The Program Shift function is available only in Program mode; it works as follows. Once you have aimed the camera at your subject, the camera displays its chosen settings for shutter speed and aperture in the lower-left corner of the screen. At that point, you can turn the Control dial at the upper right of the camera's back, and the values for shutter speed and aperture will change, if possible under current conditions, to different values for both settings while keeping the same overall exposure of the scene.

With this option, the camera "shifts" the original exposure to your choice of any of the matched pairs that appear as you turn the Control dial. For example, if the original exposure was f/2.8 at 1/50 second, you may see equivalent pairs of f/3.2 at 1/40, f/3.5 at 1/30, and f/4.0 at 1/25, among others. When Program Shift is in effect, the P icon in the upper-left corner of the screen will have an asterisk to its right, as shown in Figure 3-8.

Figure 3-8. Asterisk Near P Icon for Program Shift

To cancel Program Shift, turn the Control dial until the original settings are in effect or move the Mode dial to another mode, then back to Program.

Program Shift is useful to set a slightly faster shutter speed to stop action better or a wider aperture to blur the background more, or you might have some other creative reason. This option lets the camera quickly evaluate the exposure, but gives you the option to tweak the shutter speed and aperture to suit your current needs.

Of course, if you need to use a specific shutter speed or aperture, you probably are better off using Aperture Priority, Shutter Priority, or Manual exposure mode. However, having Program Shift available is useful when you're taking pictures quickly using Program mode, and you want a fast way to tweak the settings somewhat.

Another important aspect of Program mode is that it expands the choices available through the Shooting menu, which controls many of the camera's settings. You will be able to make choices involving ISO sensitivity, metering mode, DRO/HDR, white balance, Creative Style, Picture Effect, and others that are not available in the Auto modes. I won't discuss those settings here; if you want to explore that topic, see the discussion of the Shooting menu in Chapter 4 for information about all of the different selections that are available.

Aperture Priority Mode

Select Aperture Priority shooting mode by turning the Mode dial to the A setting, as shown in Figure 3-9.

Figure 3-9. Mode Dial Aperture Priority

In this mode, you select the aperture and the camera chooses a shutter speed for proper exposure. With this mode, you can exercise control over the depth of field of your shots. When you select a narrow aperture, such as f/16.0, the depth of field will be broad, with the result that more items will appear to be in sharp focus at varying distances from the lens. On the other hand, with a wide aperture, such as f/2.0, the depth of field will be relatively shallow, and you may be able to keep only one subject in sharp focus.

In a camera with a full-frame sensor like the RX1R II, the effect of using a wide aperture is particularly striking. The large sensor produces a shallow depth of field that is not attainable with the smaller sensor of less sophisticated cameras.

In Figures 3-10 and 3-11, the settings were the same except for aperture values. I focused on the front of the model car in the foreground in each case. For Figure 3-10, I set the aperture of the RX1R II to f/2.0, the

widest possible. With this setting, because the depth of field at this aperture was quite shallow, the objects in the background are fairly blurry. I took Figure 3-11 with the camera's aperture set to f/22.0, the narrowest setting, resulting in a broader depth of field, making the background appear considerably sharper.

Figure 3-10. Aperture Set to f/2.0

Figure 3-11. Aperture Set to f/16.0

These photos illustrate the effects of varying aperture by setting it wide (low numbers) to blur the background and narrow (high numbers) to enjoy a broad depth of field and keep subjects at varying distances in sharp focus. A need for shallow depth of field arises often in the case of outdoor portraits. If you can achieve a shallow depth of field by using a wide aperture, you can keep your subject in sharp focus but leave the background blurry, as in Figure 3-10. This effect is sometimes called "bokeh," a Japanese term for a pleasing blurriness of the background. In this situation, the fuzzy background can be a great asset, minimizing distraction from unwanted objects and highlighting the sharply focused image of your subject.

With the Mode dial at the A setting, use the aperture ring to select the aperture value. The major settings are f/2.0, f/2.8, f/4.0, f/5.6, f/8.0, f/11.0, f/16.0, and f/22.0, but you can make intermediate settings by turning the ring to one of the white lines between the numbered values. For example, between f/2.8 and f/4, you can select f/3.2 or f/3.5.

When you set the aperture, as seen in Figure 3-12, the f-stop (f/16 in this case) will appear at the bottom of the screen next to the shutter speed.

Figure 3-12. Aperture Value on Shooting Display

The camera will try to select a shutter speed that will result in a proper exposure given the aperture you have set. The available shutter speeds range from 30 seconds to 1/4000 second, but this range is dependent on the aperture setting. The camera can set the shutter speed to 1/4000 second only when the aperture is set to f/5.6 or narrower, and it can set a shutter speed of 1/2500 or 1/3200 only when the aperture is f/4.0 or narrower. At apertures wider than f/4.0, the fastest shutter speed available is 1/2000 second.

Although in most cases the camera will be able to select a corresponding shutter speed that results in a normal exposure, there may be times when this is not possible. For example, if you are taking pictures in a very bright location with the aperture set to f/2.0, the camera may not be able to set a shutter speed fast enough to yield a normal exposure. In that case, the fastest possible shutter speed (1/2000 second at that aperture) will flash on the display to show that a normal exposure cannot be made using the chosen aperture. The camera will let you take the picture, but it may be too bright to be usable.

Similarly, if conditions are too dark for a good exposure at the aperture you have selected, the slowest possible shutter speed (30", meaning 30 seconds) will flash.

In situations where conditions are too bright or dark for a good exposure, the camera's display may become

bright or dark, giving you notice of the problem. This will happen if the Live View Display item on screen 3 of the Custom menu is set to Setting Effect On. If that option is set to Setting Effect Off, the display will remain at normal brightness (if there is enough ambient light), even if the exposure settings would result in an excessively bright or dark image. I will discuss that menu option in Chapter 7.

Shutter Priority Mode

In Shutter Priority mode, you choose the shutter speed you want and the camera will set the corresponding aperture to achieve a proper exposure of the image.

Figure 3-13. Mode Dial Shutter Priority

In this mode, designated by the S position on the Mode dial, as shown in Figure 3-13, you can set the shutter to be open for a time ranging from 30 seconds to 1/4000 of a second. However, this range of settings is dependent on the aperture setting. You can set the shutter speed to 1/4000 second only when the aperture is set to f/5.6 or narrower, and you can set a shutter speed of 1/2500 or 1/3200 only when the aperture is f/4.0 or narrower. At apertures wider than f/4.0, the fastest shutter speed available is 1/2000 second.

So, if you set a speed of, say, 1/3200 second in somewhat dark conditions, the camera cannot select an aperture wider than f/4.0, which may result in an excessively dark image. If that happens, select a slower shutter speed so the camera can select an appropriate aperture for current lighting conditions.

If you are photographing fast action, such as a baseball swing or a hurdles event at a track meet, and you want to stop the motion with a minimum of blur, you should select a fast shutter speed, such as 1/1000 of a second. For Figure 3-14 and Figure 3-15, I used different shutter speeds in photographing a cupful of uncooked white rice as I poured it into another container.

Figure 3-14. Shutter Speed Set to 1/500 Second

In Figure 3-14, I used a setting of 1/500 second, which was fast enough to freeze the action so you can see individual grains of rice. In Figure 3-15, with the shutter speed slowed to 1/2 second, the same grains of rice are transformed into what looks almost like a stream of milk in a continuous flow.

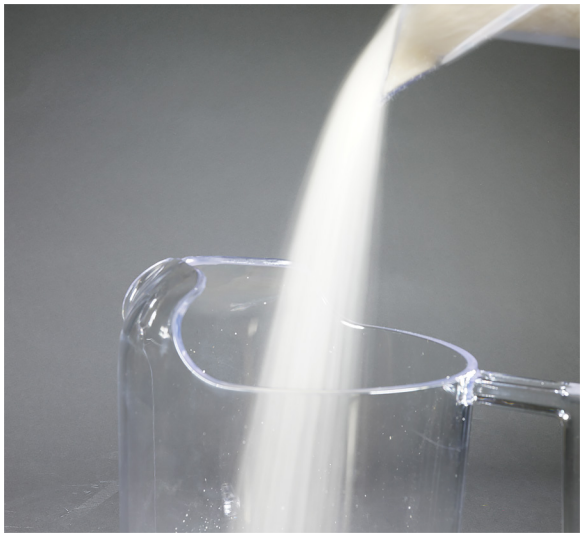

Figure 3-15. Shutter Speed Set to 1/2 Second

You select this shooting mode by turning the Mode dial to the S indicator, as shown in Figure 3-13. Then you select the shutter speed by turning the Control dial, at the upper right of the camera's back.

If you turn on the Exposure Settings Guide option on screen 2 of the Custom menu, you will see a circular display of the shutter speeds as you turn the Control dial, as shown in Figure 3-16.

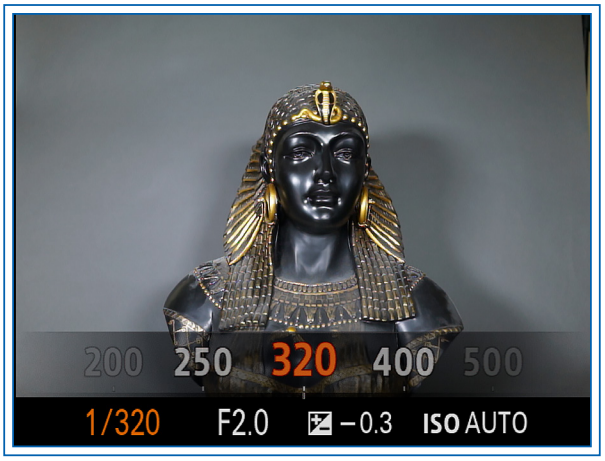

Figure 3-16. Exposure Settings Guide Showing Shutter Speed

The RX1R II uses the letter "S" to stand for Shutter Priority on the Mode dial and to designate this mode on the live view screen, but it uses the notation "Tv" on the Shooting mode display in Shutter Priority mode, next to the Control dial icon, as shown in Figure 3-17. Tv stands for time value, a term often used for shutter speed.

Figure 3-17. Tv Designation for Shutter Speed on Shooting Display

As you cycle through various shutter speeds, the camera will select the appropriate aperture to achieve a normal exposure, if possible. As I discussed in connection with Aperture Priority mode, if you select a shutter speed for which the camera cannot select an aperture that will yield a good exposure, the aperture reading at the bottom of the display will flash. The flashing aperture means that proper exposure at the selected shutter speed is not possible at any available aperture, according to the camera's calculations.

For example, if you set the shutter speed to 1/320 second in a fairly dark indoor environment, the aperture number (which will be f/2.0, the widest setting) may flash, indicating that proper exposure is not possible. As I discussed for Aperture Priority mode, you can still take the picture if you want to, though it may not be usable. A similar situation may take place if you select a slow shutter speed (such as 4 seconds) in a relatively bright location. (This situation is less likely to happen in Aperture Priority mode, because of the wide range of shutter speeds the camera can use to achieve a good exposure.)

If the current settings in this mode would result in an image that is excessively dark or bright, the LCD display will grow dark or bright to show that effect, but only if a menu option is set a certain way. If you want to see how the final image would look while viewing it on the display, go to screen 3 of the Custom menu and set the Live View Display option to Setting Effect On. If the option is set to Setting Effect Off, then the display will show a normal image even in unusually bright or dark conditions. That option is discussed further in Chapter 7.

Manual Exposure Mode

Manual exposure mode is a useful tool for creative control over exposure decisions. The technique for using this mode is similar to what I discussed for the Aperture Priority and Shutter Priority modes. To control exposure manually, set the Mode dial to the M indicator, as shown in Figure 3-18.

Figure 3-18. Mode Dial Manual Exposure

You now have to control both shutter speed and aperture by setting them yourself. To set the aperture, turn the aperture ring; to set the shutter speed, turn the Control dial at the upper right of the back of the camera. The values you set will appear at the bottom of the display, as shown in Figure 3-19.

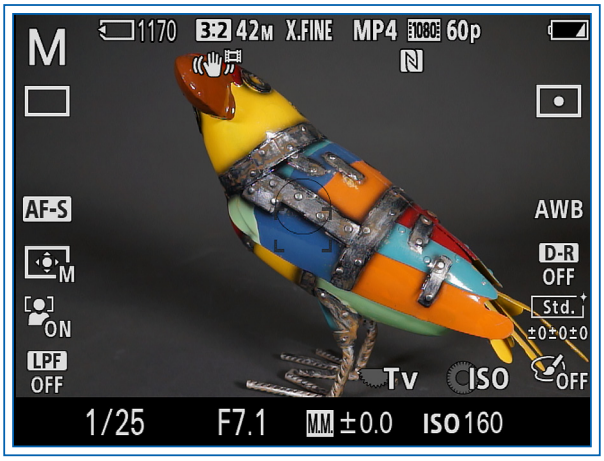

Figure 3-19. Shutter Speed and Aperture Display in Manual Mode

As you adjust shutter speed and aperture, a third value, to the right of the aperture, also may change. That value is a positive, negative, or zero number. The meaning of the number is different depending on the current ISO setting.

In Chapter 4, I'll provide more details about the ISO setting, which controls how sensitive the camera's sensor is to light. With a higher ISO value, the sensor is more sensitive and the image is exposed more quickly, so the shutter speed can be faster or the aperture more narrow, or both.

To set the ISO value, press the Menu button to access the Shooting menu, go to the fourth screen, and highlight the ISO item. Press the Center button to bring up the ISO menu, as shown in Figure 3-20, and scroll through the selections using the Up and Down buttons or by turning the Control wheel or the Control dial.

Figure 3-20. ISO Menu

Choose a low number like 100 to maximize image quality when there is plenty of light; use a higher number in dim light. Higher ISO settings are likely to cause visual "noise," or graininess, in your images. Generally speaking, you should try to set ISO no higher than 800 to ensure the highest image quality.

If the ISO value is set to a specific number, such as 125, 200, or 1000, then, in Manual exposure mode, the icon at the bottom center of the display is a box containing the letters "M.M.," which stand for "metered manual," as shown in Figure 3-19.

The number next to the M.M. icon represents any deviation from what the camera's metering system considers to be a normal exposure. So, even though you are setting the exposure manually, the camera will still let you know whether the selected aperture and shutter speed will produce a standard exposure.

If the aperture, shutter speed, and ISO values you have selected will result in a darker exposure than normal, the M.M. value will be negative, and vice-versa. This value can vary only by as much as +2.0 or -2.0 EV (exposure value) units; after that, the value will flash, meaning the camera considers the exposure excessively abnormal.

Of course, you can ignore the M.M. indicator; it is there only to give you an idea of how the camera would meter the scene. You very well may want part or all of the scene to be darker or lighter than the metering would indicate to be "correct."

As with the Aperture Priority and Shutter Priority modes, the camera's display will become unusually bright or dim to indicate that current settings would result in an abnormal exposure, but only when the Live View Display menu option on screen 3 of the Custom menu is set to Setting Effect On.

If, instead of a specific value, you have set ISO to Auto ISO, the icon at the bottom center of the screen changes. In this situation, the camera displays the exposure compensation icon, which contains a plus and minus sign, as shown in Figure 3-21.

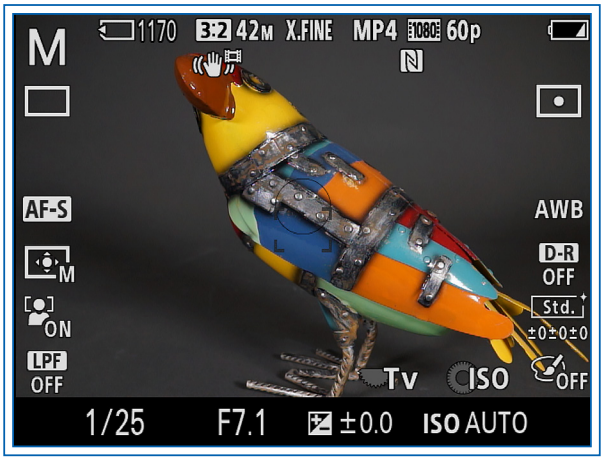

Figure 3-21. Exposure Compensation Icon in Manual Mode

The reason for this change is that, when you use Auto ISO in Manual exposure mode, the camera can likely produce a normal exposure by adjusting the ISO. There is no need to display the M.M. value, which shows deviation from a normal exposure.

Instead, the camera lets you adjust exposure compensation, so you can set the exposure to be darker or brighter than the camera's autoexposure system would produce.

To set exposure compensation in Manual mode, turn the exposure compensation dial at the far right of the camera's top. Or, if you prefer, you can assign exposure compensation to the C1, C2, Center, Left, Right, Down, or AEL button. You make that assignment using the Custom Key Settings option on screen 5 of the Custom menu, as discussed in Chapter 7. You also can use the Function menu to adjust exposure compensation, if that adjustment has been included in that menu, as discussed in Chapter 7.

With Manual exposure mode, the settings for aperture and shutter speed are independent of each other. When you change one, the other one stays unchanged until you adjust it manually. But the effect of this system is different depending on whether you have selected a specific value for ISO as opposed to Auto ISO.

If you select a numerical value for ISO, which can range from 50 to 102400, the camera leaves the creative decision about exposure entirely up to you, even if the resulting photograph would be washed out by excessive exposure or underexposed to the point of near-blackness.

However, if you select Auto ISO for the ISO setting, then, as discussed above, the camera will adjust the ISO to achieve a normal exposure if possible. In this case, Manual exposure mode becomes like a different shooting mode altogether. You might call this the "aperture and shutter speed priority mode," because you are able to set both aperture and shutter speed but still have the camera adjust exposure automatically by changing the ISO value.

The ability to use Auto ISO in Manual exposure mode is very useful. For example, suppose you are taking photographs of a craftsman using tools in a dimly lighted area. You may want to use a narrow aperture such as f/11.0 to achieve a broad depth of field and keep the tools and other items in focus, but you also may want to use a fast shutter speed, such as 1/250 second, to freeze action. If you use Aperture Priority mode, the camera will choose the shutter speed; with Shutter Priority mode, the camera will choose the aperture, and with Program mode, the camera will choose both values. Only by using Manual exposure mode with Auto ISO can you choose both aperture and shutter speed and still have the camera find a good exposure setting automatically.

Even with the ability to use Auto ISO, though, there may be situations in which the camera cannot produce a normal exposure. This could happen if you have limited the scope of the Auto ISO setting by setting a narrow range between the Minimum and Maximum settings for Auto ISO. It also could happen if you have chosen extreme settings for aperture and shutter speed, such as 1/500 second at f/11.0 in dark conditions. In such situations, the ISO Auto label and the exposure compensation value at the bottom of the display will flash, indicating that a normal exposure cannot be achieved with these settings.

The range of apertures you can set in Manual mode is the same as for Aperture Priority mode: f/2.0 to f/22.0. The range of shutter speeds in Manual mode is the same as for Shutter Priority mode: 1/4000 second to 30 seconds. However, as with Aperture Priority and Shutter Priority modes, you can set the shutter speed to 1/4000 second only when the aperture is set to f/5.6 or higher, and you can set speeds of 1/2500 and 1/3200 only when the aperture is f/4.0 or higher. At apertures wider than f/4.0, the fastest shutter speed available is 1/2000 second.

However, there is one important addition to the overall range of shutter speeds in this shooting mode. In Manual exposure mode, you can set the shutter speed to the BULB setting, just beyond the 30-second mark, as shown in Figure 3-22.

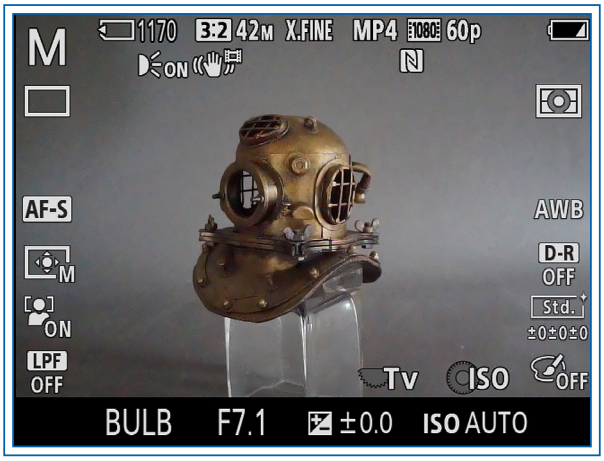

Figure 3-22. BULB Setting on Display

With the BULB setting, you have to press and hold the shutter button to keep the shutter open. You can use this setting to take photos in dark conditions by holding the shutter open for a minute or more.

One problem is that it is hard to avoid jiggling the camera, causing image blur, even if the camera is on a tripod. In Appendix A, I discuss using a remote control to trigger the camera. After the exposure ends, the camera will process the exposure for the same length of time as the exposure, to reduce the noise caused by long exposures. You will not be able to take another shot while this processing continues. (You can disable this setting with the Long Exposure Noise Reduction option on screen 5 of the Shooting menu.)

Another feature available in this mode is Manual Shift, which is similar to Program Shift, discussed earlier for Program mode. To use Manual Shift, you first have to assign one of the control buttons (Custom 1, Custom 2, Center, or AEL) to the AEL (autoexposure lock) Hold or AEL Toggle function using the Custom Key (Shooting) option on screen 5 of the Custom menu, as discussed in Chapter 7. (The Left, Right, or Down button can be assigned to AEL Toggle, but not AEL Hold.)

Then, after making your aperture and shutter speed settings, change the aperture setting while pressing the button assigned to the AEL function. (If you selected AEL Toggle, you don't have to hold down the button; just press it and release it.)

When you do this, the camera will make new settings with equivalent exposure, if possible. For example, if the original settings were f/3.5 at 1/160 second, when you select Manual Shift and change the aperture to f/3.2, the camera will reset the shutter speed to 1/200 second, maintaining the original exposure. In this way, you can tweak your settings to favor a particular shutter speed or aperture without affecting the overall exposure. An asterisk will appear in the lower right corner of the display while you activate the button that controls AEL.

I use Manual exposure mode often, for various purposes. One use is to take images at different exposures to combine into a composite HDR image. I will discuss that technique in Chapter 4. Figure 3-23 is an example. For this image, I took several shots at different exposure settings and combined them with Photomatix Pro software to create this HDR image.

Figure 3-23. HDR Image Created Using Several Manual Exposures

I also use Manual mode when using a third-party external flash, as discussed in Appendix A. In that case, the flash does not interact with the camera's autoexposure system, so I need to set the exposure manually. Manual mode also is useful for some special types of photography, such as making silhouettes.

Scene Mode

Scene mode, also known as Scene Selection mode, represented by the SCN setting on the Mode dial, as shown in Figure 3-24, is different from the other shooting modes I have discussed.

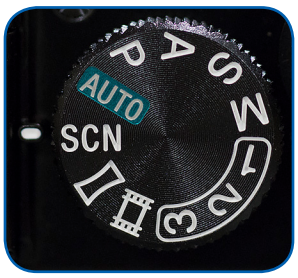

Figure 3-24. Mode Dial Scene

This mode does not have a single defining feature, such as permitting control over one or more aspects of exposure. Instead, when you select Scene mode and then choose a particular scene type within that mode, you are telling the camera what sort of environment the picture is being taken in and what type of image you are looking for, and you are letting the camera make the decisions as to what settings to use to produce that result.

One aspect of Scene mode is that with most of its settings, you cannot select many of the options that are available in Program, Aperture Priority, Shutter Priority, and Manual exposure mode, such as Creative Style, Picture Effect, Metering Mode, White Balance, Focus Area, and ISO. There also are some menu settings and control options that are available with certain scene settings but not others, as discussed later in this chapter.

Although some photographers may not like Scene mode because it takes creative decisions away from them, I find it useful in various situations. Remember that you don't have to use these scene types only for their labeled purposes; you may find that some of them offer a group of settings that is well suited for scenarios you regularly encounter. I'll discuss how Scene mode works, and you can decide for yourself whether you might take advantage of it on occasion.

Select Scene mode by turning the Mode dial to the SCN indicator, as in Figure 3-24. Now, unless you want to use the setting that is already in place, you need to select from the list of 8 scene options. There are several ways to do this, depending on current settings. If the Mode Dial Guide is turned on through screen 2 of the Setup menu, then, whenever you turn the Mode dial to the SCN setting and press the Center button, the Scene Selection menu, shown in Figure 3-25, will appear.

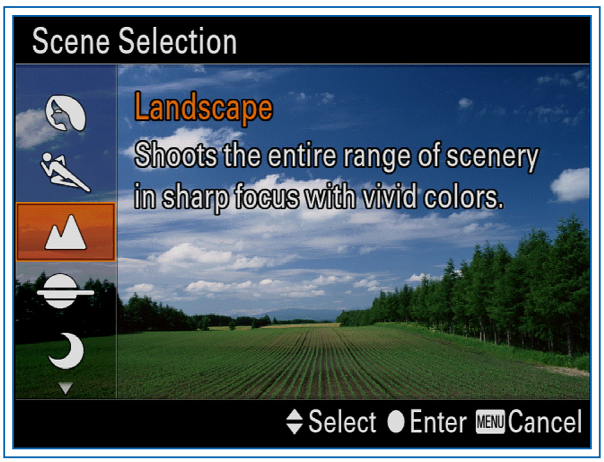

Figure 3-25. Scene Selection Menu

If the Mode Dial Guide is not in use, or if the camera is already set to Scene mode, you can go to screen 7 of the Shooting menu and call up the Scene Selection item, which produces the same menu as shown in Figure 3-25.

Once the Scene Selection menu is on the display, scroll through the 8 selections on that menu using the Up and Down buttons, the Control wheel, or the Control dial. Press the Center button to select a setting and return to the shooting screen. You will then see an icon for that setting in the upper-left corner of the LCD display. For example, Figure 3-26 shows the display when the Anti Motion Blur setting is selected.

Figure 3-26. Icon for Anti Motion Blur Scene Type on Display

One helpful point about the Scene mode menu system is that each scene type has a main screen with a brief description of the setting's uses as you move the selector over it, as shown in Figure 3-27, so you are not left trying to puzzle out what each icon represents.

Figure 3-27. Descriptive Text for Sports Action Scene Type

As you keep pushing the Up or Down button or using the Control wheel or Control dial to move the selector over the scene type icons, when you reach the bottom or top edge of the screen, the selector wraps around to the first or last icon and continues going.

As I discussed earlier for Intelligent Auto mode, there is an easier way to select the sub-modes, such as Portrait, Landscape, and the like. On screen 5 of the Custom menu, choose the Function Menu Settings option, and assign the Shoot Mode option to one of the 12 slots for the Function menu. Then, whenever the Mode dial is set to Scene, you can press the Function button to bring up the Function menu with the icon for the current Scene mode setting displayed, as shown in Figure 3-28.

Figure 3-28. Shoot Mode Option Highlighted on Function Menu

Highlight that icon by moving to it with the direction buttons and turn the Control wheel to scroll through the available settings (Portrait, Landscape, Sunset, etc.). When your choice is highlighted, press the Function button to return to the shooting screen.

There is one more, even easier way to switch among the various scene types: Turn the Control dial while the shooting screen is displayed, and the camera will cycle through the scene selections. The scene-type icon will change, in the upper left of the display.

Those are the methods for selecting a scene type. But you need to know something about each option to decide whether it's one you would want to use. In general, each scene setting carries with it a variety of values, including things like flash options, Drive Mode settings, sensitivity to various colors, and others.

It's helpful to note that some settings are designed for certain types of shooting rather than particular subjects such as sunsets or portraits. For example, the Anti Motion Blur and Hand-held Twilight settings are designed for difficult shooting environments, such as dimly lighted areas.

With that introduction, I will discuss the main features of each of the 8 choices, with a sample image for each of the settings.

Portrait

The Portrait setting is designed to blur the background by using a wide aperture and to produce flesh tones with a softening effect, as shown in Figure 3-29. For this image, the camera used a wide aperture of f/2.8 and boosted the ISO to 3200 to allow the use of a 1/160 second shutter speed in the available light.

Figure 3-29. Portrait Example

You should stand fairly close to the subject if possible, to assist in blurring the background. You may want to use a flash with the Fill-flash setting to reduce shadows. To avoid harsh lighting from the flash, consider using off-camera flash with a softbox, as discussed in Appendix A.

If you are shooting a portrait in front of a busy background, such as a house, try to position the subject's head in front of a plain area, such as a light-colored wall, so the head will be seen clearly. You can use the self-timer, but you cannot use bracketing or continuous shooting.

Sports Action

The Sports Action setting is for use when lighting is bright and you need to freeze the action of your subjects, such as athletes, children at play, pets, or other subjects in motion. Depending on conditions, the camera may set a high ISO value so it can use a fast shutter speed to stop action. The camera sets itself for continuous shooting, so you can hold down the shutter button and capture a burst of images. In that way, you increase your chances of capturing the action at a perfect moment. You can switch to the fastest level of continuous shooting if you want, but you cannot set Drive Mode to single shooting and you cannot use the self-timer or any form of bracketing.

Figure 3-30. Sports Action Example

In Figure 3-30, I used this setting to capture a very active puppy as she paused for a few seconds to look out the window. The camera set itself to f/2.8 with an ISO setting of 6400, and a shutter speed of 1/2000 second to freeze the action. Using the standard continuous shooting setting, I took a burst of several shots to catch this one.

Landscape

Landscape is a Scene setting that I use often. It is convenient to turn the Mode dial to the SCN position and pull up the Landscape setting when I'm taking pictures at a scenic location. The camera will let you use Fill-flash in case you want to shoot an image of a person close to the camera in front of a building or other attraction, and it boosts the brightness and intensity of colors somewhat. You cannot use continuous shooting or exposure bracketing, but you can use the self-timer. Figure 3-31 is an example taken using this setting to capture a view of the city skyline at the riverfront.

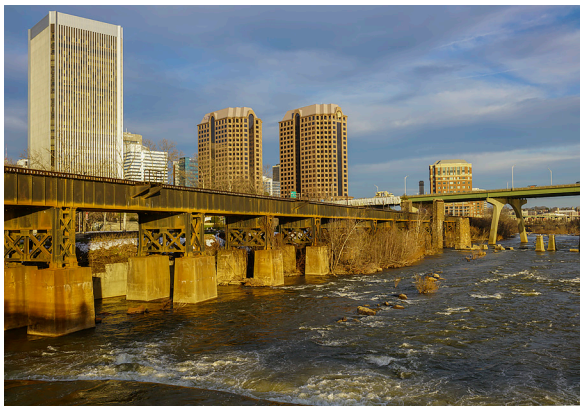

Figure 3-31. Landscape Example

Sunset

This setting is designed to capture the reddish hues of the sky as the sun rises or sets. You can use Fill-flash if you want to, so you can take a portrait of a person with the sunset or sunrise in the background. You cannot use continuous shooting or exposure bracketing, but you can use the self-timer. The main feature of this setting is that the camera boosts the intensity of the reddish colors in the scene.

Figure 3-32. Sunset Example

Of course, as I noted earlier, you don't have to limit the use of this, or any Scene mode setting, to the subject its name implies. For example, if you are photographing red and orange leaves of trees that are changing colors in autumn, you might want to try the Sunset option to create an enhanced view of the brightly colored foliage.

In Figure 3-32, I used this setting for a view of the sky well after sunset, but with a hint of red still present.

Night Scene

The Night Scene option is designed to preserve the natural look of a nocturnal setting. The camera does not permit the use of flash; if the scene is quite dark, you should use a tripod, if possible, to avoid camera motion during the long exposure that may be needed. You can use the self-timer, but not continuous shooting or exposure bracketing. This setting is good for outdoor scenes after dark when flash would not help. The camera does not raise the ISO or use multiple shots, as it does with some other modes used in dim lighting, such as Hand-held Twilight.

Figure 3-33. Night Scene Example

In Figure 3-33, I used the Night Scene setting to photograph the city skyline after sunset. The camera used a long shutter speed of 4 seconds with an aperture of f/4.0 and preserved image quality by using a low ISO setting of 100. I used a tripod because of the slow shutter speed.

Hand-Held Twilight

This Scene mode setting gives you an option for taking pictures in low light without flash or tripod. In dim lighting, blurring of the image can happen when the camera uses a slow shutter speed to expose the image properly, because it is hard to hold the camera steady for an exposure longer than about 1/30 second.

To counter the effects of blurring, with Hand-held Twilight the camera raises the ISO to a higher-than-normal level so it can use a fast shutter speed and still admit enough light to expose the image properly. Because higher ISO settings result in increased noise, the RX1R II takes a burst of 4 shots and combines them through internal processing into a single composite image with reduced noise.

Hand-held Twilight is useful for a landscape or other static subject at night when you cannot use a tripod or flash. If you can use a tripod, you might be better off using the Night Scene setting, discussed above. Or, if you don't mind using flash, you could just use Intelligent Auto, Program, or one of the more ordinary shooting modes. Hand-held Twilight is a very useful option when it's needed, but it will not yield the same overall quality as a shot at a lower ISO with the camera on a steady support.

With Hand-held Twilight, the flash mode is set to Forced Off. You can use the self-timer, but not continuous shooting or bracketing. If Quality is set to Raw, the camera will change it to Fine temporarily. You can set Quality to Extra Fine if you want to, though.

Figure 3-34. Hand-held Twilight Example

In Figure 3-34, I used this setting for a hand-held shot of a lighted house at night during a snowstorm. The camera shot this image at f/2.0 and set the ISO to 25600, with a shutter speed of 1/100 second, fast enough to hand-hold the camera without noticeable motion blur. As I noted above, this setting is excellent for hand-held shots of motionless subjects in dim light. If there is motion involved, you may do better with the Anti Motion Blur setting, discussed later in this section.

Night Portrait

This night-oriented setting is for taking a portrait when you are willing to use flash. With Night Portrait, the camera takes only one shot and it sets the flash mode to Slow Sync. I will discuss the Slow Sync setting and provide an example in Chapter 4. Basically, with this