | R                 |
| Ellipse   | E                 |
| Line      | L                 |
| Pen       | P                 |
| Text      | T                 |
| Artboard  | A                 |
| Zoom      | Z                 |

All of them, save one: the Select tool uses V, not S. Why? Blame Photoshop. The first tool in Photoshop's toolbox, which until very recently used a small black arrow as its icon, is the Move tool, and since both M and O were already used, Adobe long-ago assigned V as the key for it. Even though that tool never actually was a Selection tool (selections in Photoshop are complex enough that there really isn't a single tool to do it), many other programs, including everything Adobe makes, have adopted the convention of using V for the Selection tool.

## Switching Workspaces

You can switch between the two workspaces on your keyboard using Ctrl-Tab. Note that this is a case where Mac and Windows are identical, as this is Ctrl-Tab on the Mac, not Cmd-Tab.

## Zooming With the Keyboard

Another place where XD matches other Adobe tools is in zooming in and out on the artboard. You can zoom in using Ctrl/Cmd-+ (the plus key), and zoom out with Ctrl/Cmd-- (the minus key). See Table 2-2 for other keyboard controls for magnification.

**Table 2-2.** *Zoom Keyboard Commands*

| Command                                     | Keyboard Shortcut |
|---|-------------------|
| Fit current artboard to the screen          | Ctrl/Cmd-0        |
| Zoom to 100%                                | Ctrl/Cmd-1        |
| Zoom to 200%                                | Ctrl/Cmd-2        |
| Fit currently selected object to the screen | Ctrl/Cmd-3        |

## Other Useful Keyboard Commands

A few other keyboard shortcuts you might find useful are listed in Table 2-3.

**Table 2-3.** *Other Keyboard Commands*

| Command                                 | Keyboard Shortcut |
|---|-------------------|
| Export Assets (see Chapter 10)          | Ctrl/Cmd-E        |
| Repeat Grid (see Chapter 7)             | Ctrl/Cmd-R        |
| Select All                              | Ctrl/Cmd-A        |
| Deselect All                            | Ctrl/Cmd-Shift-A  |
| Duplicate (see Chapter 3)               | Ctrl/Cmd-D        |
| Group (see Chapter 3)                   | Ctrl/Cmd-G        |
| Lock (see Chapter 3)                    | Ctrl/Cmd-L        |
| Turn grid on or off (see Chapter 7)     | Ctrl/Cmd-'        |
| Bold selected text (see Chapter 4)      | Ctrl/Cmd-B        |
| Italicize selected text (see Chapter 4) | Ctrl/Cmd-I        |
| Import (see Chapter 5)                  | Ctrl/Cmd-Shift-I  |
| Share (see Chapter 10)                  | Ctrl/Cmd-Shift-E  |

## Summary

In this chapter, we explored how to get XD on your computer, how to create new documents in it, and some of the basics of its interface. In the next chapter, you will begin to see how to use its tools to start creating design comps.

## CHAPTER 3



# Using XD's Drawing Tools

In this chapter, we will explore XD's tools for drawing shapes to use in your site designs. We will also explore how to manipulate the size, shape, color and other properties of those shapes once they have been drawn and how to change their stacking order so that you can choose which objects appear on top of others. We will take a look at the Layers panel and how to convert shapes or groups of shapes in symbols. Finally, we will begin creating the design for the example site that will be used throughout the book.

## Adding Shapes

Adobe XD has four primary drawing tools: the Rectangle tool, the Ellipse tool, the Line tool, and the Pen tool. Here, we're going to look at the first three of those tools. We'll look at the Pen tool in the next section.

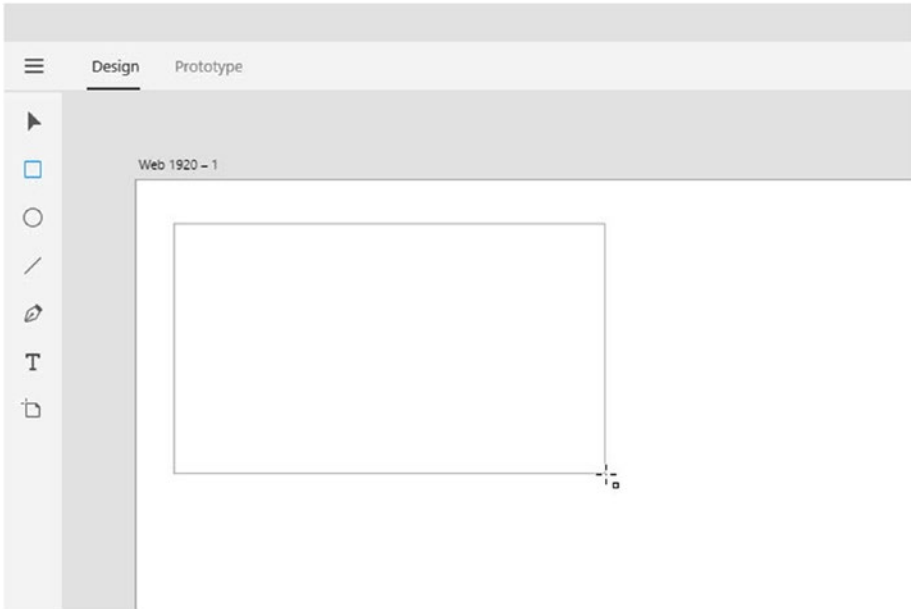
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■ **Note** The main area of the page in a document is called an artboard in XD, borrowing a term originally used in Adobe Illustrator and then recently applied to Photoshop when a similar feature was added to that program.

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## Rectangles

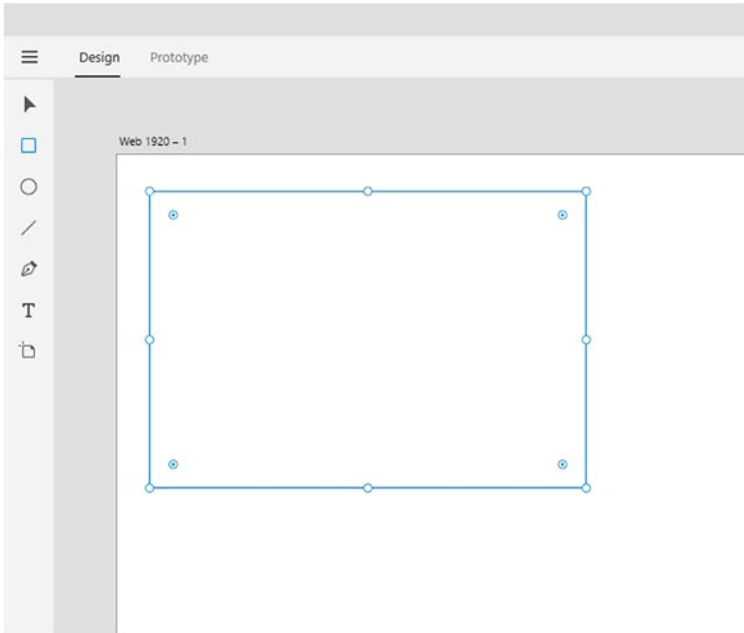
The Rectangle tool works as advertised: click it, then click and drag on the artboard to draw a rectangle, as shown in Figure 3-1. As with other drawing programs, you can hold the Shift key to draw a perfect square. You can also hold the Alt/Option key to draw from the center.



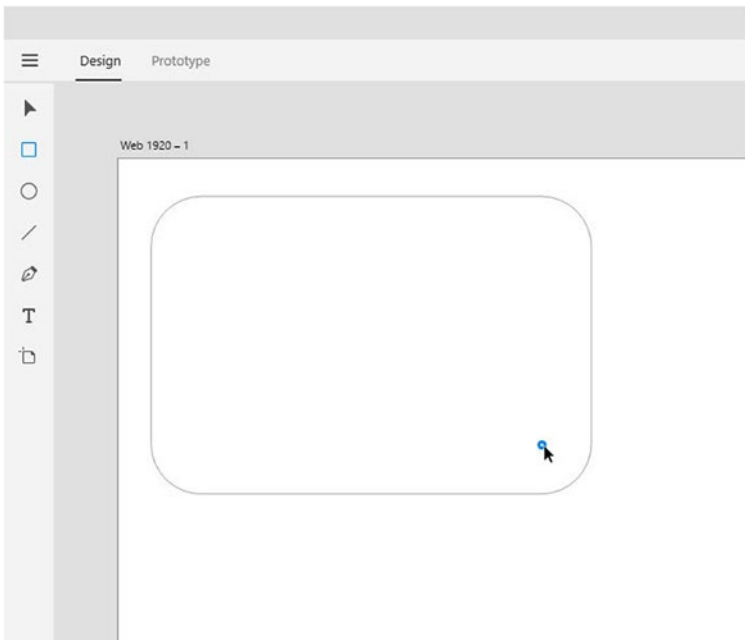
**Figure 3-1.** Drawing a rectangle

Once you draw a rectangle, you can resize it using the Selection tool. In addition to the eight standard control handles around the edge of the rectangle for resizing, you will also notice four smaller controls with dots inside them just inside the four corners, as shown in Figure 3-2. Dragging these in toward the center of the rectangle will add rounded corners, as shown in Figure 3-3. By default, all four corners round the same amount, but holding the Alt/Option key while dragging one of them rounds only that corner. You can also rotate the rectangle by positioning your cursor just outside the shape and then clicking and dragging, as shown in Figure 3-4.

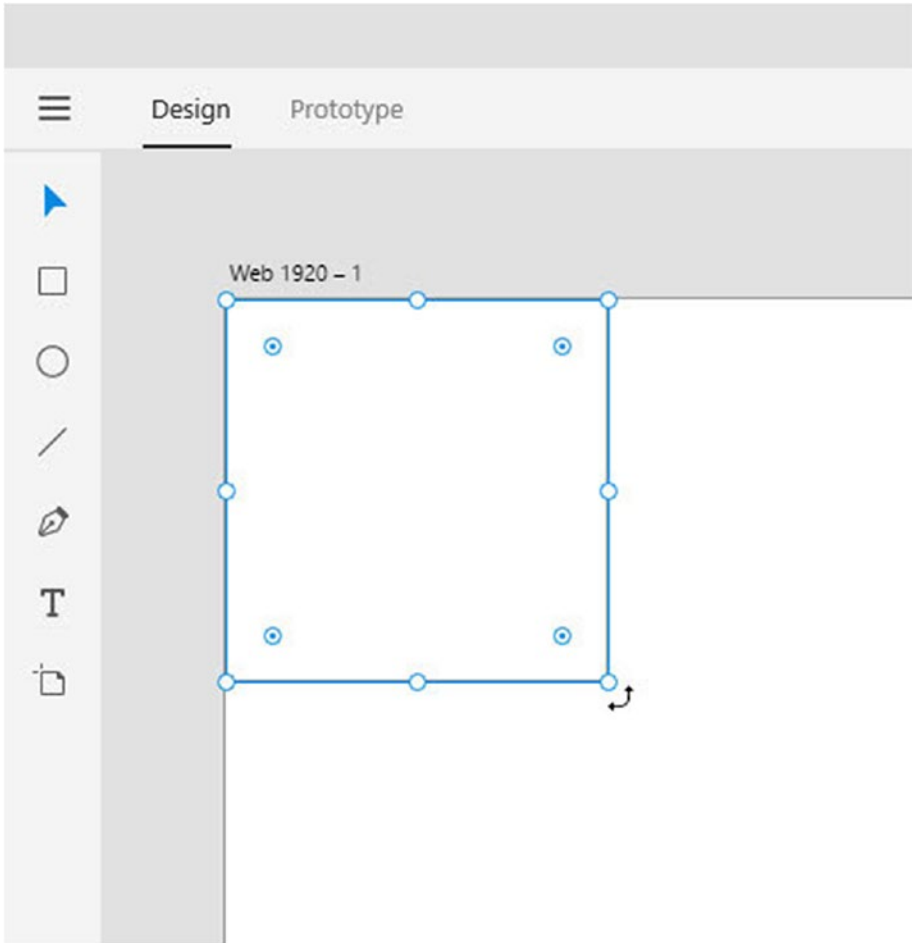




**Figure 3-2.** A rectangle, showing the rounded corner controls just inside the corners



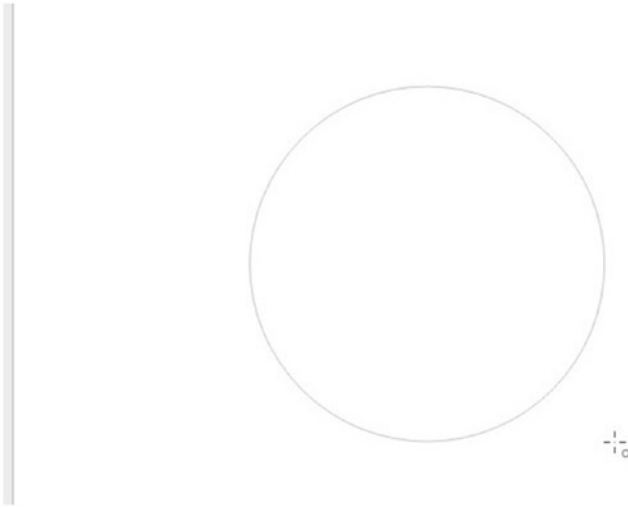
**Figure 3-3.** Rounding the corners of a rectangle



**Figure 3-4.** *Preparing to rotate a square*

## Ellipses and Lines

The Ellipse tool draws ellipses. As with the Rectangle tool, you can press and hold the Shift key to draw a circle, and the Alt/Option key to draw from the center, as shown in Figure 3-5. Also like rectangles, you can edit ellipses with the Selection tool. Obviously, there are no controls for rounding corners with the Ellipse tool.



**Figure 3-5.** *Drawing a circle*

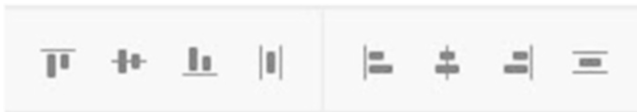
There's not much to the Line tool: click and drag to draw a line. Hold Shift to constrain the line to a 45- or 90-degree angle.

## Shapes and the Properties Panel

Once you draw a shape, you can edit it using the Properties panel. The panel is divided into four sections: Alignment, Repeat Grid, Size and Position, and Appearance. We are going to discuss three of them here, while the Repeat Grid we'll get to in Chapter 7.

### Alignment

The top set of eight buttons on the Properties panel allow you to align and distribute shapes, as shown in Figure 3-6.



**Figure 3-6.** *The Alignment tools*

To use the Alignment tools, you need to select two or more shapes on the artboard, which you can do with the Selection tool either by holding down Shift while you click the desired shapes or by clicking and dragging on the artboard to draw around the shapes you want selected.

With the first subset of buttons on the left in Figure 3-6, you can align the shapes by their top, vertical center, or bottom edges, and distribute them by setting an even amount of space between each horizontally. With the second subset of buttons on the right, you can align the shapes by the left, horizontal center, and right edges, and distribute vertically.

## Smart Guides

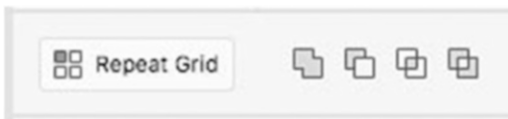
XD also provides a set of “Smart Guides,” which are guidelines that automatically appear as you move shapes around that help you align objects to one another.

Any time you drag an object on the artboard, Smart Guides will appear to show you how that object aligns with other nearby objects.

Smart Guides also let you see spacing between objects. In building the sample design project throughout the book, we will rely heavily on Smart Guides for spacing and alignment.

## Combining Objects

To the right of the Repeat Grid is a set of Boolean buttons for combining shapes on the artboard, as shown in Figure 3-7.



**Figure 3-7.** *The Boolean operator buttons*

To use these buttons, select two shapes that overlap. The first button combines the two shapes into one, eliminating any borders that intersect. The second subtracts the front image, leaving only the portions of the lower piece that did not overlap with the front one. The third option deletes all portions of both shapes that are not overlapping, and the fourth does the opposite: it leaves the portions of the shapes that were not intersecting while deleting those pieces that did overlap.

## Size and Position

All three types of shapes have width, height, X coordinate, Y coordinate, and angle properties that you can set on the Properties panel, as shown in Figure 3-8. If you need a shape in a specific position or a set size, it's easiest to simply draw the shape, then use the Properties panel to set it as needed.



**Figure 3-8.** The width, height, position, and rotation settings

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■ **Note** The X and Y coordinates refer to the top left corner of rectangles and circles, and the left end of lines. As of now, this reference point cannot be changed in XD, so if you need to position something based on its center point or another edge, you need to do the math yourself.

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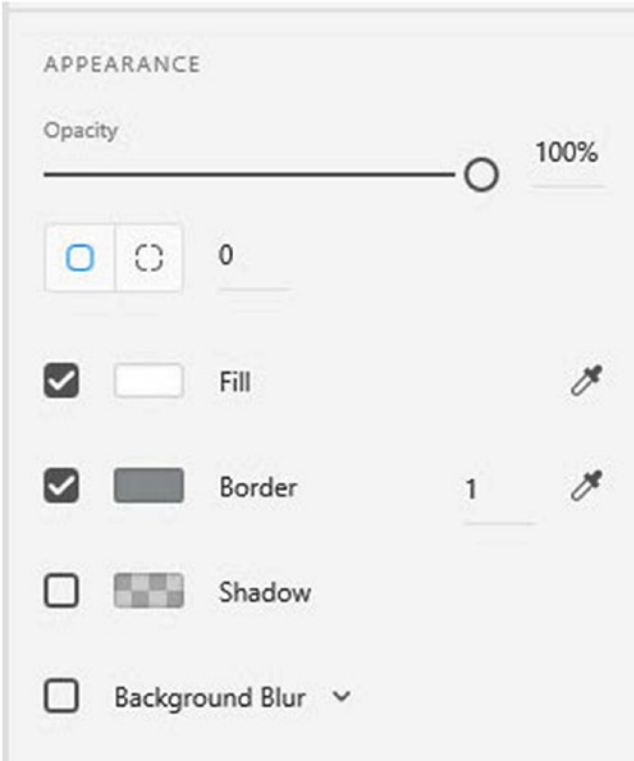
The width, height, and position settings are all in pixels. Because pixels is the only unit of measurement available, you do not need to specify it.

The padlock icon to the right of the W and H settings allows you to lock the proportions, so that changing the value of either property will also change the value of the other one.

## Appearance

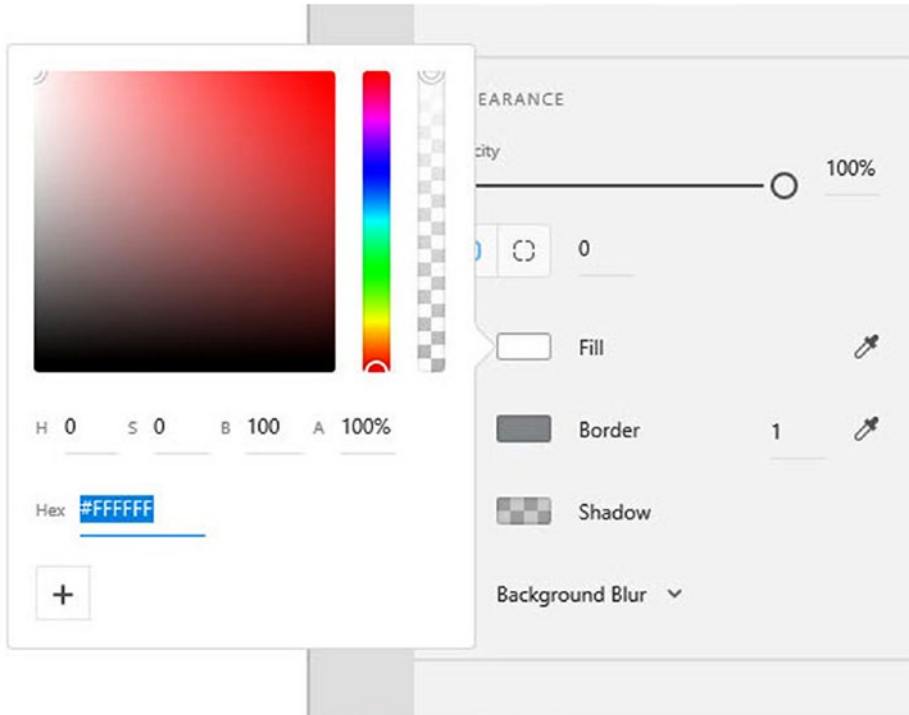
The Appearance section is the one piece of the Properties panel that changes depending on the shape you're working with.

Rectangles, as shown in Figure 3-9, have an opacity slider to make them semitransparent. They also have a rounded corner setting—unique to this shape—to set the corners with precision. You can set all four corners to one number or set them individually.



**Figure 3-9.** Appearance options for rectangles

Below that are Fill, Border, Shadow, and Background Blur settings. Each of these can be turned on or off by checking or clearing the corresponding check box. The Fill option has a color picker, shown in Figure 3-10, whereby you can select a color you want in one of three ways: by manually selecting it from the color bar; by entering Hue, Saturation, Brightness, and Alpha (transparency) values; or by typing in a hexadecimal value. You can also save colors, so that you do not need to manually enter them again, by clicking the Plus sign in the lower left corner.

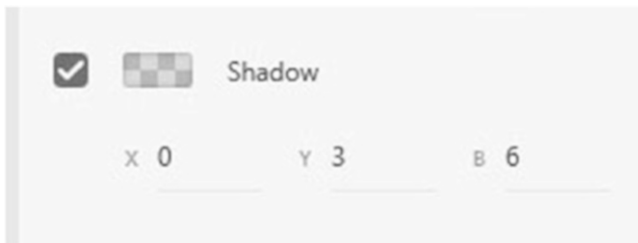


**Figure 3-10.** The color picker

You also can choose the Fill color by clicking the eyedropper icon and selecting a color from the artboard. This allows you to quickly set drawn objects to match the color of something like an imported logo. (Importing images will be covered in Chapter 5).

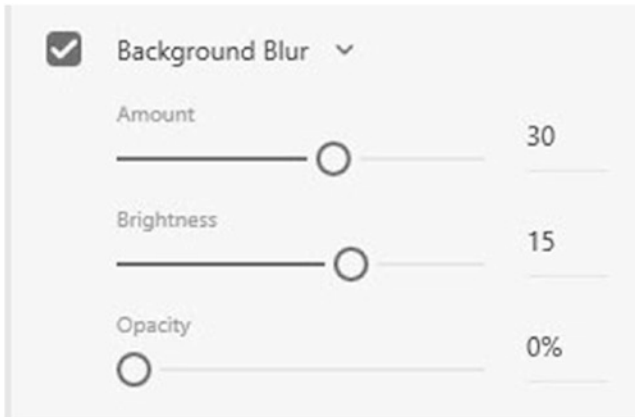
The Border settings are almost identical to the Fill settings, with one addition: you can also specify the width of the border by entering the desired number in the box.

The Shadow settings, shown in Figure 3-11, let you set a color, but also the X and Y offset—how far the shadow should be from the object, with positive X numbers pushing it down, and positive Y to the right, while negative numbers move it the other way. The B setting is for Blur—the fuzziness of the shadow.



**Figure 3-11.** The Shadow settings

The fourth option under Appearance is Background Blur. This allows you to take a shape and blur it, which can create a nice effect on shapes or images below the one you are editing. Setting the Background Blur involves changing the Amount, Brightness, and Opacity sliders, as shown in Figure 3-12. Note that Opacity only works if the shape has a background fill, while the other two work even with shapes with no fill.



**Figure 3-12.** The Background Blur settings

Ellipses have all of the same options, and work in all of the same ways, as rectangles, save they are missing the rounded corner setting.

Lines have only Opacity, Border, and Shadow. The Background Blur setting is available on lines, but it does not do anything.

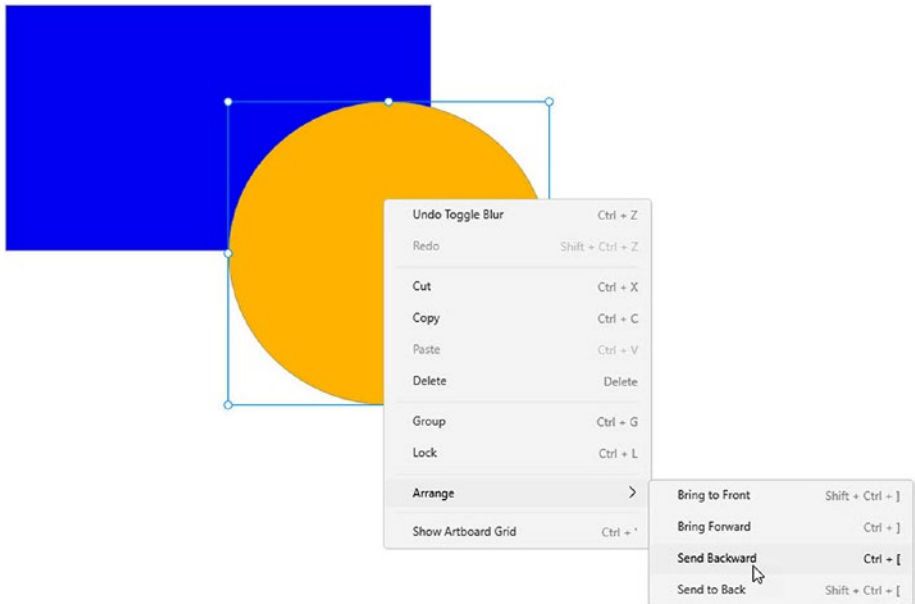
## Stacking Order

By default, shapes on the artboard are stacked based on the order in which you draw them, with later shapes stacking above earlier ones.

## Using the Context Menu

You can change the stacking order of shapes directly on the artboard using the context menu. With a shape selected, right-click it, then choose Arrange, then select either Bring to Front, Bring Forward, Send Backward, or Send to Back, as shown in Figure 3-13.





**Figure 3-13.** Changing the stacking order from the right-click menu

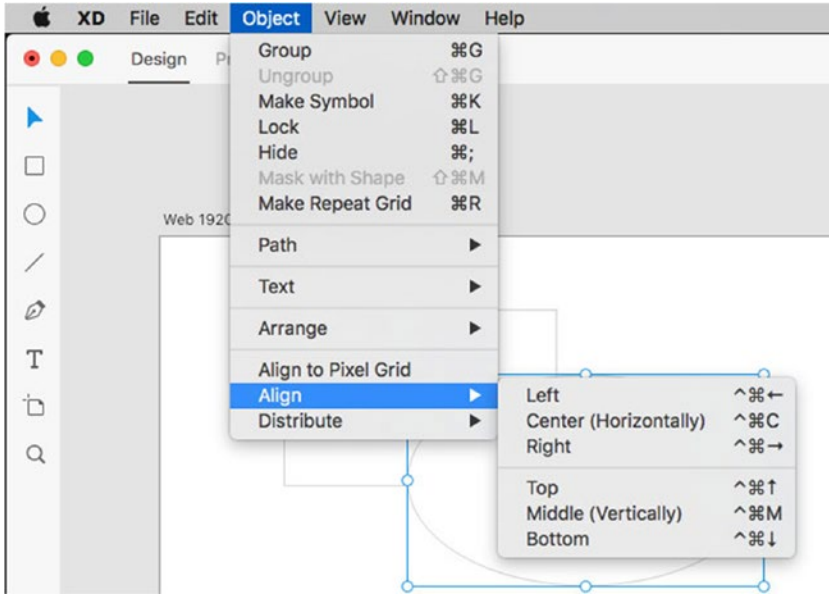
If you prefer to use the keyboard, you can also use the keyboard shortcuts listed in Table 3-1 to change the stacking order.

**Table 3-1.** Keyboard Shortcuts for Changing the Stacking Order

| Command        | Windows Keyboard Shortcut | Mac Keyboard Shortcut |
|----------------|---------------------------|-----------------------|
| Bring to Front | Ctrl-Shift-]              | Cmd-Shift-]           |
| Bring Forward  | Ctrl-]                    | Cmd-]                 |
| Send Backward  | Ctrl-Shift-[              | Cmd-Shift-[           |
| Send to Back   | Ctrl-[                    | Cmd-[                 |

## Mac Menus

The Windows version of XD does not have the traditional menus along the top of the screen, but the Mac version does. So, you can change the stacking order by opening the Object menu, selecting Align, and then choosing the appropriate option, as shown in Figure 3-14.



**Figure 3-14.** Changing the stacking order on a Mac from the Object menu

## Changing Opacity

You can change the opacity of an object to make it semitransparent so that objects below it will show through.

To change the opacity, select an object on the artboard, then use the Opacity slider on the Properties panel. 100% opacity, the default, is opaque, while 0% opacity is completely transparent.

## Working with Layers

The Layers panel in XD allows you to change the stacking order of objects, select and group objects, hide objects, and keep yourself organized. If you are familiar with using layers in other Adobe programs such as Photoshop or Illustrator, then you will recognize a lot of the functionality in the Layers panel in XD.

Clicking the button in the bottom left corner of the screen opens the Layers panel, which displays any objects you may have on the artboard, as shown in Figure 3-15.



**Figure 3-15.** *The Layers panel*

## Changing Stacking Order with Layers

You can change the stacking order of objects using the Layers panel. Simply drag an object in the panel up to move it higher in the stacking order, or down to move it lower.

## Selecting and Grouping Objects

Sometimes, objects may be behind other objects on the artboard and thus difficult to select. However, you can simply click any object in the Layers panel to select it, regardless of where it is on the artboard.

Multiple objects can be grouped together so that they are treated as a single object for moving, sizing, or other operations. You can group objects by clicking one object on the Layers panel or the artboard, then holding down the Shift key and clicking the others. If they are not immediately adjacent on the panel, you can hold the Ctrl key (Windows) or Cmd key (Mac) to select them. Then, either use the keyboard shortcut Ctrl-G (Cmd-G) to group them or right-click any of the selected objects and choose Group. On a Mac, you can also open the Object menu and choose Group (refer to Figure 3-14).

---

■ **Note** If you select nonadjacent objects and group them, the group will be created at the level of the highest object in the stack. Be aware that this might cause objects to change their stacking order, so look closely at your design to make sure that grouping objects has not created unintended problems.

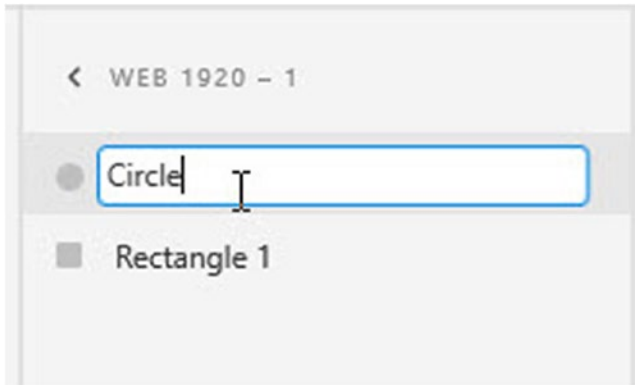
---

You can ungroup objects by clicking the group, either on the artboard or on the Layers panel, and selecting Ungroup from the right-click menu or using the keyboard shortcut Ctrl-Shift-G (Cmd-Shift-G).

## Renaming Objects

Objects that you draw in XD, such as rectangles or ellipses, are given automatic names like “Rectangle 1.” In complex designs, this can quickly become unmanageable, as your Layers panel will consist of a ton of objects with meaningless names. Therefore, it is highly recommended that you use the panel to rename objects as you create them to keep yourself organized.

You can rename an object by double-clicking its current name on the Layers panel and then typing a new name, as shown in Figure 3-16.



**Figure 3-16.** Renaming a layer

## Locking and Hiding Layers

Often, you will get a layer perfectly positioned, but then accidentally select it and drag it out of place while trying to work on something else. You can prevent this by locking the layer. You can also hide layers to temporarily access items below them.

When you select a layer in the Layers panel, two small icons appear to the right, as shown in Figure 3-17. The first, the padlock, allows you to lock a layer. Locked layers cannot be selected or edited in any way until they are unlocked, which can be done by clicking the same icon again.



**Figure 3-17.** The lock and layer visibility icons

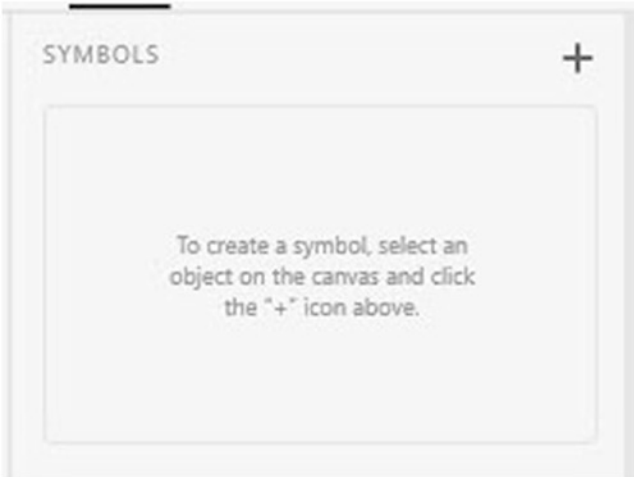
The second icon—the eyeball—controls layer visibility. Hidden layers still appear when you preview or export the design, but they will be out of your way while you work on objects below them. Click the eyeball icon to hide a layer. Click the icon again to show the hidden layer.

## Combining Objects into Symbols

Symbols allow you to create reusable objects in XD. They are particularly helpful for elements that will be repeated across pages, such as logos or navigation elements.

To create a symbol, follow these steps:

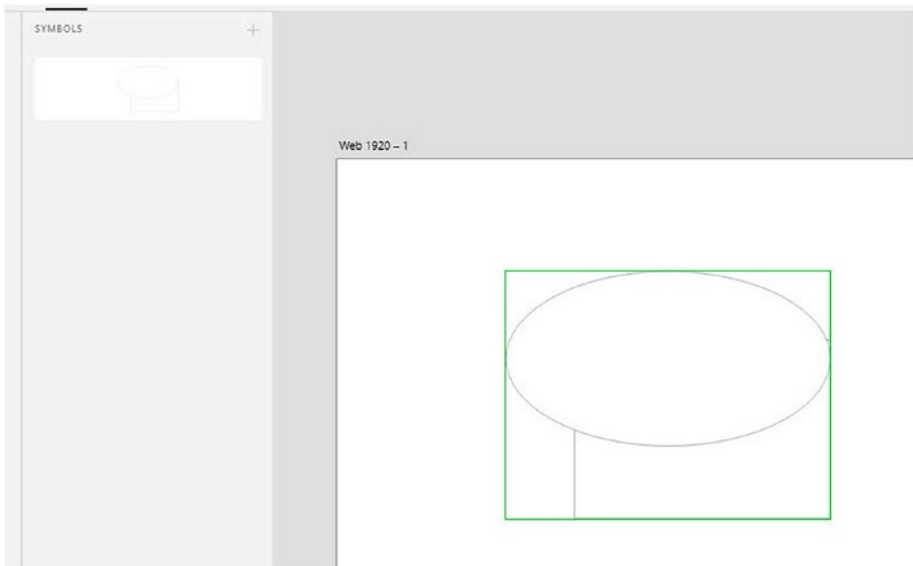
1. Select one or more objects, either on the artboard or on the Layers panel.
2. Open the Symbols panel by clicking the button in the bottom left corner of the screen, as shown in Figure 3-15.
3. Click the + icon at the top of the Symbols panel, as shown in Figure 3-18.



**Figure 3-18.** Create a symbol with the + button

## Using Symbols

Once you have created a symbol, you can use it by simply dragging it from the Symbols panel to the artboard, as shown in Figure 3-19.



**Figure 3-19.** Using a symbol on the artboard

You can use a symbol as many times as needed in a design.

## Editing Symbols

Once you have created a symbol, you can edit it directly on the artboard. To edit a symbol, double-click an instance of the symbol on the artboard. Then, you can individually select any element in the symbol and edit it.

It is very important to note, however, that when you edit a symbol, you are editing *every* copy of that symbol. This is actually one of the advantages of using symbols, as it allows you to quickly make global changes to your design. If, for instance, you had an element of your navigation and decided to change its text, but you had already created multiple pages, having the navigation as a symbol would allow you to make that change once and have it propagate across all of the pages. The downside is that there is no way to disconnect a particular instance of a symbol from the symbol itself, so if you just needed a particular instance to look a bit different from other instances, you cannot use the symbol but instead need to re-create its elements.

Note also that certain properties of the symbol, including size, opacity, and obviously position, are not shared across instances of symbols, so you could create a logo as a symbol, and then put a second copy of the logo in your footer and scale that copy down without changing the size of other copies of it.

## Deleting Symbols

You can delete a symbol by right-clicking it in the Symbols panel and selecting Remove Symbol. This will delete the symbol, but leave any copies of the symbol on the artboard. At this point, those copies can be freely, and independently, edited.

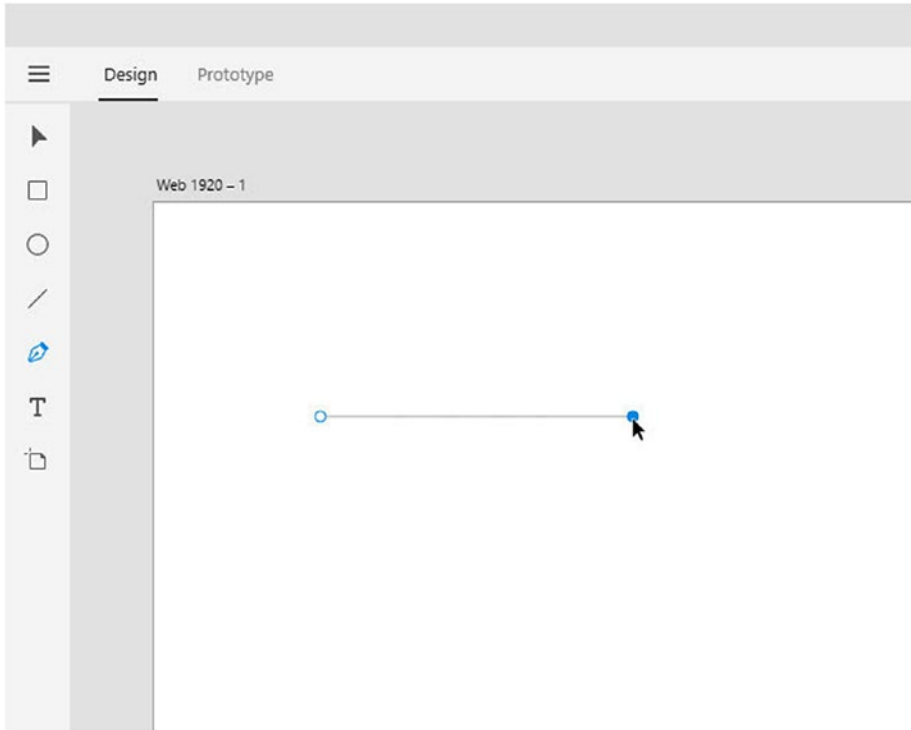
## Drawing Objects with the Pen Tool

Anytime you work in a vector-based program, which XD is, the most powerful tool you have at your disposal is the Pen tool. If you have worked with Illustrator before, or if you've explored the Pen tool in other applications such as Adobe Photoshop or Adobe Animate (formerly Flash), then you are probably already familiar with the basics of the Pen tool. However, the Pen tool in XD works a bit differently than those other tools, so even if you're a Pen tool guru, you'll still want to read on to see how things have changed.

For those unfamiliar with the tool, the Pen tool allows you to draw complex shapes with a few simple techniques. To do this, it creates what are called Bézier curves and paths. Basically, instead of dragging to create the shape you want, which can be particularly difficult if you're using a mouse or track pad, the Pen tool lets you create your shape by simply defining the points at the ends of lines or curves, and then it handles connecting those points for you with nice straight lines and smooth curves.

## Straight Lines

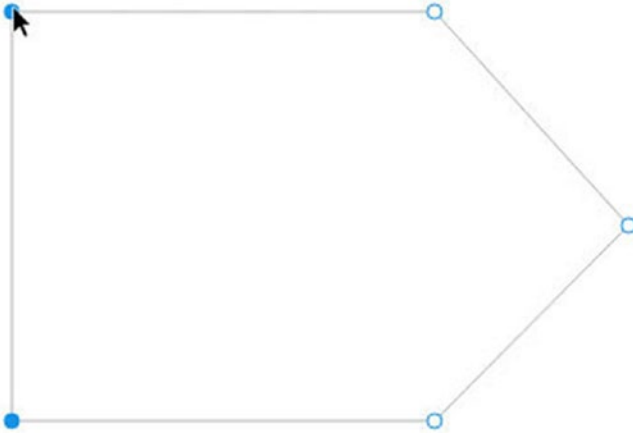
In XD, you select the Pen tool by clicking it in the toolbar. You can create a straight line by simply clicking where you want the line to start, then clicking again at the other end of the line, as shown in Figure 3-20.



**Figure 3-20.** Drawing a straight line with the Pen tool

Be sure to not hold down the mouse button—just simple clicks at the start and end of the line. You’ll see that XD nicely gives you a preview of the line you’re creating so you’ll know just what you’re getting. You can keep clicking to add as many sides as you want, and you can complete the path and “close” the shape by merely clicking the point where you started again, as shown in Figure 3-21. Creating an open shape is a bit trickier, as XD does not have the capability of Illustrator to “reset” the Pen without closing the shape, but that makes sense. You aren’t (or at least, shouldn’t be) creating art in XD. Instead, the things you’re drawing are more likely to be containers for content on the page, and by definition those need to be closed. But, if you really want an open path, you can simply press the Esc key on your keyboard.





**Figure 3-21.** Closing a path by returning to the starting point

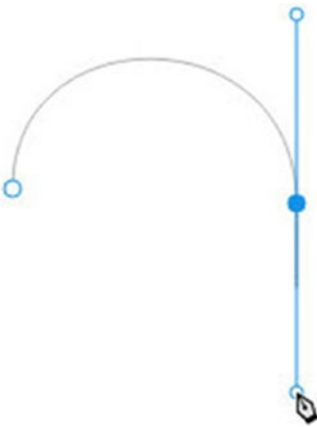
## Curves

Creating curves is where the Pen tool gets really cool. You create a curve by defining not only the starting point, but also a set of control handles that define the height and direction of the curve. To do this, you press and hold your mouse button down and drag. However, you aren't dragging to trace the curve. Rather, you're dragging to define that control handle. So, you simply need to drag in a straight line away from the point, in roughly the direction you want the curve to end up going, as shown in Figure 3-22.



**Figure 3-22.** Clicking and dragging to begin drawing a curve

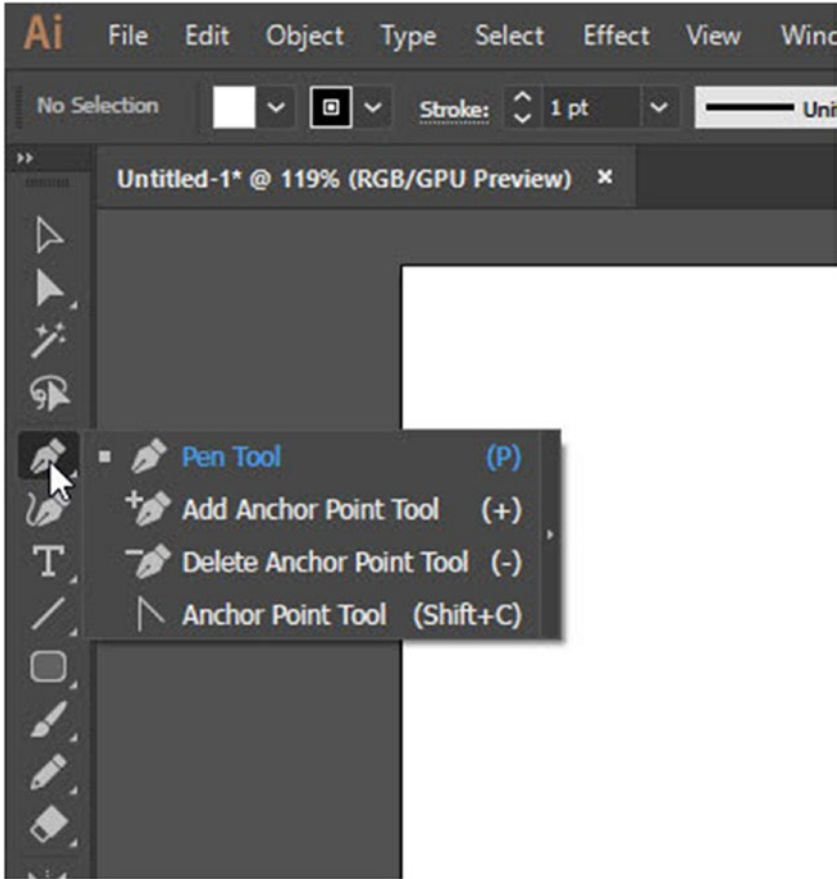
Then, release your mouse button and move to the spot where you want the second point of the curve. Press and hold your mouse button down and drag again, but this time, you need to drag in the opposite direction from which you dragged for the first curve, as shown in Figure 3-23. This will define a second set of handles, and the curve between the two points. Again, what's nice here is that XD does show you a preview, so you'll know what you're getting.



**Figure 3-23.** Finishing a curve by clicking and dragging from a new point

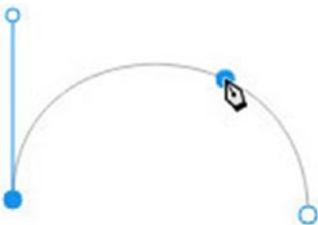
## Modifying Paths

Adobe Illustrator has four separate tools to manage paths created with the Pen: the Pen tool itself, the Add Anchor Point tool and Delete Anchor Point tool to add and remove points from a path, and the Anchor Point tool, which allows you to convert straight points to curves and vice-versa, as shown in Figure 3-24. The XD team at Adobe figured out a way to do all of that with a single tool.



**Figure 3-24.** The various Pen tools in Adobe Illustrator

In XD, if you want to add a point to an existing path, simply use the Pen tool and click the spot on the path where you want the new point, as shown in Figure 3-25. Want to delete a point? Click it with the Pen tool so that it's selected (it'll be a filled-in blue circle rather than an empty one) and press the Delete key on your keyboard.



**Figure 3-25.** Adding a point to an existing path

If you have a straight-line point and you want it to be a curve point, double-click the point with the Pen tool. It'll add control handles, which you then use the Pen to adjust. The same works the other way, too: double-clicking a curve point deletes its handles and makes it a straight point.

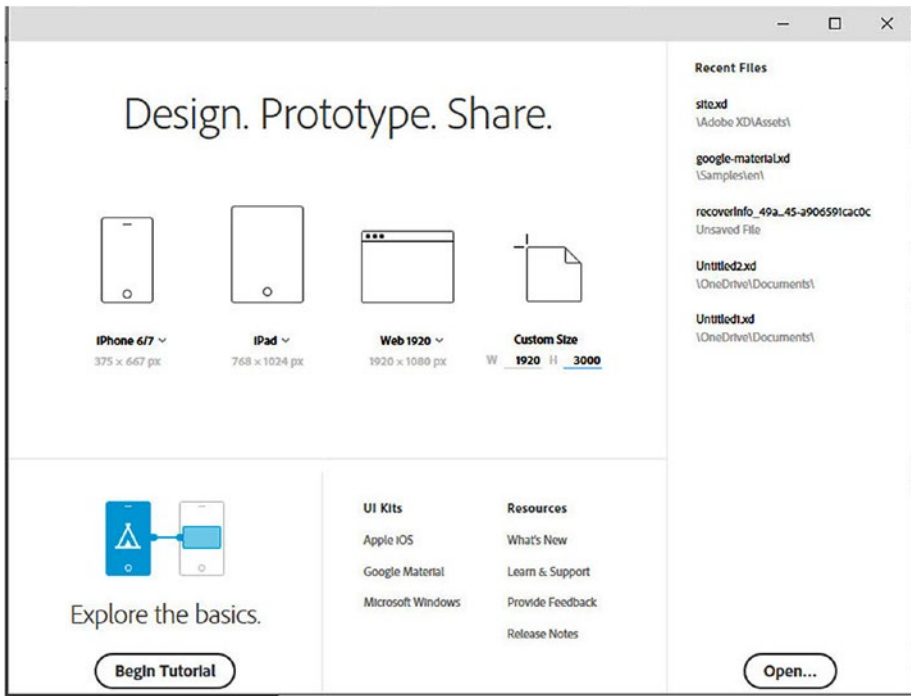
You don't need the Direct Select tool to move points, either: simply drag them with the Pen tool. (However, you do need to make sure you hit the point exactly, because if you're off by a bit you'll end up adding a new point, rather than selecting the existing point.)

One important feature from Illustrator still does work in XD: if you need to "break" a set of control handles so that they can be manipulated individually, you press and hold the Alt/Option key while dragging the handle.

## Putting It Together

Now that we have explored the capabilities of creating shapes in XD, we need to start connecting the dots by creating an overall design, which we will then carry through the rest of the book.

To begin, create a new document in XD by using the keyboard shortcut Ctrl-N (Cmd-N). Use the Custom Size option, setting the width to 1920 and the height to 3000, as shown in Figure 3-26.



**Figure 3-26.** Creating the new document

## Drawing the Header and Footer

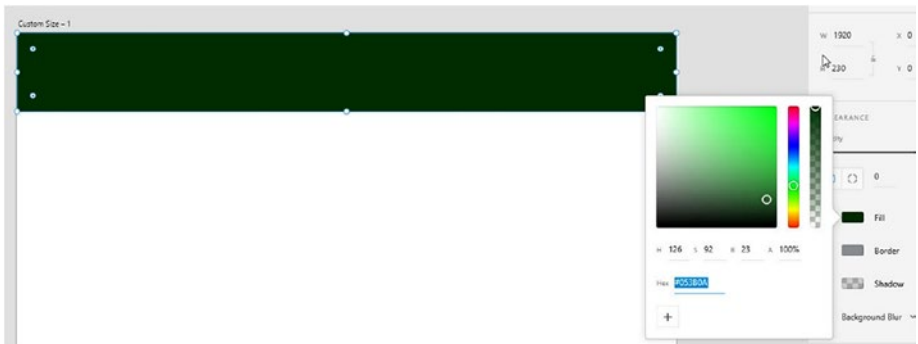
Our design will use large colored blocks for the header and footer of the page.

1. Draw a rectangle that is the width of the page.
2. Use the Properties panel to set the rectangle's height to 230 pixels, as shown in Figure 3-27.



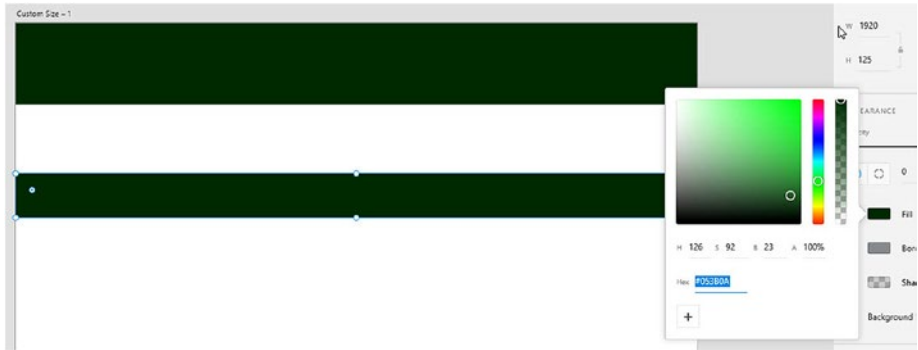
**Figure 3-27.** Drawing the rectangle and setting its height

3. Use the panel to make sure that X and Y are both set to 0 so that this rectangle is positioned along the top edge of the artboard.
4. Set the Fill color of the rectangle to a dark green. I typed #053B0A in the Hex field of the Fill color picker to get the exact color I wanted, as shown in Figure 3-28.



**Figure 3-28.** Setting the background color

5. Deselect the check box of the Border option to turn it off.
6. Draw another rectangle that is again the width of the page.
7. Set its height to 125 pixels.
8. Use the eyedropper next to the Fill option to set it to the same green used on the header, as shown in Figure 3-29.



**Figure 3-29.** The second rectangle, with height and background color set

9. Deselect the check box of the Border option to turn it off.
10. Drag this rectangle to the bottom of the artboard, as shown in Figure 3-30.



**Figure 3-30.** Placing the footer at the bottom of the artboard

## Creating the Navigation Bar

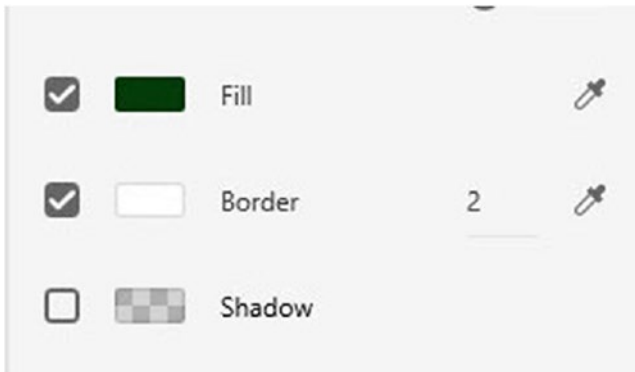
Next, we will create the basis for our navigation bar. This will consist of four small circles that extend off the bottom of the header rectangle. We will use XD's Smart Guides to perfectly align the navigation bar with the header. Later, we will add icons and text to these elements.

1. Draw an ellipse.
2. Use the Properties panel to set both the width and height to 100 pixels to create a circle.
3. Use the eyedropper to set Fill to the same dark green as the header, as shown in Figure 3-31.



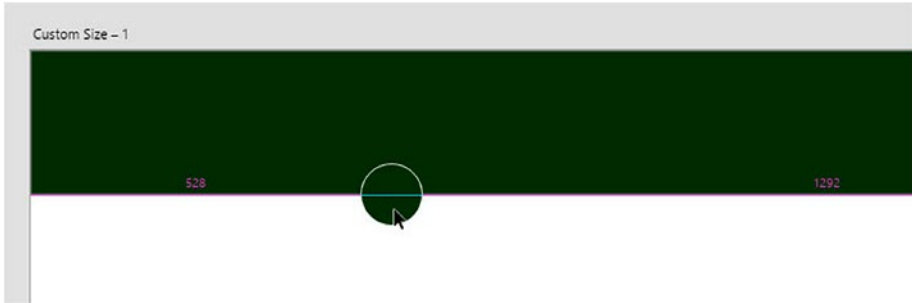
**Figure 3-31.** Sampling the header color (top right) to set the background for the new circle (bottom left)

4. Set the Border color to white.
5. Set the width of the border to 2 pixels, as shown in Figure 3-32.



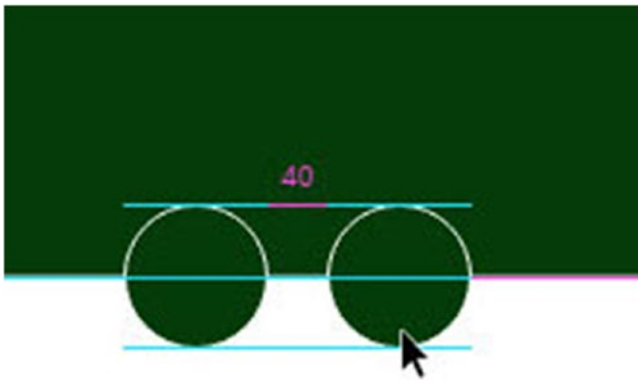
**Figure 3-32.** Setting the border

6. With the Selection tool, drag the circle up so that it intersects with the bottom edge of the header. Use the Smart Guides to get the circle perfectly centered along the bottom edge, as shown in Figure 3-33. At this point, do not worry about the horizontal positioning of the circle, as it needs to be aligned with another object that we will not create until the next chapter.



**Figure 3-33.** Using Smart Guides to position the circle

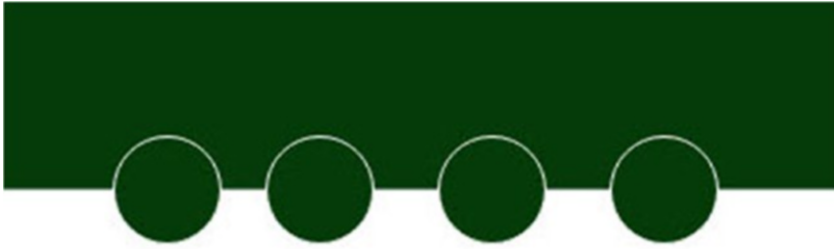
7. Press and hold the Alt key (Option on the Mac) and drag to the right with the Selection tool to create a copy of the circle. As soon as you start dragging, also hold the Shift key so that the copy remains properly aligned with the bottom of the header, as shown in Figure 3-34.



**Figure 3-34.** Duplicating the circle

8. Repeat step 7 two more times so that you end up with a total of four circles, as shown in Figure 3-35.





**Figure 3-35.** *The completed (for now) navigation bar*

9. Save the file.

## Summary

In this chapter, we took a look at XD's drawing tools. You discovered how to create shapes and edit and format them. You saw how you can use the Layers panel to change the stacking order of items on the artboard, and how you can use transparency to create layered effects. You learned how to combine shapes into groups and symbols, and how to use the Pen tool to draw more complex art. Finally, we began building an actual design comp, which we will carry forward through the rest of the book.

## CHAPTER 4



# Working with Text

Now that we have explored the drawing tools and you understand how to create shapes in your designs, we can begin building a comp that will look like a finished website for a travel company. To begin this process, we need to add what is arguably the most important component of any site: text.

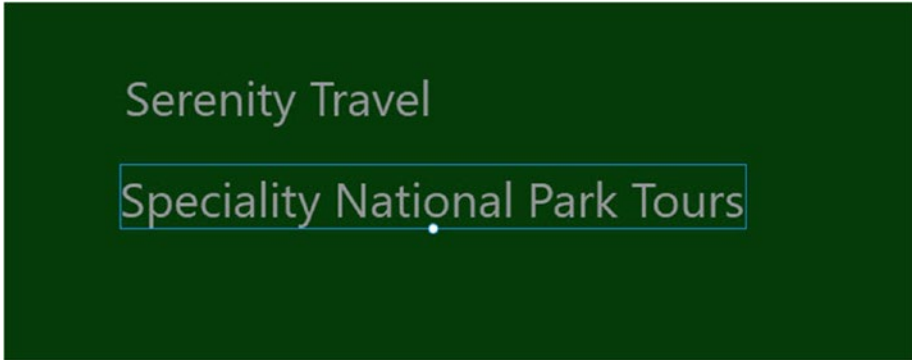
Content is king on the web. Without well-written, engaging content, visitors will have little reason to visit your site more than once. While content can be just about anything, on most sites, most of the content is text.

Adding text to designs in XD is at first exceedingly simple: click the Text tool and type. But anyone can do that. Good designers understand that it isn't just what the text says that matters, but that it is just as important to pay attention to what the text looks like.

## Beginning a Logo

The logo for the site we'll be building throughout the book will be made up of two lines of text with a horizontal line between them. We'll begin by adding the text here:

1. Open the design from the previous chapter.
2. Click the Text tool.
3. Click in the green header area and type **Serenity Travel**.
4. Click below that text and type **Specialty National Park Tours**, as shown in Figure 4-1.



**Figure 4-1.** The two lines of text for the logo

## Understanding Fonts on the Web

XD uses Segoe UI as its default font. While there's nothing at all wrong with Segoe, you will likely want to change it to use something else.

Before we get in to changing the font, and other text formatting options, it's important to understand how fonts work on the web. Too often, designers create comps that their web developers cannot replicate because they rely on fonts that will not work on the web.

As you likely already know, fonts are rendered on your computer because they are installed on it. You likely have hundreds of fonts currently on your computer, most of which were installed alongside other software you purchased, such as Microsoft Office or Adobe Creative Cloud. You can use any of those fonts in your designs, and they'll look fine on your computer. However, the end goal of your project in XD is to create something that anyone can view on *their* computer, and they may or may not have the same fonts you do.

Cascading Style Sheets, or CSS, is the language web professionals use to tell browsers how to display a page. It's the web's design language. CSS has the ability to instruct the browser to use literally any font, but under normal circumstances, your end user needs to have that font installed on their computer in order to see the page the way you intended.

For many years, this meant that web designers were basically limited to four fonts—Times New Roman, Arial, Courier, and Verdana. Only these four were so widely installed that they could be safely used on the web.

Thankfully, technology came along to provide a solution to the problem. Many companies, including Google and Adobe (through their TypeKit library), now provide what are known as *web fonts*. Basically, they have groups of fonts that have been specifically licensed by their creators for web use, and they use technology to provide the font in a way that the browser can use, without having to install anything on the users' computers.

This means that we now have many hundreds of fonts available to us (although not always for free) for use on our web pages. But that still doesn't mean that you can use whatever font you want on your page. You need to make sure that the font you are using is a web font—meaning that it is available from an online web font repository—and, if it is not available for free, that you or your client are willing to pay the fee to use it.

So how can you know if a font is a web font? The easiest way is to start looking for fonts not by browsing the fonts on your computer, but rather by browsing them online. If you find a font in a web font repository, you can then safely use it in your design.

However, you still need to watch cost. Some web font libraries, such as the one maintained by Google, are free, while others, like Adobe's TypeKit, require a subscription. While it might be safe to assume if you're reading this book and learning XD you have an Adobe Creative Cloud subscription, and thus a TypeKit subscription that is included with Creative Cloud, I'm going to play it safe here and use Google Fonts to ensure that you can follow along with the project in the book without incurring any additional costs, just in case.

But wait: there's one more catch. Some fonts are *only* available as web fonts, meaning that while you can use them on your web page, you cannot use them on a desktop application on your computer...like XD, which unfortunately relies on your locally installed fonts, and not on an online library. So, if your goal is to use a desktop application (XD) to create a comp that can be properly coded for the web, you'll need to make sure that you find a font that is both a web font *and* available for download and installation locally.

## Downloading a Web Font from Google

To begin working with web fonts, you'll need to visit a web font library. As previously mentioned, we'll be using Google Fonts in our project, because it's free and I know that the fonts we want to use are available there.

Open your web browser and go to <https://fonts.google.com>. The page will load, as shown in Figure 4-2. Note that the page may look slightly different when you go there, as the featured fonts that show up when you first load the page change frequently.

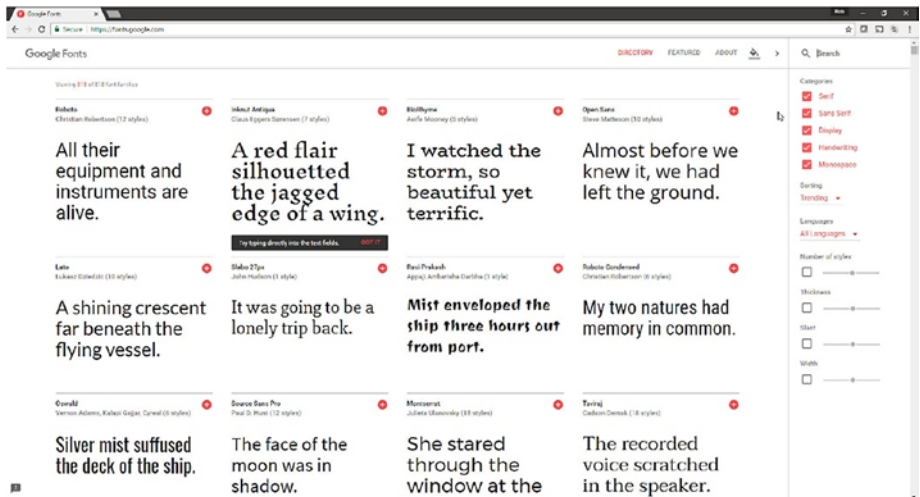
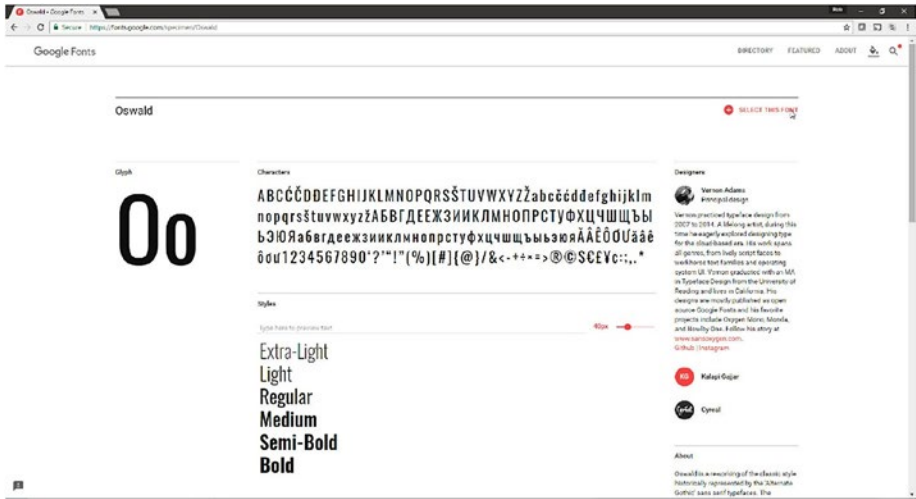


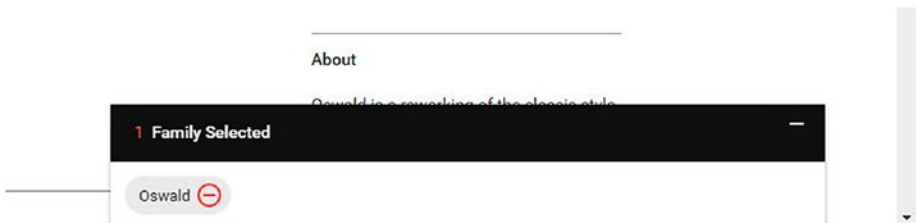
Figure 4-2. Google Fonts

In the top right corner, click in the search box and type the name of the font we'll be using for headings in the project: **Oswald**. Once it comes up in search results (you shouldn't need to type the entire name to find it), click its name to show the detail page for the font, as shown in Figure 4-3. This page not only shows you the entire character set available for the font, it also shows how many styles you can use. This is important: you want to make sure that the font contains styles you'll need for its intended use. In our project, we'll be using Oswald only for headings, which we want to be bold, and Oswald has a bold weight. (Actually, it has several bold weights, which will be nice since it'll let us play around a bit and see which one works best.)



**Figure 4-3.** The detail page for Oswald

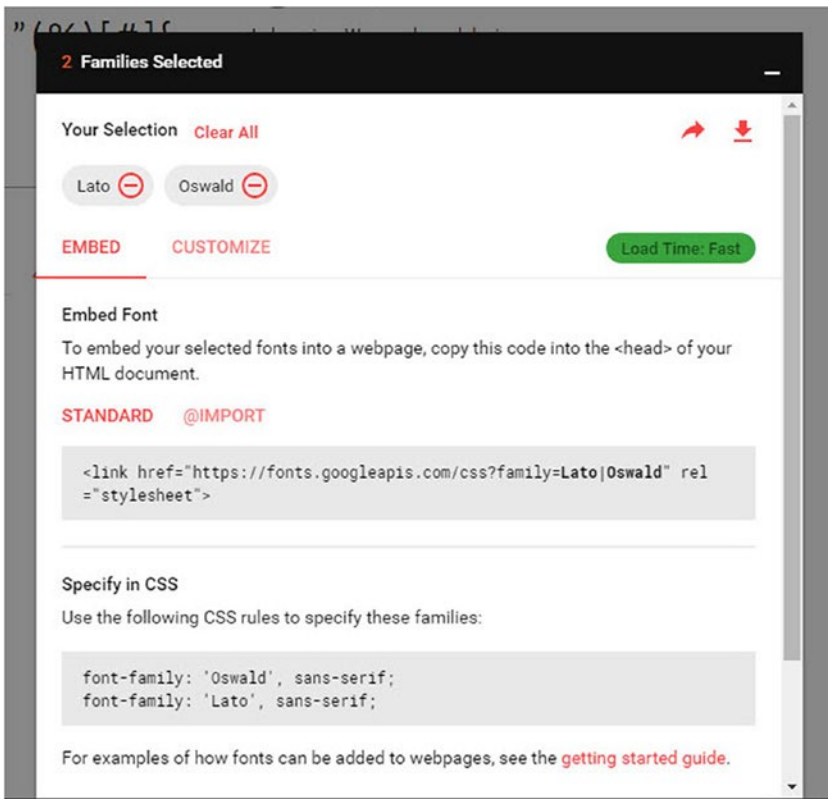
Once you're sure you have the right font, click **SELECT THIS FONT** in the top right corner of the page. This will cause Google to make a small black bar appear at the bottom of the page. Click the bar and a pop up box will expand up letting you know how to use the font. (See Figure 4-4.)



**Figure 4-4.** Oswald selected and ready to use

You could go ahead and download Oswald now, but you also want to grab a font to use in the body of our project document. So, go back up to the search box and type in **Lato**, a nice serif font that pairs well with Oswald. Do the same thing as before: click the font name when it comes up in the search results, make sure it'll work (for body text, we want a variety of styles, including regular, italic, and bold), and then click **SELECT THIS FONT** to add it to your selection.

Now that you have the fonts you want, you can download them so that they can get installed on your machine. Click the black bar that's now hanging out at the bottom of the screen to expand it. Then, look in the top right corner and you'll find a download icon: an arrow pointing down to a line (see Figure 4-5). Clicking this will download a zipped file containing the fonts you selected.

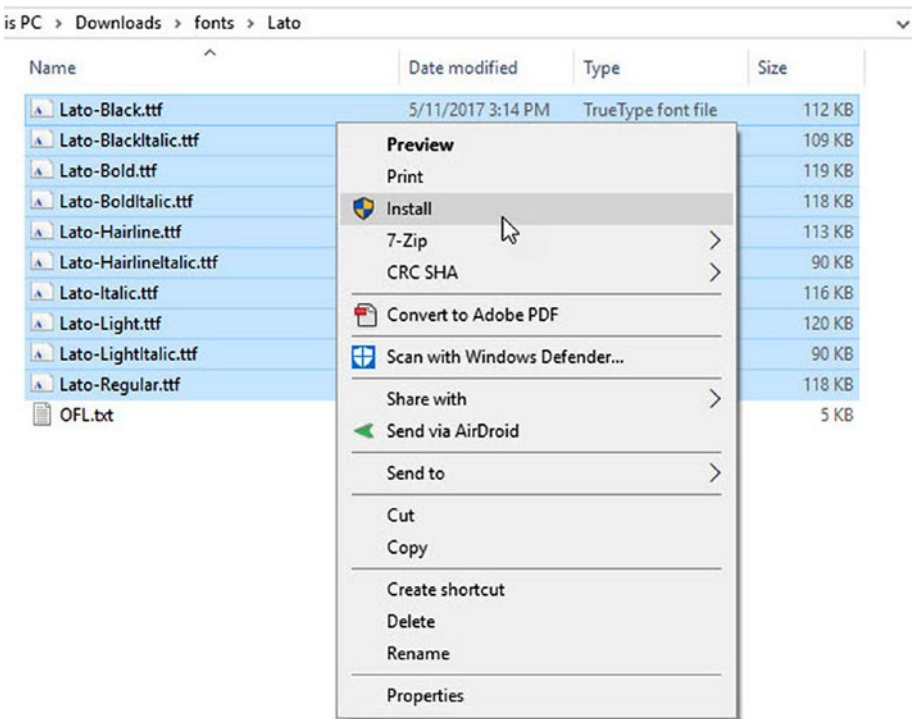


**Figure 4-5.** Preparing to download both fonts

Installing fonts varies a bit based on the operating system you're using.

## Installing Fonts on Windows

To install the font on Windows, go to the folder that contains your downloaded file. By default, that will be Downloads. Double-click `fonts.zip`. Inside that, you should have two folders: Lato and Oswald. From the ribbon at the top of the window, click `Extract All`. Follow the prompts to extract the files. Then, double-click one of the folders. It doesn't matter which one you start with. Inside the folder, you'll find a series of files, one for each style of the font, plus a text file (see Figure 4-6.) Click once on the first file in the list, then press and hold the `Shift` key on your keyboard and click once on the last file that has a `.ttf` extension. Right-click any one of the files and choose `Install` (see Figure 4-6.) Repeat this procedure for the other font.



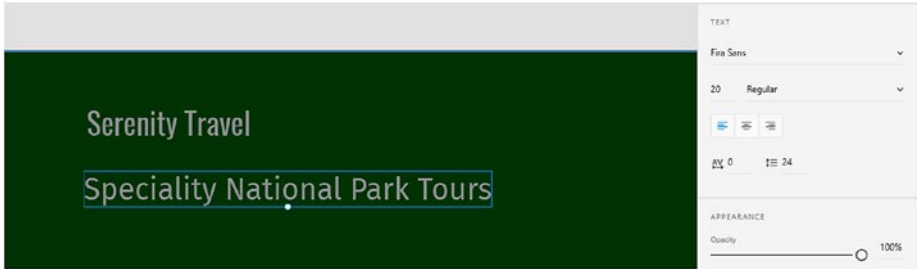
**Figure 4-6.** Installing a font in Windows

## Installing Fonts on a Mac

Installing fonts on the Mac is no more difficult than on Windows. Simply open the folder that contains the downloaded fonts. Shift-click to select all of the font files, then right-click and select `Open`. From the window that appears, choose `Install Font`. Repeat that process with the other font.

## Using New Fonts in XD

Now that our fonts are installed, we can use them in our design. Use the Selection tool to select the Serenity Travel text. The Properties panel on the right side of the screen will update to show Text properties, including the font. From the list, scroll to find Oswald and select it. Set the second line of text to Fira Sans. See Figure 4-7.



**Figure 4-7.** Setting the fonts on our logo

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■ **Note** There's a chance that XD will not “see” your new fonts right away. If this happens, you may need to close (be sure to save first) and reopen the program.

---

## Formatting Text

XD provides a set of options to format text beyond simply changing the font.

### Font Size

It's best to make fonts on web pages bigger than you would normally make them in print designs. The default text size in most browsers is 16 pixels, although XD defaults to an even higher value: 20 pixels. There are several ways to change the size of text. The first was mentioned in the previous section: you can use the Selection tool to drag the circular control handle under the text box. However, this often does not give you much control, so it may be easier to use the Properties panel.

Text size is the unlabeled field with a number in it directly below the font name. You can click in to this field and type a number if you know the exact size you want to make your text. On Windows, you can also position your mouse pointer at the very bottom of the text field and then click and drag to change it: drag up to make the text bigger, or down to make it smaller.



■ **Note** You might be surprised to see that you cannot size text in anything other than pixels. Graphic designers are likely used to using points for text, and experienced web designers will know that Cascading Style Sheets allow you to size in any number of units. Currently, XD only supports pixels. Sizing in percentages and other units would be helpful for creating mobile-friendly designs, so we will need to hope that this is added in a future release of the program.

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## Font Styles

Depending on the font you selected, you may have a variety of styles, such as bold and italic, to choose from to further format your text. You can select your preferred style from the drop-down menu to the right of font-size setting. Keep in mind that the options in the menu are dependent on your computer having that style installed, so some fonts will have styles that are unavailable in other fonts. XD does not have the ability to “fake” styles by simply applying bold or italic to type, so if you need those and they are unavailable in your font, you will need to select a different typeface.

## Alignment

XD provides three alignment options for text: left, center, and right. Here again, you may be used to seeing other choices in other programs, like full justification, but as that is rarely used with any success on the web, XD does not provide the option to apply it to text.

## Character and Line Spacing

The final two formatting options in the Text section are character and line spacing. Character spacing can be applied either to an entire block of text or to a selected set of characters, and it can be either positive (more space) or negative (less space).

Line spacing only applies to blocks of text with more than one line. If the block is a single paragraph, the setting will increase or decrease the space between the lines of that paragraph. If the text block contains multiple paragraphs or headings and paragraphs, the setting will change the space between those lines as well as within the paragraphs.

Both the character spacing and line spacing settings are expressed in pixels. Like with font size, the values can be typed in directly, or you can click and drag from the bottom of the setting’s text field to have XD adjust the value for you.

## Appearance

You can make text semitransparent by dragging the Opacity slider to the left.

The Fill color is the color of the text. Make sure that the box to the left of Fill is checked, then click the color picker to select your desired color. Below that, you can click Border to apply what appears to be a stroke around the letters in the text. The width of the stroke can be set by entering a number in the text field.

For both fill and border color, you can use the eyedropper to select a color from another part of your design. This can be particularly helpful in setting the color either to another color you have already applied in your design or to pick up a color from a logo or similar image.

XD does not provide the ability to set a background color on the text block itself. However, you can easily achieve this effect by simply drawing a rectangle the same size as the text block, applying a background color to it, and then stacking it below the text. See Chapter 3 for details on drawing shapes, changing their appearance, and setting the stacking order.

The Shadow setting allows you to apply a drop shadow to your text. You can set the color of the shadow, its X (vertical) and Y (horizontal) offset, and amount of blurriness.

The final setting in the Appearance section is Background Blur. At first glance, it doesn't appear to do anything, as text blocks do not have backgrounds in XD. However, the setting is still there because of its other option: Object Blur. You can access this by clicking the small arrow to the right of the Background Blur label. You can then drag the slider to blur your text.

## Text Best Practices

Your overriding concern always with text must be readability. Use fonts sparingly, and be consistent: your headings will likely all use the same font family, for example.

If your background is in graphic design, be aware that on the web text generally needs to be bigger to be seen and be readable. That is why browsers default text to 16px, rather than the 12 or 10 points most print tools default to. This is even more true when you begin designing for mobile devices, as then you not only are dealing with much smaller screens, but also need to consider that we interact with devices with our fingers, which are considerably larger than a mouse pointer.

Always ensure that you have enough contrast between the background and foreground (text) colors. Maintaining contrast can be even more difficult when placing text on top of images.

Blocks of centered text are harder to read than left-aligned text. It's fine to center a heading or other single lines of text, but paragraphs or even longer captions should be left-aligned.

Plenty of studies have shown that users do not read web pages line by line, but instead prefer to skim them. So, make your text skimmable by breaking it up with headings. And it is almost always better to write less, not more.

When in doubt, err on the side of readability.

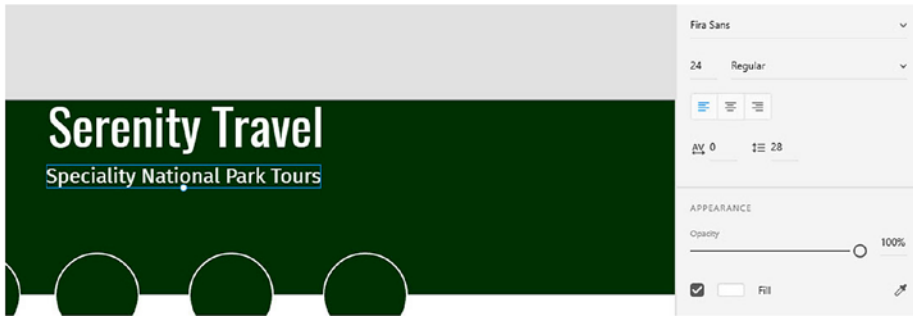
## Adding More Text to the Design

Now that you understand how text works in XD, let's add some more text elements to our design.

## Finalizing the Logo

To add the finishing touches to the logo, follow these steps:

1. Make sure that Serenity Travel is set in Oswald and Specialty National Park Tours is set in Fira Sans.
2. Change the size of Serenity Travel to 60 pixels. Change the other line to 24 pixels.
3. Change the Fill color of both lines of text to white. See Figure 4-8.



**Figure 4-8.** The text on the logo is sized and colored properly

4. Click the Line tool and draw a line that is the width of the Serenity Travel text. Use the Smart Guides to help here, as shown in Figure 4-9.



**Figure 4-9.** Drawing the line

5. Make the width of the line (the width of the border) 6 pixels, and set the color of the line (border) to white. See Figure 4-10.



**Figure 4-10.** Setting the line properties

6. Move the second line of text to align with the first line of text and the line. Again, the Smart Guides make this easier, as shown in Figure 4-11.



**Figure 4-11.** Aligning the text

7. Select all three elements and group them by using the keyboard shortcut Ctrl-G (Cmd-G).
8. Move the completed logo to the top center of the screen, again using the Smart Guides for alignment, as shown in Figure 4-12. You may need to zoom out (Ctrl-0 on Windows, Cmd-0 on Mac) to see the width of the page to do this.

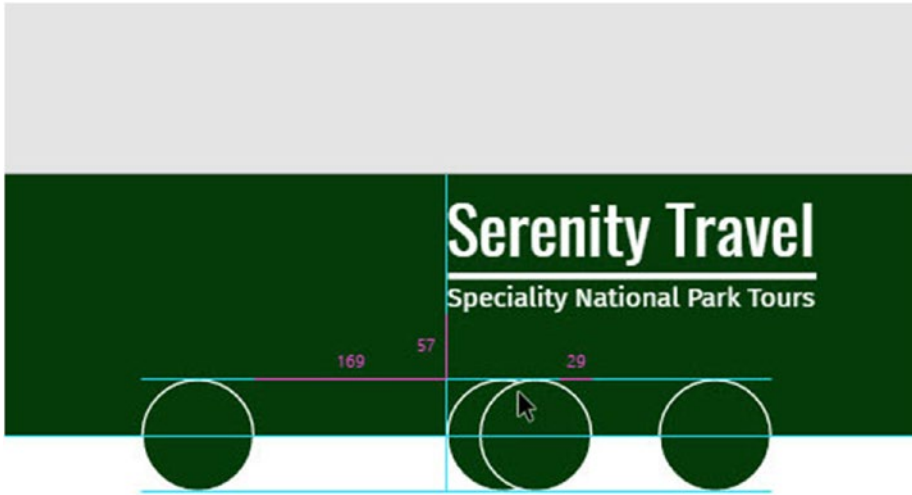


**Figure 4-12.** Using Smart Guides to center the logo

## Adding Navigation Text

Our navigation bar needs text to allow the user to identify what they need to click to navigate to the page they want to view.

1. Use the Smart Guides to move the second of the four green circles so that its left edge is aligned with the left edge of the logo, as shown in Figure 4-13. Make sure it is still vertically centered on the bottom of the header.



**Figure 4-13.** Aligning the first of the circles with Smart Guides

2. Use the Smart Guides to move the third from the left of the circles so that its right edge is aligned with the right edge of the logo, as shown in Figure 4-14. Make sure it is still vertically centered on the bottom of the header.



**Figure 4-14.** *Aligning the second circle*

3. Move the fourth circle to the right until you get a set of pink bars indicating that the space between each of the three circles you have positioned so far is equal, as shown in Figure 4-15.



**Figure 4-15.** *Setting the rightmost circle equidistant from the second and third*

4. Move the final circle so that it is also equally spaced with the other three, but to the left of the others, as shown in Figure 4-16.



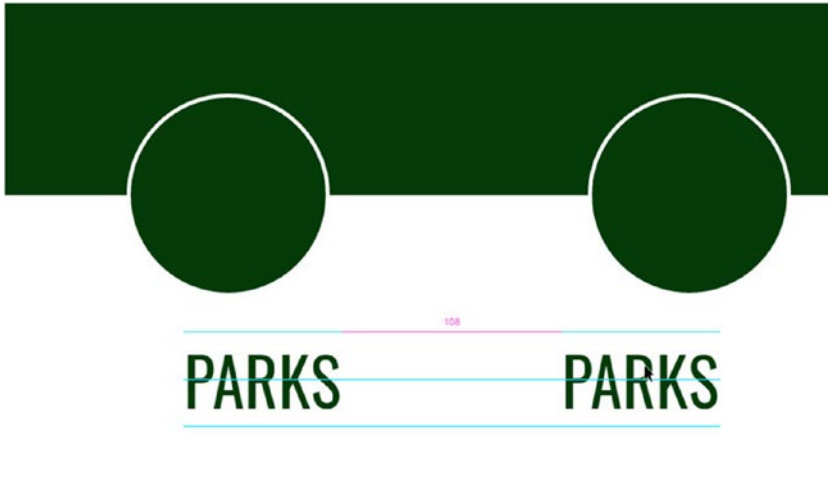
**Figure 4-16.** Setting the final circle so that all four are evenly spaced

5. Click with the Text tool below the leftmost circle, and type **PARKS** (in all capital letters).
6. Set the font to Oswald, and the size to 32 pixels.
7. Use the eyedropper to set the Fill color of this text to the same green being used on the header and the circles, as shown in Figure 4-17.



**Figure 4-17.** The first navigation label

8. Switch back to the Selection tool, then press and hold the Alt key (Option on the Mac) and drag the text to the right, placing it roughly below the second circle, as shown in Figure 4-18.



**Figure 4-18.** Duplicating the text

9. Repeat step 7 to create two more copies of the text under the other two circles.
10. Double-click the first copy of the text and replace it with the word **GALLERY**, as shown in Figure 4-19.



**Figure 4-19.** Changing the duplicated text

11. Change the other two pieces of text to **CONTACT** and **JOIN**.
12. Use the Smart Guides to align each piece of text beneath its circle, as shown in Figure 4-20.





**Figure 4-20.** *Aligning the navigation labels*

## Add a Copyright Notice to the Footer

At the bottom of the page, we will place a copyright notice.

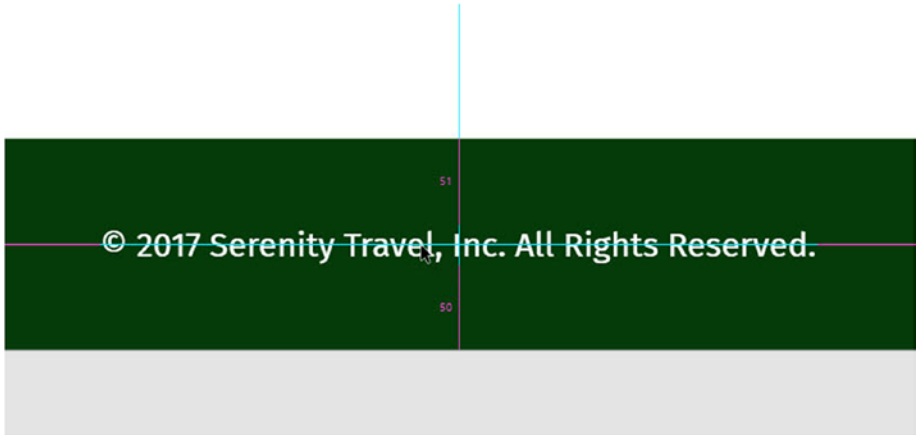
1. Scroll down to the footer.
2. Click in the footer with the Text tool.
3. Enter the copyright symbol. On Windows, press and hold the Alt key. Then, using the numeric keypad, *while still holding Alt*, type **0169**. Let go of Alt, and a copyright symbol will appear, as shown in Figure 4-21. On a Mac, press Option-G to insert the copyright symbol.



**Figure 4-21.** *Inserting the copyright symbol*

4. After the copyright symbol, type **2017 Serenity Travel, Inc. All Rights Reserved.**
5. Select the text box using the Selection tool, then change the font to Fira Sans.
6. Set the size to 20 pixels.

7. Set the Fill color to white.
8. Use the Smart Guides to vertically center the text in the footer, and horizontally center it on the page, as shown in Figure 4-22.



**Figure 4-22.** *Aligning the copyright notice in the footer*

9. Save your file.

## Summary

In this chapter, we looked at how you add text to your designs. While at a basic level it's as easy as typing with the Text tool, it's necessary to ensure that your designs rely on web-safe fonts, so we also examined how to acquire free fonts online to add to your designs. Then, we explored the ways that XD allows you to format text, and finally, we added text to the book's design project and began building the top-level navigation.

## CHAPTER 5



# Working with Images

The web is, of course, a visual medium, so you are going to want to add images to your designs to make them visually compelling and add interest for your users. In this chapter, we will examine the file types that you can use on websites. We will also look at how to import images into a design and look at how those images can be scaled and rotated. We will also explore the SVG file format, which is a type of image that can be edited directly in XD.

## Image File Types

The web currently supports four file types for images: JPEG, GIF, PNG, and SVG.

JPEG, which stands for Joint Photographic Expert's Group, is the most common of these, widely used for photographs. JPEGs support up to 16.7 million colors and can be highly compressed to reduce their file size while maintaining image quality.

GIF, which stands for Graphics Interchange Format, images are made up of color palettes with up to 256 colors. Thus, they are best used for logos, line art, and the like. Despite their lack of color depth, GIFs are popular online because they can be animated and because a single color in a GIF can be designated to be transparent.

The PNG, which stands for Portable Network Graphic, format was created in response to a patent issue with GIF (which has since been rendered moot because those patents have expired). PNGs come in three varieties: 32-bit, which supports up to 4.3 billion colors; 24-bit, which is like a JPEG and supports 16.7 million colors; and 8-bit, which can contain up to 256 colors, similar to a GIF. The 8-bit variety also supports transparency, but unlike with GIF, 8-bit PNGs can have areas that are partially transparent.

SVG, which stands for Scalable Vector Graphics, is a file type developed for the web that describes images in Extensible Markup Language (XML), a text format similar to Hypertext Markup Language (HTML). Because they are constructed as vectors, SVG images can be freely scaled without impacting image quality. As a bonus, some features of SVGs, such as fills and strokes, can be edited directly inside Adobe XD, as we will see later in this chapter.

# Importing Images

In order to add images to your design, you first need to import them into Adobe XD.

## Importing on Windows

On Windows, you can import images by clicking the menu button in the top left corner of the screen, then choosing Import. You then navigate to the folder that contains your images, select one or more, and click Import.

## Importing on a Mac

On a Mac, you can import images by clicking the File menu, then Import. From there, navigate to the folder that contains your images, select one or more, and click Import.

## Importing with Drag and Drop

On both operating systems, you can import images by dragging them from your desktop or file explorer and dropping them into your design.

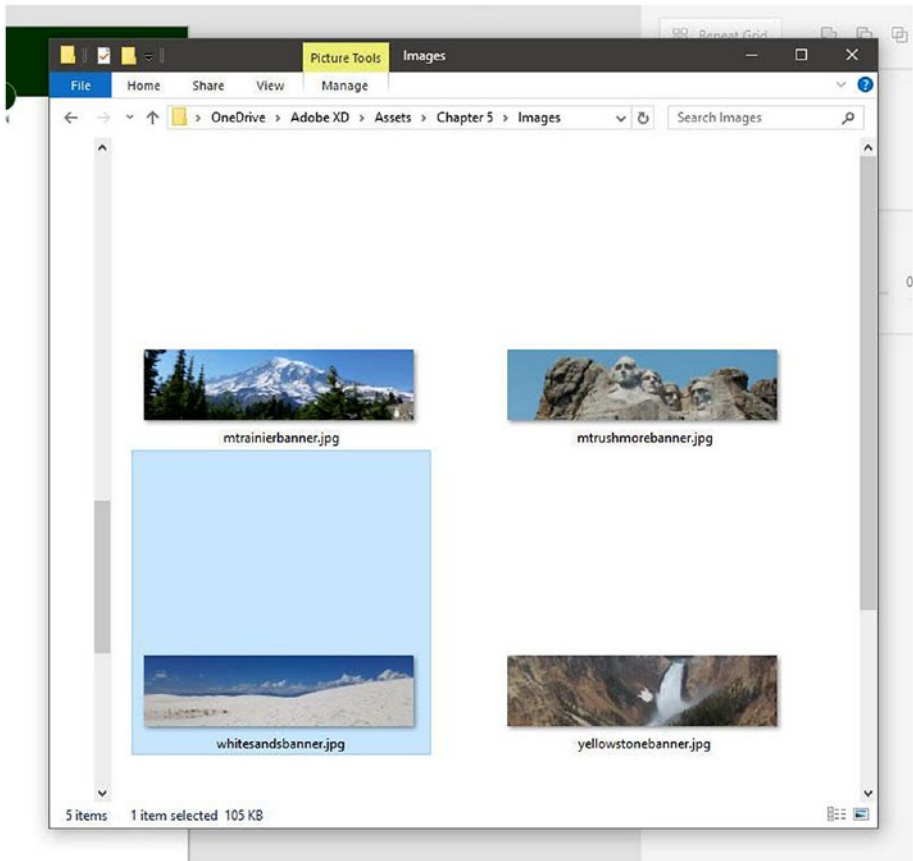
## Importing with Copy and Paste

If you copy an image to your clipboard, you can simply paste it into XD to import. Copying and pasting images works from the file system, but is perhaps even more useful from the browser. For instance, if you have an image online you wish to use in your design, you can simply open the image in the browser, right-click, choose Copy Image, then switch to XD and paste it. This saves you from having to first save the image to your hard drive and then import it.

## Importing the Main Images to the Design

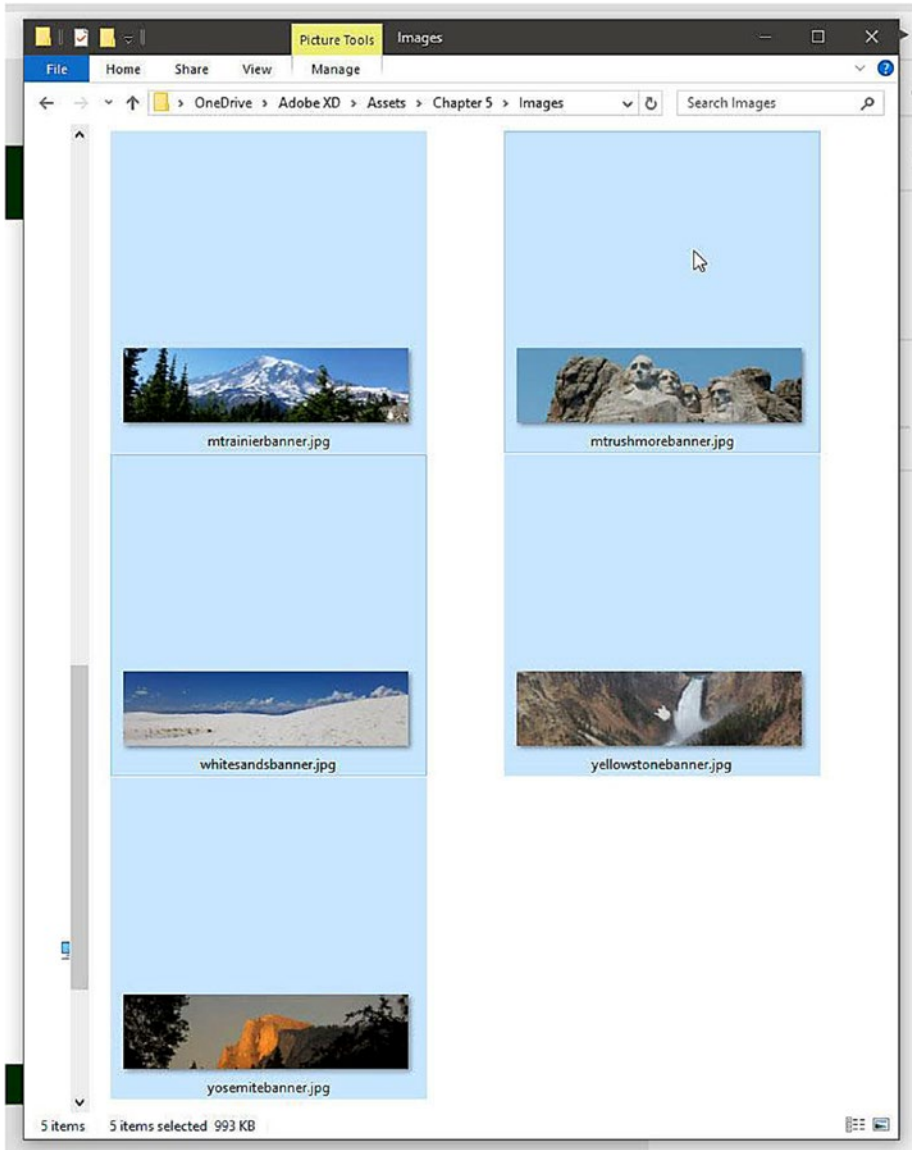
The main page of our design consists of a series of large images. Import them to the design as follows:

1. Open the file for the travel company website project from the previous chapter.
2. Switch to your operating system's file manager. In Windows, this is Windows Explorer, and on the Mac, it is Finder.
3. Navigate to the folder with the book's assets, as shown in Figure 5-1.



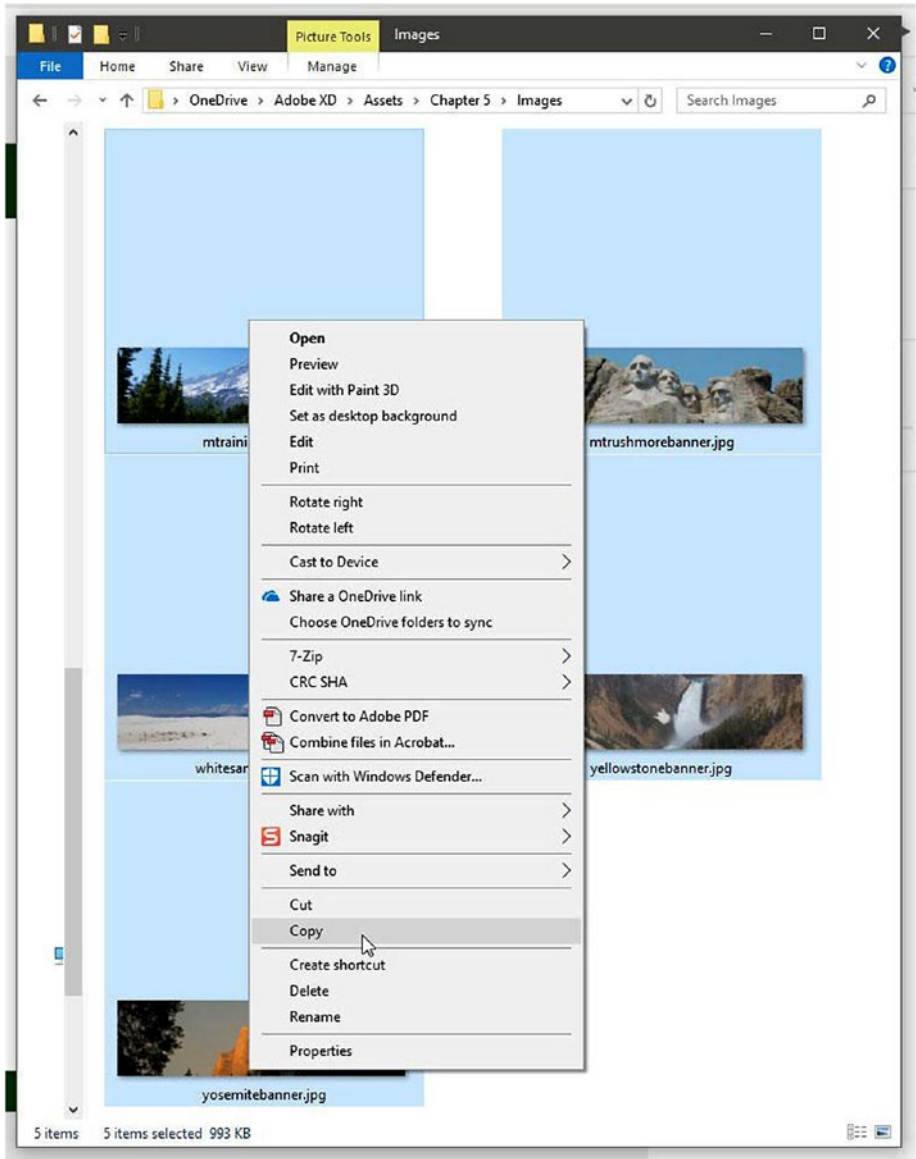
**Figure 5-1.** Locating the images in Windows Explorer

4. Click once to select whitesandsbanner.jpg.
5. Press and hold Shift.
6. Select mtrainierbanner.jpg, yellowstonebanner.jpg, mtrushmorebanner.jpg, and yosemitebanner.jpg. See Figure 5-2.



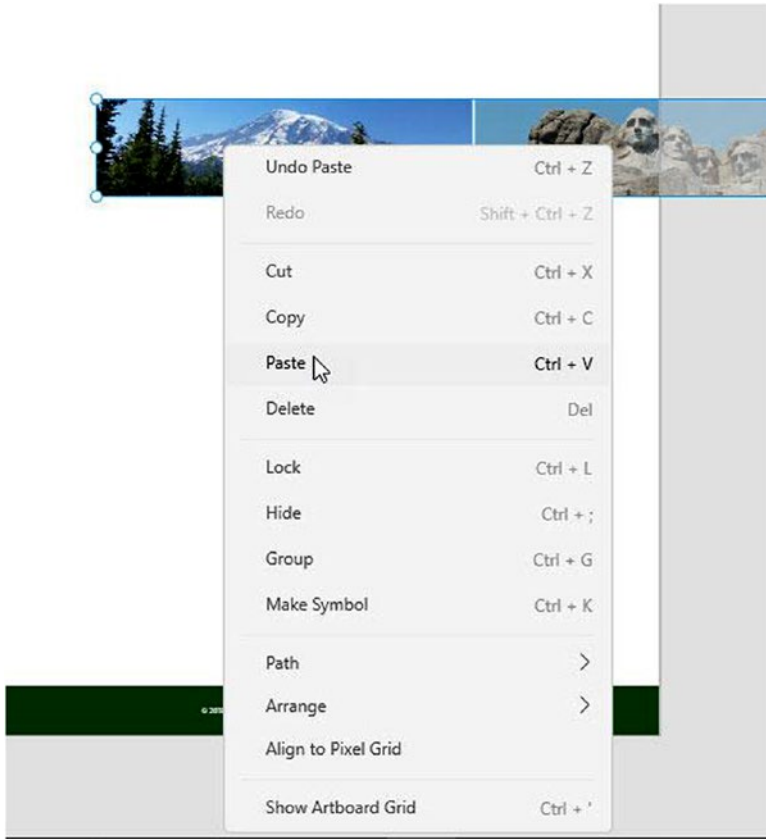
**Figure 5-2.** *Selecting the images*

7. Right-click any of the images and choose Copy. See Figure 5-3.



**Figure 5-3.** Copying the images

8. Switch back to XD.
9. Right-click in the blank area between the header and footer and select Paste, as shown in Figure 5-4.



**Figure 5-4.** Pasting the images

10. Save your file.

## Scaling and Rotating Images

After you have imported an image, you can scale it by selecting it with the Selection tool and dragging. Press and hold the Shift key to maintain the image's proportions. See Figure 5-5.



**Figure 5-5.** Scaling an imported image



You can rotate images by selecting them with the Selection tool, then clicking and dragging outside the image.

You can also scale and rotate images by entering values directly in the Properties panel.

---

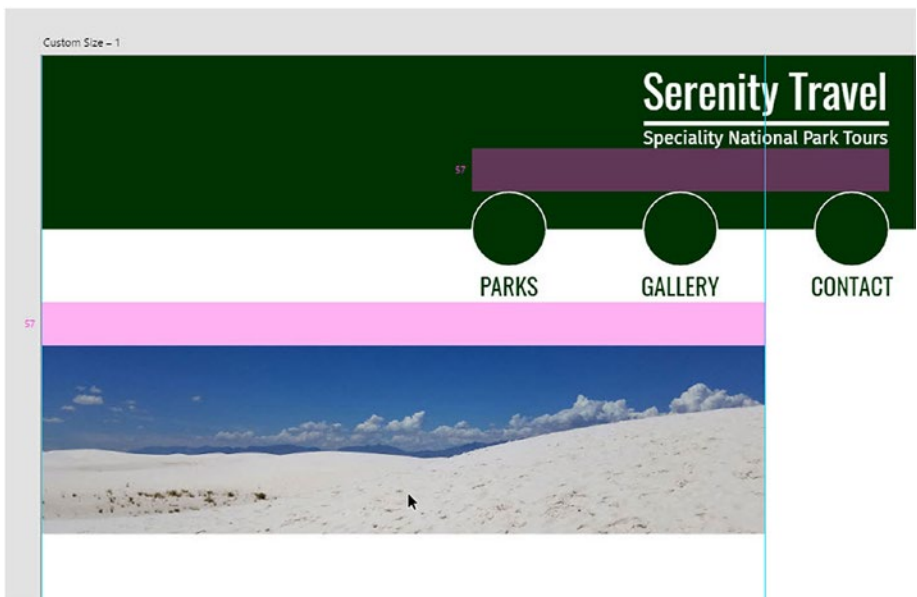
■ **Note** Scaling up raster-based images like JPEGs and GIFs can often result in a loss of image quality. That may not be a big issue when creating a comp in XD—remember, you aren't creating a final product, but rather a representation of what the final product will look like when coded—but if you want to have good-looking images for a client presentation, it's best to size the images to the correct dimensions in a program like Adobe Photoshop before importing them.

---

## Scaling the Main Images

Even though the images are all the proper size for our design, XD imports them at half their actual size. Scale them to full size as follows:

1. If the images are still selected from the import, click in a blank area to deselect them.
2. Drag whitesandsbanner.jpg to the left so that it is flush with the left edge of the artboard, then drag up until the Smart Guides indicate that it is spaced as far below the navigation as the navigation is below the logo, as shown in Figure 5-6.



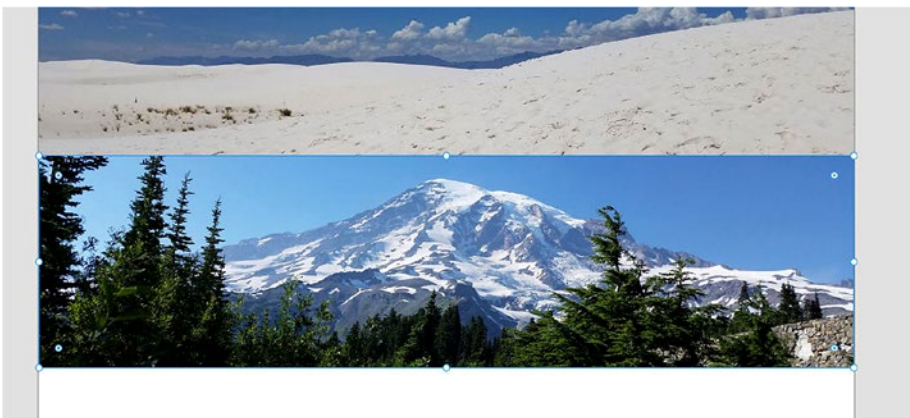
**Figure 5-6.** Positioning the first image

3. Press and hold the Shift key, then drag the lower right corner of the image down and to the right until you reach the right edge of the artboard, as shown in Figure 5-7. You can also choose to simply resize the image with the Properties panel, setting its width to 1920 and its height to 500.



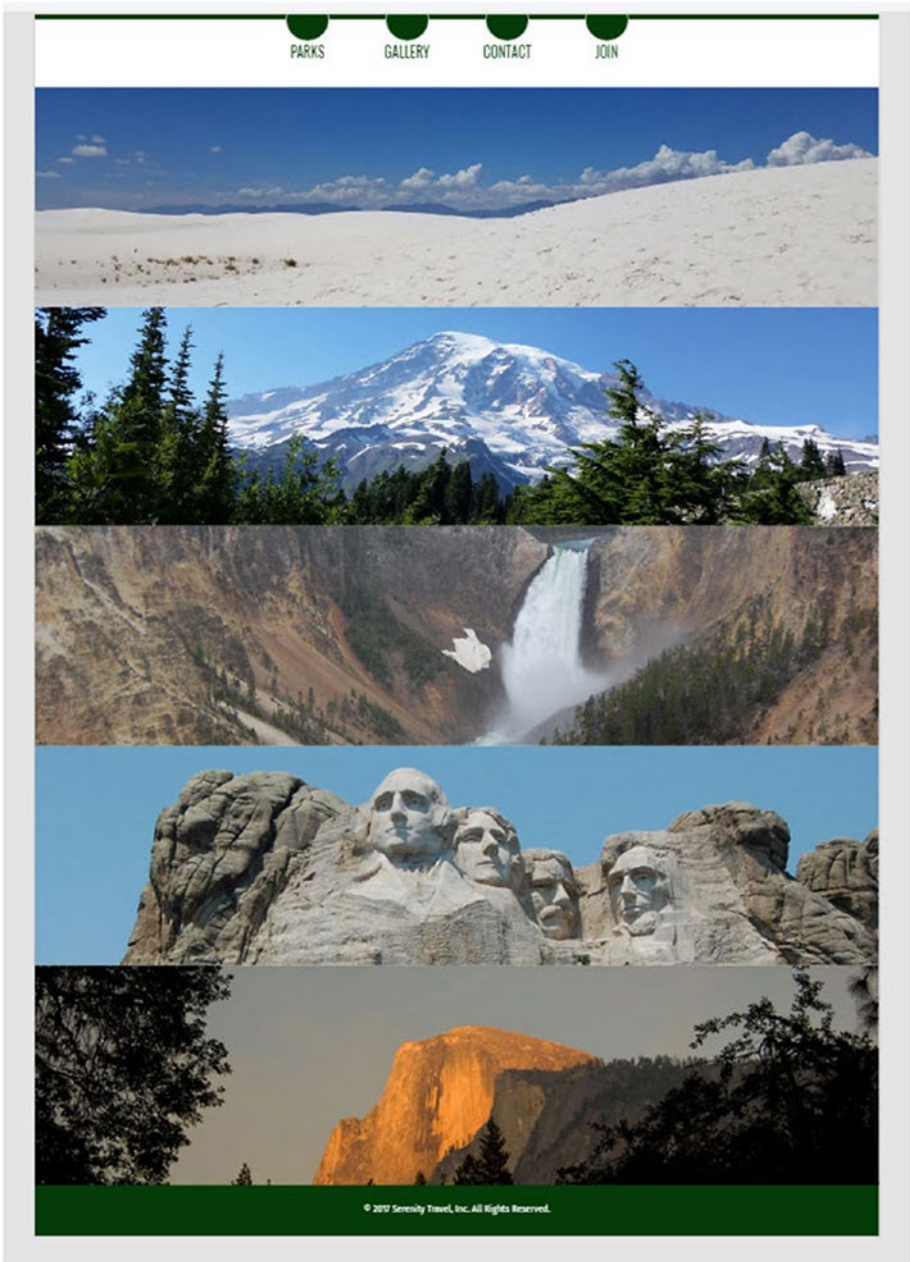
**Figure 5-7.** Sizing the first image

4. Drag `mtrainierbanner.jpg` so that its top edge aligns with the bottom edge of `whitesandsbanner.jpg`.
5. Repeat step 3 to resize it, as shown in Figure 5-8.



**Figure 5-8.** Positioning and resizing the next banner

- Repeat steps 4 and 5 for each of the other banners, as shown in Figure 5-9.



**Figure 5-9.** The remaining banner images positioned and sized

7. Save your file.

## Working with SVG

Scalable Vector Graphics, or SVG, is a special format created to allow web designers to bring vector images into their pages. Because they are vectors, SVG images can be freely scaled without impacting file size, and can even be animated (although not in XD).

Because XD is itself a vector-based tool—everything you draw in XD, including rectangles, circles, and lines, is a vector—the program gives you the ability to edit SVGs after importing them. This ability is limited to SVGs: you cannot edit raster-based images like JPEGs or GIFs in XD.

In the following examples, we are going to work with a set of SVG icons from the website iconmonstr. This website provides a large number of high-quality icons for use on web pages, and all of its images are completely open and free for use, even in commercial projects.

To download an icon from iconmonstr, follow these steps:

1. In a web browser, go to <https://iconmonstr.com> (note the missing “e” in monster).
2. Search for the icon you want. For purposes of this example, search for “speech” and download a speech bubble icon, as shown in Figure 5-10.

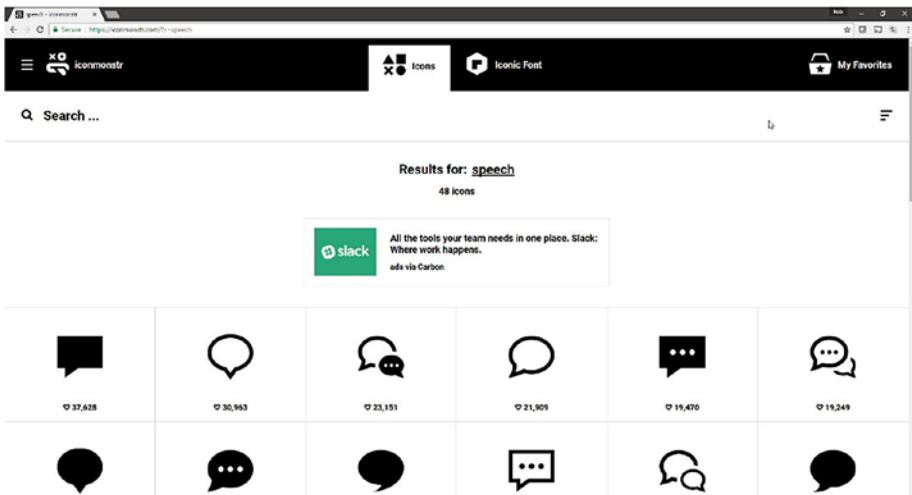
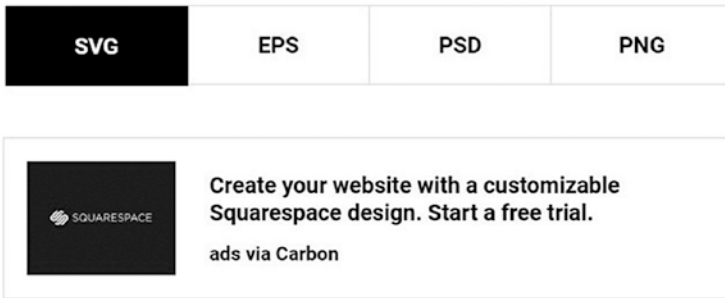


Figure 5-10. Speech bubble icons on iconmonstr

3. Make sure SVG is selected as the format, and click the box to agree to the license agreement, as shown in Figure 5-11.

## Speech Bubble 2

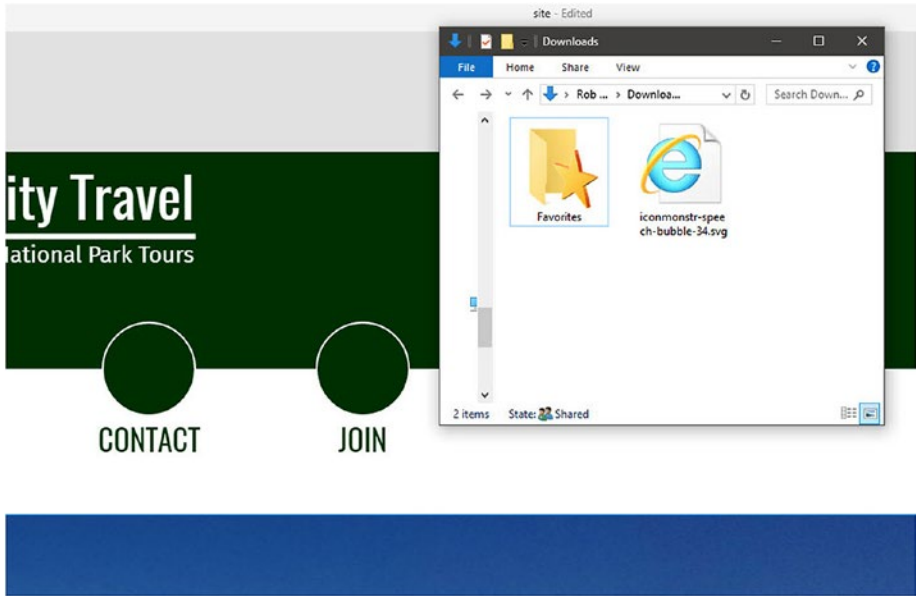


I agree to the [License Agreement](#)

**Download**

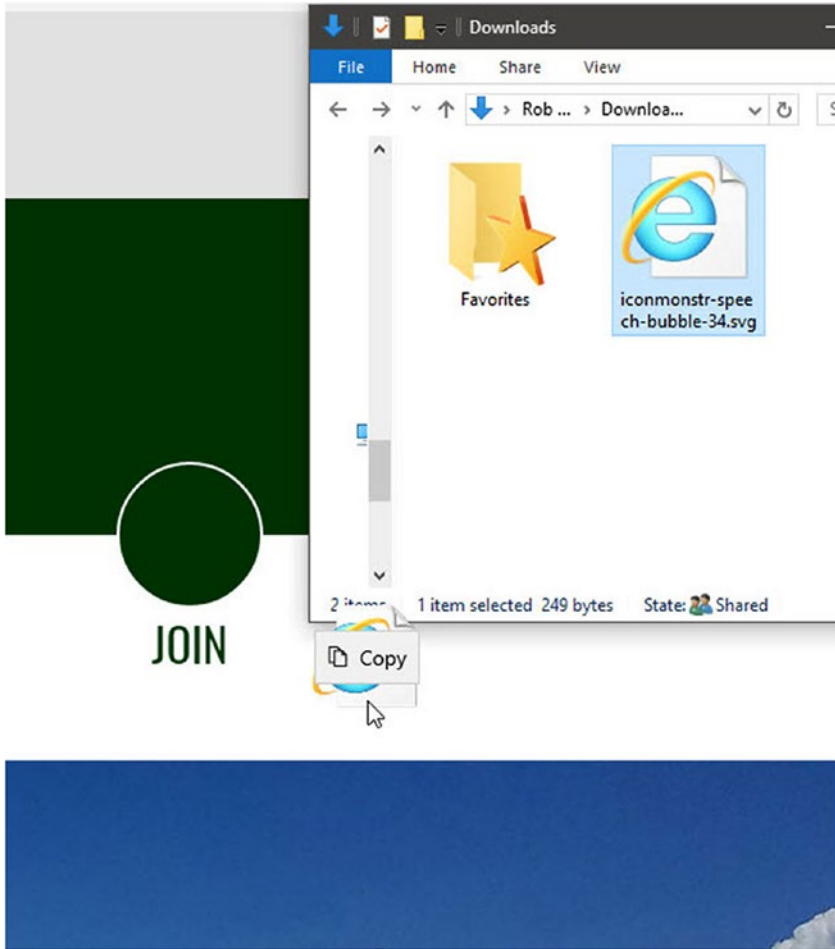
**Figure 5-11.** Downloading an SVG from iconmonstr

4. Click Download.
5. Open the folder that contains the downloaded icon. The icon for the image will likely be that of a web browser.
6. Position the folder window and XD so that you can see both, as shown in Figure 5-12.



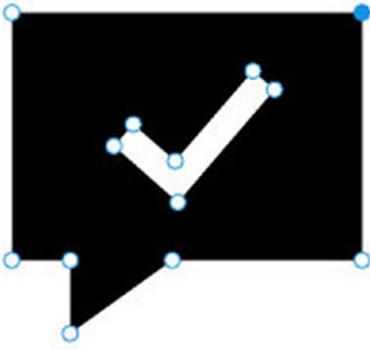
**Figure 5-12.** Preparing to drag and drop the image

7. Click and drag the icon from the window to XD. See Figure 5-13.



**Figure 5-13.** Dragging the image into XD

8. Zoom in on the icon.
9. With the Selection tool, double-click the icon. This will make each individual point that makes up the icon editable, as shown in Figure 5-14.



**Figure 5-14.** *Preparing to edit the SVG*

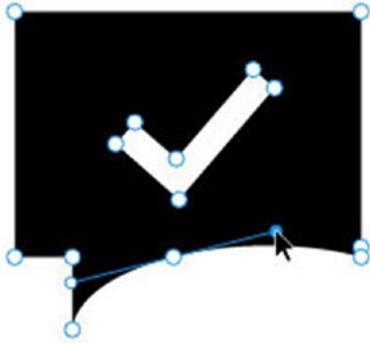
10. Double-click one of the points to convert it to a curve, as shown in Figure 5-15.



**Figure 5-15.** *Creating a curve*

11. Drag the control handles—the small circles at the ends of the line extending from the point—to edit the curve, as shown in Figure 5-16.





**Figure 5-16.** *Editing the curve*

Another, simpler way to edit SVGs is to simply change their color to match the color scheme of your site, which is how we are going to use them on our travel company website.

You need to download seven more icons from iconmonstr. Four of these will be used in the site's navigation, so you need an icon representing a map (for the Parks link), a photo (for the Gallery link), an envelope or phone (for the Contact link), and a user (for the Join link). You also need icons for the primary social networks: Facebook, Instagram, and Twitter. The exact icons in each category are unimportant, so choose whichever you prefer. Follow steps 2 through 4 in the previous list to download each of the icons.

---

■ **Note** The one limitation to iconmonstr's license agreement is that icons from the website cannot be redistributed in any way. As such, they cannot be included in the resource files for this book, so you will need to download them yourself.

---

Once you have downloaded the icon files, import them into XD. You can import them all together as follows:

1. Open the folder that contains the downloaded icons (see Figure 5-17).

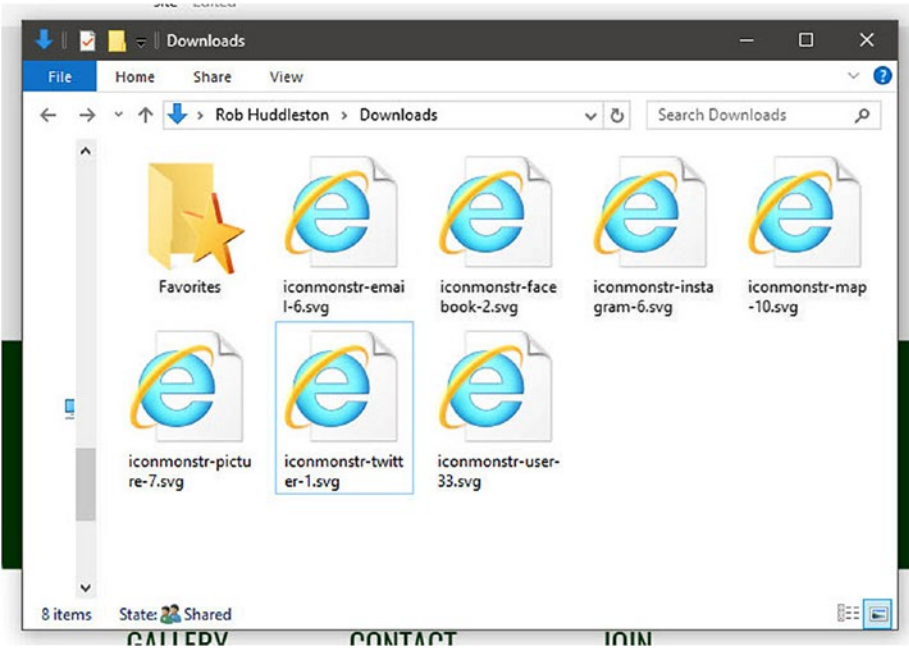


Figure 5-17. The downloaded icons

2. Click once on the first icon, then hold down the Shift key and click the last one.
3. Click and drag the set of icons into XD, as shown in Figure 5-18.

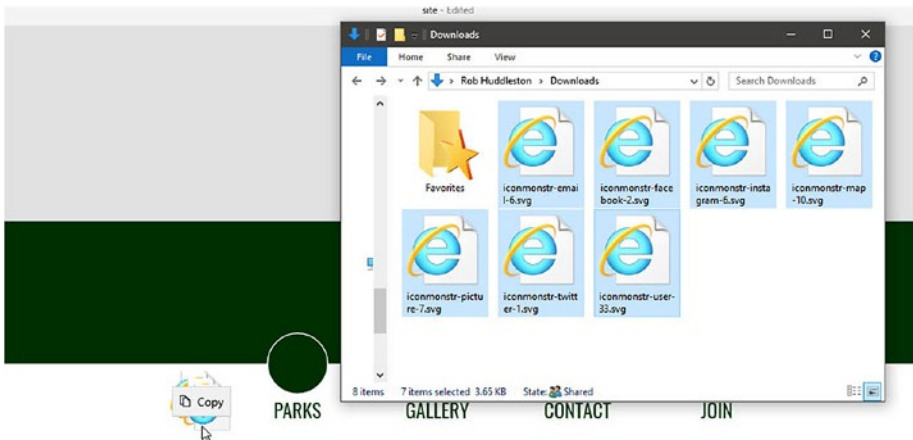


Figure 5-18. Dropping the icons into the design

The icons will be far too small to work with, so while they are all still selected from having been imported, use the Selection tool while holding the Shift key to scale them up, as shown in Figure 5-19. How big is unimportant now; you just want them big enough that you can work with them easily.



**Figure 5-19.** Resizing the icons to work with them

---

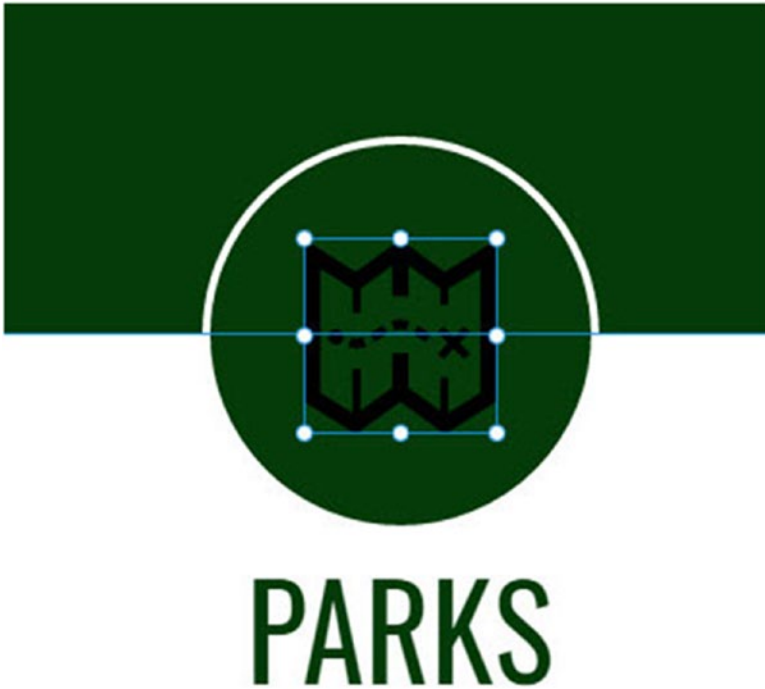
■ **Note** SVGs are just outlines—the areas of the image that are not currently black are not actually part of the icon, so in order to select them you need to be sure to click directly on the lines of the icon, not in the spaces inside them. This is part of why it's helpful to scale them up when working with them, as these lines can be hard to hit exactly when the icons are tiny.

---

## Finishing the Navigation Bar

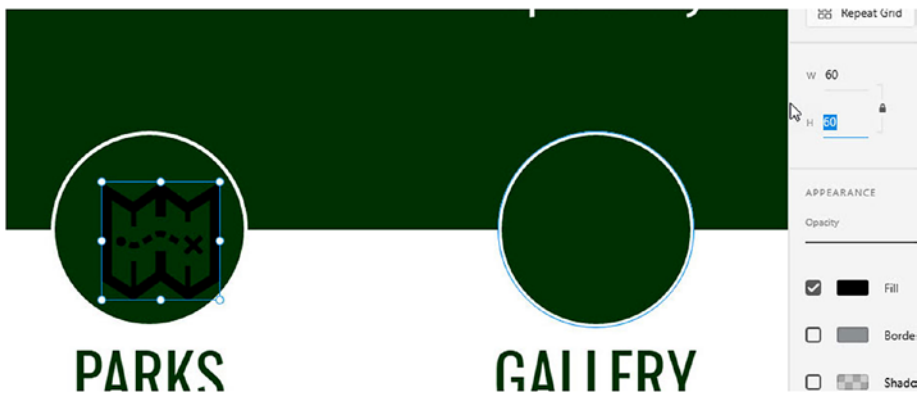
The last thing we need to do for the navigation bar is to add the icons to the circles.

1. Drag the map icon onto the leftmost circle of the navigation bar, as shown in Figure 5-20.



**Figure 5-20.** Positioning the first icon

2. The circle is 100 pixels in diameter, so we want the icon to be a bit smaller than that. Use the Properties panel to resize it to 60 pixels wide and 60 high, as shown in Figure 5-21. Remember that you can click the padlock icon next to the W and H settings to lock them so that you only need to change one.



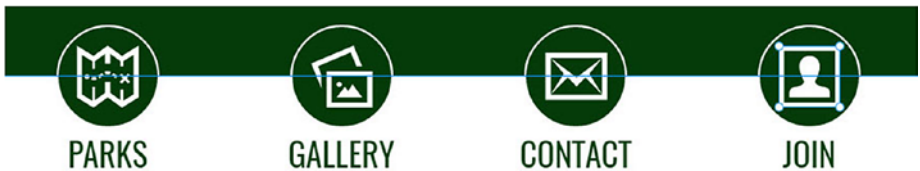
**Figure 5-21.** Using the Properties panel to resize the icon

- Use the Properties panel to change the Fill color to white, as shown in Figure 5-22. This ability to recolor the images to match our design is the reason why we downloaded the icons as SVG and not GIF or PNG.



**Figure 5-22.** Recoloring the icon

- Repeat steps 1 through 3 for the other navigation icons, the result of which is shown in Figure 5-23.



**Figure 5-23.** The finished navigation bar

5. Move the three social icons to the top right corner of the screen. Change their Fill color to white, and size and space them so that they fit nicely, as shown in Figure 5-24.

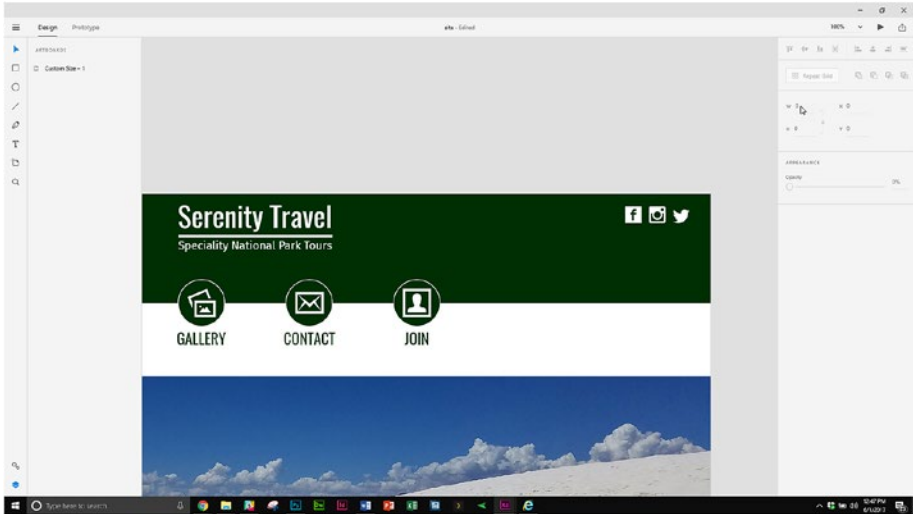


Figure 5-24.

## Creating Calls to Action

There's one final detail we need in our design. Right now, we have these nice big banners on the page, but our users have no reason to want to click them. So, we need to add calls to action to entice our users to click and explore the rest of the site. These will simply be rectangles with text on them.

1. Click the Rectangle tool and draw a rectangle on the artboard.
2. Use the Properties panel to set its width to 480 pixels and its height to 100 pixels, as shown in Figure 5-25.

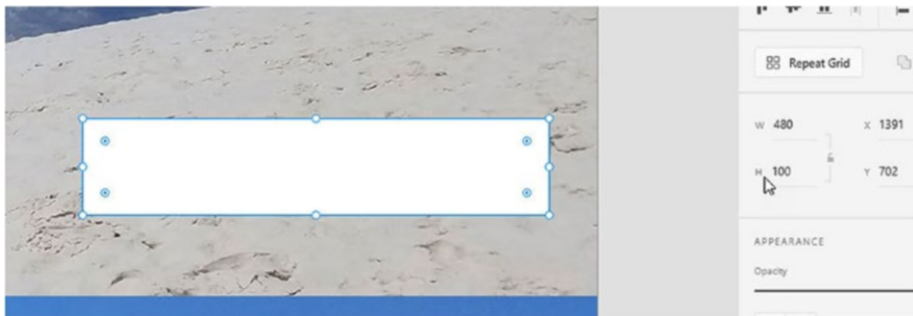
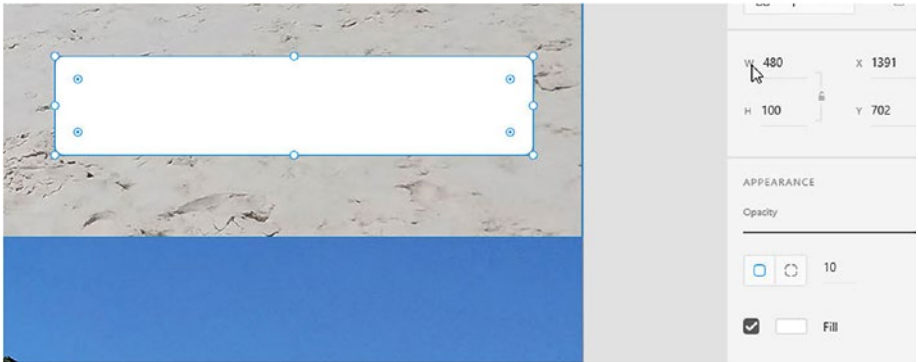


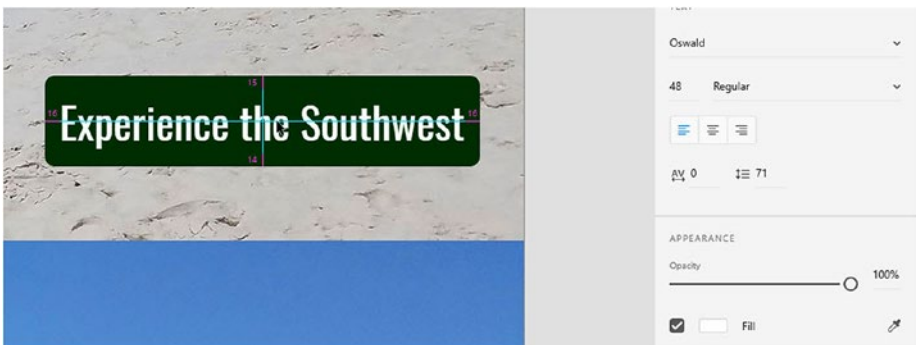
Figure 5-25. Creating the rectangle

3. Set the rounded corners to 10 pixels, as shown in Figure 5-26.



**Figure 5-26.** Rounding the corners of the rectangle

4. Use the eyedropper to set the fill color to the same green we're using elsewhere on the design, and deselect the border.
5. Use the Text tool to type **Experience the Southwest** inside the rectangle.
6. Set the text to Oswald, 48 pixels, and white.
7. Use the Smart Guides to vertically and horizontally center the text in the rectangle, as shown in Figure 5-27.



**Figure 5-27.** Formatting and positioning the text

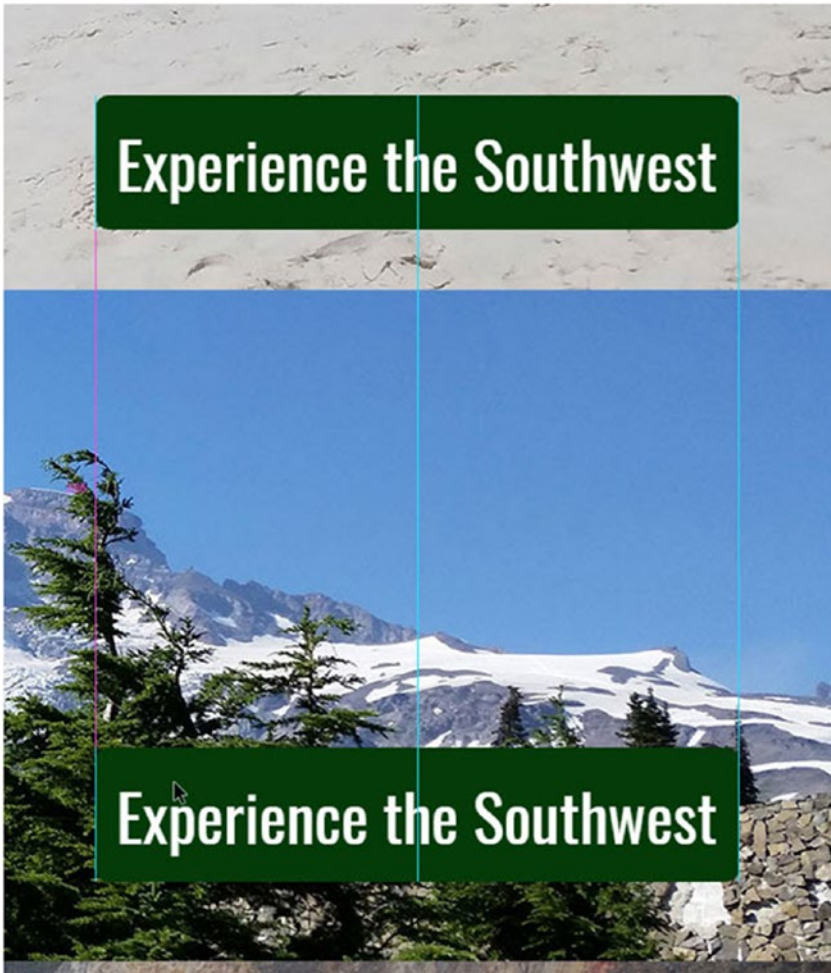
8. Shift-click the text and the rectangle to select both, then use the keyboard shortcut Ctrl-G (Cmd-G on the Mac) to group them.
9. Drag the group so that the Smart Guides indicate that the left edge of the rectangle is aligned with the right edge of the rightmost navigation circle, as shown in Figure 5-28.



**Figure 5-28.** *Aligning the button with the navigation*



10. Press and hold the Alt (Option on the Mac) key and drag the group down to create a copy. As you drag, also press and hold the Shift key to make sure that the copy remains aligned with the original.
11. Place the copy in the same place vertically on the second image as the original is on the first, as shown in Figure 5-29.



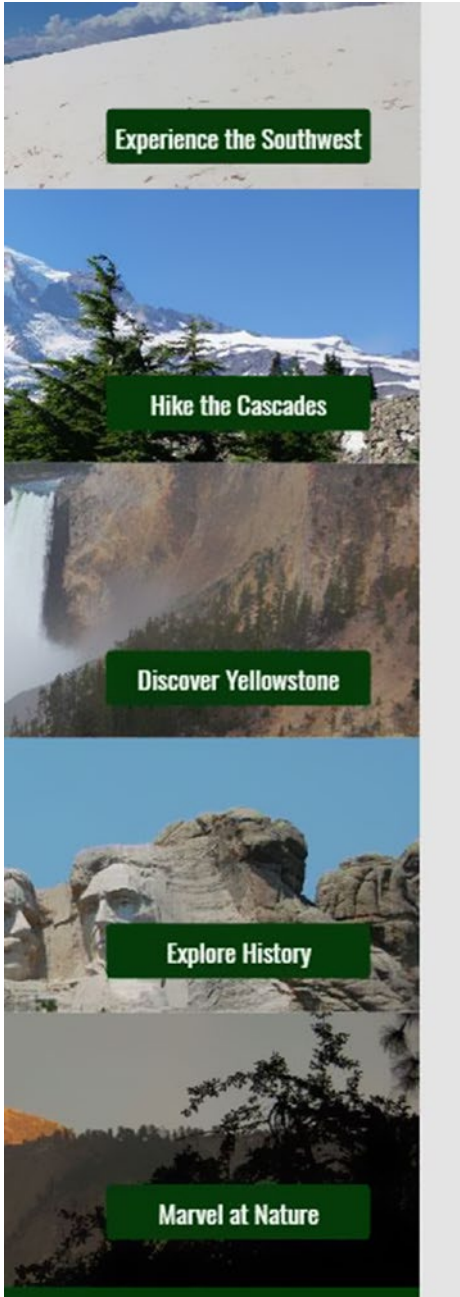
**Figure 5-29.** *Duplicating the button*

12. Repeat steps 10 and 11 to create a copy on each of the images.
13. Double-click the text in the first copy to make that part of the group editable, then change the text to read **Hike the Cascades**.
14. Reposition the text so that it remains centered in the rectangle, as shown in Figure 5-30.



**Figure 5-30.** Changing and re-centering the text

15. Repeat steps 13 and 14 to change the text on each of the other groups, as shown in Figure 5-31.



**Figure 5-31.** *The completed calls to action*

16. Save your work.

## Summary

In this chapter, we looked at adding images to the project. We discussed the image formats that are supported by the web, then explored how you can add images to your project. While XD is not an image editor, we saw how images can be scaled and rotated. And finally, we looked at the most versatile image format—SVG—and how it can be used in projects.

## CHAPTER 6



# Creating New Pages with Artboards

While one-page microsites have gained in popularity on the web in recent years, the vast majority of sites are still made up of multiple pages. XD allows you to create these pages, each as a different size if necessary, through the creation of multiple artboards. In this chapter, we will look at how to create and manage artboards, and begin altering our design for different screen sizes.

## Artboard Basics

Each artboard will represent either a separate page in your design or a copy of a page laid out for a different screen size. Thus, most designs created in XD will end up containing a lot of artboards, possibly dozens.

## Renaming Artboards

In order to keep yourself organized, it's important to get in the habit of renaming artboards as you create them.

You can rename an artboard by simply double-clicking the existing name, which is shown in light blue text above the top left corner of the artboard, and then typing a new name (see Figure 6-1). There are no limits as to how long the name can be or what characters it can contain.



**Figure 6-1.** *Renaming the artboard*

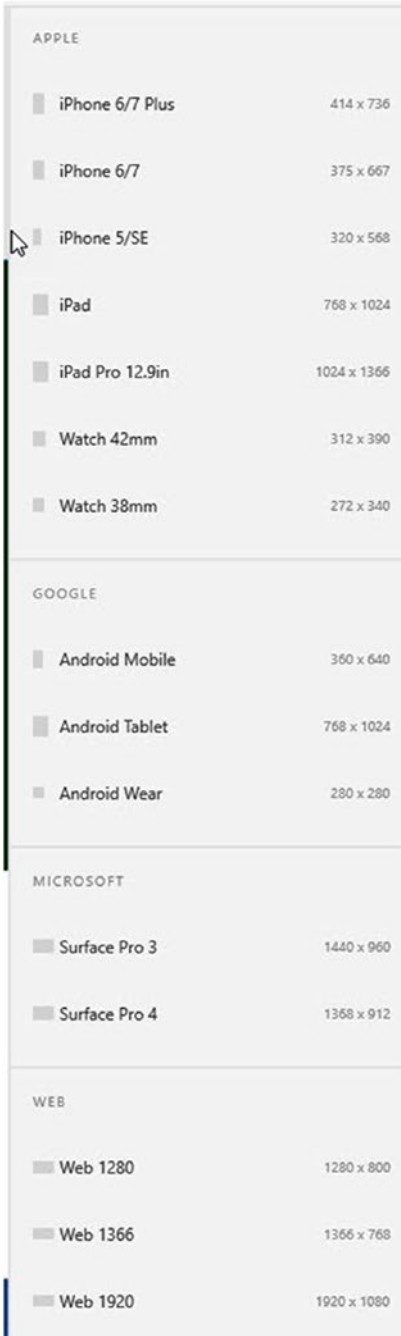
Regardless of whether or not you have an artboard selected, the Layers panel will also display any artboards in your design, and you can rename them in the Layers panel just as you would a layer, by double-clicking the existing name.

## Creating a New Artboard

New artboards can be created using the Artboard tool, shown in Figure 6-2. You can create a custom-sized artboard by clicking and dragging in the blank area of the screen, or you can create an artboard using a preset size by selecting one from the list of presets on the right, on the Properties panel, as shown in Figure 6-3.



**Figure 6-2.** *The Artboard tool*



The image shows a vertical list of artboard presets in a design tool. The list is organized into four sections: APPLE, GOOGLE, MICROSOFT, and WEB. Each section contains several items, each with a small gray square icon to its left and its dimensions to its right. A mouse cursor is pointing at the 'iPhone 5/SE' item in the APPLE section. A vertical blue bar is visible on the left side of the list, and a vertical black bar is visible on the right side of the list.

| APPLE           |             |
|-----------------|-------------|
| iPhone 6/7 Plus | 414 x 736   |
| iPhone 6/7      | 375 x 667   |
| iPhone 5/SE     | 320 x 568   |
| iPad            | 768 x 1024  |
| iPad Pro 12.9in | 1024 x 1366 |
| Watch 42mm      | 312 x 390   |
| Watch 38mm      | 272 x 340   |
| GOOGLE          |             |
| Android Mobile  | 360 x 640   |
| Android Tablet  | 768 x 1024  |
| Android Wear    | 280 x 280   |
| MICROSOFT       |             |
| Surface Pro 3   | 1440 x 960  |
| Surface Pro 4   | 1368 x 912  |
| WEB             |             |
| Web 1280        | 1280 x 800  |
| Web 1366        | 1366 x 768  |
| Web 1920        | 1920 x 1080 |

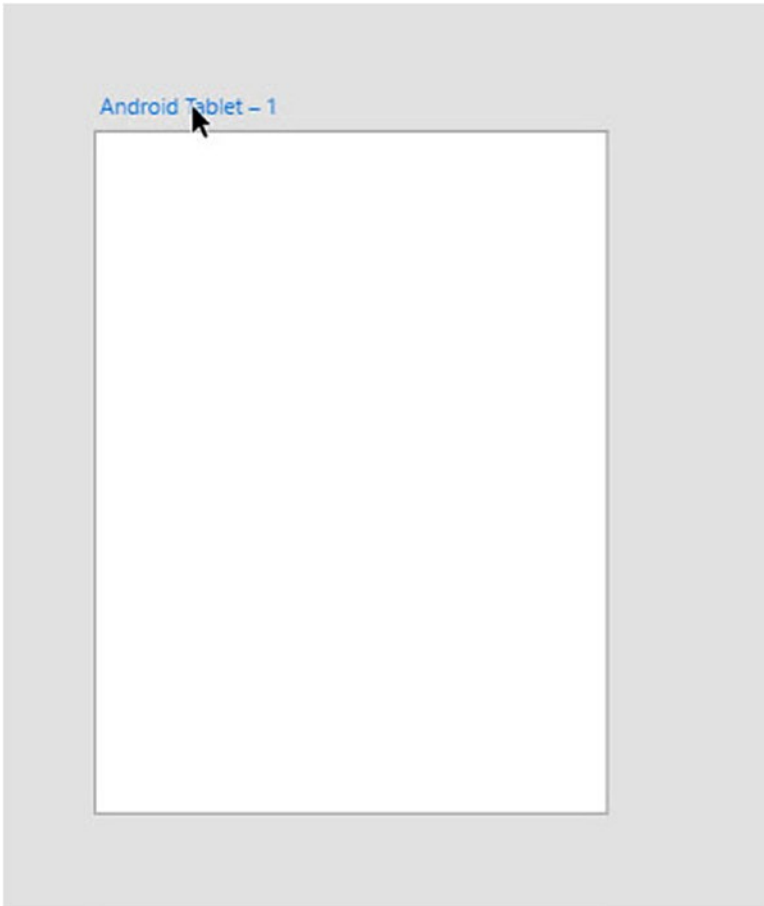
**Figure 6-3.** Artboard presets

## Selecting, Resizing, and Moving Artboards

After you have created an artboard, you can select it by clicking its name in the top left corner. You can also select it by double-clicking in a blank area of the artboard, although this becomes less useful as your artboard fills up with your design.

Once you select an artboard, you can change its size by entering new values in the W and H text boxes in the Properties panel, or by dragging its control handles.

You can reposition your artboards on the screen by dragging them by their name, as shown in Figure 6-4.



**Figure 6-4.** *Moving an artboard*

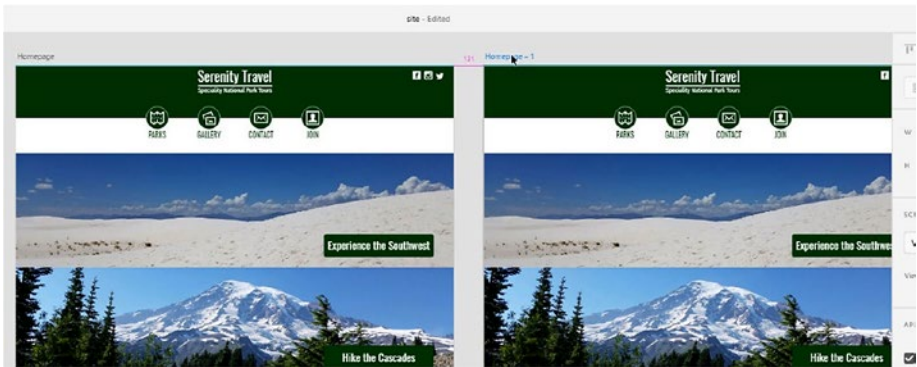


## Duplicating Artboards

On most designs, you will have elements that are duplicated from one page to the next, such as headers, navigation, and footers. Therefore, duplicating an existing artboard, with all of its contents, is often more useful than creating a new one from scratch.

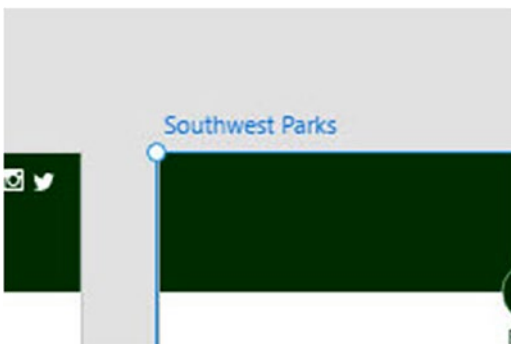
To continue building the design for our travel company website, we will want to duplicate our existing artboard and delete the homepage content, preserving shared content.

1. Press Ctrl-0 (Cmd-0) to zoom out to see the entire page.
2. Click the Selection tool, then press and hold the Alt key (Option on the Mac), then drag the artboard by its name to the right to create a duplicate. See Figure 6-5.



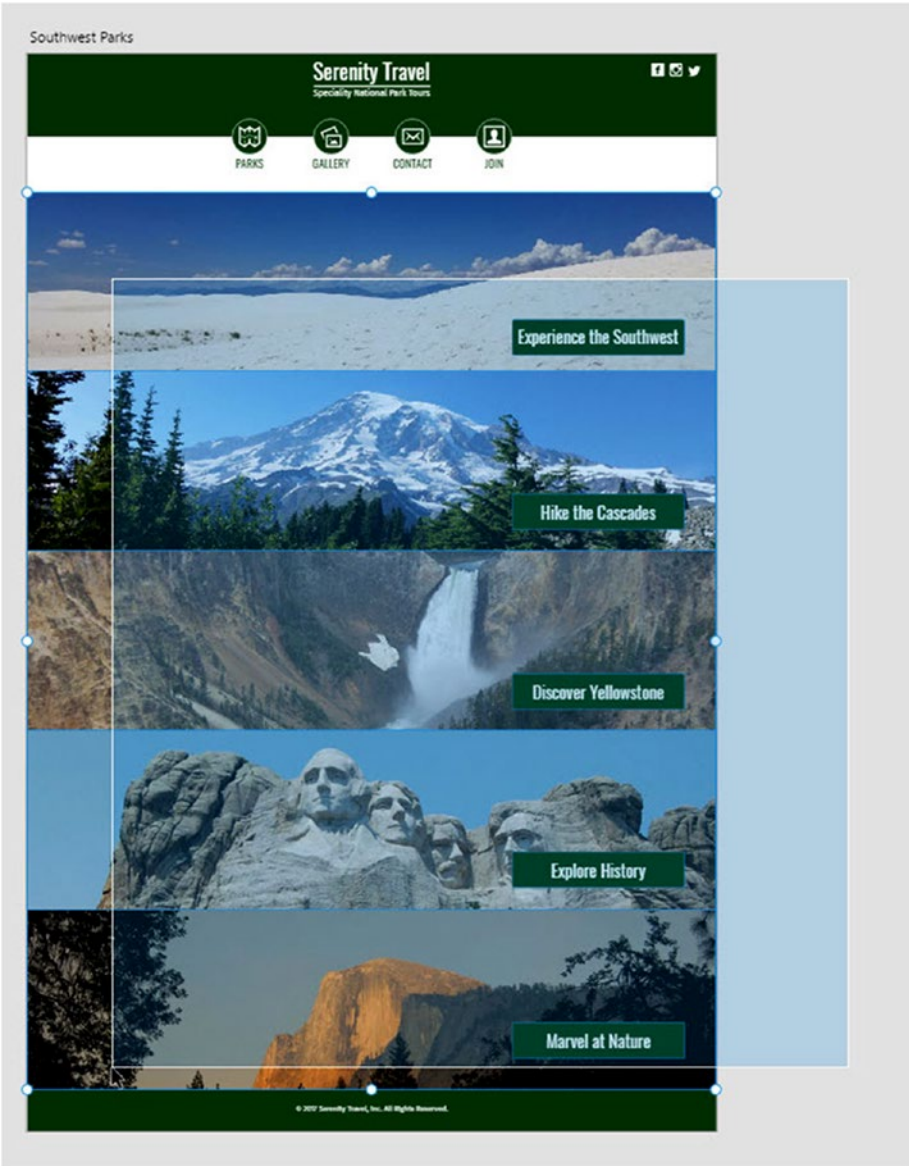
**Figure 6-5.** Duplicating an artboard

3. Double-click the title and rename the duplicate artboard **Southwest Parks**. See Figure 6-6.



**Figure 6-6.** Renaming the new artboard

- Starting from a space outside either artboard, click and drag to highlight all of the content between the header and footer: the five banner images and the calls to action. Be careful to not select any of the navigation elements or the footer. See Figure 6-7.



**Figure 6-7.** *Selecting the content to delete*

5. Press Delete or Backspace to delete the contents. See Figure 6-8.



**Figure 6-8.** The two artboards, with the new one empty and ready for its own contents

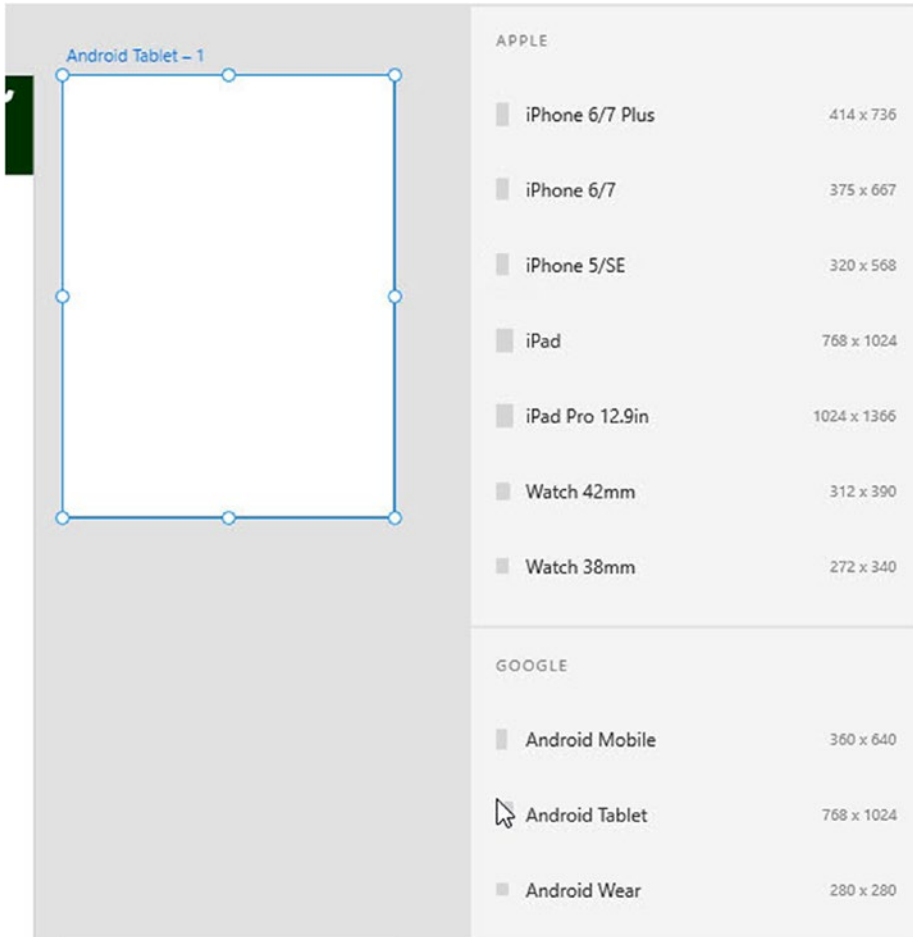
6. Save your work.

## Using Artboards to Set Up Designs for Mobile Devices

Today, most people access the web primarily, if not entirely, via mobile devices. Thus, it is imperative that websites be designed to be mobile-friendly.

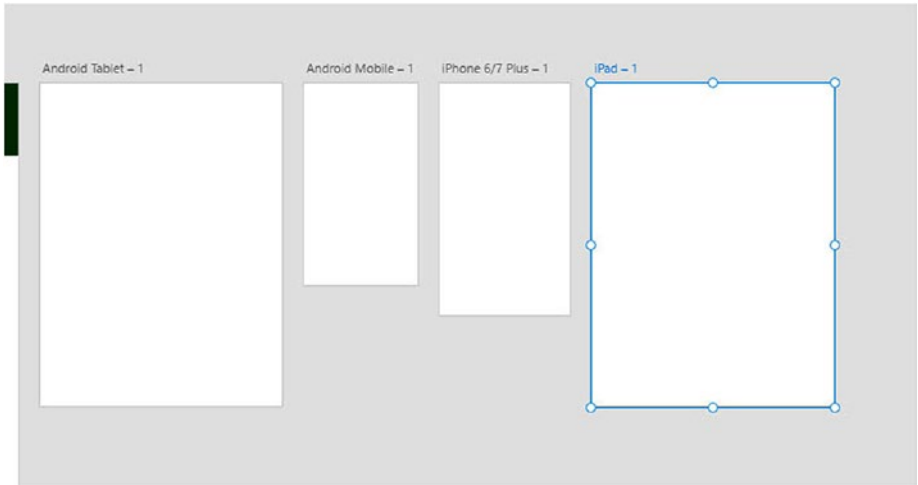
XD comes with a set of artboard templates for a variety of mobile devices. While the details of creating layouts for these devices will be covered in Chapter 8, it's helpful to go ahead and set up a few artboards for them now.

1. Click the Artboard tool (see Figure 6-2).
2. From the Properties panel, click Android Tablet to create an artboard at 768×1024 (see Figure 6-9).



**Figure 6-9.** Creating an artboard for an Android tablet

3. Click Android Mobile to create a 360×640 artboard.
4. Click iPhone 6/7 to create a 375×667 artboard.
5. Click iPad to create a 768×1024 artboard. See Figure 6-10.



**Figure 6-10.** *Our mobile artboards*

## Summary

In this chapter, you learned how to use artboards to create new pages in your design. You also saw how you can easily duplicate content on to new artboards to represent shared elements on pages, such as headings and navigation.

## CHAPTER 7



# Organizing Content Using Content Grids

Many websites have grids of content. Blogs have repeating blocks for posts with the title, author, date, and blurb. E-commerce sites usually have a picture of the product, a title, price, and description, repeated down the page. Travel sites list various destinations, again all formatted in similar, repeating blocks. Because this is such a common design pattern, Adobe XD includes a very cool Repeat Grid feature that makes creating and managing these grids incredibly easy. In this chapter, we will look at how to add the content for some of the inner pages of the travel site with Repeat Grids.

## Creating Placeholders for a Grid

The first step in creating a Repeat Grid is adding placeholders for the content. Generally, this content will consist of one or more images and a series of text boxes, although it can be made up of any design elements.

Our design already contains an example of a repeating grid: the series of images and calls to action on the home page. That could have easily been created using the repeat grid feature. But that point aside, the Repeat Grid will be even more helpful for our interior page.

1. Open the design from the previous chapter. See Figure 7-1.

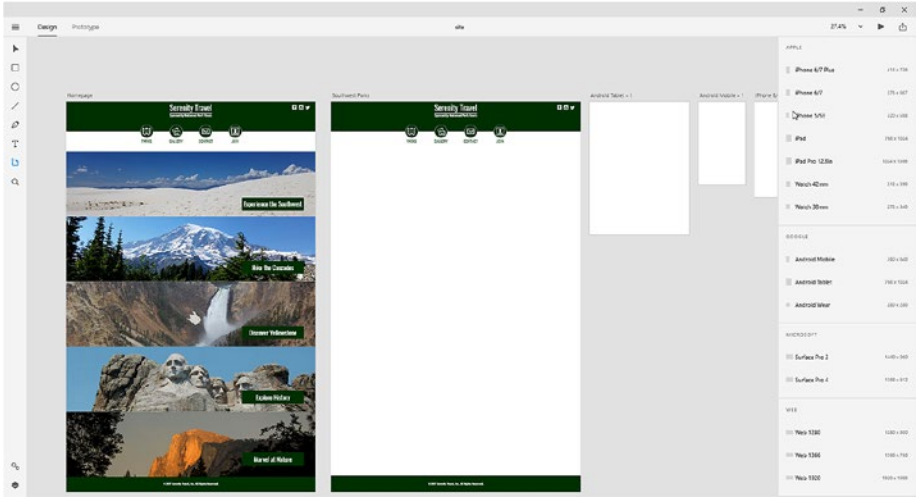


Figure 7-1. The design so far

2. Zoom in on the Southwest Parks artboard.
3. Click the Text tool and, near the top of the page, type **Parks of the Southwest**.
4. Format the text as Oswald, 100 pixels, and green. See Figure 7-2.

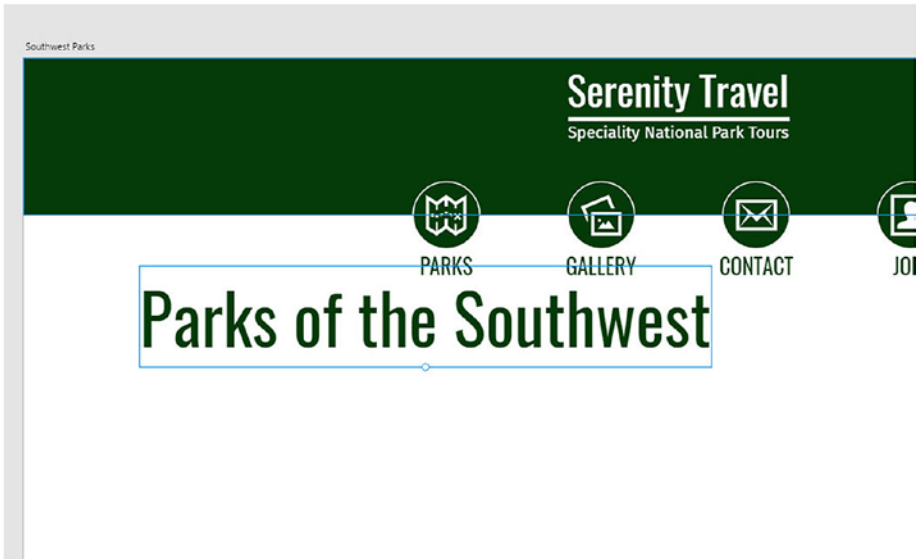
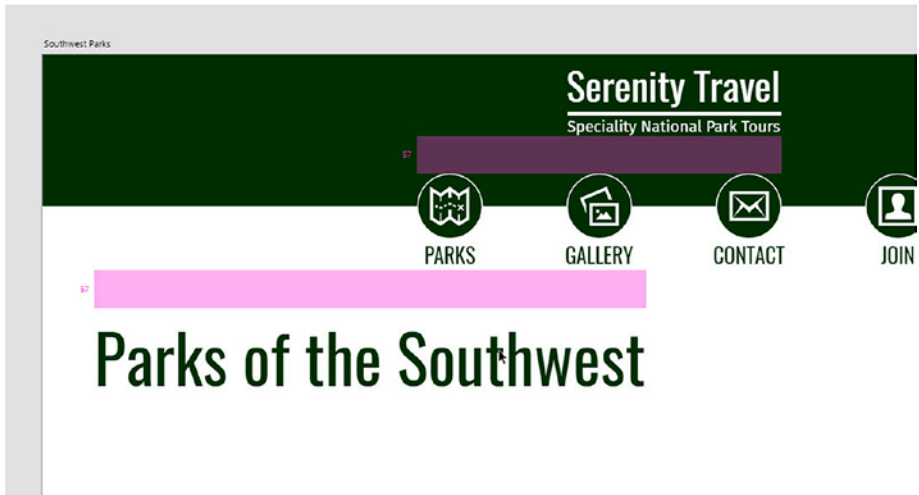


Figure 7-2. Entering the header text

5. Use the Smart Guides to align the text so that it is as far below the navigation as the navigation is below the header (see Figure 7-3). For the moment, do not worry about its horizontal alignment.

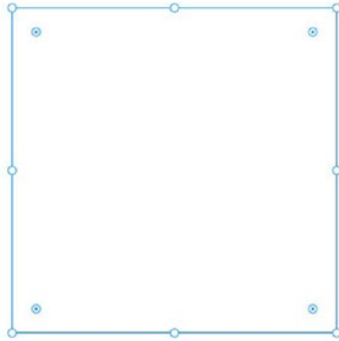


**Figure 7-3.** Positioning the header with Smart Guides



6. Click the Rectangle tool and draw a square that is 400×400 (see Figure 7-4). This will eventually contain the image of the park. The Fill and Border colors do not matter.

# Parks of the Southwest



**Figure 7-4.** *The image placeholder*

7. Return to the Text tool and type **Park Name** as a placeholder for the name of the park.

8. Format this text as Oswald, 50 pixels, and green. See Figure 7-5.

# Parks of the Southwest

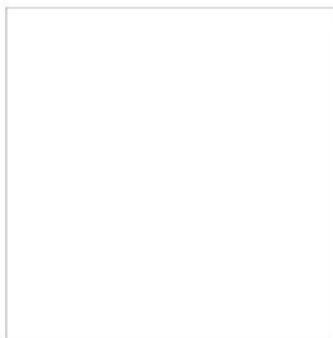


Park Name

**Figure 7-5.** *The park name placeholder*

9. Alt-drag (Option-drag on the Mac) the Park Name text to create a copy below the original text (see Figure 7-6).

# Parks of the Southwest



Park Name

Park Name

**Figure 7-6.** *Duplicating the text*

10. Double-click the new text and change it to say **State**.
11. Resize the State text to 24 pixels. See Figure 7-7.

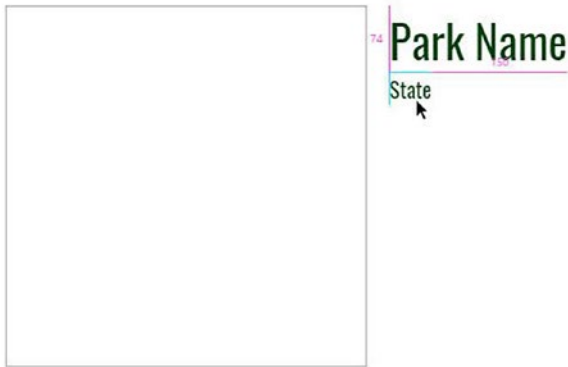
# Parks of the Southwest



**Figure 7-7.** State placeholder text formatted

12. Align all three elements to each other (see Figure 7-8).

# Parks of the Southwest



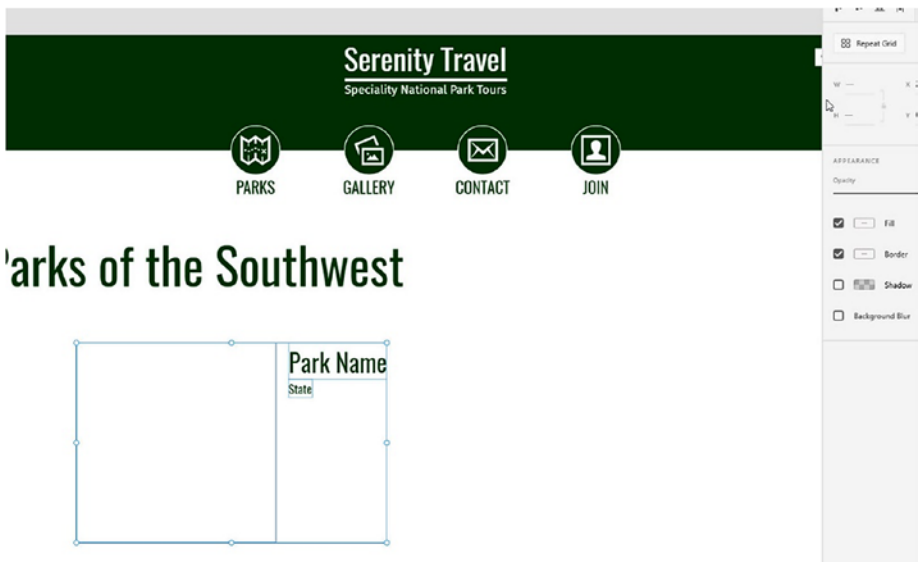
**Figure 7-8.** Aligning the placeholder elements

■ **Note** There is no way to specify the size of a text box in XD: all text boxes automatically size based on their content. You also cannot specify that text should wrap. So, while you can type multiple lines for placeholder text, you will need to manually update those line breaks as you update to your real content.

## Creating a Repeat Grid

Once you have your placeholders created, you can create the grid itself.

1. Select all three placeholders.
2. On the Properties panel, click Repeat Grid (see Figure 7-9).



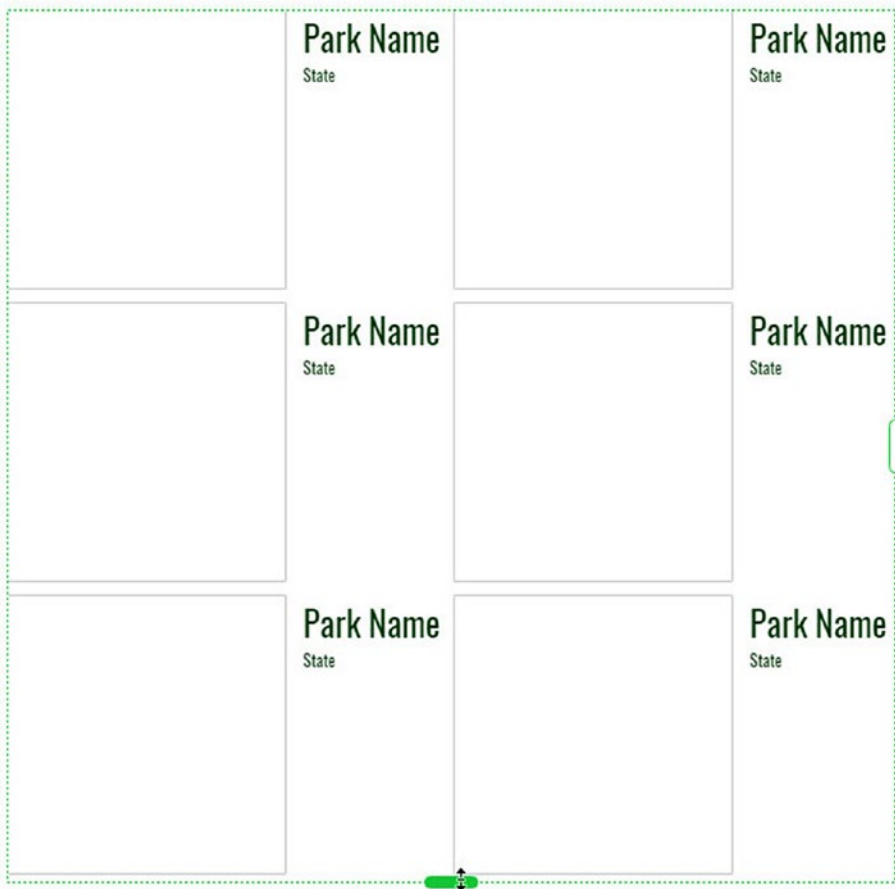
**Figure 7-9.** The selected placeholders (bottom left) and the Repeat Grid button (top right)

3. Drag the green handle to the right to add a second column (see Figure 7-10).



**Figure 7-10.** Adding a second column

4. Drag the green handle at the bottom down to add two more rows, resulting in a 2x3 grid (see Figure 7-11).

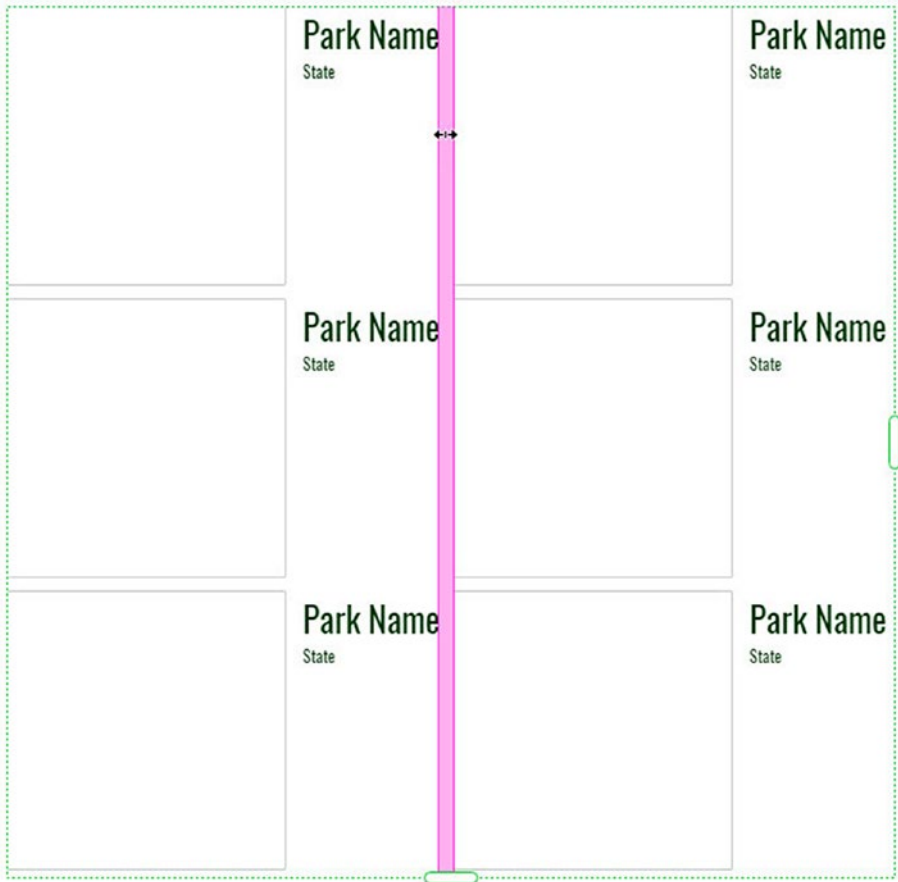


**Figure 7-11.** Adding the rows

## Adding Padding to a Grid

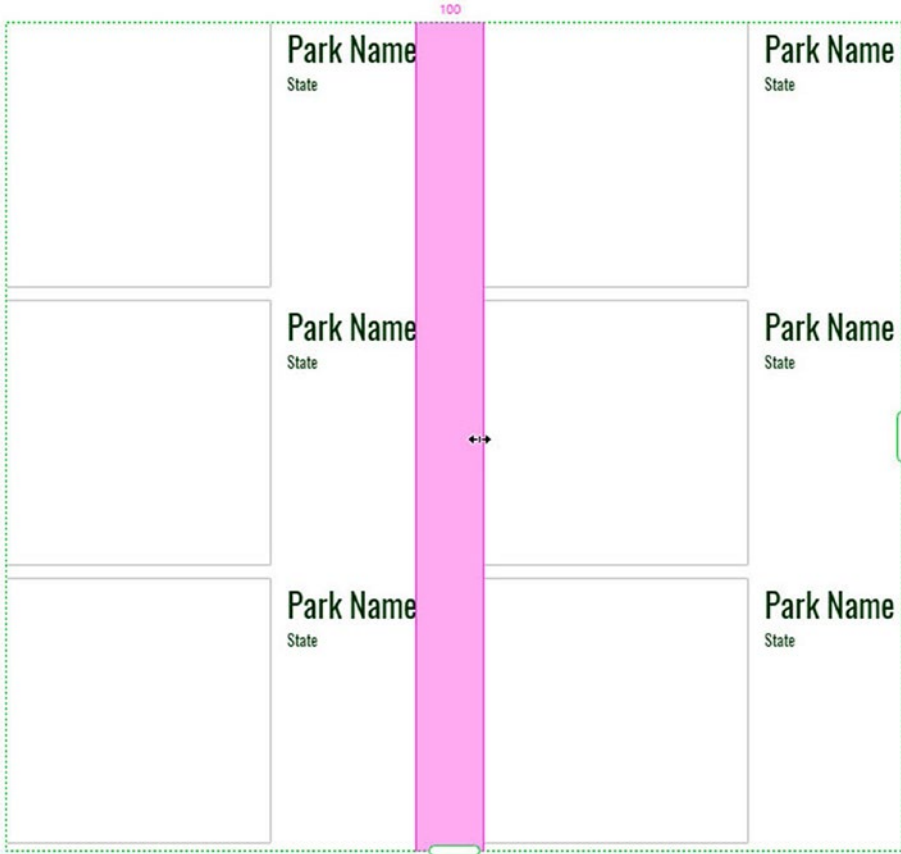
Once your grid is created, you can add padding to give your design elements some breathing room.

1. With the Selection tool, position your mouse in between the two columns. You should get a pink highlight (see Figure 7-12).



**Figure 7-12.** Preparing to add padding

2. Click and drag to expand the padding between the columns (see Figure 7-13). To begin with, we want about 100 pixels between the columns.



**Figure 7-13.** Setting the padding between columns

- Repeat steps 1 and 2 to add 100 pixels of padding between the rows (see Figure 7-14). You will notice that if you increase the padding between one pair of rows, the others increase as well. This also applies to columns.



**Figure 7-14.** Adding padding to the rows

---

■ **Note** The amount by which the padding increases is dependent on your zoom level. The more you are zoomed in, the finer control you will have with your padding adjustment. In this particular case, it's unimportant if the padding ends up being 102 or 104 pixels, but if you need it to be precise for a real design, simply zoom in more.

---



## Adding Content to a Grid

Once you have your grid of repeated placeholders, you need to populate it with real content. There are two ways to do this: manually or automatically.

### Manually Updating Placeholders

You can manually update the content of your text placeholders in a Repeat Grid by double-clicking the text to select the placeholder, then double-clicking it again to make the text editable.

You cannot manually replace rectangles or other drawn shapes being used as image placeholders with images. You could, of course, import the images, then size them to match the placeholder, but the original placeholder shape will remain in your design.

Manually updating both text and image placeholders is obviously highly inefficient. Letting XD do the work for you is far better.

### Automatically Updating Placeholders

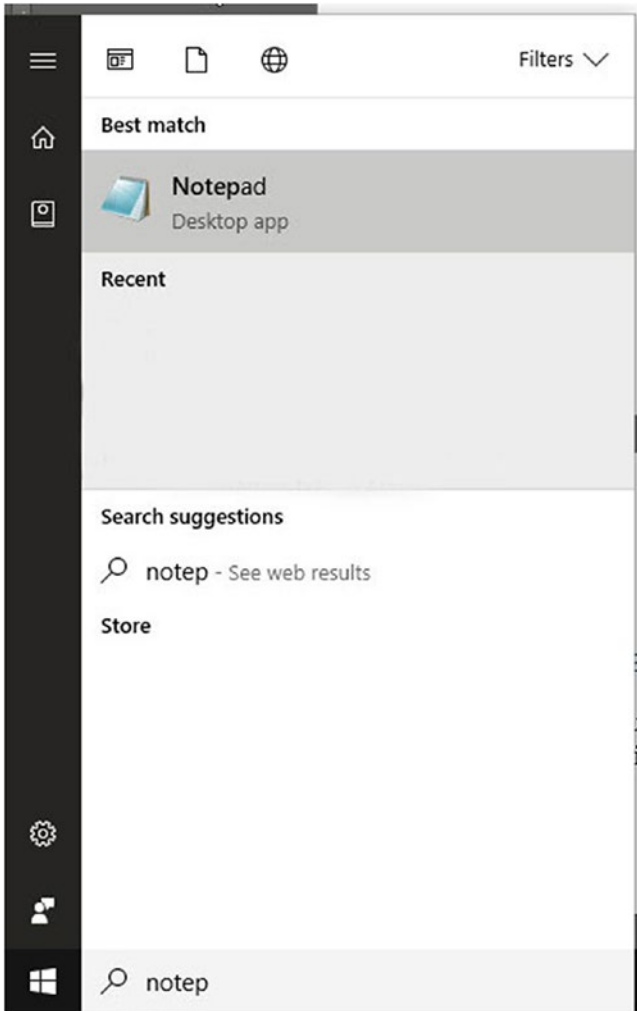
Thankfully, XD provides a cool means by which you can update the content in your grid.

Text placeholders can be replaced with real content from text files. To do this, you will need to begin by creating a text file with the content you want in your grid. The grid will be filled with this content working left-to-right, then top-to-bottom, so you will need to plan how you want the text to populate the grid.

### Creating a Text File in Windows

In Windows, you can create a text file using Notepad.

1. Click the Start button.
2. In the search box, type **Notepad** (see Figure 7-15).



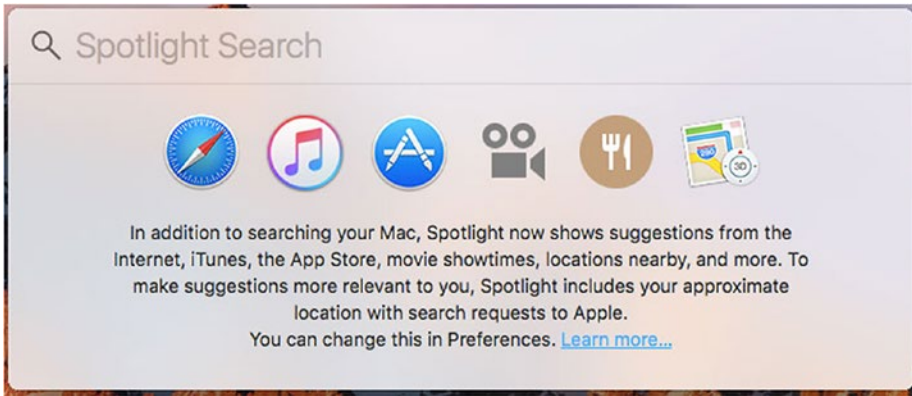
**Figure 7-15.** Opening Notepad on Windows

3. Press Enter.

## Creating a Text File on a Mac

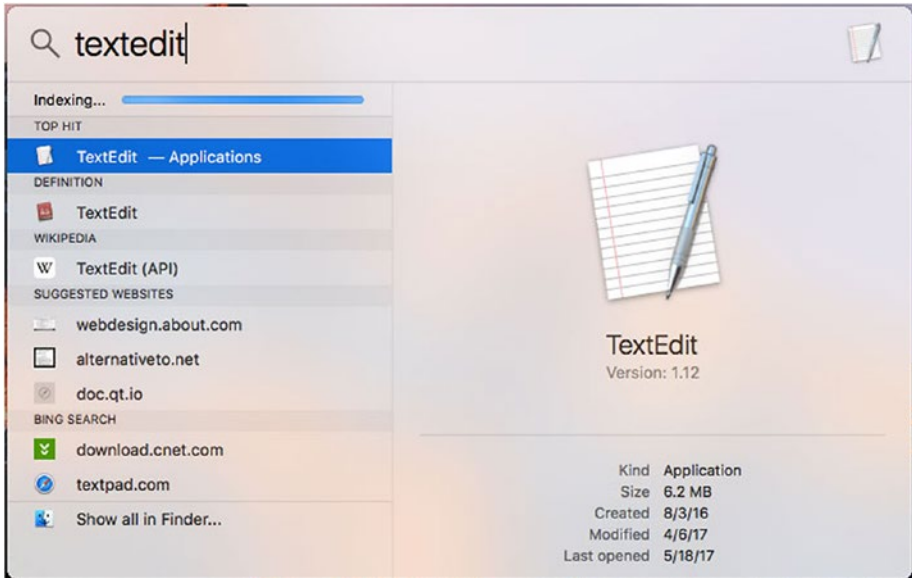
You can use TextEdit on Macs to create a text file, but you have to specify that you want a plain text file.

1. On your keyboard, press **Cmd-Spacebar** to open Spotlight Search. See Figure 7-16.



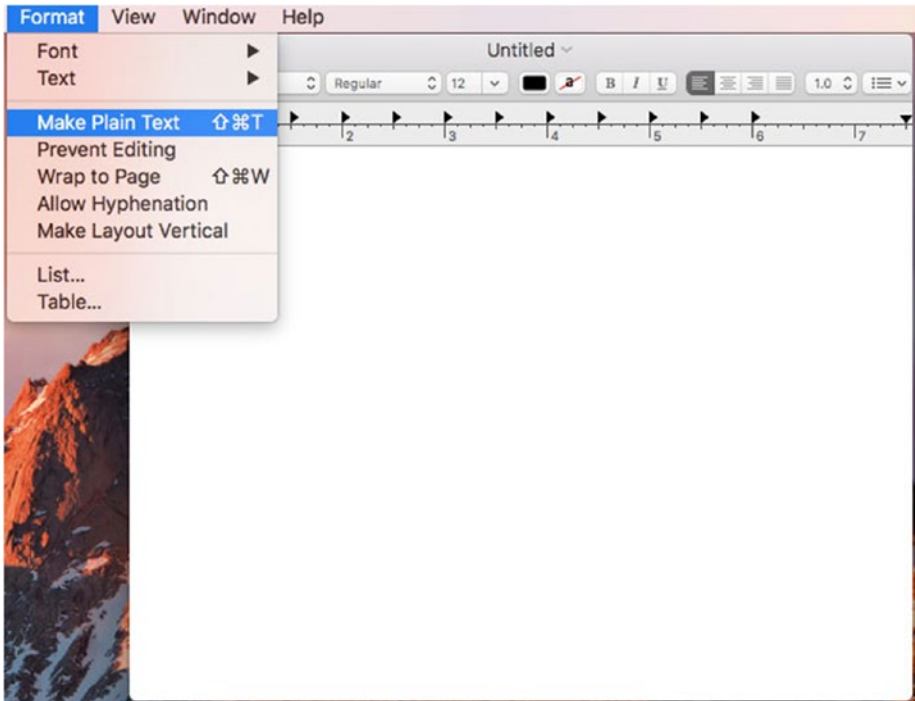
**Figure 7-16.** Mac Spotlight Search

2. Type **TextEdit**. See Figure 7-17.



**Figure 7-17.** Looking for TextEdit

3. Press Enter.
4. When TextEdit launches, click the Format menu.
5. Click Make Plain Text. See Figure 7-18.



**Figure 7-18.** Formatting for plain text

## Adding Text to Replace Placeholders

In the text file, type the information you want to go into your design. Place each piece of text on its own line. Because this is a plain text file, you cannot do any formatting, but that's OK, since you want to do the formatting in XD anyway.

Remember that the order in which you type the text matters. The first line will go in the first item on the grid. The second will go in the next item on that row, and items will continue across the row before moving down to the following row.

When you are done, save the text file. Make sure that its file extension is .txt.

Create new text files for each additional field you want to populate. It's important to note that each text field that you want to automatically populate will require its own text file.

## Populating Repeat Grids with Text Files

Once you have the text files created, getting XD to read them into your grid is surprisingly simple.

1. Return to XD, but make sure you can also see the file folder that contains the text file (see Figure 7-19).

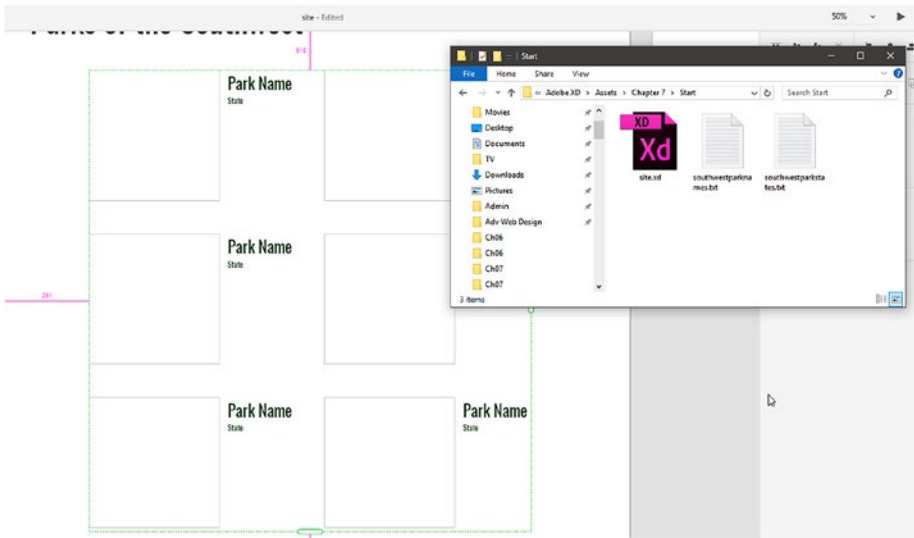


Figure 7-19. Preparing a drag the text file into XD

2. Drag the text file on to the first text placeholder in the Repeat Grid, then release your mouse (see Figure 7-20).

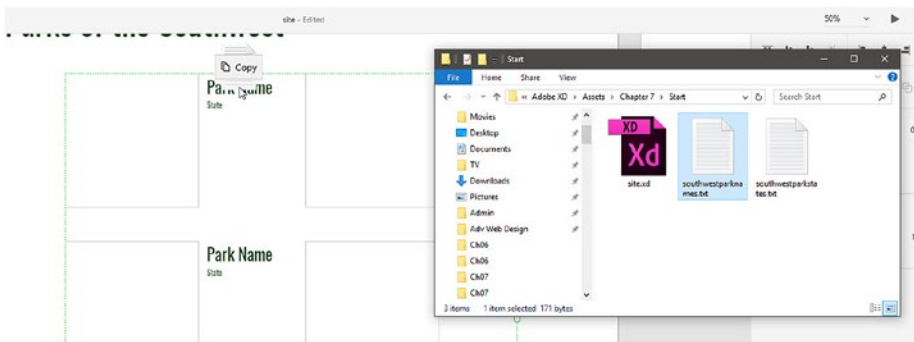


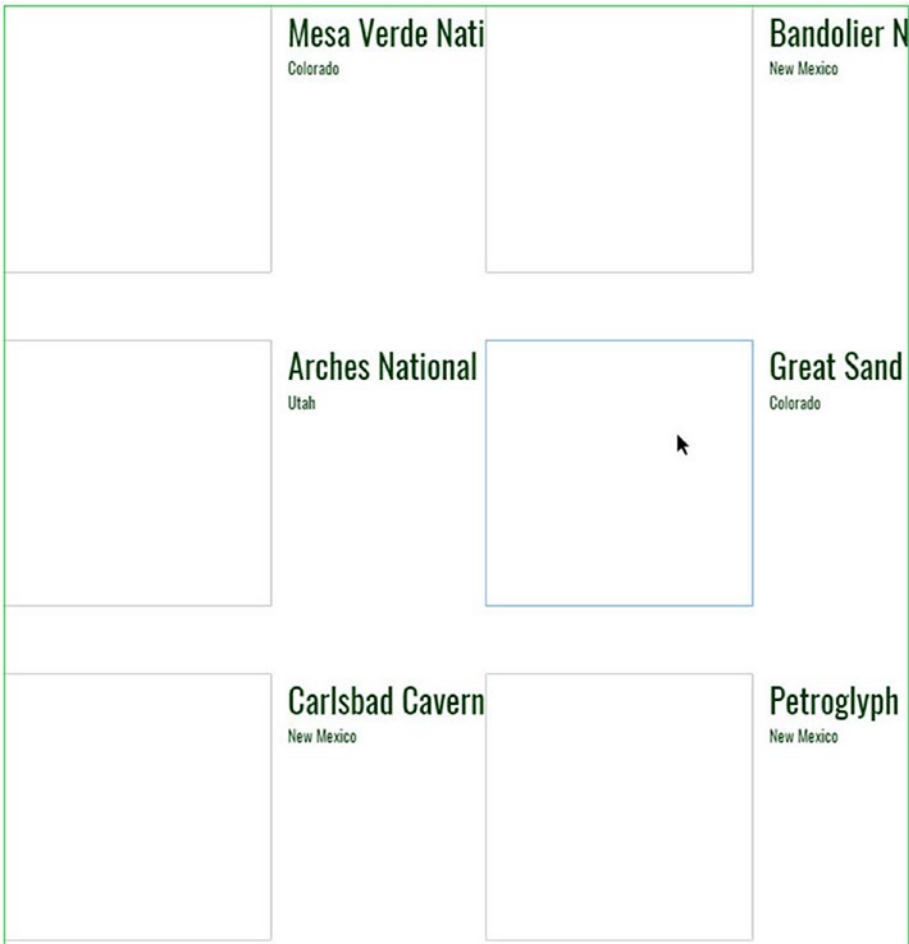
Figure 7-20. Dragging the text file to the placeholder

The grid will populate with the items from the text file. In our example, there is a formatting problem, but we can fix that (see Figure 7-21).



**Figure 7-21.** The grid populated with park names

Repeat the previous steps to replace the other text placeholder content with the other text file, as shown in Figure 7-22.

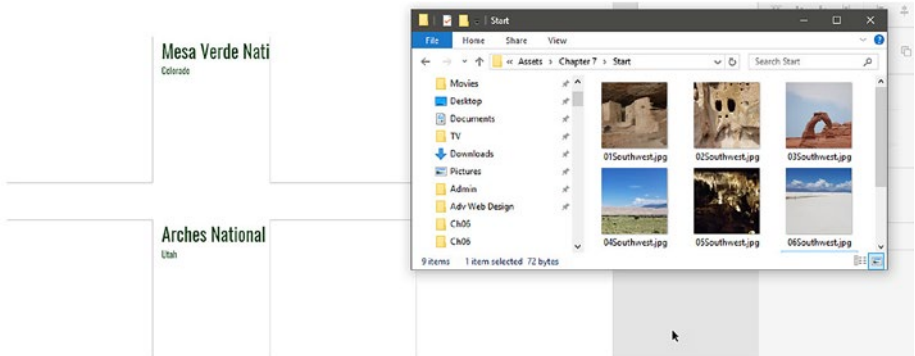


**Figure 7-22.** The state placeholders replaced with content

## Adding Images to Placeholders

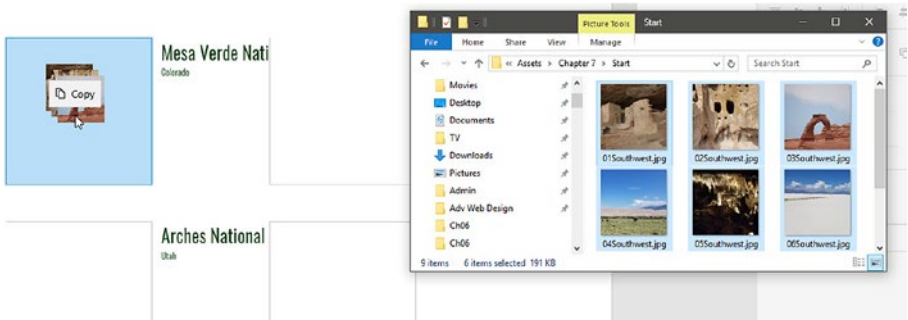
Replacing placeholder shapes with images is even easier than replacing text, since it does not require the creation of additional documents.

1. Make sure you can see both the artboard with the repeat grid and the file folder containing the images (see Figure 7-23).



**Figure 7-23.** Preparing to replace the image placeholders

2. In the file folder, press and hold the Ctrl key (Cmd on a Mac) and select the images you want to use. The order in which you select them will determine the order in which they populate the grid, so be careful how you select. It may be useful to name the images so that they are already in the right order, as I have done.
3. Drag the images to the first placeholder shape, then release your mouse button (see Figure 7-24).



**Figure 7-24.** Dropping the images on to the first placeholder

4. The images will populate the grid left-to-right then top-to-bottom. See Figure 7-25.



■ **Note** In this example, all of the images have been edited in Adobe Photoshop so that they are all exactly the same pixel dimensions, and to ensure that they are the same size as the placeholder. If you have images that are different sizes, they will be centered in the placeholder and cropped to fit. Therefore, it's important to plan ahead and make sure you pre-size your images for your design.

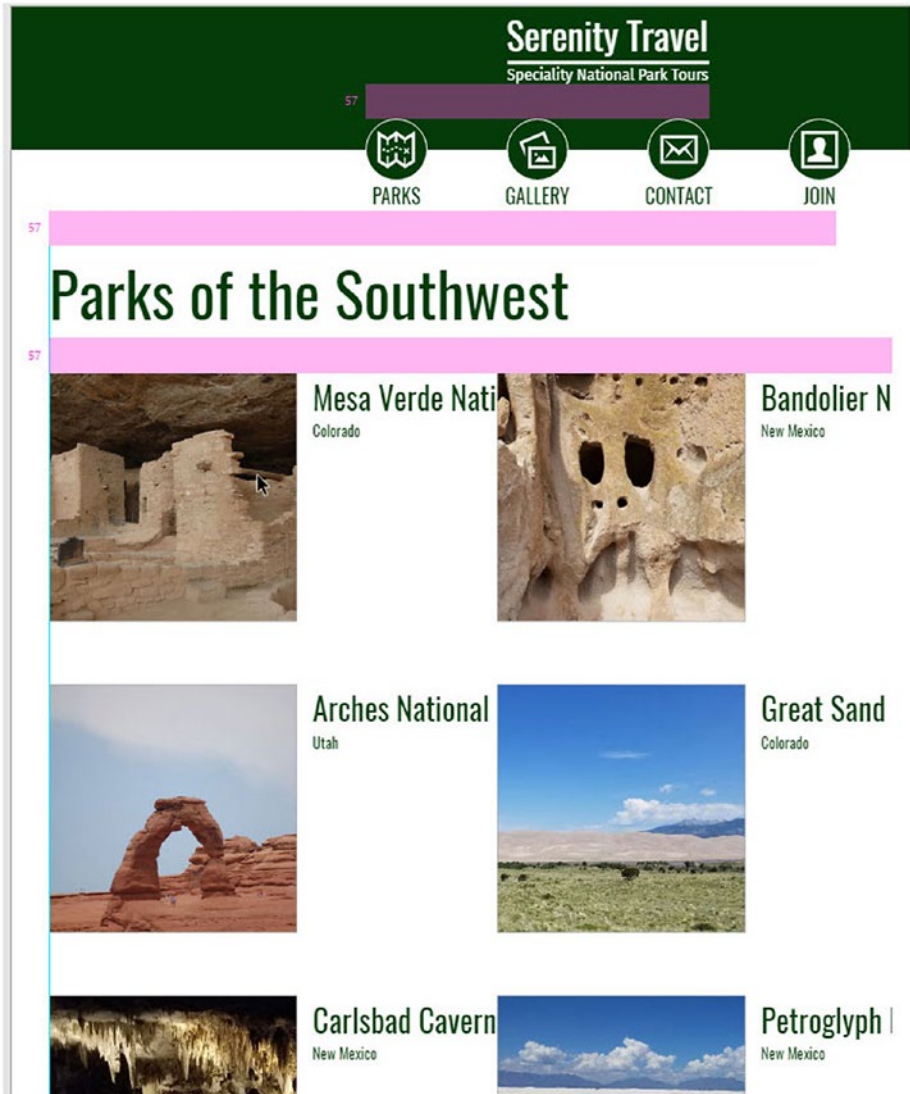


**Figure 7-25.** The images populating the grid

## Formatting Placeholders That Contain Data

While you can format placeholders with font, size, and color information, you cannot set a size for a textbox nor automatically force text to wrap in a placeholder. Therefore, you need to do some formatting manually after the data populates.

1. Drag the grid so that its left edge aligns with the left edge of the header text and it is evenly spaced below the header. See Figure 7-26.



**Figure 7-26.** Positioning the grid

2. Double-click the first park name.
3. Press Enter after “Verde” to bring “National Park” to a new line. See Figure 7-27.

# Parks of the Southwest



Mesa Verde  
Colorado  
National Park

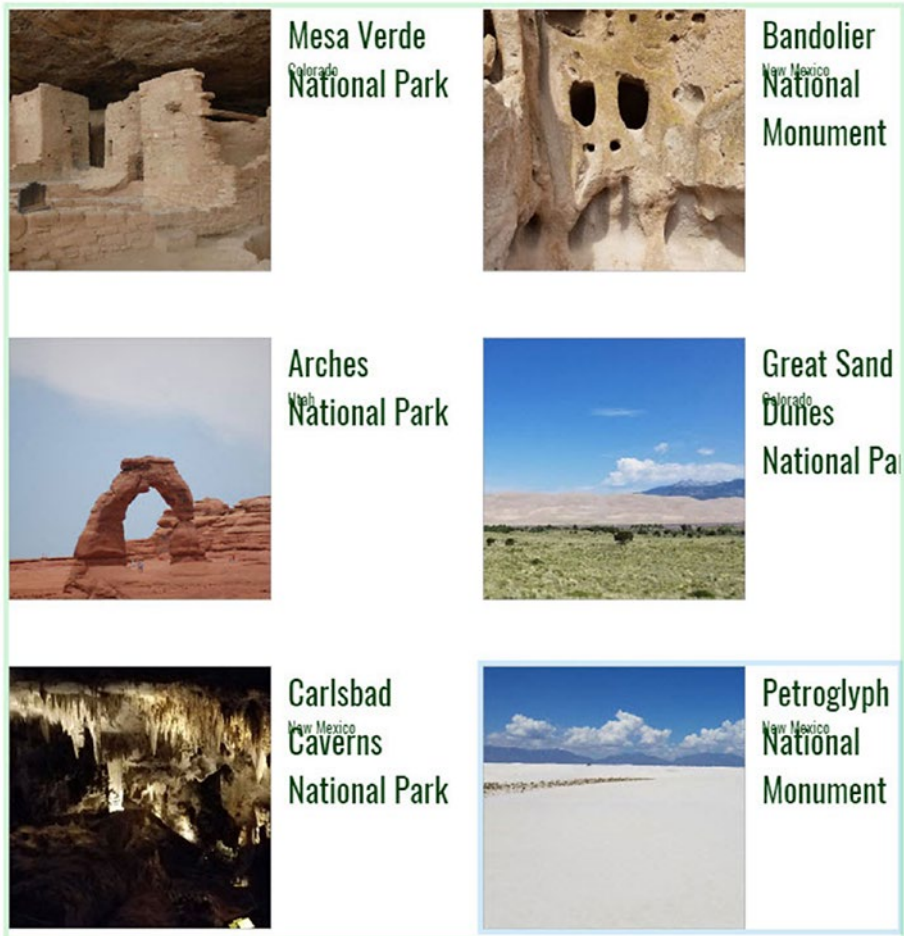


Arches National  
Utah



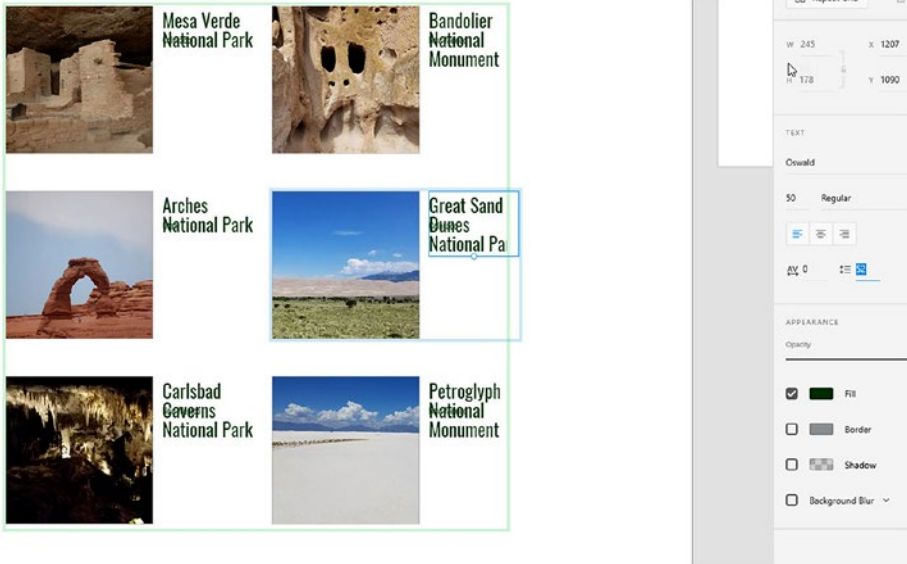
**Figure 7-27.** The first part of fixing the park names

4. Repeat step 2 on each other park name to get them to fit. Some of the longer ones will need to be three lines. See Figure 7-28.



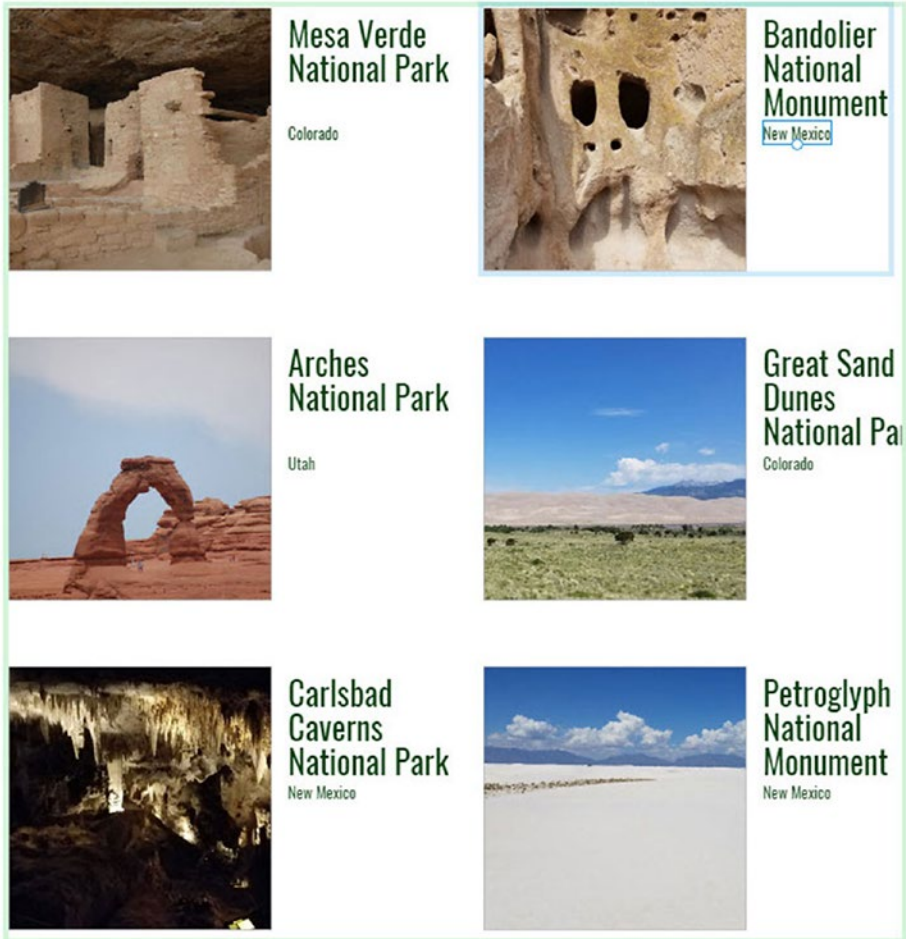
**Figure 7-28.** Continuing to work on the park names

5. With the Selection tool, click one of the park name items and use the Line Height setting on the Properties panel to bring the lines closer and make them more readable (see Figure 7-29).



**Figure 7-29.** Fixing the line height on the park names

6. Click and drag the State text on any grid item to move it down so that it fits below the text (see Figure 7-30). You will see that moving an item in one grid cell moves them all.



**Figure 7-30.** Moving the state names



7. Because the real text is so much longer than the placeholder, we have lost most of the padding between the columns. Click and drag in the padding area between the columns. Click and drag in the padding area between the columns to increase it back to about 100 pixels. See Figure 7-31.



**Figure 7-31.** Resetting the padding

- You may also need to move the right edge of the grid out to accommodate longer content on that side. See Figure 7-32.



**Figure 7-32.** The completed grid



9. Before, you lined up the grid with the header, but now that it is done and you know how big the content will be, you need to realign it. Press Ctrl-- (Cmd--) to zoom out so that you can view the width of the artboard. See Figure 7-33.

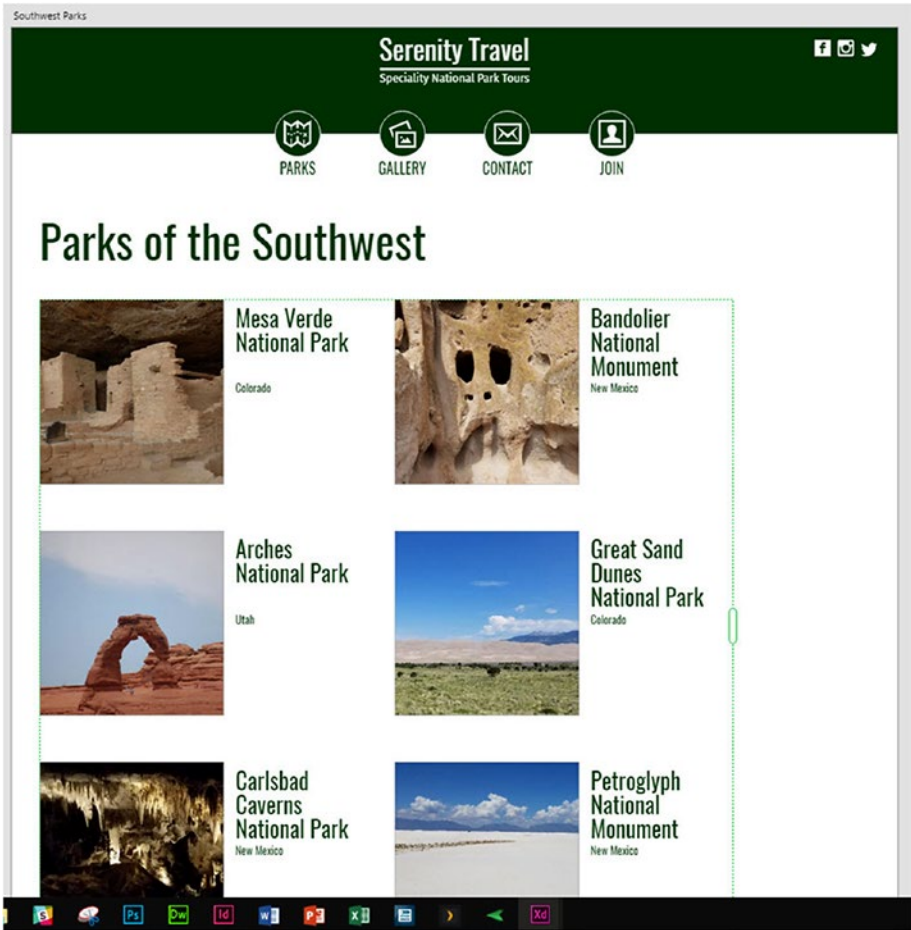
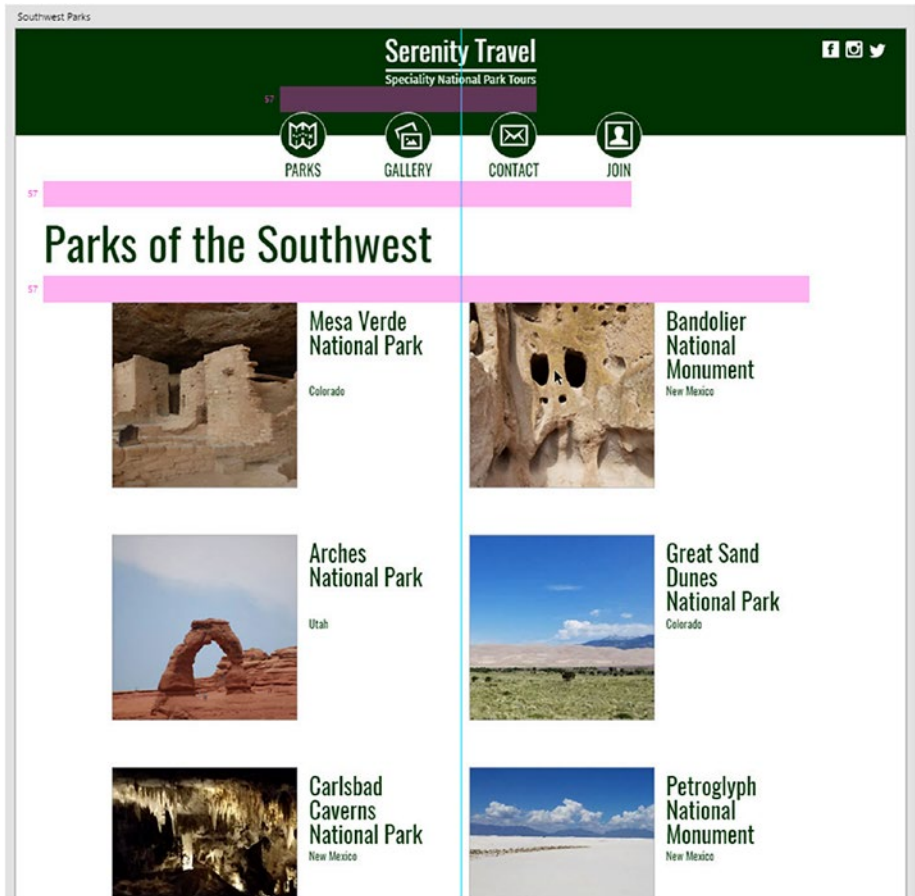


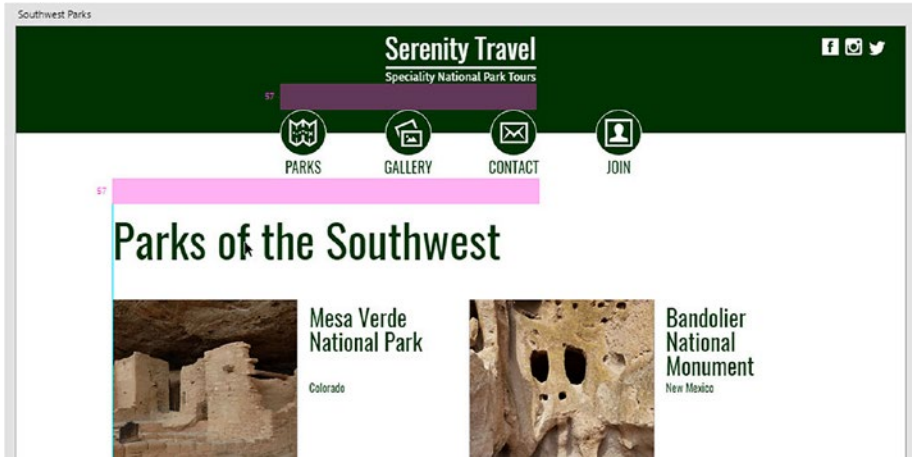
Figure 7-33. Zooming out to see the width of the artboard

10. Move the entire Repeat Grid (it is still one item and will behave as such) so that it is centered on the page, spaced evenly below the heading (see Figure 7-34).



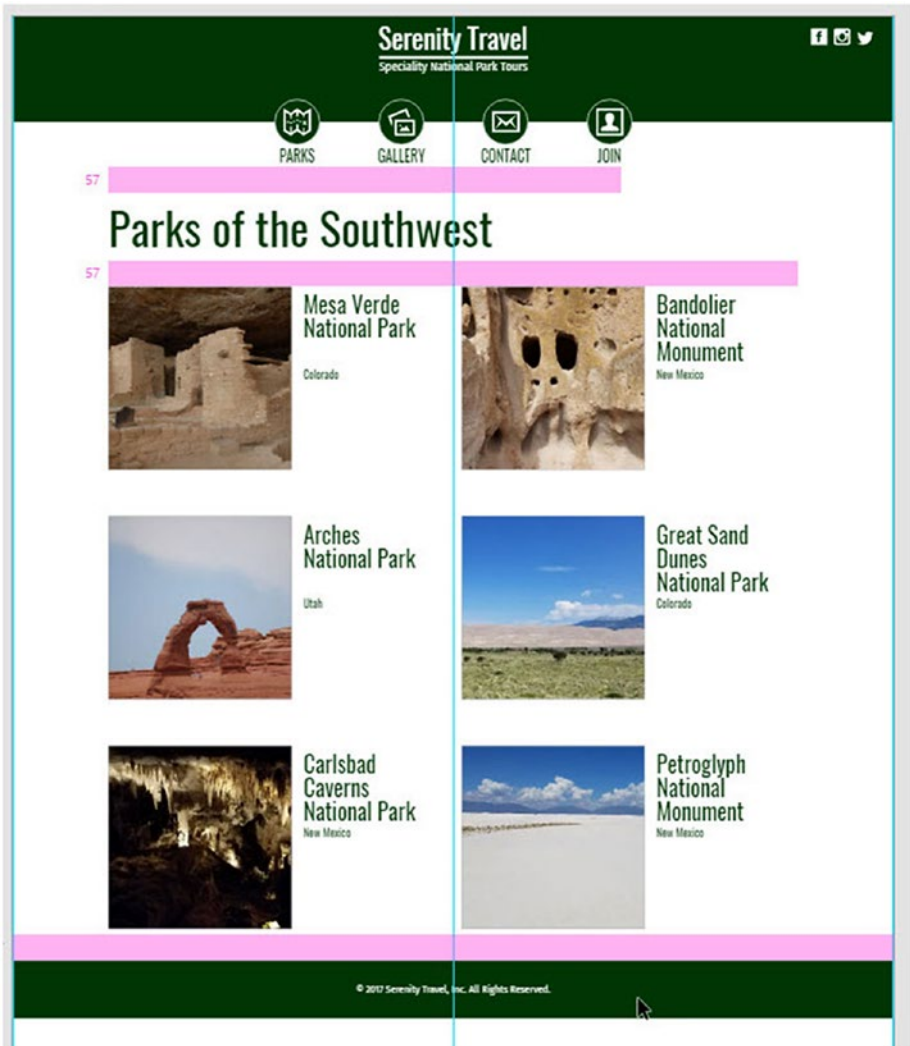
**Figure 7-34.** Centering the grid

11. Move the heading text to align with the grid (see Figure 7-35).



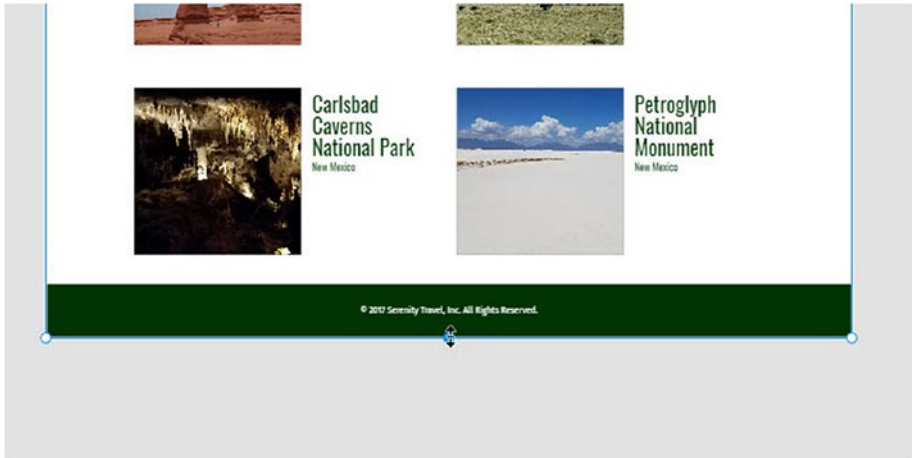
**Figure 7-35.** Repositioning the header

12. Select both of the elements in the footer (the green rectangle and the text) and move them up to just below the Repeat Grid (see Figure 7-36).



**Figure 7-36.** Moving the footer up

13. Select the artboard by clicking its title, then drag the bottom handle up to fit snugly at the bottom of the footer. See Figure 7-37.



**Figure 7-37.** Getting rid of extra artboard space

14. Save your work.

## Fixing Incorrect Placeholder Replacement

If your grid does not populate placeholders correctly, most likely you unintentionally have an additional row or column in your grid. Look closely at the right and bottom edges, and make sure you did not accidentally expand the grid to show even the smallest portion of an additional row or column. If you did, use the green handles to resize the grid to get rid of the extras, and the grid should automatically repopulate the placeholders.

Also check to make sure that the data in your text files is in the correct order, and that you selected the images correctly. If you made a mistake on either of these, correct it, then drag the text file or the images back on to the grid to repopulate it with the new data.

## Creating a Second Page with a Repeat Grid

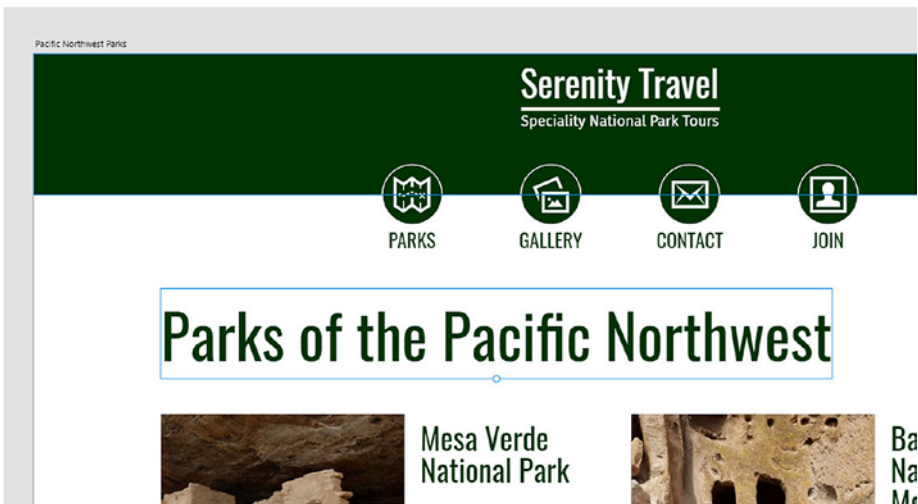
Now that we have the Southwest Parks page created and populated, we want to create a second page for another list of parks. If we were creating the entire site, we would most likely want to create one page for each of the regions represented on the home page, but here a second page will show what we need to.

1. With the Selection tool, Alt-drag (or Option-drag) the title of the Southwest Parks artboard to duplicate it (see Figure 7-38).



**Figure 7-38.** Duplicating the artboard

2. Double-click the name of the artboard and change it to **Parks of the Pacific Northwest**.
3. Double-click the heading text box and change it to read **Pacific Northwest Parks**. See Figure 7-39.



**Figure 7-39.** Changing the artboard name and header

4. Drag pacificnorthwestparknames.txt to replace the first park name text. See Figure 7-40.

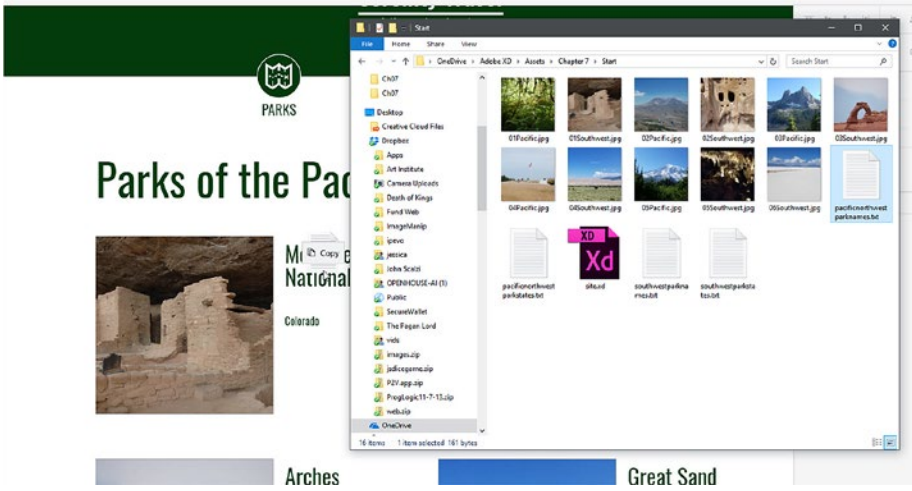


Figure 7-40. Replacing the park names with a new text file

5. Drag pacificnorthweststates.txt to replace the first state name. See Figure 7-41.

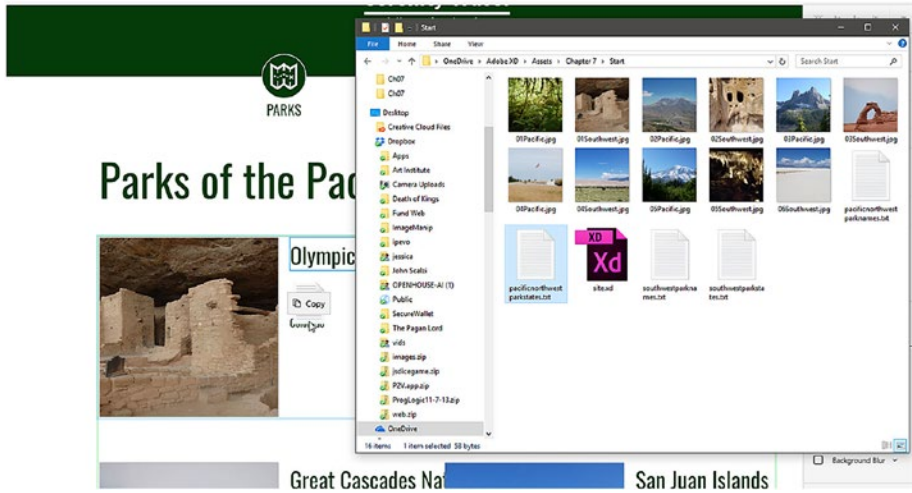
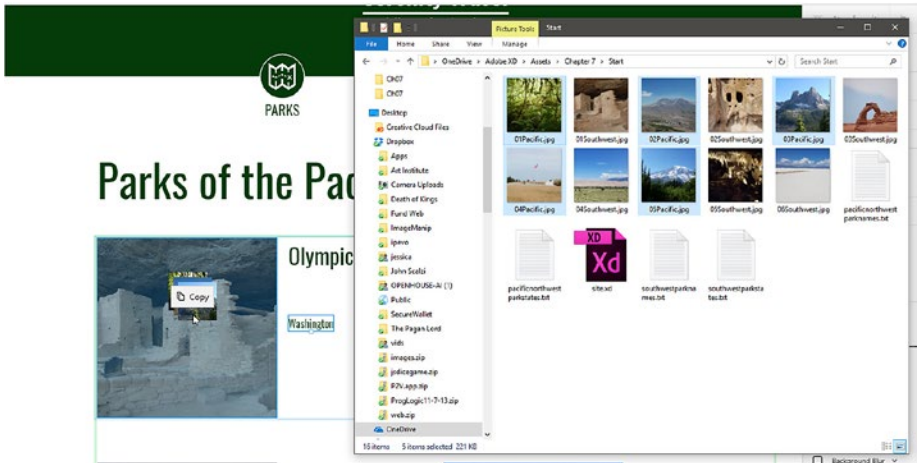


Figure 7-41. Replacing the state names



6. Ctrl-click (or Cmd-click) each of the images with Pacific in their name (there are five of them) and drag it on to the first image (see Figure 7-42).

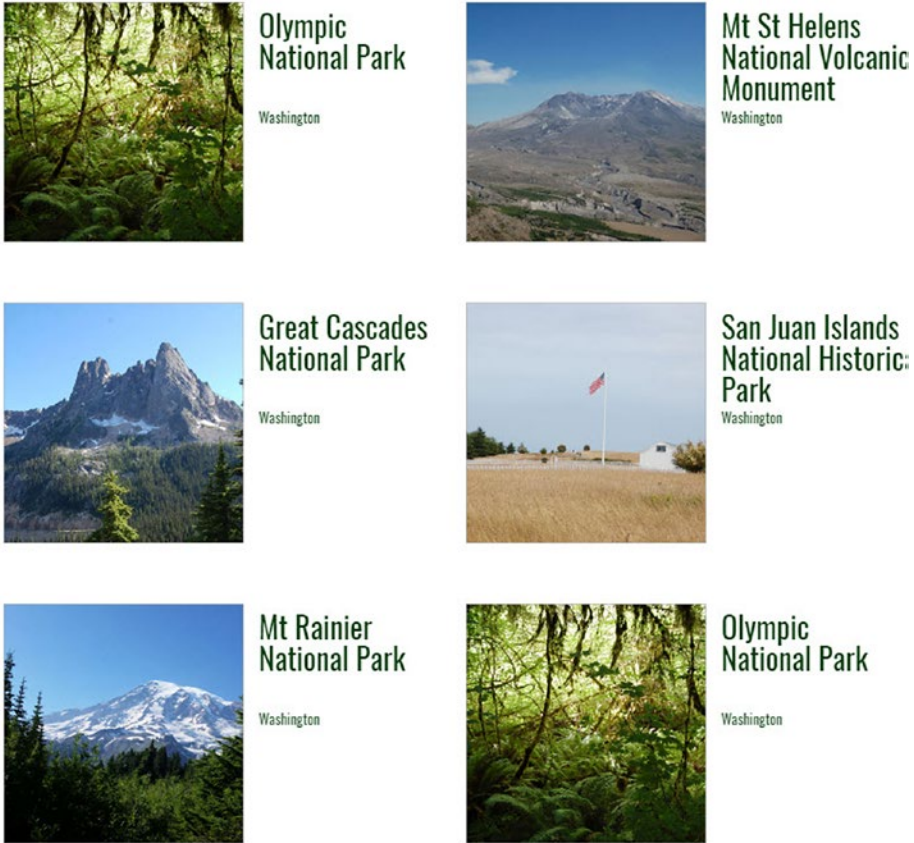


**Figure 7-42.** Replacing the images

7. Manually edit each park name so that they all fit. You will not need to adjust the line height or position of the state name here, as those were copied over when you duplicated the grid (see Figure 7-43).



# Parks of the Pacific Northwest



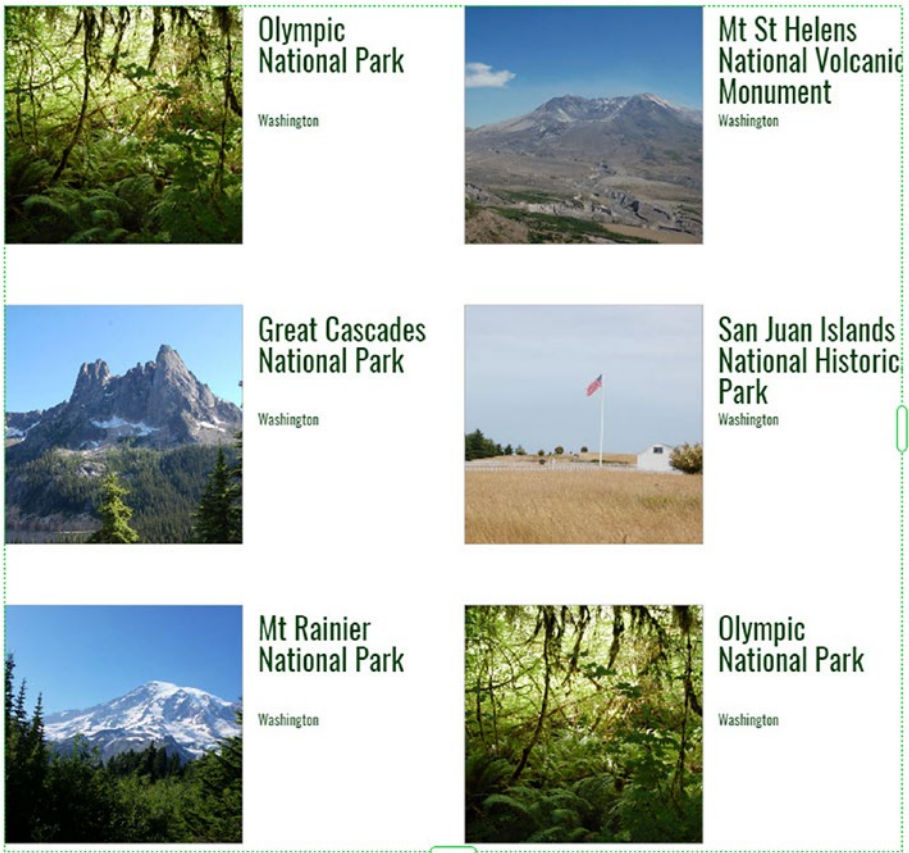
*Figure 7-43. The completed grid...almost*

## Deleting Extra Placeholders

Here, you will notice that the grid has six spots in it, but there are only five parks in the text files and images. When there are more placeholders than data in a grid, XD begins repeating the data, which is why we see Olympic National Park named twice and its picture repeated.

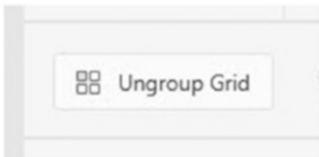
In order to delete an element from the grid, you need to turn off the Repeat Grid functionality. This will separate each item from the others, allowing you to manually adjust them without changing the others, which is what you need to do to get rid of the extra spot. However, once you do this, you cannot go back to having these items behave as a repeat grid, so you need to carefully check and make sure everything is properly laid out before you proceed.

1. Click anywhere in the grid to select it (see Figure 7-44).



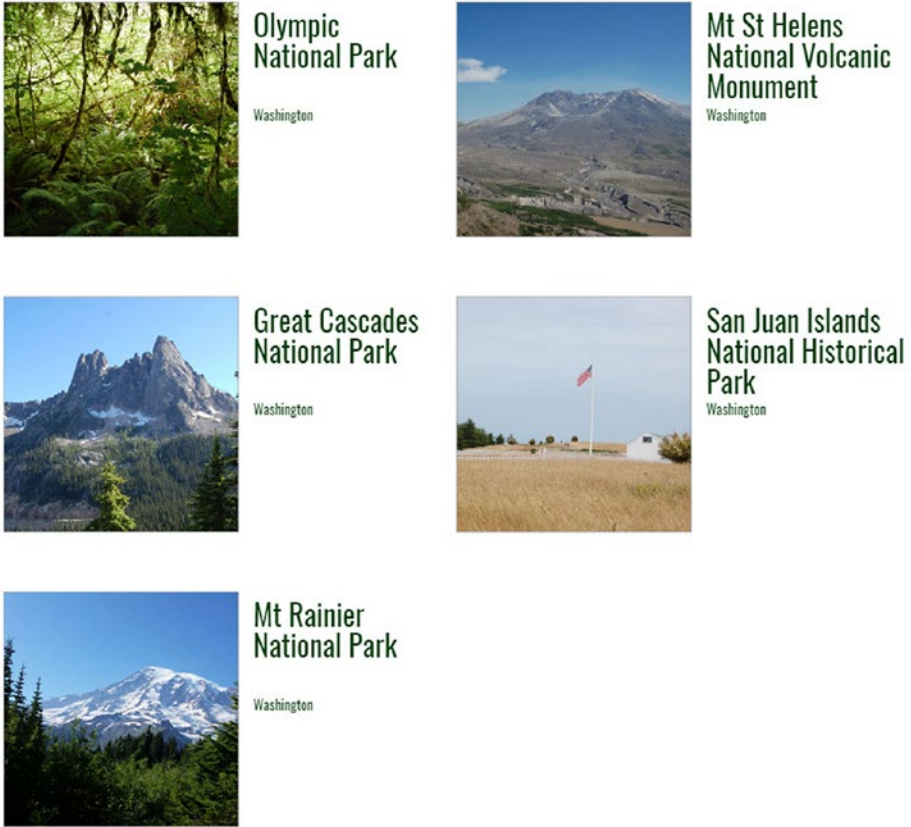
**Figure 7-44.** The grid, selected

2. On the Properties panel, click Ungroup Grid (see Figure 7-45).



**Figure 7-45.** The Ungroup Grid button

3. Select the repeated image, park name, and state.
4. Press Delete or Backspace. See Figure 7-46.



**Figure 7-46.** *The grid with the extra item removed*

5. Save your work.

## Summary

In this chapter, we looked at one of XD's most useful features: Repeat Grid. You learned how to set up placeholders, then how to convert them into a grid, and finally, how to use content from text files or sets of images to replace the placeholders with real data. Then, we examined how to solve a few formatting and layout problems that arise when using the Repeat Grid feature.

## CHAPTER 8



# Designing for Mobile

More people today view web pages on mobile devices than on desktop and laptop computers. All websites must be designed today with mobile in mind. And of course, mobile apps, which hadn't yet been invented a decade ago, continue to steam along as a multibillion-dollar industry.

Web developers have had to add a few additional skills to their toolsets over the last few years to be able to handle mobile, but the real challenge of preparing sites to work well on phones and tablets is on the design side. It's not a simple matter of shrinking down the page. You must rethink how elements lay out. You must consider what elements you should retain and which ones can be dropped, while still ensuring that your users can access all of your site's content on their phones. You have to consider what to do with your site's navigation menu. And all of this happens on the design side, in XD.

Ironically, when designing for mobile, you aren't always making things smaller. In many cases, you need to make them bigger. Consider that your users will be interacting with your site or app using their fingers, not a mouse pointer. We can be much more precise when we click with the tiny pointer than when we try to tap something with our thumb, so navigation items need to be big enough to be easily seen and selected with fingers.

## Responsive Web Design Overview

Even if you do not code websites yourself, it's still important to understand the basic concepts behind coding for mobile sites. This will allow you to ensure that you are creating designs that can be coded properly.

The approach developers take today for creating sites is known as *responsive web design*, or RWD. The idea is that we can create sites that respond to the user's screen size.

RWD relies on another concept, the *break point*. This involves creating a design for a screen size, then gradually resizing until the design breaks. Most often, this is done by starting with a design for a large screen like a desktop or laptop, and then scaling the web browser down until elements start to run into or overlap one another. At this point—the point where the design breaks—the developer adds code that tells the browser to start shifting things around so that the design isn't broken anymore. Once it is fixed at that break point, the developer repeats the process, again shrinking the screen down until the design breaks again, adding the necessary code to fix it, and so forth until the design works on any imaginable screen size. (There is an alternate concept known as *mobile first* that takes the opposite approach: design for the small screen first, and then scale up from there, again fixing things as you go. The web is full of developers debating the merits of

each approach, but from our perspective as designers working in XD, it's really moot. The process of design is essentially the same whether you're starting big and scaling down or starting small and scaling up.)

The important take-away from this is that in RWD, we are not designing for specific screens. We don't start out by thinking, "OK, I'm going to design for my desktop, then I'm going to create a different design for my tablet, and then work on a design for my phone." Chasing specific devices like that is a fool's errand. Apple's tight control over their market means that there are a limited number of iOS devices, and thus a limited number of iOS screen sizes, but even that is a challenge since every new generation of iPhone presents the possibility of a new screen size. And worse, the Android side has an almost infinite variety of devices and screen sizes to deal with, with literally hundreds of new devices and screen sizes being released each year.

To solve this, RWD takes a more organic approach: we don't really care what kind of device will be used at any given time to view a page. Rather, we just care that the site looks good and works correctly, regardless of what size screen we're on. That's a good approach, but it ultimately only works on coded sites. By their very nature, pure design tools like XD, which aren't concerned with code, can't easily mimic the dynamic resizing that is possible with a coded web page in a browser. That is ultimately why XD ships with a set of predefined artboards sized to specific devices. It's not an ideal solution, but tools that have tried alternate approaches have generally failed for a variety of reasons.

In the end, go ahead and create your designs for the screen sizes in the XD templates, but keep in mind the preceding discussion, and try to think about whether your site might encounter the need for break points at sizes other than the predefined ones. If you need to, you can always add additional custom-sized artboards and handle these scenarios.

## Creating App Designs

Creating a mobile app presents a different set of challenges and requires much more programming, but from the design side it's essentially the same process as with web pages. You have a much smaller range of sizes to think about—most likely, you won't be worrying about what your app looks like on a 27-inch computer monitor—and you may even go as far as designing for phones alone, also ignoring the (much, much smaller) tablet market.

Apps have one big advantage over websites: access to the full set of the phone's features. For a lot of reasons, websites generally cannot respond to a phone's accelerometer, or launch the camera to take and then store a picture, or really access the phone's storage at all. Apps, on the other hand, can do all of these things, and more. They obviously don't have to, but if the app you are designing calls for any of these interaction, you will need to design the interfaces for them.

You also need to take into consideration the differences between Apple and Android devices. The biggest of those is the lack of “back” and “home” buttons on Apples. Together with your client or others in your organization, you will need to decide if your app is going to be built from the ground up for each platform. That means deciding to have your developers create and maintain two code bases, one for iOS and one for Android. The big advantage of doing this is that the apps not only can be written to be specific to the platform, but also can be designed that way. On your end, this means creating two set of design comps for your interfaces, with the designs for Apple including in-app buttons to take the user back to a prior screen, and the Android designs leaving those buttons out.

However, it is also possible to write an app once that can then be ported to each platform. This “hybrid” approach obviously makes the coding side easier, as there’s only one code base to maintain, but it comes at a cost on the design side, since you will not have the luxury of designing Apple- and Android-specific interfaces, but will instead have to come up with ways to ensure the same functionality on both sides with a single design. At a simple level, this would mean building a “back” button in, even though that means that Android users would see that functionality twice, but there are other, more complex issues to consider as well.

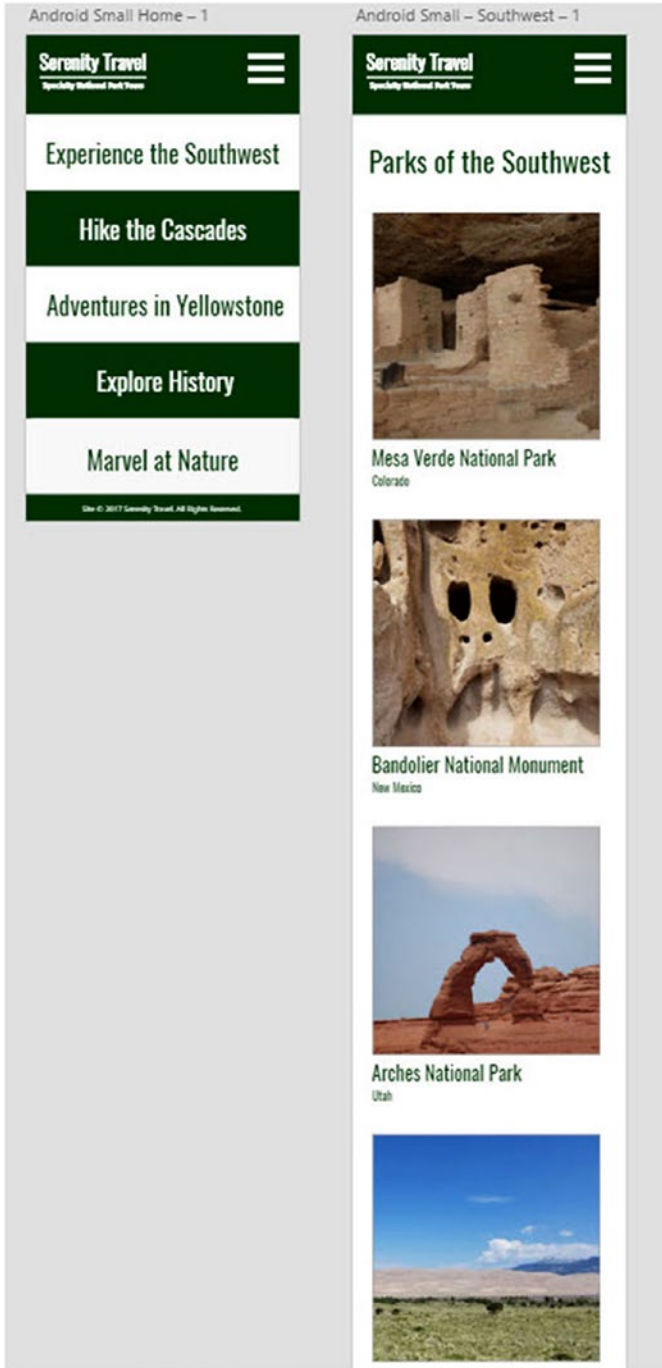
## Creating Mobile Web Designs

In Chapter 6, we covered how to create additional artboards for mobile devices, but to quickly review: click the Artboard tool, then select a preset size and XD will add that artboard.

The process of laying out the design for the smaller screen isn’t complicated either, and uses all the same tools as before. You can either copy the elements from your other designs and resize them as necessary to get them to fit on the smaller screen, or create new elements if that makes more sense in your design.

An example of the design for Serenity Travel scaled down to mobile is shown in Figure 8-1.





**Figure 8-1.** The Serenity Travel home page and the Southwest Parks page scaled down to work nicely on mobile phones

## Virtual Keyboards

A vitally important element to remember is the keyboard. As you're aware, whenever you click in a form field in a web page on a mobile device, your device's keyboard pops up, covering the bottom third or so of your screen. I'm sure you have seen sites that didn't account for this in their design, where the form fields are fine but the button you need to tap to submit the form is covered by the keyboard. It's not the end of the world to dismiss the keyboard and press the button, but that's an extra step your users shouldn't have to take. By designing with things like the keyboard in mind, you can make sure that your site works appropriately and with minimal effort for your users. See the upcoming section "Using a UI Kit" for details on where you can get a representation of the keyboard to incorporate into your design.

## The Hamburger Menu

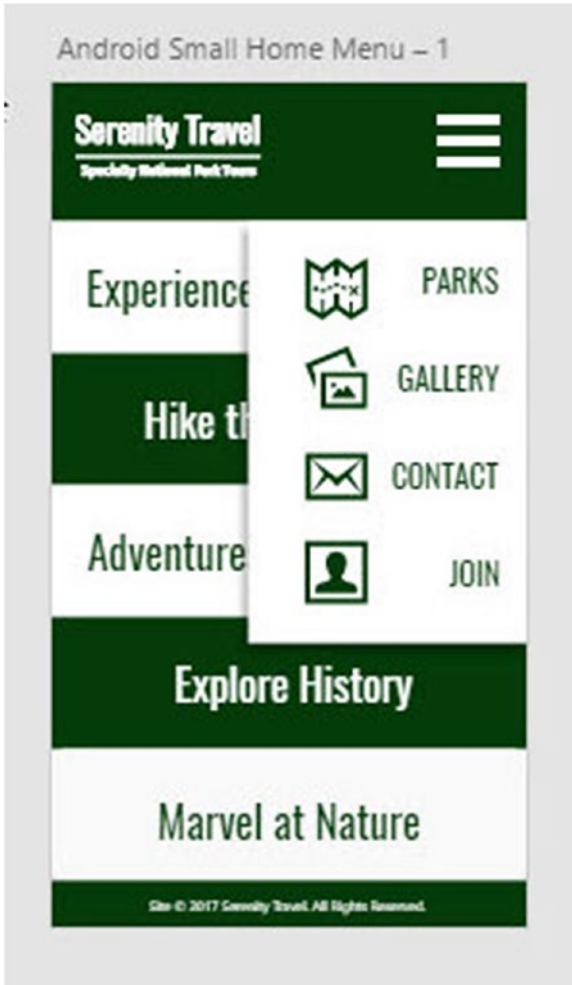
When you get down to the smallest screen sizes, the navigation on sites becomes a challenge. Simply realigning the navigation so that it runs vertically rather than horizontally will not in itself work as a solution, because you do not want your mobile user to have to scroll past a huge navigation bar just to get to the content.

A widely accepted practice these days is to use the so-called hamburger menu—those three stacked lines you've doubtless seen on countless sites. In fact, if you're using XD on Windows, you're already familiar with the hamburger menu, as it's what the program itself uses in place of the traditional menus at the top of the screen. (It got that name because, particularly in versions where the lines have curved edges, it kind of resembles a hamburger, with the outer lines as the buns and the inner line the meat...or veggie equivalent, if that's your thing.)

You can easily create your own hamburger menu in XD, as it is after all simply three stacked lines, but your developer is going to need a copy of it, and there's no easy way to extract a subset of your artboard as its own asset. Thus, it may be easier in the long run to either create the hamburger menu in a different program, such as Adobe Illustrator, or simply grab one online. Iconmonstr (<https://iconmonstr.com>), the site discussed in Chapter 5, has a variety of available hamburger icons when you search for "menu."

The point of using the hamburger menu is that your site's menu will be hidden by default, and only visible when the user clicks the icon. You will need to design this interaction by creating a duplicate of your artboard at this size, and then adding in the expanded menu. This is the point at which you will decide whether the menu simply covers some of the content on the page or pushes the content down on the screen. Regardless, your developer is going to need to know what the menu looks like in order to properly code it, so always make sure you include this design. Figure 8-2 shows an example of the Serenity Travel site with a menu showing. The menu was created by simply drawing a white rectangle and placing the navigation elements in it.





**Figure 8-2.** The Serenity Travel home page with the navigation menu showing

## Using a UI Kit

To simplify the process of building app prototypes, XD includes a set of UI Kits. UI is short of user interface, and these kits (really, just other XD files) include common user interface elements for Android, Apple iOS, and Microsoft Windows.

You can open a UI Kit on a Mac by clicking File, then Open UI Kit. On Windows, click the hamburger menu in the top left corner of the screen, then choose Open UI Kit (see Figure 8-3).

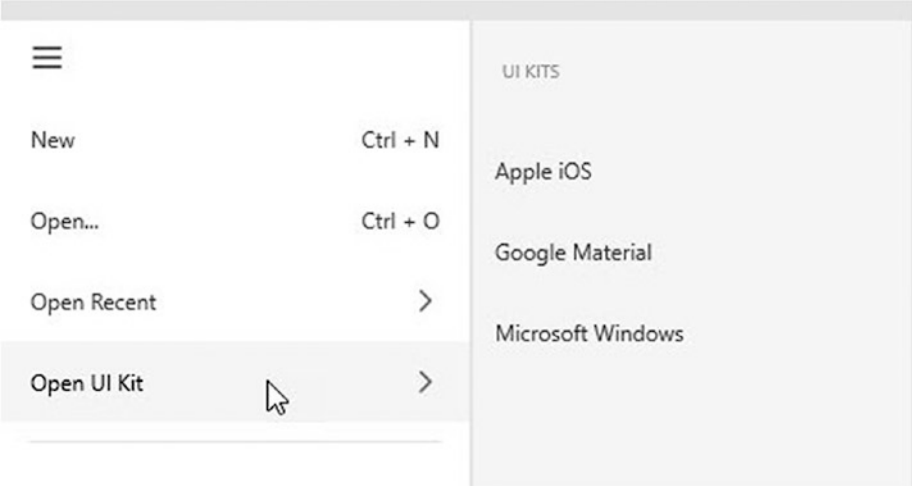


Figure 8-3. The Open UI Kit menu in Windows

On both operating systems, select the kit you want by clicking it. This will open a new XD document with a set of artboards that contain the graphics you need to represent using the apps on the selected platform (see Figure 8-4).

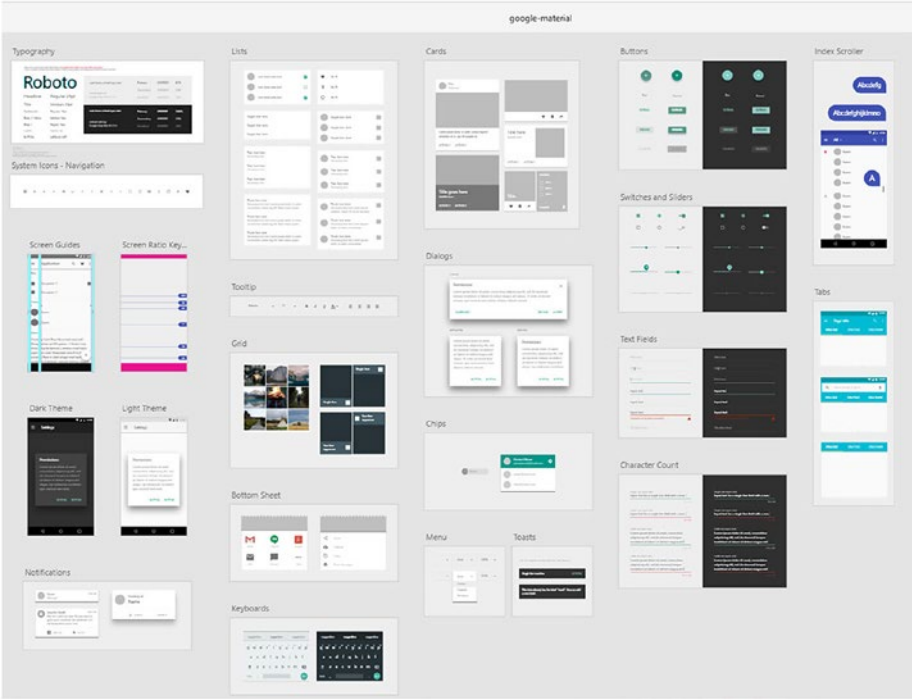
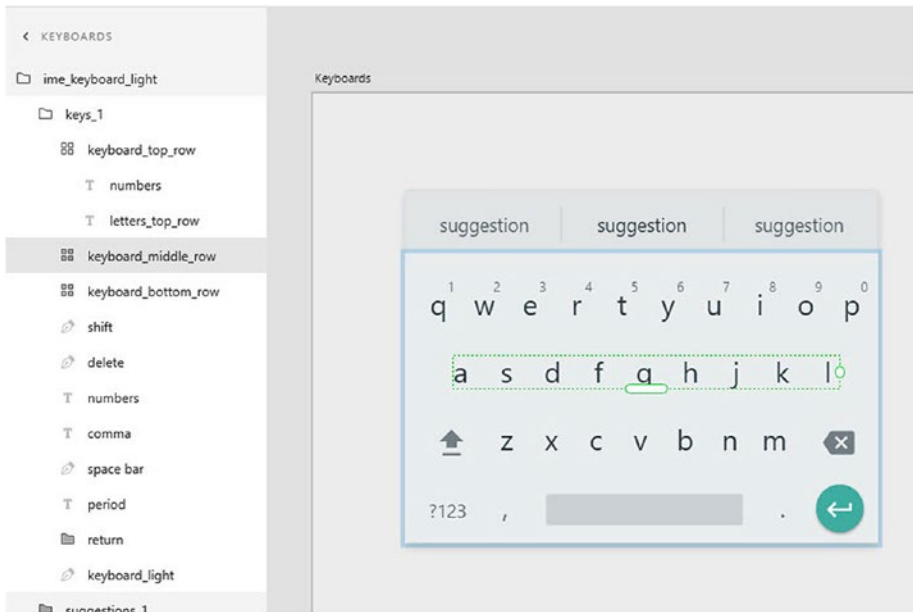


Figure 8-4. The Google Material UI Kit

These kits contain common elements such as the notification bar and menu bar in Android, dialog and pop-up boxes, and the device keyboard. (The latter is important to include in your web design comps as well, as previously noted.)

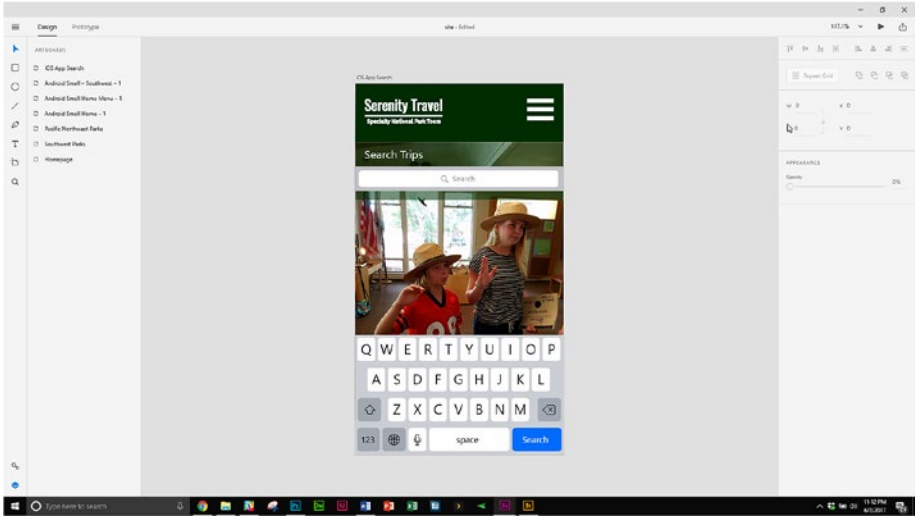
The UI Kits' components can be easily selected by clicking them with the Selection tool. You can also select the elements from the Layers panel (see Figure 8-5). Remember that there is nothing special going on here—this is simply an XD document with artwork on it, just like the ones you may have created yourself.



**Figure 8-5.** Selecting a portion of a UI Kit element with the Layers panel

Once you have the elements you want selected, you can copy them (Ctrl-C or Cmd-C), switch back to your document, and paste (Ctrl-V or Cmd-V).

You should feel free to use as many of the elements from the UI Kit as you need to create your app's design. Figure 8-6 shows what an app design might look like, using the iOS UI Kit keyboard and search box to simulate the look of the final app on Apple devices.



*Figure 8-6. Using UI Kit controls to simulate the look of an iOS app*

## Summary

In this chapter, we looked at how you can use XD to create design comps for mobile, both to size your web pages down to work on smaller screens and to create designs for mobile apps. We also explored XD's UI Kit feature, which gives you common user interface elements to add to your designs.

## CHAPTER 9



# Creating Interactive Prototypes

Once you have completed your design, it's time to show it off. In the old days (two years ago), designers created comps of websites in programs like Photoshop, but then to show them to bosses or clients they had to either export a bunch of pictures to e-mail, or laboriously present the comp, turning layers on and off to try to demonstrate how the site would behave when users clicked from one page to the next. This not only was difficult, but also prohibited bosses and clients from interacting directly with the designs.

XD not only makes the design process easier, but makes the process of showing your designs to your clients easier as well, thanks to its prototyping capabilities.

## Switching to the Prototype Workspace

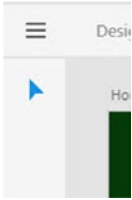
To create interactive prototypes, you need to switch to the Prototype workspace, which you do by clicking the Prototype tab in the top left corner of the screen (see Figure 9-1).



**Figure 9-1.** *The Prototype tab*

You'll see when you do this that you have only a single tool: the Selection tool (see Figure 9-2). The Properties panel also goes away. Any changes you might need to make to your design need to be made in the Design workspace. However, you still have full access to your layers and symbols, and you can still move objects around while in the Prototype

workspace. Additionally, even though the tools are gone, you can still zoom in and out using the keyboard shortcuts: Ctrl++ (Cmd++) to zoom in, Ctrl-- (Cmd--) to zoom out. You also can still access the Hand tool to move around in your design by pressing and holding the Spacebar.



**Figure 9-2.** The dramatically reduced toolbar in Prototype mode

## Creating Links

In order to demonstrate how users will interact with the website, you can create links between pages, just as you would if the site were live.

To create a link, click the element you want to use to trigger the link—usually a navigation element, call to action, or image. For the clicks to work as expected, the element in question should be grouped, so that the entire piece can be used to trigger the click, and not just the text. In our example travel company website, we want to make sure that both the rectangle and the text for the calls to action are grouped so that if the person demoing the site clicks the edge of the rectangle, outside the text, the link still works. Keep in mind that symbols are automatically grouped, so converting an object to a symbol works as well.

If you forgot to group items before switching to the Prototype workspace, you can still do so in this mode. It works just like it did before: press and hold the Shift key while clicking the elements you want to select, then use the keyboard shortcut Ctrl-G (Cmd-G) to create the group. Or, if you'd prefer, you can open the Symbol panel and create a symbol with the selected elements.

Once the elements are grouped as needed, select the group with the Selection tool. It will highlight in blue, and you'll see a small tab extending off the right side with a white arrow in it (see Figure 9-3).



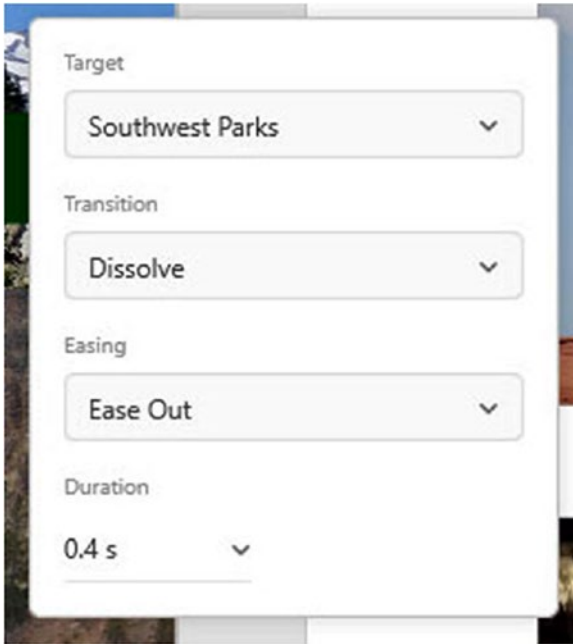
**Figure 9-3.** One of the buttons selected in Prototype mode, ready to be made into a link

Drag this arrow from the element to the artboard to which you wish to create the link. The selected artboard will highlight in blue; when you have the right artboard selected, release your mouse. See Figure 9-4.



**Figure 9-4.** Creating a link by dragging to another artboard

A pop-up menu will appear, allowing you to set options for the link (see Figure 9-5). The first option is the target—the artboard you want to link to. This allows you to correct a mistake if you released your mouse on the wrong artboard. You can then choose from one of several transitions, including Dissolve (the default), None (the one that most resembles how web pages really look), Slide Left, Slide Right, Slide Up, Slide Down, and Push Left. None of those last five really make sense for web pages, but are all common transitions between screens in mobile apps.



**Figure 9-5.** The pop-up menu when creating a link

Easing, the next setting, controls how the transition appears. Ease Out, the default, means that the transition will start slow and then speed up. Ease In is the opposite, while Ease In-Out starts quickly, slows, then speeds back up. And None, obviously, applies no easing. This again is a setting more useful in designing an app, where easing is commonly used for transitions, than in a website.

Finally, you can set the duration of the transition, in seconds (or fractions thereof).

Once you have the settings at their desired values, simply click away from the pop-up box to apply the changes. Then, repeat the process of dragging a trigger to an artboard for each additional interaction you wish to prototype.

## Interaction Limitations

There are two significant limitations to the ways in which interactions work in the current version of XD that you need to be aware of.

The first is that you can only link from objects to other artboards, and not other objects. This means you cannot create a “back to top” link at the bottom of a long page to enable the viewer to return quickly to the top of that page. You also cannot link from a specific spot on one artboard to a corresponding spot on another artboard—the interaction will always be to the top of the artboard.



You also cannot create an interaction based on layer visibility. For example, you cannot create a link from a menu button that simply toggles the visibility of the menu itself, which is how the interaction would work on the finished product. Here, though, there is a work-around, as you *can* create a separate artboard that shows the menu, and link to it (see Figure 9-6).



**Figure 9-6.** Simulating a drop-down menu by linking the hamburger icon to an artboard that shows the menu

At this time, the only trigger for interactions in XD prototypes is a mouse click. You cannot show interactions that would occur because the user hovered over an item. You can create the interaction, or a version of it, that triggers with a click and simply explain to your boss or client that in the finished website that interaction would normally happen via hovering.

Finally, you cannot show different interactions based on different input, as you might see in a mobile app where a user can take different actions based on simply tapping an item or long-pressing it.

# Previewing Prototypes

Once you have your links created, it's time to test them. XD provides three methods of testing the prototype: desktop, mobile, and sharing on the web.

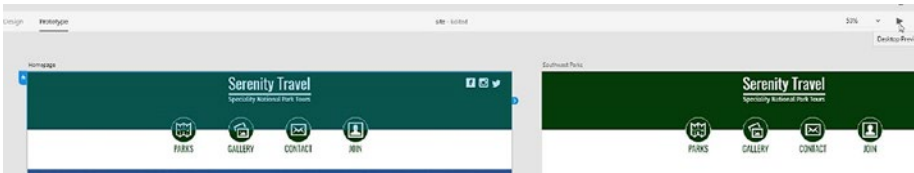
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■ **Note** All three preview modes are accessible from both the Design and Prototype workspaces, so if you make a change to your design and want to see what it looks like or how it impacts an interaction, you do not need to first switch to Prototype mode to preview it.

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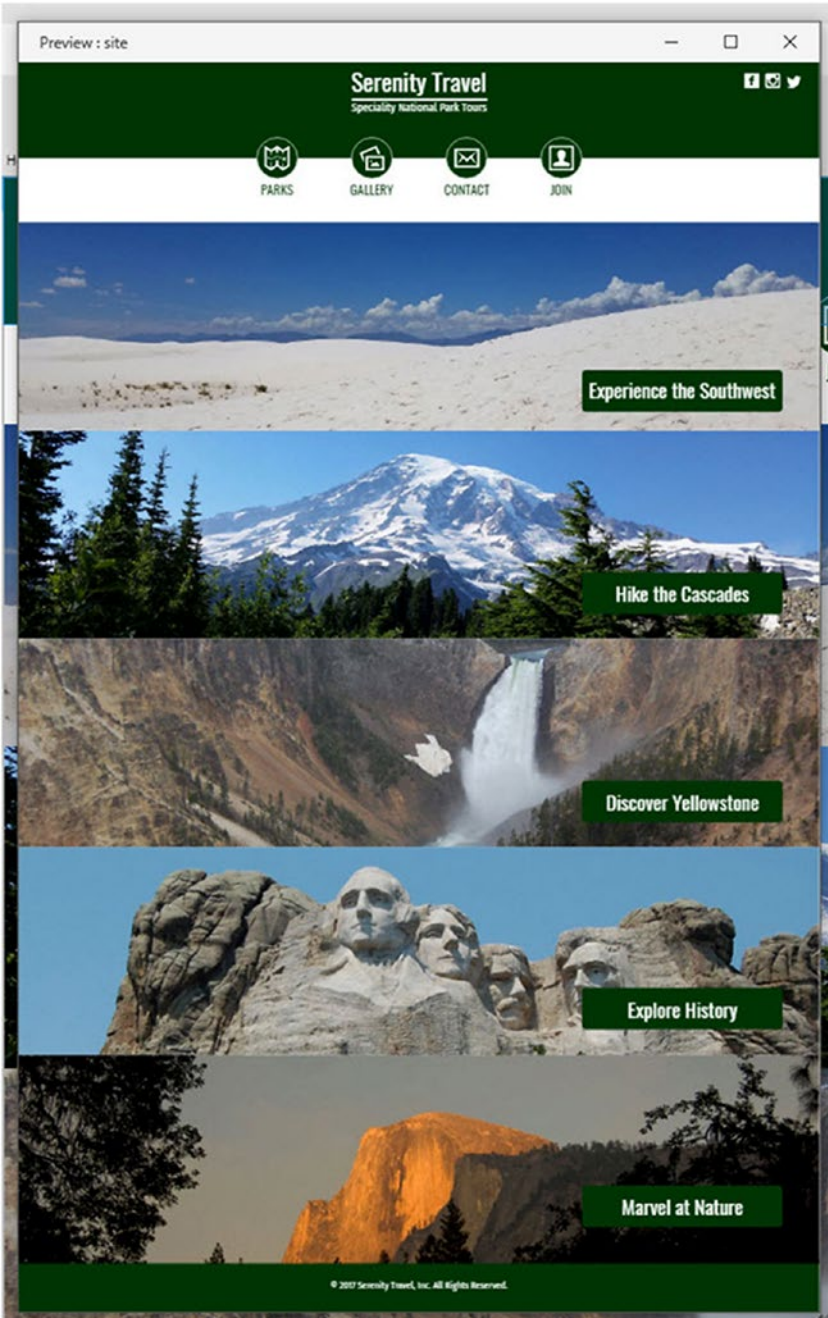
## Desktop Preview

To test your prototype on your desktop, first select an artboard—most likely, the one you will use as your home page. You will see a small “home” icon appear in the top right corner of the artboard. Then, click the Desktop Preview button in the top right corner of the screen (see Figure 9-7).



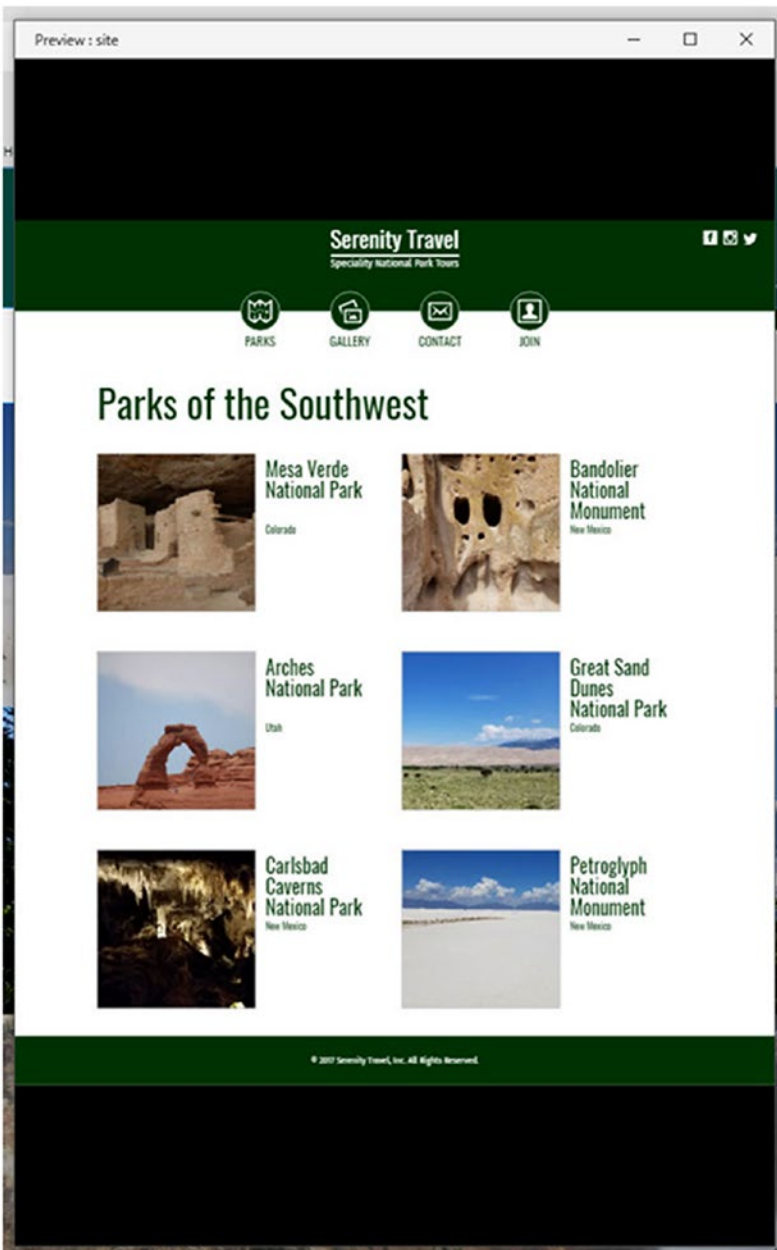
**Figure 9-7.** Selecting the homepage artboard (bottom left), then clicking the Desktop Preview button (top right)

This opens the selected artboard in the Desktop Preview window (see Figure 9-8).



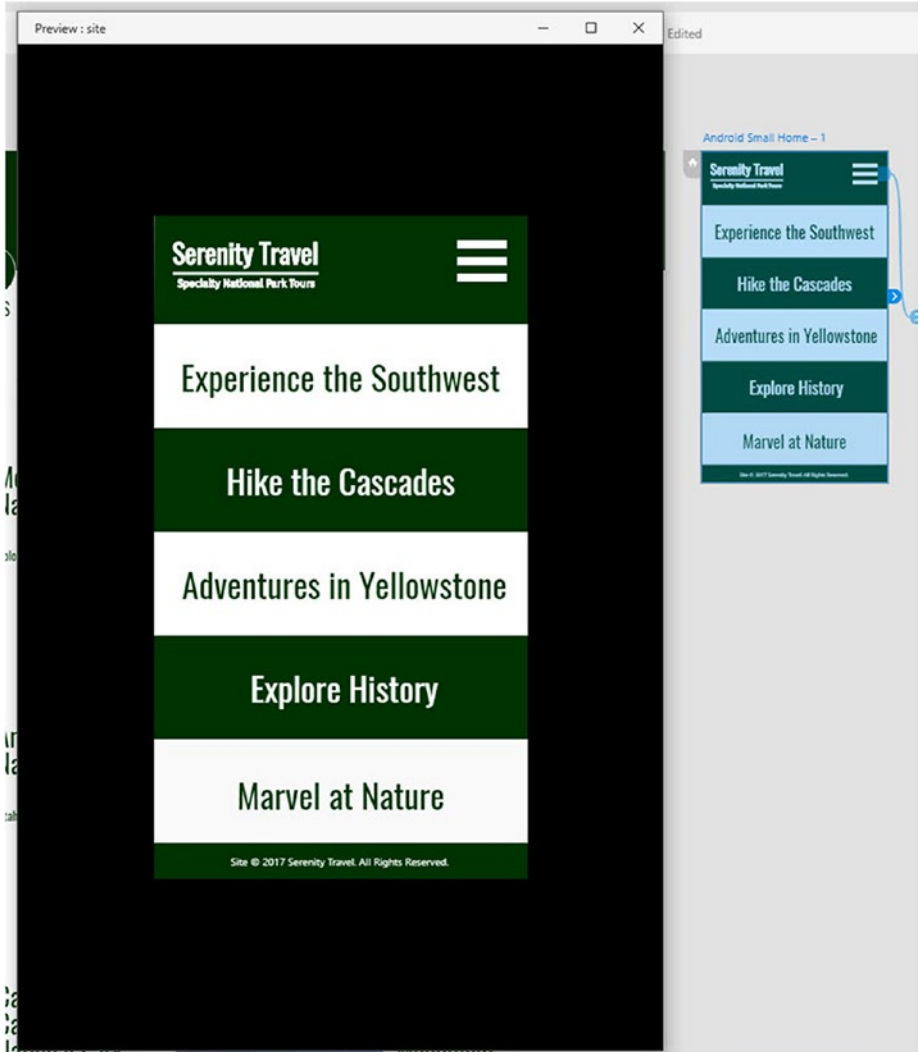
**Figure 9-8.** The Desktop Preview mode

From here, you can click any elements you added interactions to and explore the other pages linked to that artboard, as shown in Figure 9-9.



**Figure 9-9.** The Desktop Preview of the Southwest Parks page, accessed by clicking the link on the homepage preview

If you need to explore a different set of pages—your mobile design, for example—close the preview, then select a different starting artboard and preview from there. Figure 9-10 shows the mobile page being previewed because its artboard is selected.

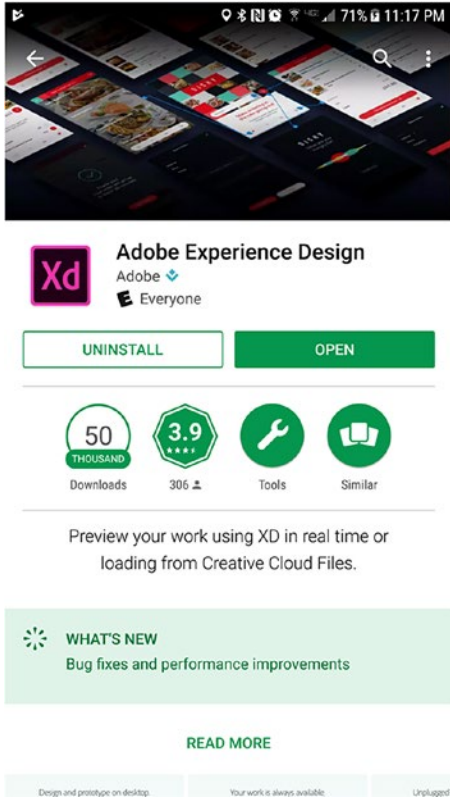


**Figure 9-10.** A different starting page for the preview based on a different initial selection

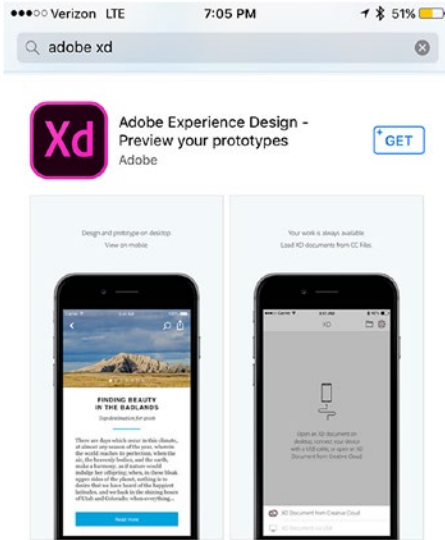
## Mobile Preview

Previewing a mobile-friendly design on the desktop might be helpful to see how things look, but it's not the same as previewing it on a real mobile device.

To preview on mobile, you need to attach your device to your computer via USB cable. Then, you will need to download and install the free Adobe XD app, available from the Google Play Store for Android (see Figure 9-11) and from Apple's App Store (see Figure 9-12).



**Figure 9-11.** The Adobe XD app in the Google Play Store



**Figure 9-12.** The XD App in the Apple App Store

Once you have the app installed on your device and you have the device plugged in to the computer, select the artboard you wish to begin with, then click Mobile Preview.

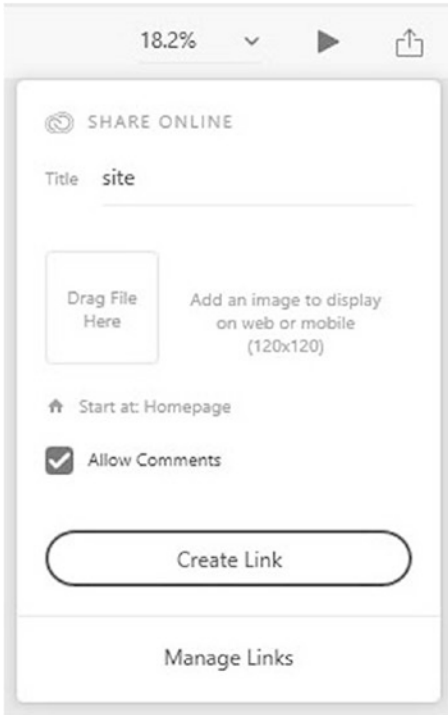
## Share Online

If you need to share your designs with people who work elsewhere (like a client), you can use the Adobe Creative Cloud to upload your preview and share a link.

Click the Share Online button in the top right corner of the screen (see Figure 9-13). From the pop-up that appears (see Figure 9-14), you can give the design a name and designate an image to serve as an icon for the link. If you do not select an image, XD will create one from your starting artboard. You can also choose to allow or disallow comments on the design. Once you are satisfied with the settings, click Create Link to generate the preview page.



**Figure 9-13.** The Share Online button



**Figure 9-14.** The settings for sharing online

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■ **Note** You must be logged in with your Adobe ID to either the Creative Cloud application or another Adobe program such as Photoshop or Illustrator for the Share Online feature to work.

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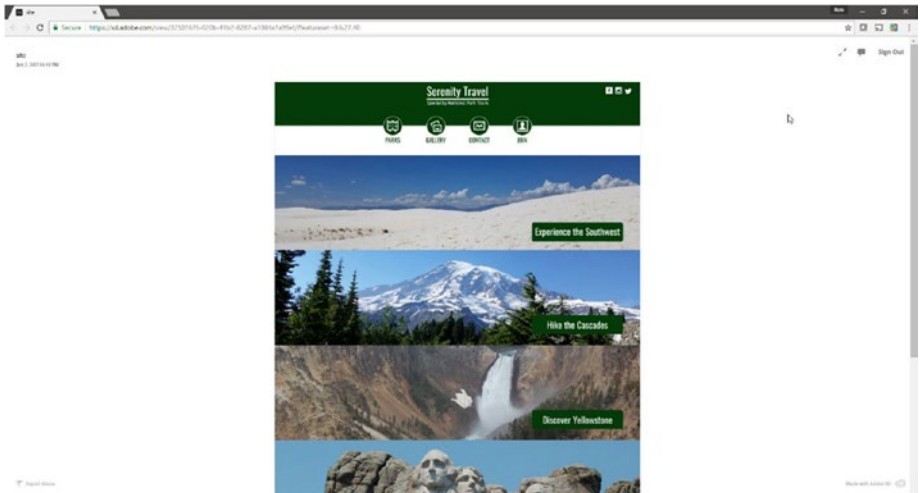
After a few minutes (depending on your Internet connection), the screen will update to show you the link that has been created (see Figure 9-15).





**Figure 9-15.** The link, ready to go. Obviously, the URL shown for yours will be different.

You can click the link directly to open the preview in a web browser (see Figure 9-16). You can also copy the link and paste it in an e-mail to send it to someone else.



**Figure 9-16.** The page that displays when following the “share” link. This is what your clients would see when you send them the link.

While previewing the page, hotspot hints—blue highlights surrounding clickable areas of the page—will appear if the viewer clicks any part of the page that is not clickable. See Figure 9-17. This way, you can share previews of incomplete pages that may have areas that appear to be links that are not yet working.



**Figure 9-17.** Hotspots highlight if the user clicks anywhere else on the page.

Assuming that you selected the option to allow comments, those viewing your preview will be able to leave comments, which you can see when you visit the preview yourself. This can be very helpful in that it allows your client to comment directly on the preview, rather than having to share their thoughts with you separately.

## Using Prototypes for Usability Tests

The preview functions in XD were designed to allow you to create prototypes of pages and then ensure that the interactivity works as designed. A side benefit of this, however, is that you could use these prototypes to conduct usability tests on the pages before investing in the time and cost to code them.

You could create several prototypes on different artboards, moving clickable regions such as calls to action around on the designs or trying different color combinations. Then, you could allow representative groups of users to test different versions of pages, either directly on computers you control by installing XD and using the Desktop (or Mobile) Preview feature, or on other computers using the Share Online feature. Then, by observing and recording these tests, you could determine which combination of features and colors would best suit your users' needs, and only pass the best prototypes on for development.

## Summary

In this chapter, we looked at how you can use the Prototype workspace to add links to your designs so that they can be previewed on desktop and mobile, both for your own testing and to share with clients.

## CHAPTER 10



# Next Steps

You have your designs completed. You have previewed your pages on your desktop and mobile devices and they work well. Your client has signed off on the designs. What now? We'll answer that question in this chapter, where we see how we can export the assets you've created in your design so that your developers can use them as they write the code for your site or app, and look at how we can export the artboards themselves as images to hand off to your developers, so that they do not need to own or use XD to turn your designs into real sites or apps.

## Exporting Assets

Most of what comprises your design will be either images that came from somewhere else or simple shapes that are better off re-created directly in code. But some of the things you made while creating your design might be assets your developer needs to complete the page. So, your first final step is exporting these assets.

To export an asset from XD, it needs to be a single object. In our travel company website example, we might want to export the logo we created so that we can easily reuse it in our actual website and mobile app. We would also likely want to export our navigation buttons. When we created the logo, it was three pieces: the two lines of type, and the horizontal line between them. We may have grouped them at some point to make them easier to work with or so that we could use the logo as a link, or we may have decided to convert the logo to a symbol. Either is fine, but if the logo is still in three pieces, we need to group it now. As a reminder, you can select each piece by holding down the Shift key and clicking each, then group the logo with the keyboard shortcut Ctrl-G (Cmd-G).

It is very important that you check the name of the group or symbol before exporting, as XD will use this name as the file name for the asset, and `logo.svg` is much more useful than `group56.svg`.

You can also export a single artboard by selecting it by clicking its name. The artboard name will become the file name, with the appropriate extension.

To export an asset:

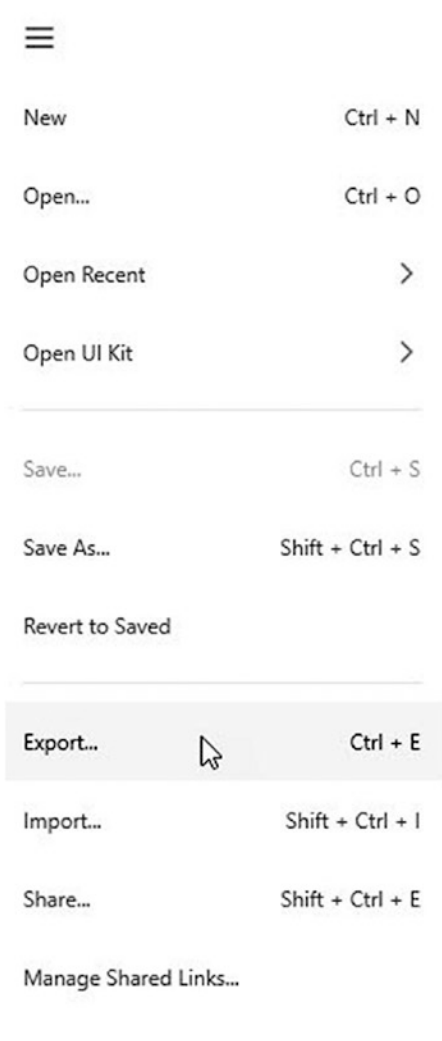
1. Click the grouped object (or symbol). See Figure 10-1.



---

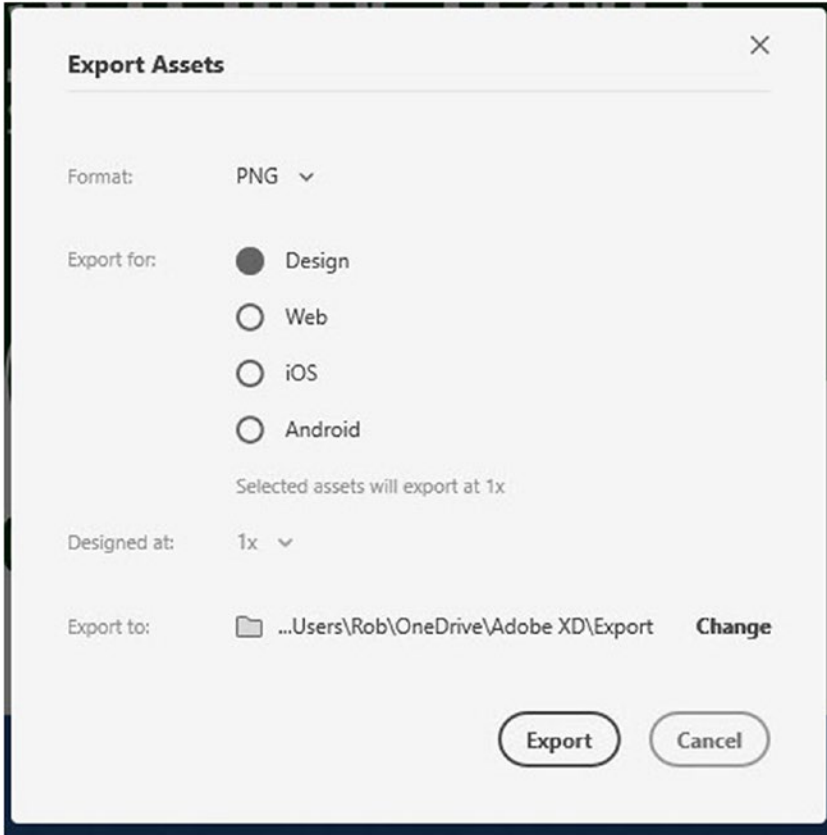
**Figure 10-1.** *Selecting a group to export*

2. Open the Export Assets dialog box: On Windows, click the hamburger menu button and click Export (see Figure 10-2). On a Mac, click the File menu and click Export.



**Figure 10-2.** The Export menu item

3. Choose the format you wish to export to (see Figure 10-3). For items created entirely in XD, the best format is likely SVG. For items that contain images, choose PNG. Do not choose PDF for items you wish to be able to use in your final website or app.



**Figure 10-3.** The Export Assets dialog box

4. Choose the appropriate output. For PNG assets, see Table 10-1 for details on the output options. For SVG, see Table 10-2.

**Table 10-1.** PNG Export Options

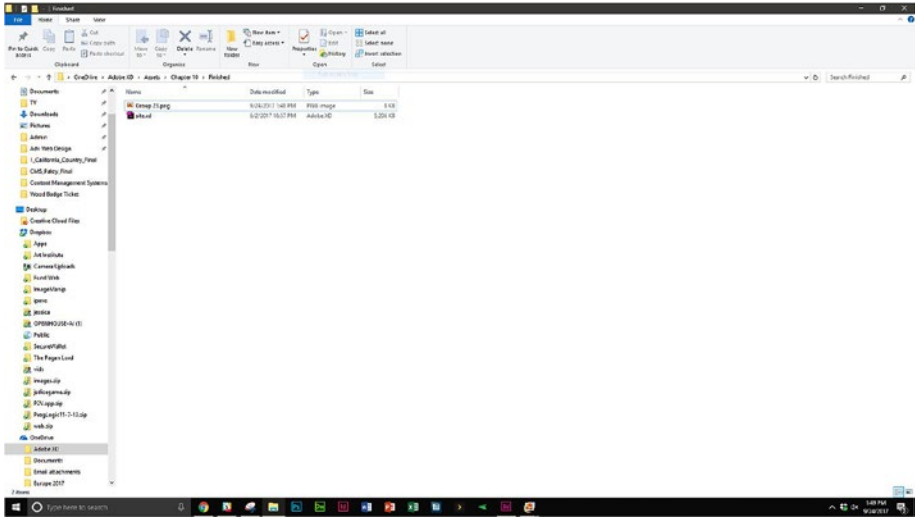
| Option  | Assets Created                               | Notes   |
|---------|--|---|
| Design  | 1x   | Assets are exported as is, at their original resolution.  |
| Web     | 1x and 2x                                    | Two sets of assets are exported: one at the original resolution, and one at double that for higher-resolution screens. The “Designed at” option allows you to specify the resolution at which you designed the asset, so that XD knows whether to scale it up or down. This applies to the iOS and Android options as well. |
| iOS     | 1x, 2x, and 3x                               | One set is exported each at the original resolution, double the resolution, and triple the resolution, to account for normal and high-density displays.   |
| Android | ldpi, mdpi, hdpi, xhdpi, xxhdpi, and xxxhdpi | Six versions are exported to account for a variety of possible screen displays: low density, medium density, high density, extra high density, extra extra high density, and extra extra extra high density.  |

**Table 10-2.** SVG Export Options

| Option | Assets Created                                   | Notes   |
|--------|--|---|
| Embed  | SVG file with included images embedded within it | If the SVG contains non-SVG elements such as JPGs or PNGs, those elements will be directly embedded within the SVG. This makes the SVG file considerably larger but able to stand alone.                            |
| Linked | SVG file with included images linked to it       | If the SVG contains non-SVG elements such as JPGs or PNGs, those elements will be linked to it. This makes the SVG much smaller, but the relative position of the files to the SVG must be maintained at all times. |

Note: If the SVG is made up entirely of vector graphics (such as one created from scratch in XD), then it makes no difference at all which option you choose.

5. Select the folder to which you wish to export.
6. Click Export.



## Exporting All Artboards

In addition to exporting individual assets, you can export all your artboards at once. This may be an ideal way to share your final design with a developer, archive it for future reference, or print it for inclusion in a final, signed contract for proof of the version your client approved.

Exporting all artboards follows the same steps as exporting individual assets. The only difference is the first step: to export everything, you need to ensure that *nothing* is selected. You can do this by using the Selection tool to click in a blank area on the screen.

The export choices are the same as noted in the previous section. Here, however, it makes little sense to export as PNG or SVG; you are much more likely to use the PDF option when exporting all artboards.

When exporting to PDF, you have two choices: single PDF file or individual PDF files. The first option exports each artboard as a page and then combines them into one PDF, while the second option saves each as an individual PDF. Links will not work in the PDF, so this is not a good replacement for using the interactive prototype feature of XD.

## Working with Developers

Once your website or app design is complete and your assets are exported, it is time to turn the work over to the developers who will begin the process of coding the site. XD does not generate any code, so the developers will be starting from scratch in working with the document. While this may seem like a disadvantage, you're likely to find that developers prefer it, as it gives them complete control over how they write their code. Many developers have specific methods of coding they have developed over time, and larger organizations may have standard coding practices that must be followed, so any code a program—any program—generates is as likely as not to be discarded by the developers anyway.



That said, there are things you can do to help the process, which will not only keep the developers happy but also ensure that the final output matches your design as closely as possible.

First, have a basic understanding of how development works. You don't need to learn to code per se, but rather, understand the limitations of the medium for which you are designing. Some key points have already been discussed elsewhere in this book, such as ensuring that you are using a web-safe font if developing a page, and knowing in advance whether your mobile app will be created using native code (meaning that you need to create separate designs for each platform) or using a hybrid approach (meaning that one design will do, but that design needs to include necessary interface elements to be usable across both platforms).

The best approach is to make sure you keep in contact with your developers during the design process, asking for their input when in doubt. Ideally, they will return the favor, checking in with you while they code to make sure that the end product is the one you intended (and the one the client approved).

## Summary

In this final chapter, you learned how you can share your design with the people who will end up transforming it into code so that it becomes an actual website or mobile app. We looked at how you can export assets, such as images, and how you can export entire artboards. We then discussed a few important things you need to keep in mind while creating your designs to minimize issues that might arise when translating it to code.

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