

Boro Foto Kaiketu series 027

PENTAX 645Z Professional Pointers



Written by Yoshiaki Kobayashi
Edited by Titoce Saito

What is the PENTAX 645Z Professional Pointers guidebook?

This is a collection of useful tips from renowned nature photographer Yoshiaki Kobayashi. These will help users of the PENTAX 645Z medium-format digital SLR camera to take full advantage of the camera's numerous strengths, including its exceptional imaging power supported by approximately 51.4 effective megapixels and its large CMOS image sensor (43.8mm by 32.8mm). In addition to the 645Z's main features, Mr. Kobayashi explains the nine different factors he pays the most attention to when he takes photographs himself: focus, composition, color, lighting, height, shooting angle, angle of view, depth of field, and shutter speed. By familiarizing themselves with the ways in which professionals perceive subjects and scenes, and the techniques applied to each of them, 645Z users can understand the professional way of constructing final images, apply advanced techniques, and upgrade their own photographic skills.

The Professional Pointers series will make the newest information on digital imaging more accessible and more affordably priced than via printed books and magazines, and more comprehensively than on websites. Updates to the series will be available on our Facebook page (<https://www.facebook.com/Foton.uncool/>). I sincerely hope that the information provided in this guidebook will help you improve your digital imaging skills in many ways.

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Titoce Saito
Editor

645Z Professional Pointers

–Contents–

How to use the guidebook

006 Nine key factors of my 645Z photography

Yoshiaki Kobayashi's photo-shooting pointers

- 010 Conceal artificial objects with mist
- 014 Capture shafts of light
- 018 Express the flow of water
- 022 Depict summertime clouds
- 026 Capture a pond in the forest
- 030 Capture a lake in the morning
- 034 Use the defocus effect
- 038 Defocus the foreground
- 042 Capture a tall flower
- 046 Capture the scenery with handheld shooting
- 050 Capture the silky flow of waterfalls
- 054 Capture wide-angle close-ups with handheld shooting
- 058 Capture the forms of nature
- 062 Use the HDR function
- 066 Use the CTE mode



- 070 Enhance a sense of depth with high-angle shooting
- 074 Use the medium-format camera's defocus effect
- 078 Position the subject against a blue sky
- 082 Depict the gradations in a bright sky
- 086 Capture the flight of a crane
- 090 Focus on the light penetrating into waterfalls
- 094 Use manual-focus lenses
- 098 Capture a mother deer and her fawn
- 102 Express the traces of stars
- 106 Capture a starlit sky
- 110 Create a gentle image of flowers
- 114 Express the height of a tree
- 118 Use the SR function
- 122 Optimize the benefits of HD Coating
- 126 Freeze waterfalls splashes

130 Looking back at the shooting

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All sample images used in this guidebook were taken with the PENTAX 645Z.

The photographic data of the sample images used in this guidebook are listed in the following order: camera model; lens used (focal length at time of shooting); exposure mode (aperture and shutter speed); ISO sensitivity; exposure compensation factor; white balance; Custom Image; other remarks.

In each section, a focus and composition guidance image is provided to demonstrate the photographer's intended focus point (indicated by a blue square) and composition pattern (outlined by red lines or circle).

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How to use this guidebook

Nine key factors of my 645Z photography

In this guidebook, I will describe sample images in terms of nine decisive factors: focus, composition, color, lighting, height, shooting angle, angle of view, depth of field, and shutter speed. All of these are listed below the sample image in each section outlining focus and composition. I will explain these images from the standpoint of my own personal creative intentions, rather than stressing the photographic data itself. I will describe each image in detail based on the following factors:

Focus: auto, AF select, AF lock, auto-tracking AF, MF

The focus point is indicated by a blue frame. **Auto** provides automatic focusing on the subject. **AF select** provides the user with a choice of the AF frame. **AF lock** allows the user to compose the image after locking the focus with the AF frame. **Auto-tracking AF** follows the subject's movement. **MF** (manual focus) allows the user to focus manually.

Composition: center, bisection, trisection, triangle, diagonal

There are several different methods for composing an image. **Center** positions the main subject in the middle. **Bisection** divides the image field into two sections. **Trisection** divides the image field into three horizontal and/or vertical sections, then uses imaginary guidelines or their intersections as reference points. **Triangle** focuses on a triangular arrangement in the image field. **Diagonal** forms an image along a diagonal line in the image field. When the composition of the image does not match any of these, no icon is highlighted.

Color: tone, contrast, multicolor, monochrome

There are four options for the choice of color scheme. **Tone** expresses an image with a gradation of color. **Contrast** compares several colors to enhance the impression of an image. **Multicolor** composes an image with a range of colors. **Monochrome** uses gradations of a single color, such as black-and-white, to depict an image.

Lighting: normal, backlit, diagonal, diffused, nightscape

Lighting refers to the condition of the light in which the subject is located at the time of shooting. **Normal light** illuminates the subject from the front. **Backlight** illuminates the subject from the back. **Diagonal light** illuminates the subject diagonally and upwards. **Diffused** places the subject under diffused lighting, such as on a cloudy day or in an indoor setting. **Nightscape** places the subject under a combination of artificial light sources, such as indoors or at stadiums.

Height: high level, eye level, low level

Height refers to the vertical position of the camera at the time of shooting. **High level** means that the camera is held higher than the photographer's eye level. **Eye level** means that it is held at the same level as the photographer's eye. **Low level** means that it is held lower than eye level, such as with a kneeling position.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Shooting angle refers to the vertical tilting of the camera at the time of shooting. **Upward tilt** means that the camera is positioned at an angle upward toward the subject. **Level** means that the camera is even with the ground. **Downward tilt** means that the camera is at a downward angle to the subject. **Bird's eye** means that the camera is positioned directly down at the subject from overhead.

Angle of view: wide angle, standard, telephoto, macro

This classification does not mean that an image was taken at an angle of view wider or narrower than 50mm, or in the macro mode. Rather, an image is classified as wide angle, standard, telephoto or macro because of the importance the photographer placed on the specific visual effect offered by a specific lens: a perspective shot produced by a wide-angle or telephoto lens; a close-up effect produced by a macro lens; or a natural, true-to-life image created by a standard lens.

Depth of field: defocus, sharpen, deepen, auto

Depth of field describes the type of visual effect the photographer is working to create by altering the in-focus area at the time of shooting. **Defocus** selects a depth of field that blurs the subject. **Sharpen** enhances the image's resolution. **Deepen** maximizes the depth of field. **Auto** sets the optimum depth of field automatically.

Shutter speed: freeze, stretch, auto

Shutter speed reflects the photographer's creative intention in expressing the subject's motion. **Freeze** stops the subject's motion and prevents blurred images. On the contrary, **stretch** intentionally captures the subject in a blurry image. **Auto** selects the optimum shutter speed automatically, regardless of the photographer's intentions.

Yoshiaki Kobayashi's photo-shooting pointers



In the 645Z Professional Pointers guidebook, I will present my approach as a professional photographer when using the PENTAX 645Z to photograph various scenes and subjects.
(Title-page photo: Yoshiaki Kobayashi)



Conceal artificial objects with mist

PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (160mm); Aperture-priority AE (F22, 1/25 sec.); ISO 400; +0.3 EV; WB: Daylight, Bright; C-PL filter
Arctic irises set in the mist (Akkeshi-cho, Hokkaido)

Conceal artificial objects with mist



PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (160mm); Aperture-priority AE (F22, 1/25 sec.); ISO 400; +0.3 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I set my focus on the blossoms of an arctic iris positioned slightly off center toward the foreground, to assure the depth of field broad enough to capture the entire group of iris flowers.

Composition: center, bisection, trisection, triangle, diagonal

I composed the image diagonally to make the viewer's eye shift from the lower left-hand corner toward the middle, then onto the fallen tree in the background. This composition added a sense of depth to this image.

Color: tone, contrast, multicolor, monochrome

I used a combination of simple colors, with the irises' purple shades set against the pale green background. I also obscured the background with the mist to veil other elements and enhance a sense of depth.

Make effective use of weather conditions

Light: normal, backlit, diagonal, diffused, nightscape

Since mist will diffuse the light, this helped me create a subdued atmosphere free of shadows. This type of lighting gives me total control over camera positioning.

Height: high level, eye level, low level

If the camera had been positioned at my eye level, the top of the fallen tree would have been cut off from the image. In order to capture the entire tree, I positioned the camera slightly lower than eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

In order to express the simple beauty of this scene truthfully, I set the camera level with the ground.

Angle of view: wide angle, standard, telephoto, macro

I set the lens at a medium-telephoto focal length, not only to assure a well-balanced composition of the iris flowers and the fallen tree, but also to eliminate artificial objects located to the left side of the background.

Depth of field: defocus, sharpen, deepen, auto

I closed down the aperture to F22 to assure sharp focus on the entire field of iris, but not for a pan-focused effect.

Shutter speed: freeze, stretch, auto

Since the location is close to the ocean and windy enough to keep the irises in constant motion, I raised the sensitivity to ISO 400 and used a faster shutter speed to prevent subject shake.

Conceal artificial objects behind the mist

Since the irises were located on a ranch, I was afraid that the natural beauty of my image might be compromised by objects like fences, a pathway or even visitors. In fact, there was a fence in the upper left-hand corner of this image, but the mist helped to effectively conceal it. Likewise, the mist also concealed distant electric cables and buildings, so I was able to capture images that would not have been possible under normal conditions. Although the mist added a touch of fantasy and mystery, it also was in rather fast motion, and the conditions continued to change dramatically. With these conditions, it was important to keep the shooting brief and release the shutter at the right moment. For this scene, I used a two-second-delay self-timer, which provided the same effect as the mirror-up function to eliminate camera shake.



Capture shafts of light

PENTAX 645Z; smc PENTAX-FA 645 150-300mm F5.6ED[IF] (200mm); Aperture-priority AE (F16, 1/13 sec.); ISO 200; ± 0.0 EV; WB: Daylight; Bright; C-PL filter
Daylilies and shafts of light in a marsh (Hamanaka-cho, Hokkaido)

Capture shafts of light



PENTAX 645Z; smc PENTAX-FA 645 150-300mm F5.6ED[IF] (200mm); Aperture-priority AE (F16, 1/13 sec.); ISO 200; ±0.0 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since all the elements are far away, I first focused on the center area of the daylilies using the camera's AF function, then switched to the manual-focus mode to prevent accidental focus shift.

Composition: center, bisection, trisection, triangle, diagonal

I segmented the image field into three sections using the horizon and an imaginary dividing line using the brightness in the sky. I positioned the main shafts of light in the middle to make them stand out.

Color: tone, contrast, multicolor, monochrome

I underexposed this image to highlight the shafts of light against the subdued overall tone. To accentuate the image, I positioned the yellow daylilies, which were a bright and colorful element, to the bottom-third section.

Highlight the shafts of light through exposure

Light: normal, backlit, diagonal, diffused, nightscape

Soft sunlight on a cloudy day assured a uniform brightness level across the image field. The dark sky covered with a thick layer of clouds was another favorable condition for capturing this image.

Height: high level, eye level, low level

I captured this image from the roadside, which was slightly higher than a boardwalk in the marsh. This setup made it easier to emphasize the depth of the wetland. I also set the tripod height to eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since the subject was distant scenery, I positioned the camera about level with the ground. In relation to the marsh, however, I tilted the camera slightly down.

Angle of view: wide angle, standard, telephoto, macro

Because of the majestic scenery in the vast spaces of Hokkaido, I selected a telephoto lens to select one particular area, while zooming in and out to optimize the overall balance of the image.

Depth of field: defocus, sharpen, deepen, auto

Since the subject was distant scenery and easy to focus on, I closed down the aperture to F16 for a pan-focus effect. When magnified, this image even shows a little bird perched on a flower.

Shutter speed: freeze, stretch, auto

Since the lighting was poor, I selected a rather slow shutter speed. In order to prevent camera shake, I also used a large, solid tripod to accommodate low-speed shooting.

Capture the shafts of light illuminating the marsh

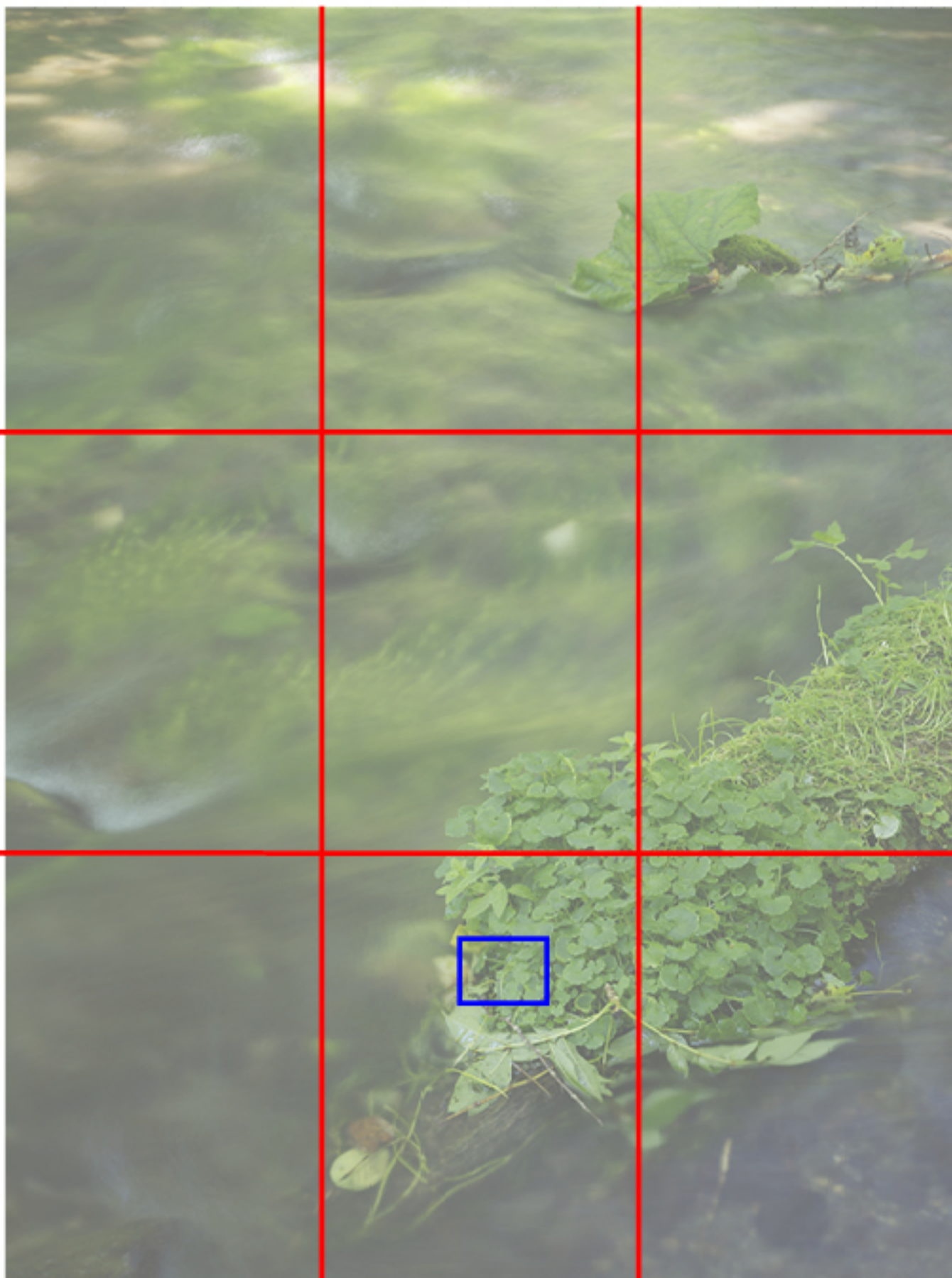
Although it was sunny and clear during the day, thick clouds started to spread across the sky while I was waiting for the sunset. Thanks to the swift movement of the clouds, however, shafts of light began to shine through breaks in the clouds, providing me with a perfect moment for shutter release. I slightly underexposed the image to highlight these shafts. A shift in weather conditions often creates dramatic scenery, so I strongly suggest readers to not give up too easily and just wait a bit longer. Since the 645Z's multi-segment metering system assures high-precision light metering, I believe that it's the most dependable metering system of all PENTAX models. In scenic photography, it provides you with an exposure that is very close to what you are looking for in most scenes, without the need for exposure compensation.



Express the flow of water

PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (100mm); Aperture-priority AE (F22, 2.5 sec.); ISO 200; -0.7 EV; WB: Daylight; Bright; C-PL filter
The gentle flow of water in a stream, captured with a slow shutter speed
(Kiyosato-cho, Hokkaido)

Express the flow of water



PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (100mm); Aperture-priority AE (F22, 2.5 sec.); ISO 200; -0.7 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I fixed the focus on a fallen tree covered with water plants, because I wanted to capture it in crisp focus. Since the 645Z has many AF points, it is much easier to pinpoint the focus on the desired spot.

Composition: center, bisection, trisection, triangle, diagonal

I positioned the fallen tree at an intersection of the trisection, because I wanted it to serve as an accent point. By shifting the viewer's attention from the left side to the upper section, I enhanced a sense of depth.

Color: tone, contrast, multicolor, monochrome

My basic color scheme consisted of rich green tones, to express the ambience of summer. I also used a C-PL filter to minimize reflections on the surface of the water.

Search for the ideal flow of water

Light: normal, backlit, diagonal, diffused, nightscape

Bright daylight makes it difficult to control the exposure because of the brightness difference between the highlights and shadows, so I chose a shaded area, which also helped me capture the beautiful reflections.

Height: high level, eye level, low level

I adjusted the height of the camera to a position where I could eliminate the upper reaches of the stream from the image. The final position was slightly lower than eye level, and close to waist level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since I wanted to shoot only a part of the stream, rather than capturing the entire stream, I tilted the camera down to get rid of unwanted elements.

Angle of view: wide angle, standard, telephoto, macro

Since the stream was only three meters wide, I cropped both banks from the image by using a telephoto lens. In the end, I selected a focal length of 100mm to capture this image.

Depth of field: defocus, sharpen, deepen, auto

I closed down the aperture for the sole purpose of using a slower shutter speed. If the water appears to be flowing, viewers don't pay much attention to blurring.

Shutter speed: freeze, stretch, auto

I wanted to capture the flow of water with a slow shutter speed to create a velvety texture. With a shutter speed of 2.5 seconds, I was able to capture the silky flow of water, just the way I intended.

Capture the flow of water with a slow shutter speed

I photographed a little stream flowing out of a pond. Both banks were covered with rich plant growth, which would attract too much attention if I had included them in my image. I decided to capture just the surface of water, using a fallen tree as an accent point. I figured that the sunlight filtering through the trees would draw the viewer's attention to the background and provide a good point of interest, while enhancing the sense of flow. I finally chose a shutter speed of 2.5 seconds to depict this beautiful flow of water, after experimenting with different shutter speeds to find the best match for the volume, force and clarity of the stream.

A C-PL filter was an indispensable tool in this photo to express the transparency of water. I also made sure that the tripod's lock mechanism was securely engaged to eliminate camera shake.



Depict summertime clouds

PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (80mm); Aperture-priority AE (F11, 1/125 sec.); ISO 200; +0.7 EV; WB: Daylight; Bright; C-PL filter
Summer clouds spreading over a buckwheat field (Teshikaga-cho, Hokkaido)

Depict summertime clouds



PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (80mm); Aperture-priority AE (F11, 1/125 sec.); ISO 200; +0.7 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since most of the image was at infinity, I fixed the focus on the clouds. With compositions like this one, you can even choose the auto mode for focusing purpose.

Composition: center, bisection, trisection, triangle, diagonal

I divided the image into three sections: the ridgeline, the clouds and the blue sky. A portion of the summertime clouds, my main subject, spread across the upper red line and into the top third section of the image.

Color: tone, contrast, multicolor, monochrome

By blending a few clouds into the blue sky, I made the main subject stand out. Also by positioning the highlights of the clouds in the middle, I drew the viewer's attention to the clouds billowing up into the sky.

Capture white clouds floating in a blue sky

Light: normal, backlit, diagonal, diffused, nightscape

The sun was high in the sky and shining brightly from overhead, and the clouds cast their shadows onto the ground, creating a wonderful contrast. Even on a sunny day, you can create variations using clouds.

Height: high level, eye level, low level

As soon as I noticed these clouds, I stopped my car and immediately started shooting images. I took this image in a normal way, standing and holding my camera at eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since all the elements of this image were at a distance, I naturally held my camera almost even with the ground.

Angle of view: wide angle, standard, telephoto, macro

As I zoomed the lens to capture a landscape similar to the one seen with the naked eye, I eventually wound up setting it at a standard focal length.

Depth of field: defocus, sharpen, deepen, auto

Since the distant scenery provided a sufficient depth of field, I simply selected an aperture setting that assured me of fine image quality. There is no need to close down the aperture for every scenic image.

Shutter speed: freeze, stretch, auto

Even in this unexpected shutter opportunity, I was careful to check the shutter speed setting before handholding my camera. The 645Z's well-conceived design makes it easy to hold it steady in handheld shooting.

Capture billowing summer clouds

While on the move, I spotted these summer clouds and stopped the car to capture a few images. The crown of the thunderclouds was highlighted by the sunlight, and the clouds looked as if they were billowing into the sky. The sunbeams shining through the clouds onto the buckwheat field provided an excellent accent. Because there were some other clouds around these summer clouds, I framed the image this way. If those other clouds had not been there, however, I would have framed it wider to include more blue sky. In order to preserve the texture of the target clouds, I chose exposure settings that would keep the highlights from being washed out, while activating the highlight compensation function to keep the beautiful gradation intact. By employing this function, I was able to expand the camera's dynamic range by nearly one step.



Capture a pond in the forest

PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (45mm); Aperture-priority AE (F22, 0.4 sec.);
ISO 200; -1.3 EV; WB: Daylight; Bright; C-PL filter
A pond in the forest (Kiyosato-cho, Hokkaido)

Capture a pond in the forest



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (45mm); Aperture-priority AE (F22, 0.4 sec.); ISO 200; -1.3 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

After magnifying the image with the camera's live-view function, I focused on the pond manually while employing the preview function to confirm the pan-focus effect with a closed-down aperture.

Composition: center, bisection, trisection, triangle, diagonal

I selected a center composition by positioning my main subject — the pond — at its center. Since the peripheral areas were poorly illuminated, it gave me a composition similar to a tunnel composition.

Color: tone, contrast, multicolor, monochrome

While the pond appeared brilliant and colorful in the bright sunlight, the surrounding areas were in dark shade. The viewer's attention is naturally attracted to the colorful, bright middle section of the pond.

Draw the viewer's attention to the brightly lit pond

Light: normal, backlit, diagonal, diffused, nightscape

Since the pond was surrounded by tall trees, the only illumination available was the sunlight beaming straight down from overhead. So I came to the location around noon, when the sun was at its highest.

Height: high level, eye level, low level

I positioned the camera slightly lower than eye level. This allowed me to check the camera's upper panel and operate the camera easily.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I positioned the camera at an elevated spot and looked down into the pond. Along with it being difficult to approach the shore of the pond, going higher and shooting down at the pond assured a good sense of depth.

Angle of view: wide angle, standard, telephoto, macro

When photographing just a pond, I normally use a telephoto lens. In order to avoid taking similar images, however, I decided to use a wide-angle lens to include the surrounding areas as well.

Depth of field: defocus, sharpen, deepen, auto

I closed down the aperture to capture the entire image in focus. With the 45mm lens, I could focus on all elements from one meter away to infinity by closing down the aperture to F22.

Shutter speed: freeze, stretch, auto

Any shutter speed would have done the job for me. But, if the bamboo leaves in the foreground were blurred, it might attract the viewer's attention. So I released the shutter when the wind died down.

Capture the pond in the forest

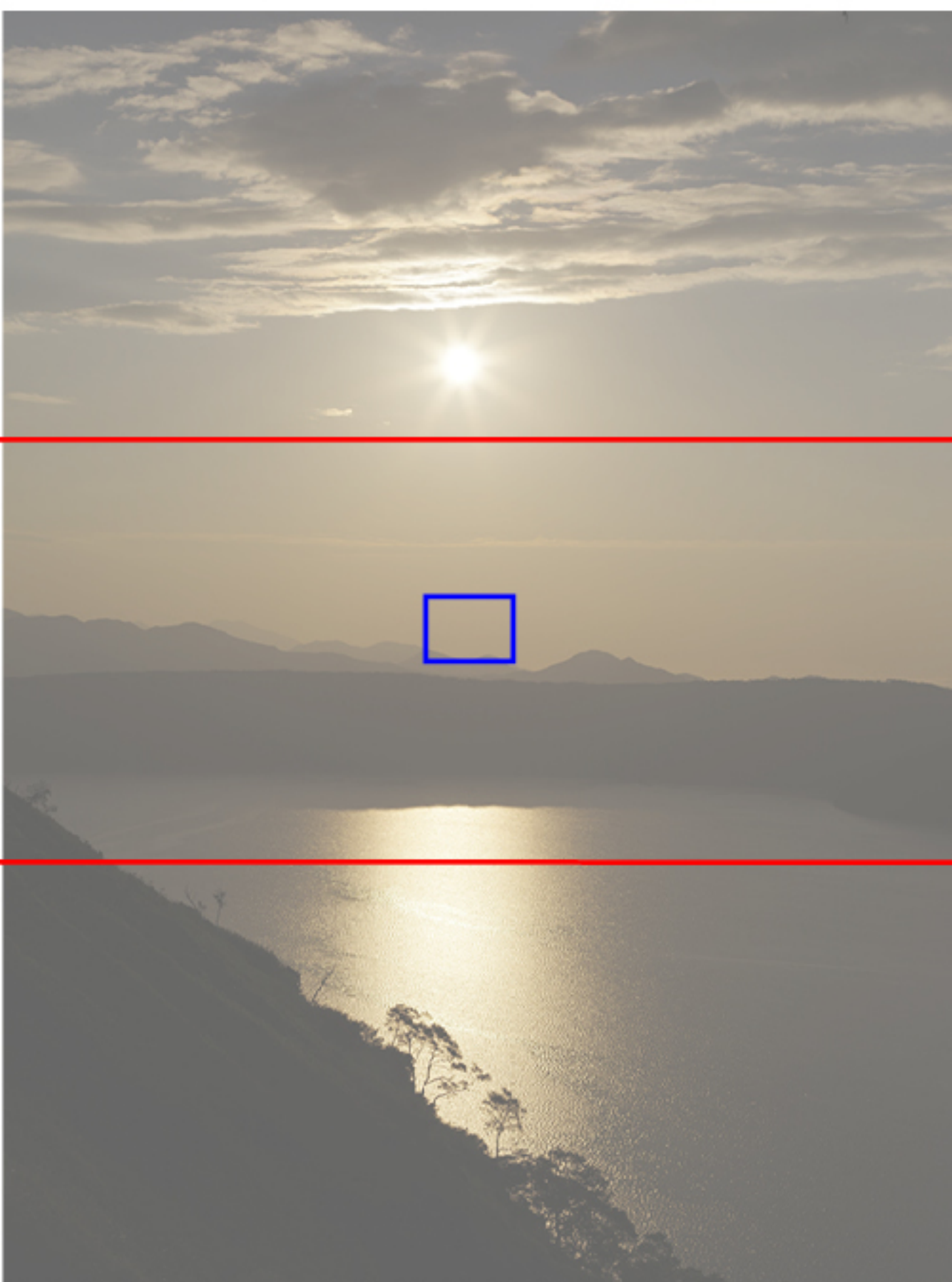
A quiet pond in the tranquil forest. That's the image I visualized when I captured this photo. Normally, I would include only the colorful pond and leave out the surrounding areas from the image. This time, however, I decided to include them in my composition. While the surroundings were in the shade, their darkness helped me emphasize the colors of the pond. I also decided to leave the blue reflections on the pond's surface. When using a C-PL filter, it's important to apply it judiciously, rather than at maximum effect all the time. Since I wanted to apply a pan-focus effect to the image, I used the camera's live-view function to magnify the image and check the focus from corner to corner using the preview function. The 645Z's diffraction compensation function also allows you to close down the aperture.



Capture a lake in the morning

PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (70mm); Aperture-priority AE (F16, 1/1250 sec.); ISO 200; -0.7 EV; WB: CTE; Bright; C-PL filter
Lake Mashu glittering in the morning sun (Teshikaga-cho, Hokkaido)

Capture a lake in the morning



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (70mm); Aperture-priority AE (F16, 1/1250 sec.); ISO 200; -0.7 EV; WB: CTE; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I could have photographed this image using the AF function with the ridgeline at the center as a point of focus, but I opted for manual-focus operation to keep the backlight from confusing the camera's AF system.

Composition: center, bisection, trisection, triangle, diagonal

I divided this image into three sections: the lake's surface, the ridgeline and the clouds. This composition draws the viewer's attention from the silhouette of trees in the foreground to the sun in the sky.

Color: tone, contrast, multicolor, monochrome

In order to emphasize the warm colors of the morning, I used the camera's CTE (Color Temperature Enhancement) function. Thanks to the enhanced colors, I could effectively reproduce the ambience of the morning.

Take advantage of a wide dynamic range

Light: normal, backlit, diagonal, diffused, nightscape

The harsh backlight from the sun pierced through this image. Even with this kind of scene, in which a lens hood provided no help at all, my lens effectively eliminated ghost images—a great tool to have in scenic photography.

Height: high level, eye level, low level

The subject was a distant view with few elements in the foreground, so I photographed it from the eye level. If you wanted to include more elements in the foreground, you should lower the camera position.

Shooting angle: upward tilt, level, downward tilt, bird's eye

As I captured this image from a lookout point on the lakeside, the image appears to look down at the lake. However, the camera was set almost even with the ground.

Angle of view: wide angle, standard, telephoto, macro

Even though I didn't check the focal length before the shooting, I ended up capturing an image similar to the one observed with the naked eye. So I knew that the angle of view was close to that of a standard lens.

Depth of field: defocus, sharpen, deepen, auto

Since I was focusing manually and hoping to capture the sun's streaks, I closed down the aperture.

Shutter speed: freeze, stretch, auto

When the sun is included in an image, shutter speeds tends to become faster, allowing the photographer to handhold the camera. When a shutter speed of 1/1000 second or faster is selected, there is no need to worry about camera shake.

Capture a lake under the morning sun

I was hoping to capture the rising sun and the morning glow over the ridgeline. On this particular day, however, the low-hanging clouds prevented me from capturing the image I expected. When the sun shone through the clouds, the scene became more dramatic, with the rays reflecting on the lake's surface. I positioned silhouetted trees on the lake's surface as an accent point, while preserving the beautiful gradations of the sun and the reflections on the surface of the water. In order to emphasize the glittering of the sun, I closed down the aperture to create the sun's streaks. The 645Z's large image sensor provides a wide dynamic range and delivers high-quality images with an expanded brightness range. While it features a greater number of effective pixels, it assures superb image reproduction, as good as the 645D.



Use the defocus effect

PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F8.0 1/60 sec.);
ISO 1600; +1.0 EV; WB: Daylight; Bright
A cicada on a tree with a defocused fore- and background (Kushiro-shi, Hokkaido)

Use the defocus effect



PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F8.0 1/60 sec.); ISO 1600; +1.0 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I set the focus on the cicada's eye. Although I could capture this kind of image with the camera's AF mode, I usually opt for manual focusing because I'd rather make the final judgment with my eyes.

Composition: center, bisection, trisection, triangle, diagonal

I positioned the cicada at the center of the image field using the center composition. Also by defocusing the tree trunk in the foreground and the distant view of trees in the background, I created a sense of depth.

Color: tone, contrast, multicolor, monochrome

I standardized the overall tone of this image in the shades of green. Brilliant greens and defocused highlights in the background made this image even more appealing.

Create defocused highlights using the reflections of leaves in the background

Light: normal, backlit, diagonal, diffused, nightscape

Since I found the cicada in the shade, I took the image in defused light. However, the background was bright and slightly backlit, so I had to compensate the exposure to overexpose the main subject.

Height: high level, eye level, low level

Because the cicada was found at a position slightly higher than the eye level, I stood on tiptoe and looked into the viewfinder to capture this image.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since I narrowed down the depth of field, I photographed the cicada from its side while holding the camera level with the ground. I often adjust my shooting angle to optimize the focus on the subject.

Angle of view: wide angle, standard, telephoto, macro

I chose the macro lens because I wanted to capture the cicada in a large, solid image. Macro lenses are indispensable for photographing small subjects.

Depth of field: defocus, sharpen, deepen, auto

In macro photography, the depth of field becomes extremely shallow. I tried to compensate for this setback by closing down the aperture to F8, but the cicada's body remained out of focus.

Shutter speed: freeze, stretch, auto

Since macro photography is prone to camera shake, I tried to minimize the effect of camera shake and settled on the shutter speed of 1/60 second provided by the camera's auto-exposure system.

Compose the image with defocused elements

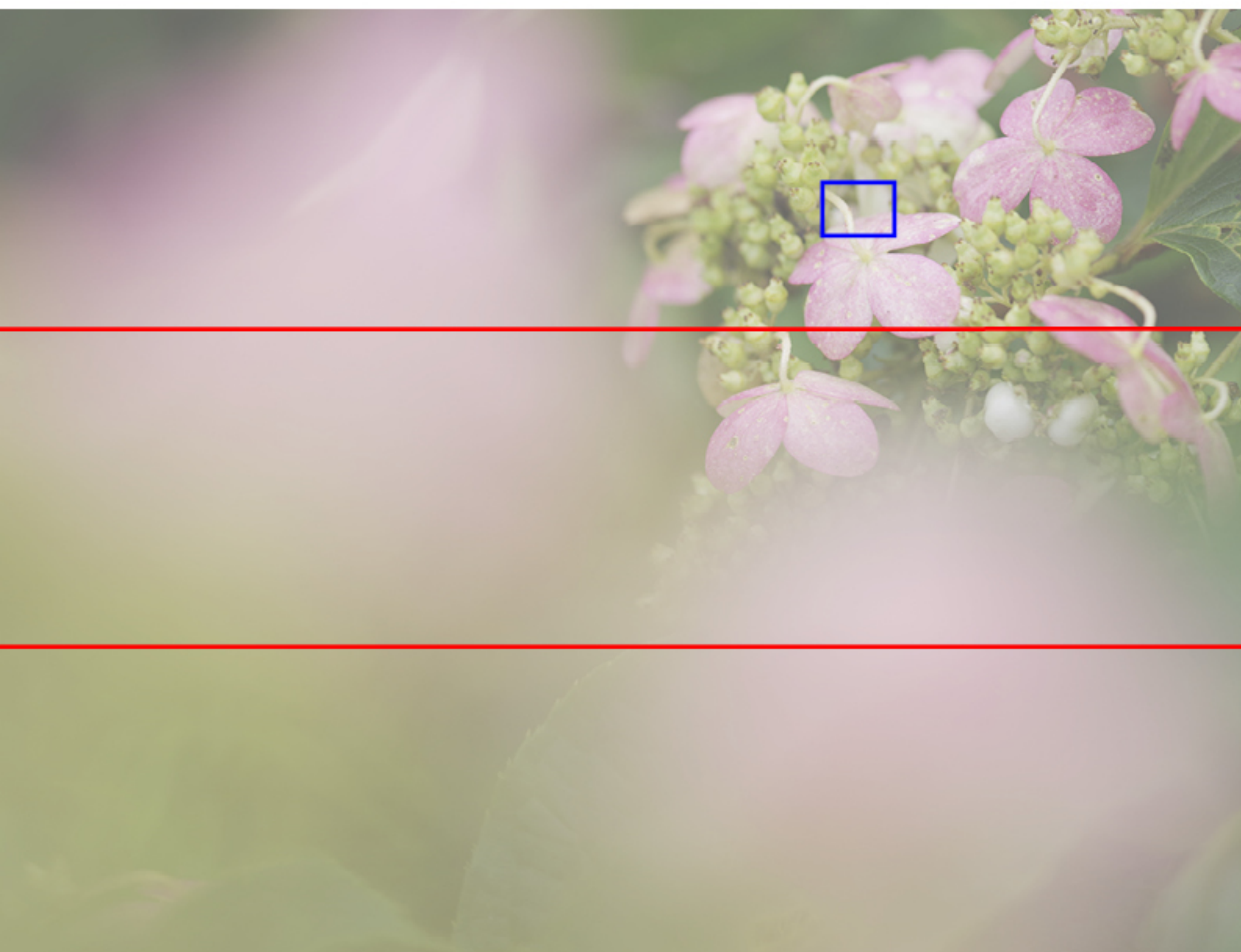
When I was photographing the cicada on a tree trunk, I found a beautifully defocused forest in the background. In order to capture the subject in crisp focus, I used the camera's preview function to find an aperture setting where I could still create a beautiful defocused effect in the background. If I closed down the aperture further, the defocused spot would become smaller and polygonal in shape. If I opened it up, the spot would become larger and obscure the image of the cicada. I eventually settled for F8 for a well-balanced image. I selected a sensitivity of ISO 1600 because the 645Z's high-sensitivity performance has dramatically improved from that of the 645D. Since the 645Z generated much less noise, I could capture this subject just the way I visualized, even in the dark shaded grove.



Defocus the foreground

PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F5.6 1/100 sec.);
ISO 400; +0.3 EV; WB: Daylight; Bright
A hydrangea turning pink, (Shibecha-cho, Hokkaido)

Defocus the foreground



PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F5.6 1/100 sec.); ISO 400; +0.3 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I focused on a hydrangea in the upper right-hand area. Although I could have used the camera's AF function, the flowers were swaying in the breeze. So I switched to manual operation to make the final adjustment.

Composition: center, bisection, trisection, triangle, diagonal

In this trisection composition, I composed a large part of this image as defocused elements, except for the flower in focus. Then I placed the defocused flowers to their ideal positions in the foreground.

Color: tone, contrast, multicolor, monochrome

By contrasting the hydrangea's pink blossoms with its green leaves, I emphasized the pink color in the image. Since pink and green go well together, this meant a well-balanced image.

Utilize the defocused foreground in image composition

Light: normal, backlit, diagonal, diffused, nightscape

When composing an image with a defocused foreground, the ideal situation is a cloudy day, as the diffused light will cast no shadows. On a sunny day, you should use sunlit highlights as the defocused foreground.

Height: high level, eye level, low level

In order to capture the image from the same height as the flower, I lowered the camera almost to waist level. In floral photography, the basic rule is to keep the camera at the subject's height.

Shooting angle: upward tilt, level, downward tilt, bird's eye

After searching for a camera position that would best describe the shape and beauty of the flower, I ended up positioning the camera at a level position.

Angle of view: wide angle, standard, telephoto, macro

Since the flower area captured in focus was almost as large as an ordinary hydrangea head, I opted for a macro lens to select just a portion of it. This lens also provided a powerful defocus effect.

Depth of field: defocus, sharpen, deepen, auto

When composing an image with a defocused foreground, the ideal situation is a cloudy day, as the diffused light will cast no shadows. On a sunny day, you should use sunlit highlights as the defocused foreground.

Shutter speed: freeze, stretch, auto

Since I selected Aperture-priority AE mode, the shutter speed was decided by the camera. However, before the shooting I made sure that this speed would be fast enough to prevent camera shake.

Defocus the foreground for refined images

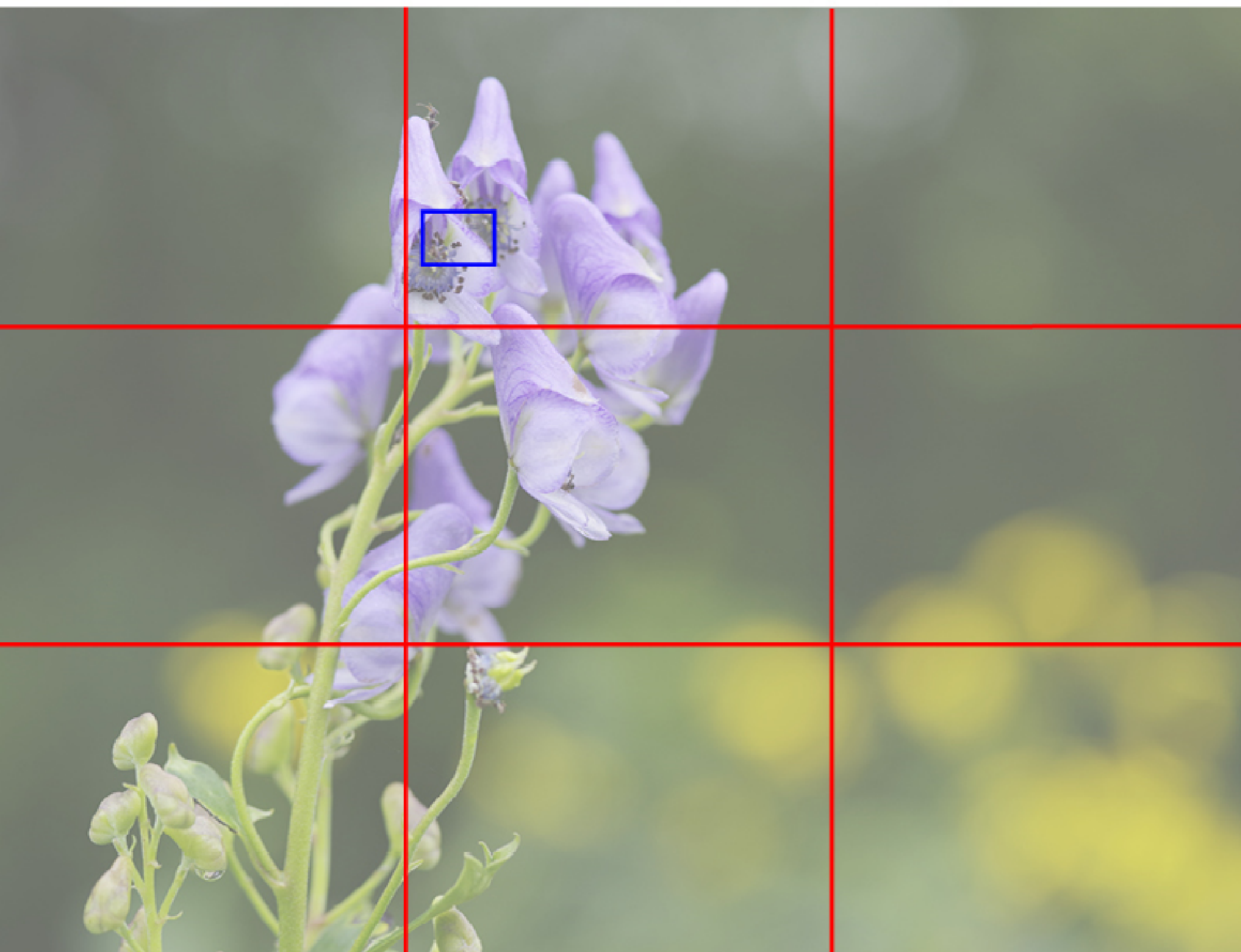
A defocused foreground often comes in handy in floral photography. By placing defocused flowers in the foreground, you can create a gentle, harmonious feeling. In this image, the leaves around the blossoms in focus would have been captured in focus as well. By concealing them behind the defocused foreground, however, I could turn it into a more refreshing and tasteful image. When selecting the color for the defocused foreground, you should choose the same shade with your main subject, or the one that is slightly lighter. You must also pay attention to shadows on sunny days because they make the foreground darker. Since the 645Z's large image sensor produces a defocus effect one or two steps stronger than that of a 35mm full-frame sensor, this camera is ideal for capturing beautifully defocused elements in your images.



Capture a tall flower

PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F5.6; 1/100 sec.);
ISO 800; -0.3 EV; WB: Daylight; Bright
A tall aconite flower (Shibecha-cho, Hokkaido)

Capture a tall flower



PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F5.6; 1/100 sec.); ISO 800; -0.3 EV; WB: Daylight, Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since I couldn't directly look in the viewfinder, I used the camera's live-view function to magnify the image and pinpoint the focus on the pistil of the aconite flower.

Composition: center, bisection, trisection, triangle, diagonal

I positioned the subject in the upper left-hand corner, while placing defocused yellow flowers in the lower right-hand corner as an accent. This composition makes the viewer's attention flow across the image field.

Color: tone, contrast, multicolor, monochrome

To emphasize the purple color of the aconite, I placed it against a dark background. Since purple and yellow go well with each other, I added defocused yellow flowers as an accent in the background.

Use the tiltable LCD monitor on the back

Light: normal, backlit, diagonal, diffused, nightscape

I captured this image on a cloudy, overcast day. Because flowers with complex forms, such as this aconite, don't cast shadows, you should use the diffused light to capture them more beautifully.

Height: high level, eye level, low level

Since the aconite was as tall as me, I extended my large, trusty tripod and fixed the camera on it. The viewfinder was too high to look into, so I decided to use the live-view function.

Shooting angle: upward tilt, level, downward tilt, bird's eye

In order to include yellow flowers in the background, I tilted the camera slightly downwards. If it were just a dark background, you might set the camera lower.

Angle of view: wide angle, standard, telephoto, macro

I could have used a telephoto lens at its minimum focusing distance to frame the aconite at the same size as this image. To create the ideal background, however, I chose the macro lens instead.

Depth of field: defocus, sharpen, deepen, auto

I wanted to focus on the aconite alone, while keeping all other elements out of focus. So I closed down the aperture just one stop to make the surroundings more blurred.

Shutter speed: freeze, stretch, auto

During the shooting, I sensed that the breeze might cause subject shake. I adjusted the sensitivity setting to obtain a shutter speed of 1/100 second.

Capture a tall flower using the live-view function

I spotted an aconite in the field. As I approached it, I found that its blossoms were higher than my face. So I decided to set the camera on a tripod and use the camera's live-view function. I also defocused the background and yellow flowers. Since the live-view function displays the image faithfully, it comes in handy for checking the degree of the defocus effect. I then magnified the image on the monitor, and chose manual focusing to pinpoint the focus. Since the aconite swayed in the gentle breeze, I released the shutter while keeping my eye on the magnified view on the screen. This live-view function, which was not available on the 645D, allows me to capture images which in the past I would have been reluctant to take, or simply given up on. The tiltable LCD monitor is also a great asset to have in demanding shooting conditions.



**Capture the scenery with
handheld shooting**

PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (45mm); Aperture-priority AE (F16; 1/250 sec.);
ISO 800; -0.3 EV; WB: Daylight; Bright; C-PL filter
A field full of summer flowers (Nakafurano-cho, Hokkaido)

Capture the scenery with handheld shooting



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (45mm); Aperture-priority AE (F16; 1/250 sec.); ISO 800; -0.3 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since I wanted to apply the pan-focus effect on this image, I focused on a spot about one third of the way from the front edge of the image field, just as the theory of depth of field suggests.

Composition: center, bisection, trisection, triangle, diagonal

Positioning flower strips of different colors diagonally across the image field created a good sense of depth. Since I didn't have many options for the camera position, I settled for this routine composition.

Color: tone, contrast, multicolor, monochrome

Since the subject was the colorful stripes of flowers, I looked for the best balance of colors, and decided to feature the purple strip most prominently. The red flowers on the left added a hint of liveliness to the image.

Experiment with low-noise, high-sensitivity photography

Light: normal, backlit, diagonal, diffused, nightscape

The sun was high in the sky, casting a strong overhead light onto the field. Since this type of light illuminates different colors evenly, it's very effective in reproducing the brilliance of colors.

Height: high level, eye level, low level

It was best to position the camera as high as possible to express a sense of depth. Since the use of a tripod was not possible, however, I had to settle for eye-level shooting.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since I was capturing an image that spread from the near end into the distance, I set the camera at level to give it a natural look.

Angle of view: wide angle, standard, telephoto, macro

I opted for a wide-angle lens to capture the whole scene. Since it was not too wide an angle, it produced a very natural, true-to-life atmosphere.

Depth of field: defocus, sharpen, deepen, auto

Because I wanted to capture the entire field in focus, I closed down the aperture to create the pan-focus effect.

Shutter speed: freeze, stretch, auto

Since the use of a tripod was prohibited, I set the sensitivity at ISO 800 to obtain a shutter speed of 1/250 second, which was fast enough to prevent camera shake in handheld shooting.

Capture the scenery with handheld shooting

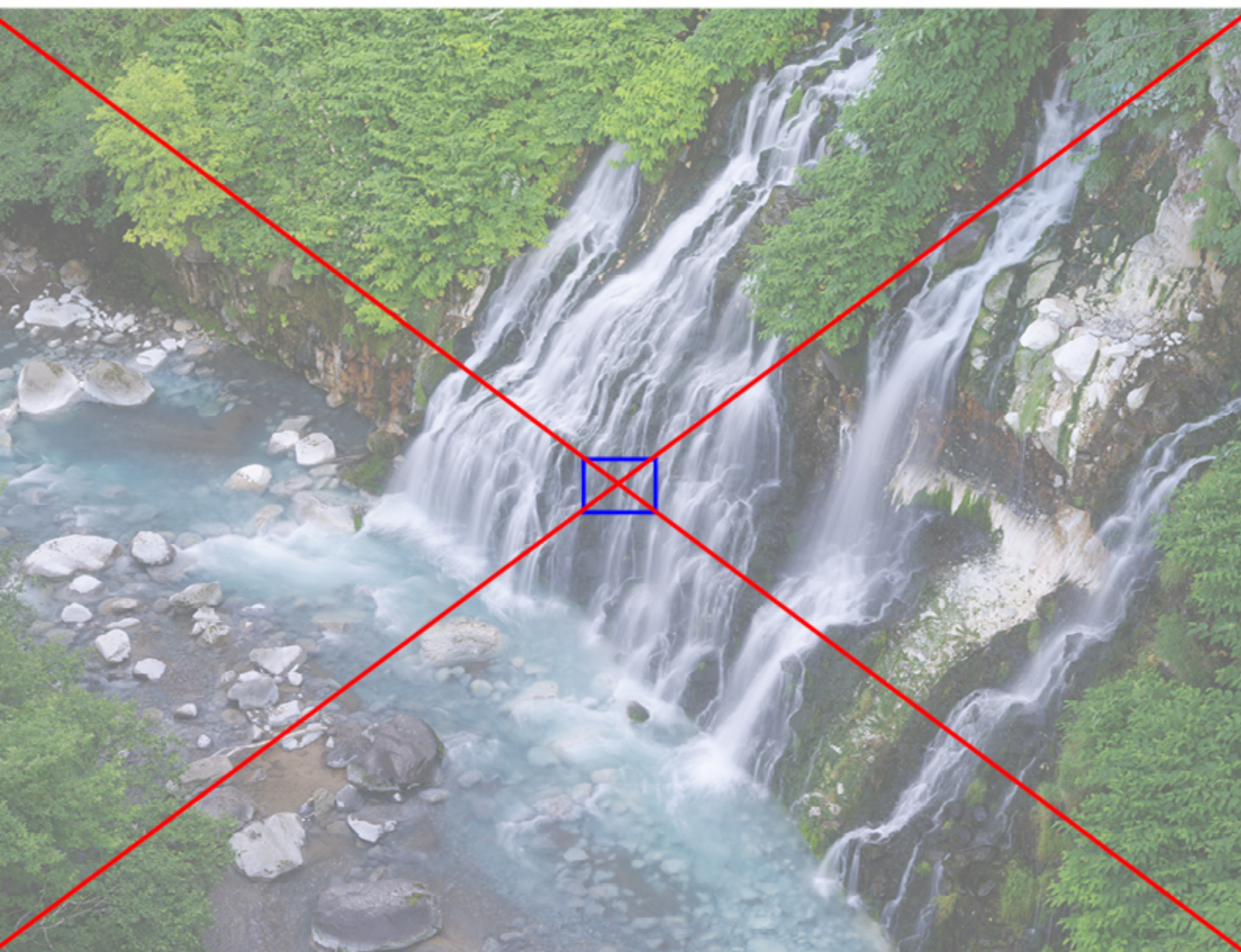
The location was on the hillside of a famous farm. Because so many photographers visited here, the use of tripods was prohibited, so I held camera in my hand for this image. I carefully selected the focus point and the aperture to create the pan-focus effect, exactly the way I would do with a tripod. Since I closed down the aperture to increase the depth of field, however, the camera-selected shutter speed was a little too slow—I worried about camera shake. So I raised the sensitivity to ISO 800 to obtain a safe shutter speed of 1/250 second. In scenic photography, sensitivity of up to ISO 1600 is regarded to be within the safe range for sufficient gradations and an acceptable noise level. In this shooting, I rediscovered that handheld photography gave me greater freedom of movement and more maneuverability than tripod photography.



**Capture a silky
image of waterfalls**

PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (75mm); Aperture-priority AE (F16, 0.5 sec.),
ISO 200; ± 0.0 EV; WB: Daylight; Bright; C-PL filter
Shirahige Falls and a blue stream (Biei-cho, Hokkaido)

Capture a silky image of waterfalls



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (75mm); Aperture-priority AE (F16; 0.5 sec.); ISO 200; ±0.0 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since this image was taken from a distance, I focused at its center using the camera's middle focus point. Since all the elements lay at the same distance, I didn't have to be too concerned about the focusing.

Composition: center, bisection, trisection, triangle, diagonal

The flow of the waterfalls and the stream, which crisscrossed diagonally along the two composition lines, created a sense of motion. I placed the waterfall at the center to solidify the composition.

Color: tone, contrast, multicolor, monochrome

This image consists of the shades of blue and green, which consolidate the image in terms of color. The waterfall is the whitest and brightest of all the elements, so it naturally attracts the viewer's attention.

Extend the exposure to stretch the flow

Light: normal, backlit, diagonal, diffused, nightscape

The waterfalls lay in the soft light from a cloudy sky. Since strong sunlight would enhance the contrast and make it hard to reproduce the true shades of blue, an overcast day was ideal for this scene.

Height: high level, eye level, low level

Because I took this image from a bridge, I had to position the camera above the parapet of the bridge. I eventually raised it to my eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I looked down at the subject. Since I had to set the camera behind the parapet, I made sure to stabilize it with a tripod. In situations like this one, a flexible pan head comes in handy.

Angle of view: wide angle, standard, telephoto, macro

Because I wanted to frame the image to include both the whole waterfall and the stream, I chose a standard lens. If you wanted to capture just a part of it, you should choose a telephoto lens instead.

Depth of field: defocus, sharpen, deepen, auto

I selected a small aperture because I wanted to stretch the flow of the waterfalls with a slow shutter speed. You can use an ND filter to lower the subject's luminance level, instead of closing down the aperture.

Shutter speed: freeze, stretch, auto

I wanted to use the slowest shutter speed available in order to stretch and blur the flow of the waterfall. A shutter speed of 0.5 seconds was slow enough to capture the image the way I wanted.

Capture a silky image of waterfalls

Shirahige waterfall in the town of Biei is famous for its elegant flow, along with the beautiful Blue River that runs below it. That's why I captured the image containing both the waterfall and the stream, rather than pinpointing my focus on the waterfall alone. The slow shutter speed was effective in expressing the velvety texture of the falls, and the quiet flow of the stream. When using a slow shutter speed, it's crucial to stabilize the camera with a tripod to prevent camera shake. I also had to be concerned about the potential of camera shake caused by other people walking on the bridge. It's always important to pay attention to your surroundings — such as the bridge in this case — that may affect the outcome of your images.



**Capture wide-angle close-ups
with handheld shooting**

PENTAX 645Z; smc PENTAX-FA 645 35mm F3.5 AL [IF]; Aperture-priority AE (F16; 1/125 sec.);
ISO 800; -0.3 EV; WB: Daylight; Bright
A close-up, wide-angle photo of Alpine flowers (Biei-cho, Hokkaido)

Capture wide-angle close-ups with handheld shooting



PENTAX 645Z; smc PENTAX-FA 645 35mm F3.5 AL [IF]; Aperture-priority AE (F16; 1/125 sec.); ISO 800; -0.3 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I decided to focus on the flower near the center of the image field. The depth of field is shallow even with a wide-angle lens, so I made sure to capture the most prominent element in crisp focus.

Composition: center, bisection, trisection, triangle, diagonal

Using the plant and the tree standing in the background, I formed a triangular pattern to shift attention from the blooms in the foreground to the tree in the distance. This composition added a sense of depth.

Color: tone, contrast, multicolor, monochrome

Of all the images I selected for this guidebook, this image was darker and more subdued in its colors than other high-contrast sunset scenes. So I concentrated on bringing brighter colors to the viewer's attention.

Capture the flowers and scenery simultaneously

Light: normal, backlit, diagonal, diffused, nightscape

I took advantage of the diagonal light of the setting sun to enhance contrast and create a sense of depth, making this image more impressive and dramatic.

Height: high level, eye level, low level

Since this was a low plant, I stooped down and set the camera very close to the ground, while being very careful not to harm other plants around me.

Shooting angle: upward tilt, level, downward tilt, bird's eye

A sloped location allowed me to maintain sufficient depth even when setting the camera at a level position. I adjusted the angle at the last moment to make sure that the background looked exactly the way I intended.

Angle of view: wide angle, standard, telephoto, macro

In order to simultaneously capture a large image of the plant and the surrounding scenery, I chose a wide-angle lens and closed in on the subject at the distance of the lens's minimum focusing length.

Depth of field: defocus, sharpen, deepen, auto

Even with a wide-angle lens, the depth of field becomes shallow when shooting close up. I gave up on the pan-focus effect, and closed down the aperture just enough to make the background identifiable.

Shutter speed: freeze, stretch, auto

Since I had to position the camera very close to the ground, the use of a tripod was out of the question. Since I had to hold the camera in my hand, I set the shutter speed at 1/125 second to prevent camera shake.

Handhold a camera for wide-angle close-ups

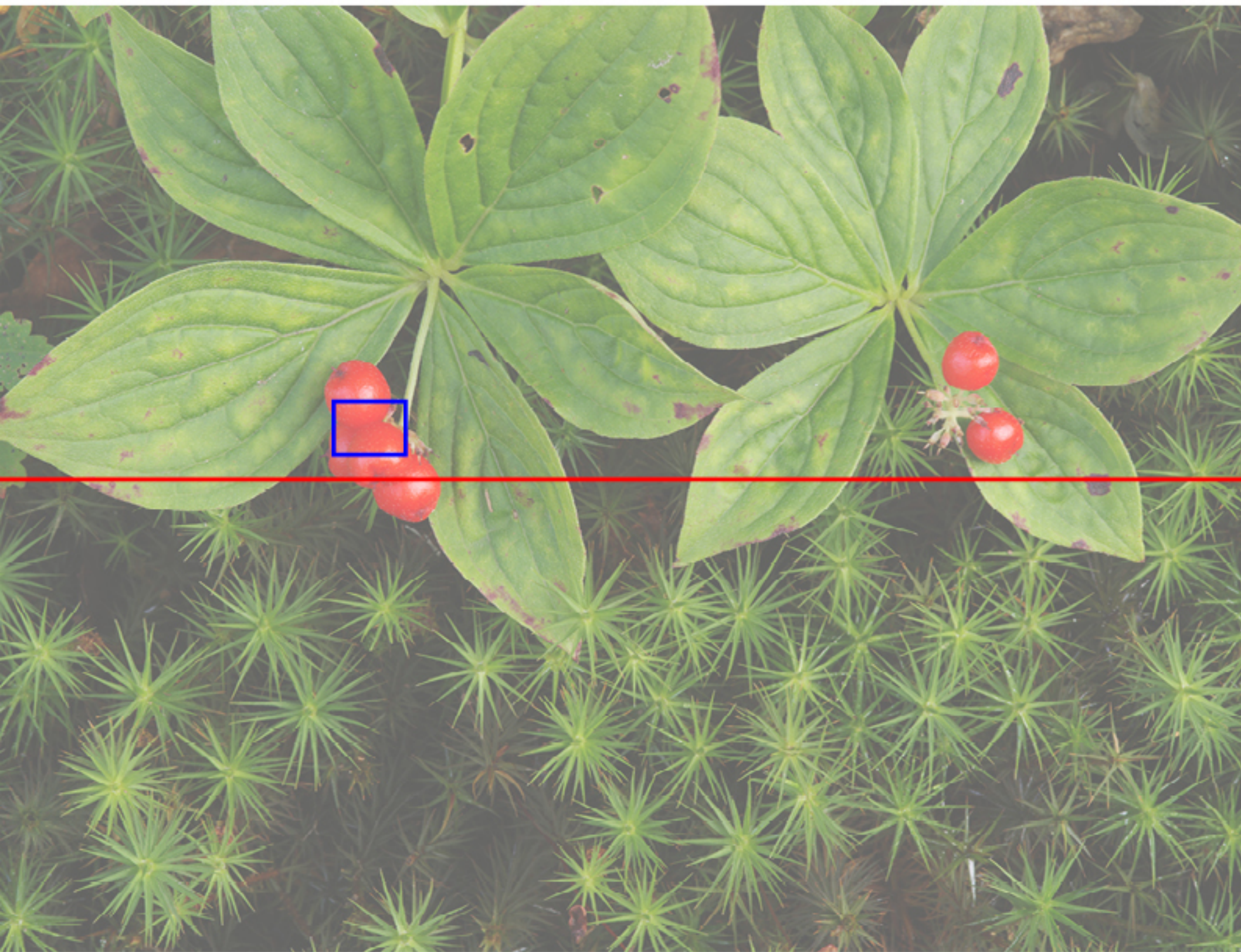
When photographing flowers, the use of a macro lens often makes it difficult to convey the atmosphere of the shooting location, even though it captures a large, detailed image of the subject. In this image, I chose a wide-angle lens and approached the subject at its minimum focusing distance, so that I could capture the mountains in the background clearly. At close ranges, the depth of field becomes shallow even with a wide-angle lens. It was essential to close down the aperture to depict the surroundings in detail. Since I was holding the camera in my hand, I also had to stabilize it to prevent camera shake, which I did by gripping it by both hands and securing it on a rock. In diagonal lighting, you must also be careful not to cast shadows of yourself or the camera on the subject, while paying close attention to every detail.



Capture the forms of nature

PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F32; 0.3 sec.);
ISO 200; -0.7 EV; WB: Daylight; Bright
Canadian dwarf cornel berries in a field of moss (Teshikaga-cho, Hokkaido)

Capture the forms of nature



PENTAX 645Z; smc PENTAX-FA 645 MACRO 120mm F4; Aperture-priority AE (F32; 0.3 sec.); ISO 200; -0.7 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

In macro photography, the depth of field will be shallow, so I pinpointed the focus on the single berry to the left.

Composition: center, bisection, trisection, triangle, diagonal

In this bisection composition, I placed the berries and leaves of the Canadian dwarf cornel on the upper half of the image field, with a cluster of moss in the lower half.

Color: tone, contrast, multicolor, monochrome

The predominant color is dark green, with the red berries arranged as an accent. The viewer's eye, however, is naturally drawn to the red color.

Use the refraction compensation function at a closed-down aperture

Light: normal, backlit, diagonal, diffused, nightscape

Although the slightly overcast sky shed a uniform light on all elements, the light didn't reach to the inside of bushes. As the result, it produced some shadows that helped to highlight the shape of the moss.

Height: high level, eye level, low level

Because the plant stood low, I spread out the legs of my tripod and positioned the camera close to the ground. A height-adjustable, low-angle-compatible tripod comes in handy in low-angle shooting like this one.

Shooting angle: upward tilt, level, downward tilt, bird's eye

By looking straight down, I could define the form of every element more clearly. Should I had taken this image diagonally, the moss and the leaves would have overlapped one another and obscured their true forms.

Angle of view: wide angle, standard, telephoto, macro

To capture tiny forms of nature, I narrowed my view in search of a subject. Although there were many species of moss in this area, I found only a few combinations of elements that were worthy of photographing.

Depth of field: defocus, sharpen, deepen, auto

In order to capture each of the forms sharply, I closed down the aperture to F32 for the pan-focus effect. The shallow depth of this image ensured a sharp focus on all the elements.

Shutter speed: freeze, stretch, auto

Using the Aperture-priority AE mode, I left the shutter speed setting to the camera. Because the gentle breeze made the plant sway a little, I waited until the wind died down to avoid the risk of camera shake.

Capture the details of nature's beauty

When you cannot find any picturesque scene, you need to change your viewpoint. The day I photographed this image was overcast, not a suitable day for shooting breathtaking scenery. So I turned my attention to the ground, and caught a glimpse of clusters of moss. The combination of the moss and the red berries presented me with an interesting pattern. It was indeed the beauty of nature. As I looked straight down at this combination, I decided to preserve this scene in a bird's-eye image. In order to capture every element in sharp focus, I closed down the aperture all the way to F32. While the 645D suffered from extensive diffraction at the most closed-down apertures, the 645Z provides an excellent function called diffraction correction. Thanks to this new function, I was able to capture this sharp, crisp image.



Use the HDR function

PENTAX 645Z; smc PENTAX-FA 645 150-300mm F5.6ED[IF] (300m); Aperture-priority AE (F22; 1/400 sec. 1/100 sec., 1/25 sec.); ISO 200; ± 0.0 EV; WB: CTE; Bright
An HDR image of a landscape with a wide luminance range (Teshikaga-cho, Hokkaido)

Use the HDR function



PENTAX 645Z; smc PENTAX-FA 645 150-300mm F5.6ED[IF] (300m); Aperture-priority AE (F22; 1/400 sec., 1/100 sec., 1/25 sec.); ISO 200; ±0.0 EV; WB: CTE; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

The near-center position of the sun slightly confused the camera's AF system. So I switched to manual focusing and carefully focused on the subject, because I was using the telephoto end of the lens.

Composition: center, bisection, trisection, triangle, diagonal

In this bisection image, the sky and the mountain range were divided by the clouds hanging over the ridgeline. I used the sun and the triangular-shaped mountain as an accent for this well-balanced composition.

Color: tone, contrast, multicolor, monochrome

The reddish tone of a late-afternoon sky was prominent, suggesting the time frame I photographed this image. Although the sun is obscured by a veil of clouds, the viewer's attention is drawn to the highlight area.

Use the HDR function wisely by confirming its effect

Light: normal, backlit, diagonal, diffused, nightscape

Since the backlight caused a considerable difference in the luminance level, normal shooting would have made the shadow areas pitch-black. So I used the HDR function to preserve some gradations.

Height: high level, eye level, low level

Since the subject was a distant landscape, the camera's height had no effect on the image composition, allowing me to set the camera at eye level, the most comfortable height.

Shooting angle: upward tilt, level, downward tilt, bird's eye

As you can see in the sample image, the subject was a distant landscape, which allowed me to set the camera level with the ground.

Angle of view: wide angle, standard, telephoto, macro

I used the telephoto end of the lens to bring distant elements — the ridgeline, the setting sun and the sea of clouds — closer, and to define the clouds around the sun and over the ridgeline more clearly.

Depth of field: defocus, sharpen, deepen, auto

For this distant landscape, I could have focused without closing down the aperture. Because of its wide luminance range, I closed it down to F22, although an aperture of F8 to F11 would have been sufficient.

Shutter speed: freeze, stretch, auto

I captured this image using the HDR function, which left the shutter speed choice to the camera. I just had to make sure that the camera was firmly fixed on the tripod while it took the series of three images.

Use the HDR function for high-luminance scenes

In this image, the setting sun caused a considerable difference in the luminance level. In normal photography, the lower half of the image would have been completely blacked out. That's why I chose the HDR (High Dynamic Range) function to define the triangular shape of the mountain in the lower left side, exactly the way I observed it with the naked eye. Because this function sometimes produces unnatural gradations, I selected the Type 1 mode to minimize its effect. I could have taken another approach, such as compensating parameters using one of PENTAX's Custom Image modes. In this case, however, I was able to get the image I wanted most efficiently with the HDR function. I like its natural, unaffected feeling.



Use the CTE mode

PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (130m); Aperture-priority AE (F16; 1/6 sec.);
ISO 200; -0.3 EV; WB: CTE; Bright
Red-tinted clouds at sunset (Biei-cho, Hokkaido)

Use the CTE mode



PENTAX 645Z; smc PENTAX-FA 645 80-160mm F4.5 (130m); Aperture-priority AE (F16; 1/6 sec.); ISO 200; -0.3 EV; WB: CTE; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since the camera's AF frame was targeted at low-contrast clouds, it was difficult for the AF system to decide where to fix the focus. So I switched to manual focusing.

Composition: center, bisection, trisection, triangle, diagonal

This bisection composition consisted of two parts: a sea of clouds and a mountainside, both of which were tinted red by the setting sun. I included some shadows at the bottom to express the height more clearly.

Color: tone, contrast, multicolor, monochrome

Since the main theme was red tints of the clouds, I chose the CTE (Color Temperature Enhancement) mode to emphasize this particular color. This mode comes in handy when the color is your primary concern.

Use the CTE mode effectively by confirming its effect

Light: normal, backlit, diagonal, diffused, nightscape

The sun was hanging low before sundown, casting normal light on the scene. A group of shadows was approaching the mountainside from below. I felt lucky because the weather stayed fine until this time of the day.

Height: high level, eye level, low level

I decided that the height of the camera's setup didn't matter much because the subject was a vast landscape in the distance. All that mattered was its beauty. So I set the camera even with the ground.

Shooting angle: upward tilt, level, downward tilt, bird's eye

To capture this relatively close-range image, I had to look up at the subject. Because I chose a telephoto lens, which is prone to camera shake, I fixed the camera firmly on my tripod and stabilized the tripod on the ground.

Angle of view: wide angle, standard, telephoto, macro

In order to compose the image around the red-tinted clouds hanging over the ridgeline, I selected this area using the telephoto lens.

Depth of field: defocus, sharpen, deepen, auto

I didn't necessarily have to close down the aperture for this image. Because I was a little concerned with the result, however, I decided to close it down to F16, while focusing manually.

Shutter speed: freeze, stretch, auto

Since the camera chose a relatively slow shutter speed, I used the two-second-delay self-timer to eliminate camera shake.

Use the CTE mode to emphasize sunset tints

Although it was an overcast day, the wind blew the clouds away as it got closer to sunset, and the sun shone in the sky. Since the ridgeline received the sunlight directly and was veiled with clouds, I anticipated that it soon would be painted with red tints. To emphasize the tints of red, I set the camera's white balance mode to CTE, which is very effective in capturing an image filled with shades of the same color family. By including a number of red-tinted clouds, I captured this dramatic, color-rich image. If I had included more of the blue sky, the CTE mode might have emphasized blue tints instead. That's why you have to be careful with the distribution of colors in your image. By composing the image only with the elements that you feel are beautiful or attractive, you can express your creative intentions more clearly to your viewers.



**Enhance a sense of depth
with high-angle shooting**

PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (85m); Aperture-priority AE (F16; 1/10 sec.);
ISO 200; ±0.0 EV; WB: CTE; Bright
Hills gleaming in the morning sun (Biei-cho, Hokkaido)

Enhance a sense of depth with high-angle shooting



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (85m); Aperture-priority AE (F16; 1/10 sec.); ISO 200; ±0.0 EV; WB: CTE; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

In order to capture the entire image in sharp focus, I pinpointed the focus at a spot about one-third away from the front edge using the camera's AF system, as recommended by the principles of photography.

Composition: center, bisection, trisection, triangle, diagonal

In this bisection composition, I positioned the wheat field in the lower half of the image to clarify the main subject. I also used the midrange fields and the distant ridgeline to enhance the sense of depth.

Color: tone, contrast, multicolor, monochrome

The main theme was the color of the wheat field gleaming in the morning sun. As the sun climbed higher in the sky, the shades of red became weaker. So I set the white balance to CTE to emphasize this color.

Use a large tripod to stabilize the 645Z

Light: normal, backlit, diagonal, diffused, nightscape

Even though the sun illuminated this scene with normal front lighting, the slightly diagonal angle of the light added a sense of depth to this image.

Height: high level, eye level, low level

To define the sense of depth, I used my tripod to position the camera at two meters above the ground. I also used the live-view function since the camera was too high for me to look directly into the viewfinder.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Because of the camera's high-position setup, I had to angle the camera slightly downward. This angle, however, made it possible for me to express a sense of depth more clearly.

Angle of view: wide angle, standard, telephoto, macro

The scenery in Hokkaido is sweeping and wide. Even when photographing such expansive landscape, a standard angle of view is sufficient to capture this beauty most of the time.

Depth of field: defocus, sharpen, deepen, auto

Because I was concerned about a deterioration of image quality, I closed down the aperture to increase the depth of field and capture all elements in crisp focus, while selecting the optimum focus point.

Shutter speed: freeze, stretch, auto

Since there was no wind, I left the choice of shutter speed to the camera. Even if I used a rather slow shutter speed and an extended tripod, I had no worries because of the large, solid design of the tripod.

Enhance a sense of depth with high-angle shooting

The hills in the Biei area are one of the most popular spots in Hokkaido. The wheat fields, which just started to turn golden, looked amazingly beautiful in the morning sunshine. Although the rolling hills produced a sense of depth by themselves, eye-level shooting would have diminished the size of the wheat field and weakened its impact. So I decided to capture it with high-angle shooting, so that I could maximize the size and depth. The legs of the tripod I used for this shooting alone weigh more than five kilograms. Adding a solid pan head to this tripod means that it's rather hard work to carry it around on the road. I have found out, however, that the dependable performance of this combination is very useful and valuable in scenic photography, especially with high-angle shooting.



**Use the defocus effect of
a medium-format camera**

PENTAX 645Z; smc PENTAX-FA 645 200mm F4[IF]; Aperture-priority AE (F5.6; 1/160 sec.);
ISO 200; -0.3 EV; WB: Daylight; Bright
Yellow daisies growing on the forest floor (Shibecha-cho, Hokkaido)

Use the defocus effect of a medium-format camera



PENTAX 645Z; smc PENTAX-FA 645 200mm F4[IF]; Aperture-priority AE (F5.6; 1/160 sec.); ISO 200; -0.3 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

This image included a group of small subjects, in addition to a shallow depth of field created by a large aperture. So I focused on the flower in the middle, while magnifying the image using the live-view function.

Composition: center, bisection, trisection, triangle, diagonal

Although the flowers were spread out across the image field, my intention was to draw the viewer's attention diagonally along the in-focus zone, from the lower left-hand corner to the upper right-hand corner.

Color: tone, contrast, multicolor, monochrome

The entire image consisted of a combination of green and yellow, with the focal point of the yellow flowers. Without the use of a C-PL filter, the entire image was finished in a bright, lively tone.

Enjoy a large image sensor's defocus effect

Light: normal, backlit, diagonal, diffused, nightscape

In the soft light of a cloudy day, you must be careful with the sunbeams streaming through the trees, because they can expand the contrast range too wide and cause blacked-out shadows and washed-out highlights.

Height: high level, eye level, low level

The camera was set roughly at eye level. In order to make a well-balanced layout of the defocused flowers in the foreground, I slightly adjusted the camera position to create some defocus effect.

Shooting angle: upward tilt, level, downward tilt, bird's eye

In order to capture the group flowers in the distance, I angled the camera almost even with the ground, although I slightly adjusted the angle to add some defocus effect to the foreground.

Angle of view: wide angle, standard, telephoto, macro

I chose a telephoto lens because I wanted to frame this image in a way that would increase the density of the flowers. The lens was also a big help in intensifying the defocus effect in the foreground.

Depth of field: defocus, sharpen, deepen, auto

Since I wanted to defocus all the elements except for a few flowers in the middle, I chose a large aperture of F5.6. Even though this should assure a fine defocus effect, you still need to pinpoint the focus.

Shutter speed: freeze, stretch, auto

At ISO 200, the 645Z provided a shutter speed fast enough to avoid subject shake. If the wind became strong enough to make the flowers sway, you should raise the sensitivity to keep the same shutter speed.

Take advantage of the defocus effect

Medium-format cameras feature large image sensors, so, compared to 35mm cameras, the focal length becomes longer while the depth of field becomes shallower by one stop or two. This is why they have a strong defocus effect. Taking advantage of this unique characteristic created a soft, placid atmosphere for this image of yellow daisies. Because the flowers in the middle of the image were too small to capture in crisp focus with the camera's AF system, I switched to manual focusing, with the help of the magnified on-screen display of the live-view function. When the depth of field is shallow, the use of a tripod to stabilize the camera is as essential as bringing the subject in sharp focus.



**Position the subject
against a blue sky**

PENTAX 645Z; smc PENTAX-FA 645 35mm F3.5AL[IF]; Aperture-priority AE (F10; 1/125sec.);
ISO 400; +1.0 EV; WB: Daylight; Bright
A sunflower set against a blue sky (Teshikaga-cho, Hokkaido)

Position the subject against a blue sky



PENTAX 645Z; smc PENTAX-FA 645 35mm F3.5AL[IF]; Aperture-priority AE (F10; 1/125sec.); ISO 400; +1.0 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since I didn't intend to apply the pan-focus effect, I brought the sunflower into sharp, crisp focus.

Composition: center, bisection, trisection, triangle, diagonal

In this composition, I placed the sunflower near the center of the image field. By slightly offsetting its position from the center, I left more space in the upper right-hand corner to create a sense of spaciousness.

Color: tone, contrast, multicolor, monochrome

By positioning the sunflower in the middle against a clear, blue sky, I made its bright yellow color appear even more brilliant. I also made sure that the subject faced the sun squarely for normal, front lighting.

Expand the view with a wide-angle lens

Light: normal, backlit, diagonal, diffused, nightscape

To express the subject's color brilliantly on a sunny day, it's important to position the subject squarely against the sun to ensure normal lighting. For this purpose, I moved around to pick the best shooting spot.

Height: high level, eye level, low level

I squatted down to capture this image from a low position, so that I could compose a background of blue sky only. One simple change in camera position made a great difference in the expression of the background.

Shooting angle: upward tilt, level, downward tilt, bird's eye

By looking up at the sunflower, I could not only emphasize the sunflower's height, but also fill the background with a blue sky — a very effective approach to enhance the sense of height and space.

Angle of view: wide angle, standard, telephoto, macro

By taking advantage of the strong perspective of a wide-angle lens, I emphasized the subject's height, and drew the viewer's attention to the broad expanse of sky.

Depth of field: defocus, sharpen, deepen, auto

With the wide-angle lens, I could convey an atmosphere of the background by closing down the aperture by a few stops. I also selected an aperture that gave me a shutter speed fast enough to prevent camera shake.

Shutter speed: freeze, stretch, auto

In general, I feel safe with a shutter speed of 1/250 second or faster in handheld shooting. Using the wide-angle lens, however, I made an exception and went for a speed of 1/125 second for this image.

Capture the towering sunflower against a blue sky

The sunflower is a symbol of summer. Since it superbly matches a blue sky, I decided to capture the one that was soaring into the sky. In a field of sunflowers, I chose one that stood alone and faced directly toward the sun; at the same time I was looking for the best angle to capture the blue sky in the background. In order to emphasize the vitality that made it soar into the sky, I looked up at it from a low position using a wide-angle lens. This was in a huge sunflower field, so I moved from one flower to another while taking pictures with a handheld camera. The combination of the 645Z body and the lightweight 35mm lens was perfect for handheld shooting. With this wide-angle lens, I could easily prevent camera shake with a shutter speed of 1/125 second.



**Depict the gradations
in a bright sky**

PENTAX 645Z, smc PENTAX-FA 645 45-85mm F4.5 (50mm); Aperture-priority AE (F16; 1/40 sec.);
ISO 200; -1.3 EV; WB: Daylight; Bright; C-PL filter
Purple mountain heather (Higashikawa-cho, Hokkaido)

Depict the gradations in a bright sky



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (50mm); Aperture-priority AE (F16; 1/40 sec.); ISO 200; -1.3 EV; WB: Daylight; Bright; C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Using manual focusing, I looked for a spot that allowed me to capture the entire image in focus. I finally ended up focusing on the spot close to the center of the image field.

Composition: center, bisection, trisection, triangle, diagonal

I divided the image field vertically into two zones: the ground with the main subject of purple mountain heather, and the mountain range veiled with clouds describing the prevailing weather conditions.

Color: tone, contrast, multicolor, monochrome

By inserting the color of pink into the field of dark green, I could make the main subject — the heather — stand out more clearly. I also made efforts to retain the subtle gradations of the white background.

Make effective use of Custom Images

Light: normal, backlit, diagonal, diffused, nightscape

It was a slightly overcast day, with the overhead light casting faint shadows. Thanks to a reduced luminance difference over the image field, I could faithfully recreate the gradations across the entire image.

Height: high level, eye level, low level

I photographed a hillside along a boardwalk. When I pointed the camera at the area, the clusters of purple mountain heather were right in front of me, at eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I looked slightly up at the clusters of flowers spread over the hillside. It was not an intentional act to create some serious visual effect in the image.

Angle of view: wide angle, standard, telephoto, macro

Because I had to stay on the boardwalk, I adjusted the framing and finally settled for this standard angle of view. If I could get closer to the subject, I would have chosen a wider angle to emphasize the sense of depth.

Depth of field: defocus, sharpen, deepen, auto

I closed down the aperture to capture all elements in focus. Since the background was covered with a veil of clouds, I didn't have to pay much attention to focusing.

Shutter speed: freeze, stretch, auto

Since there was little wind to make me worry about subject shake, I took the image as it appeared, fully trusting the camera's exposure settings. I kept the sensitivity relatively low to define the gradations truthfully.

Define gradations with Custom Image settings

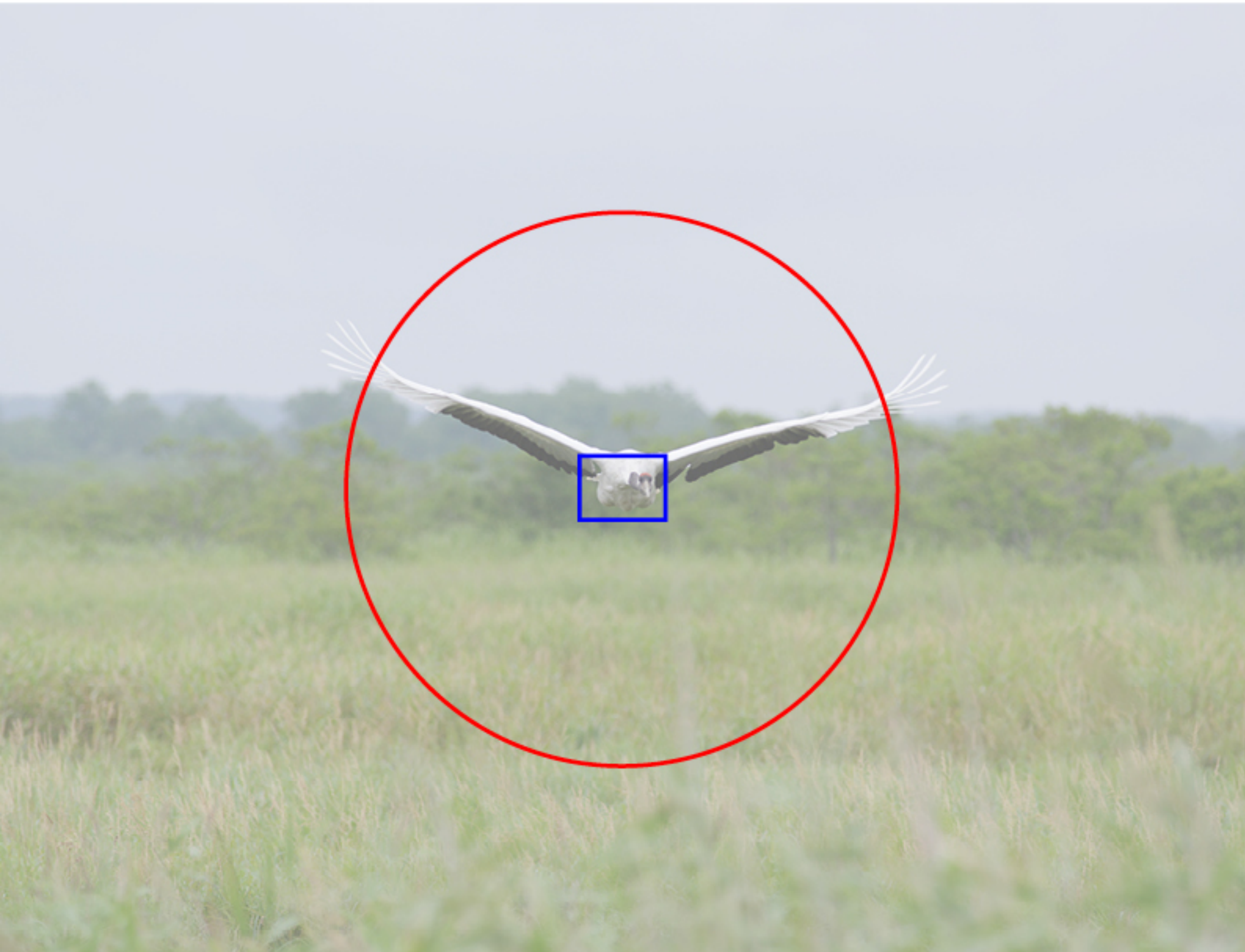
I captured a beautiful mountain heather colony, with a mountain range veiled with clouds in the background. If I took the image as it was, the highlight area of the clouds would be too overexposed to leave any detail. So I made fine adjustments to the Custom Image parameters to enhance the reproduction of the gradations. I shifted the medium-tone control key to +4 and the contrast control key to -1, while adjusting the exposure compensation value to -1.3 EV. Since these changes caused the image appear darker than the original scene, I could eliminate whitewashed highlights and optimize the gradations with camera operation only — without adjusting a tone curve on a computer. It was a great reassurance for me, because I could check the outcome right on the spot. I also felt that I could successfully optimize the image sensor's potential.



Capture the flight of a crane

PENTAX 645Z; smc PENTAX-FA 645 400mm F5.6ED[IF]; Aperture-priority AE (F8.0; 1/640 sec.);
ISO 800; +0.7 EV; WB: Daylight; Bright
A red-crested white crane flying over a marsh, (Shibecha-cho, Hokkaido)

Capture the flight of a crane



PENTAX 645Z; smc PENTAX-FA 645 400mm F5.6ED[IF]; Aperture-priority AE (F8.0; 1/640 sec.); ISO 800; +0.7 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

In order to track the subject more accurately, I switched the AF mode to AF.C (continuous) and the AF point selection mode to Expanded Area AF S.

Composition: center, bisection, trisection, triangle, diagonal

I believe that the camera's middle AF point provides the best tracking performance. So I chose the center composition to capture the crane with this middle AF point.

Color: tone, contrast, multicolor, monochrome

Since the crane was white, I set it against the background of dark green. This contrast helped me define the subject more clearly.

Use the combination of AF.C and Expanded Area AF S modes

Light: normal, backlit, diagonal, diffused, nightscape

Although it was daytime, the overcast sky helped me to avoid underexposing the crane's underside. If it were a sunny day, I would worry about an exposure that would be too dark and shadowy.

Height: high level, eye level, low level

I took this image from the driver's seat of my car. Strictly speaking, I positioned the camera at a height slightly lower than eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Because of the crane's low flight, I held the camera level. I also had to be ready to react smoothly and swiftly to the subject's movement.

Angle of view: wide angle, standard, telephoto, macro

In wildlife photography, it's crucial to keep a comfortable distance between you and your subject. That's why I chose this telephoto lens, even though I could have used a focal length loner to bring the subject closer.

Depth of field: defocus, sharpen, deepen, auto

Since telephoto lenses have a shallow depth of field, you can eliminate blurred images by accurately focusing on the subject. Consequently, I often select one of the larger apertures to raise the shutter speed.

Shutter speed: freeze, stretch, auto

With a subject on the move, you often end up with blurred images, even though you are tracking it accurately. To solve this problem, I used the fastest shutter speed available under the prevailing conditions.

Capture the flight of a crane in the AF.C mode

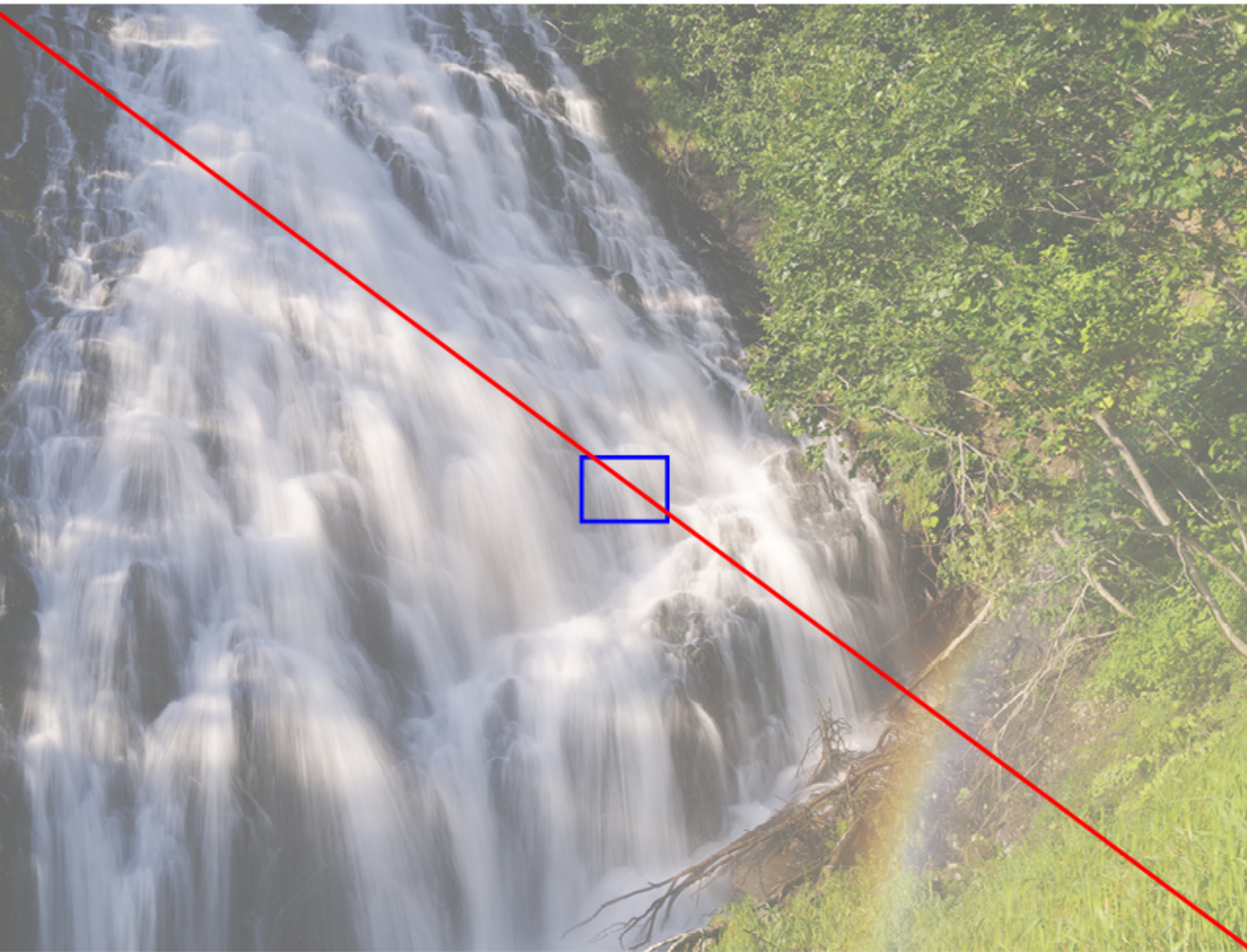
I spotted a crane about to take off from the marsh. As I parked the car, the crane started flying toward me, so I instinctively released the camera's shutter. The 645Z's SAFOX 11 AF system not only has more sensor points than the 645D, but also provides a more responsive tracking function. For this image, I used the Expanded Area AF mode to cover all sensor points surrounding the middle one. The result is this stunning image of the crane on flight. When photographing a moving subject, you have to accurately track its movement with your camera. By doing so, you can capture a series of sharply focused images in a single sequence. You should also set the shutter speed to the fastest possible setting, targeting at a speed of 1/1000 second. It also helps to observe the subject's movement in advance, so that you can predict its next movement easily.



**Focus on the light
penetrating into waterfalls**

PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (45mm); Aperture-priority AE (F22, 1/6 sec.);
ISO 200; +0.3 EV; WB: Daylight; Bright/C-PL filter
A waterfall glistening with penetrating light, (Shari-cho, Hokkaido)

Focus on the light penetrating into waterfalls



PENTAX 645Z; smc PENTAX-FA 645 45-85mm F4.5 (45mm); Aperture-priority AE (F22; 1/6 sec.); ISO 200; +0.3 EV; WB: Daylight; Bright/C-PL filter

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since all the elements were at a similar distance, I focused at a part of the falls in the center of the image field.

Composition: center, bisection, trisection, triangle, diagonal

I used the diagonal line running from the upper left-hand corner to the lower right-hand corner, drawing the viewer's attention from the upper portion of the waterfall to the basin, then to the rainbow.

Color: tone, contrast, multicolor, monochrome

In this image, the theme of color was a contrast between the waterfalls' white highlights created by the light and their dark-gray shadows. The rainbow accentuated this image by serving as a colorful accent.

Emphasize the rainbow with a C-PL filter

Light: normal, backlit, diagonal, diffused, nightscape

This scenery was diagonally lit in late afternoon, with shafts of light penetrating into the waterfall through trees growing on a nearby cliff. This diagonal light helped me define a sense of depth.

Height: high level, eye level, low level

I set the camera at eye level on a lookout point. Since this image covered a large area, a change in height would have made little difference to the outcome.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I captured this image from a spot slightly higher than the basin. Even though I angled the camera upwards to include the upper portion of the waterfall, the long distance to the subject made little difference visually.

Angle of view: wide angle, standard, telephoto, macro

I framed this image in a way to convey the beauty of the rainbow at the lower right-hand corner, while allowing the viewer to visualize the whole configuration of the waterfall.

Depth of field: defocus, sharpen, deepen, auto

I closed down the aperture in order to use a slow shutter speed. Since the subject had very little depth, it didn't affect the image's composition at all.

Shutter speed: freeze, stretch, auto

Because the waterfall carried a large volume of water, I could have frozen the flow of water with a high shutter speed. In order to depict the penetrating light, however, I opted for a slow shutter to blur the flow.

Capture the piercing light and the rainbow

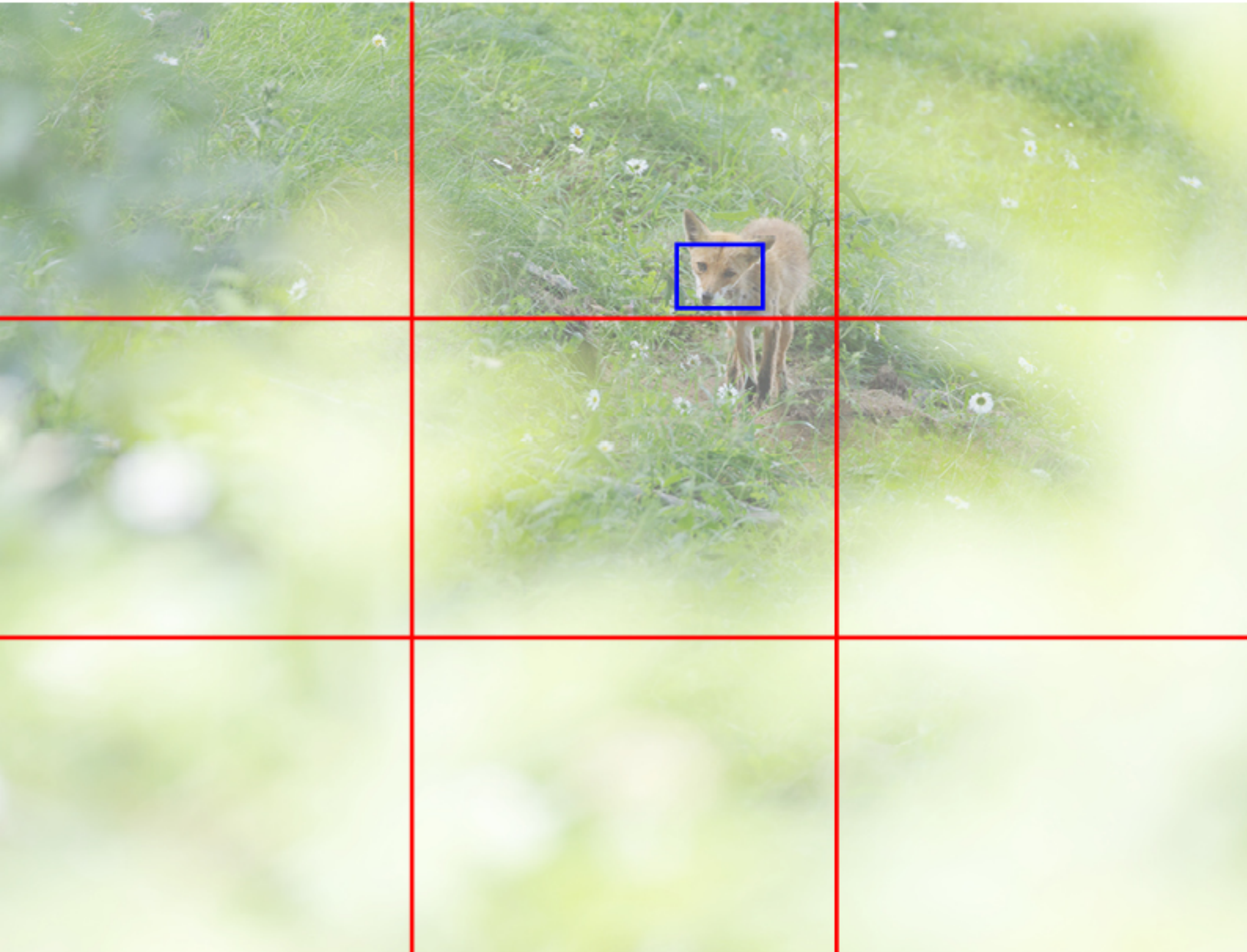
Oishin-koshin Waterfall in the Shiretoko region is famous for its dynamic flow. In late afternoon, the light penetrates into the falls creating many different appearances. On the shooting day, the light was penetrating as expected, and I spotted a rainbow to the right of the waterfalls. It took some effort to include both of them in the same image. First, I had to compose them to fit in the same frame. When I tried to show the entire configuration of the waterfall, the rainbow became too small to identify. I usually capture dramatic images of waterfalls, and the large volume of water they carry, by freezing the flow. In this situation, however, I decided to blur the flow to make the effect of penetrating light more visible. Finally, I rotated the C-PL filter until I could define the rainbow most clearly.



Use manual-focus lenses

PENTAX 645Z; smc PENTAX-FA ★ 645 600mm F5.6 ED [IF]; Aperture-priority AE (F8.0; 1/200 sec.); ISO 1600; +0.3 EV; WB: Daylight; Bright
A red fox at a distance (Shari-cho, Hokkaido)

Use manual-focus lenses



PENTAX 645Z; smc PENTAX-FA ★ 645 600mm F5.6 ED [IF]; Aperture-priority AE (F8.0; 1/200 sec.); ISO 1600; +0.3 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I focused on a fox standing behind some bushes. Although I used an old lens that was not compatible with AF operation, I was able to bring the subject into sharp focus, thanks to the 645Z's bright, clear viewfinder.

Composition: center, bisection, trisection, triangle, diagonal

I positioned the fox in the upper right portion of the image using the trisection composition. This positioning allowed me to create a large space into which the fox was about to walk.

Color: tone, contrast, multicolor, monochrome

I positioned the fox against a dark-green field, which lay beyond light-green bushes in the foreground. The blurred foreground helped me to add a cheerful feeling to the image.

Choose a higher sensitivity to raise the shutter speed

Light: normal, backlit, diagonal, diffused, nightscape

On an overcast day, the spot where the fox stood was dark, shaded by the surrounding trees. Fortunately, this created a clear distinction between highlights and shadows, and helped to dramatize the image.

Height: high level, eye level, low level

When photographing an active subject using a tripod, it's best to set the camera at eye level. For this image, I made a slight adjustment to the camera's height in order to frame the blurred foreground differently.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since the fox was in the lower part of a slope, I angled the camera downwards. Since it was simply a matter of relative positions, it had little effect on the image composition.

Angle of view: wide angle, standard, telephoto, macro

Afraid that the fox might be cautious around humans, I chose a 600mm super-telephoto lens for the purpose of maintaining a comfortable distance to the subject, rather than for creating any visual effect.

Depth of field: defocus, sharpen, deepen, auto

An open aperture would have been perfect for bringing the fox in sharp focus while preventing camera shake. In this situation, however, I closed down the aperture by one stop to define the subject a little more clearly.

Shutter speed: freeze, stretch, auto

When photographing an active subject, it's best to use the fastest shutter speed possible. For this purpose, I raised the sensitivity to ISO 1600 — the highest setting that would assure acceptable image quality.

Capture the fox with a manual-focus lens

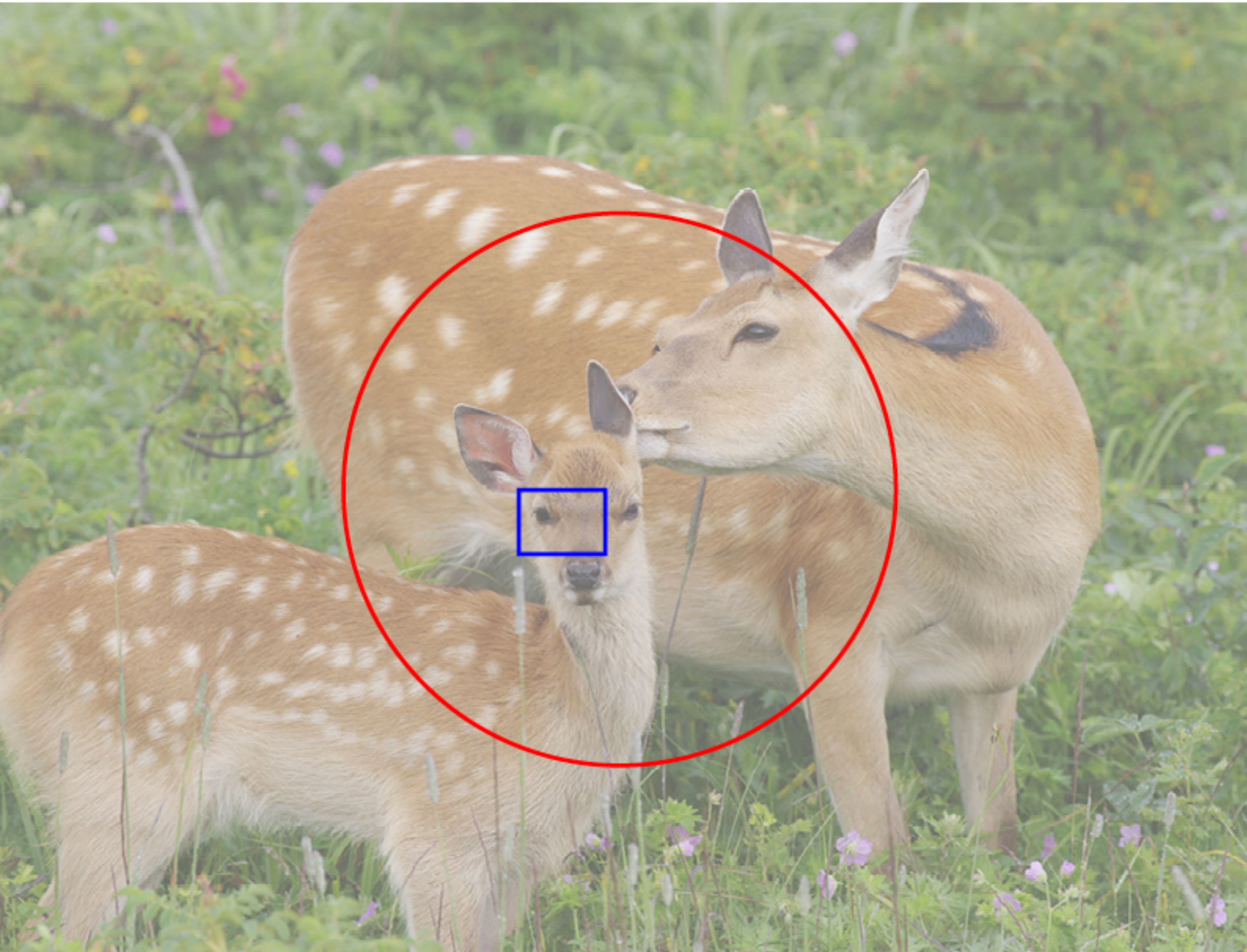
A super-telephoto lens is an indispensable tool in photographing sensitive wildlife, because it allows you to maintain the distance to which the subject will let you approach. At this distance, the subject behaves naturally without paying much attention to its surroundings. There is no 600mm AF lens in the current lens lineup, although there is a manual-focus model in the old lineup. Super-telephoto lenses are difficult to handle because they have a very shallow depth of field and are prone to camera shake, but I deliberately chose this lens for this subject. Because it was difficult to follow it all the time as it looked for prey, I captured it as soon as it came to a brief stop. My practice of accurate, speedy focusing paid off. With a super-telephoto lens, it is important to set the sensitivity high enough to prevent camera shake, and use a tripod for extra stability.



Capture a mother deer and her fawn

PENTAX 645Z; smc PENTAX-FA 645 150-300mm F5.6ED[IF] (300mm); Aperture-priority AE
(F11; 1/800 sec.); ISO 800; ±0.0 EV; WB: Daylight; Bright
A mother deer and her fawn at close range (Bekkai-cho, Hokkaido)

Capture a mother deer and her fawn



PENTAX 645Z; smc PENTAX-FA 645 150-300mm F5.6ED[IF] (300mm); Aperture-priority AE (F11; 1/800 sec.); ISO 800; ±0.0 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I focused on the face of a fawn. Since the 645Z provides 27 sensor points across the image field, it's very easy to pinpoint the focus on the desired spot.

Composition: center, bisection, trisection, triangle, diagonal

I positioned the faces of the doe and her fawn at the center, without paying much attention to the position of their bodies. I then framed them to produce a well-balanced image.

Color: tone, contrast, multicolor, monochrome

By standardizing the entire background in shades of green, I could define the shape of the deer more clearly. A simple color combination is the key to well-balanced, well-defined images.

Stay cool and relaxed during the shooting

Light: normal, backlit, diagonal, diffused, nightscape

On a misty day, the light was diffused to prevent the appearance of shadows, helping me capture the deer's expressions more clearly. This kind of light allows you to shoot the subject from any angle.

Height: high level, eye level, low level

I photographed the doe and fawn in front of me, while standing on my feet and handholding the camera. It was eventually the most comfortable eye-level position for me to hold the camera steady.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since the subjects were as tall as I was, I held the camera level with the ground. This was also the perfect angle to capture them against the green background.

Angle of view: wide angle, standard, telephoto, macro

Although they stood at a short distance, they were not close enough to make physical contact. Using a telephoto lens to maintain a comfortable distance between us, I captured their expressions in a sharp, clear image.

Depth of field: defocus, sharpen, deepen, auto

To pinpoint the focus on the deer's faces, I closed down the aperture by two stops. When both faces were captured in crisp focus, I produced an image that expressed the mutual affection between parent and child.

Shutter speed: freeze, stretch, auto

When handholding a camera in wildlife photography, you should set the shutter speed as high as possible. For this purpose, I set the sensitivity at ISO 800, while leaving the rest of settings to the camera.

Capture the caring mother deer and her fawn

The mother deer and her fawn appeared at a relatively close distance. I captured this image with a super-telephoto lens when the mother was licking her fawn's ear. I tried to focus on their faces, while being careful not to cause any camera shake because I was handholding the camera. Since they didn't stay still, it was important to capture their expressions at the right moment. In a situation like this, your subject might sense your excitement and become frightened. You must regularly train yourself to keep cool and relaxed so that you won't impact your subject. Because the 645Z is well equipped for high-sensitivity shooting, it lets me capture active subjects with ease.



Express the traces of stars

PENTAX 645Z; HD PENTAX-DA 645 28-45mm F4.5ED AW SR (28mm); Metered Manual (F4.5; 30 sec.); ISO 1600; ± 0.0 EV; WB: Auto; Natural; Interval Composite (120 images)
Traces of stars over a marsh (Shibecha-cho, Hokkaido)

Express the traces of stars



PENTAX 645Z; HD PENTAX-DA 645 28-45mm F4.5ED AW SR (28mm); Metered Manual (F4.5; 30 sec.); ISO 1600; ±0.0 EV; WB: Auto; Natural; Interval Composite (120 images)

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I focused on the ridgeline when there was still some light, then switched to manual focusing to lock the focus point. You can also focus on a bright star by magnifying it with the camera's live-view function.

Composition: center, bisection, trisection, triangle, diagonal

At first, I thought of using trisection composition. Since the camera was pointed north-northeast so that the stars would move toward the upper right-hand corner, I switched to this diagonal composition.

Color: tone, contrast, multicolor, monochrome

The color theme of this image was a gradation of faint blue at twilight. I scattered reddish clouds on a sky of faint blue shade as an accent to dramatize the image.

Use the Interval Composite function

Light: normal, backlit, diagonal, diffused, nightscape

One hour past sunset, when the sky turned nearly black, I started shooting the starry sky, which was tinted red by the streetlights of a distant town.

Height: high level, eye level, low level

Since I was planning to use extended exposures, I stabilized the camera with a tripod and set it at eye level for ease of operation.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I tilted the camera slightly upwards. If I had intended to include the North Star in the image, I would have tilted it further upwards. But I was more interested in capturing the flow of the stream in the image.

Angle of view: wide angle, standard, telephoto, macro

Because I wanted to capture as much of the movement of the stars as possible, I chose the widest angle of view this lens offered. I wish I had a lens providing a much wider angle of view.

Depth of field: defocus, sharpen, deepen, auto

Since it is important to collect as much light as possible in star trail photography, I chose an open aperture. I wished I had had a lens with an even larger open aperture, so that I could define the stars more clearly.

Shutter speed: freeze, stretch, auto

I manually set a shutter speed of 30 seconds — the 645Z's slowest speed — and made 120 exposures, which were synthesized by the camera into a single image tracing the one-hour movement of the stars.

Use Interval Composite to track the stars

Using the Interval Composite function, I traced the movement of the stars by taking 30-second exposures for a total of 120 images, and documenting one hour of the movement in the night sky. I used the Bright setting of the Composite mode to synthesize the recorded images, while optimizing the balance between the sky's brightness and the stars' trails. Before the shooting, I took some test shots to decide on the starting time and check the sky's brightness level and the stars' appearance captured with a 30-second exposure. I made sure that the test shots showed the sky to be a little too bright. Due to the 645Z's data storage capacity, I took the initial images in JPEG format, then saved the final composite image in RAW format. Since the 645Z keeps RAW-format data in its buffer memory, you can use such data for future image editing purposes.



Capture a starlit sky

PENTAX 645Z; HD PENTAX-DA 645 28-45mm F4.5ED AW SR (28mm); Metered Manual (F4.5; 15 sec.); ISO 6400; ± 0.0 EV; WB: Auto; Natural
The Milky Way over city lights (Shibecha-cho, Hokkaido)

Capture a starlit sky



PENTAX 645Z; HD PENTAX-DA 645 28-45mm F4.5ED AW SR (28mm); Metered Manual (F4.5; 15 sec.); ISO 6400; ±0.0 EV; WB: Auto; Natural

Focus: auto, AF select, AF lock, auto-tracking AF, MF

With the live-view function, I magnified one of the brighter stars and focused on it manually. If I made it a perfect point image, it would appear too small. So I shifted the focus point slightly to make it look bigger.

Composition: center, bisection, trisection, triangle, diagonal

I divided the image field into three zones (two upper parts of the starlit sky, and a bottom part of the landscape), then framed it with the sky full of bright stars and the tip of the Milky Way illuminated by town lights.

Color: tone, contrast, multicolor, monochrome

This image reproduces a color tone true to the original scene. Although it was taken in the full-color mode, it looks like a colorless monochrome image, expressed only with the gradation of gray shades.

Capture a starlit sky at ISO 6400

Light: normal, backlit, diagonal, diffused, nightscape

Except for the starlight, the only other light source was the lights of the city in the distance, which appeared whitish with the naked eye — just the way they appear in this image.

Height: high level, eye level, low level

Since I captured this image at night in total darkness, I positioned the camera at eye level to facilitate camera operation.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I angled the camera slightly upwards, so that I could capture the sky in the upper two-thirds of the image field, while depicting the landscape in the lower one-third.

Angle of view: wide angle, standard, telephoto, macro

In order to fill the image with my main subject — the starlit sky — I set the zoom lens to a 28mm focal length to obtain the widest angle of view.

Depth of field: defocus, sharpen, deepen, auto

When photographing starlit skies, I normally use an open aperture to brighten up faint stars. So I opened up the aperture all the way to F4.5.

Shutter speed: freeze, stretch, auto

I selected a shutter speed of 5 seconds to minimize the movement of the stars. In celestial photography, you can capture stars as point images with a shutter speed of 10 seconds or slower.

Capture a starlit sky with high-sensitivity shooting

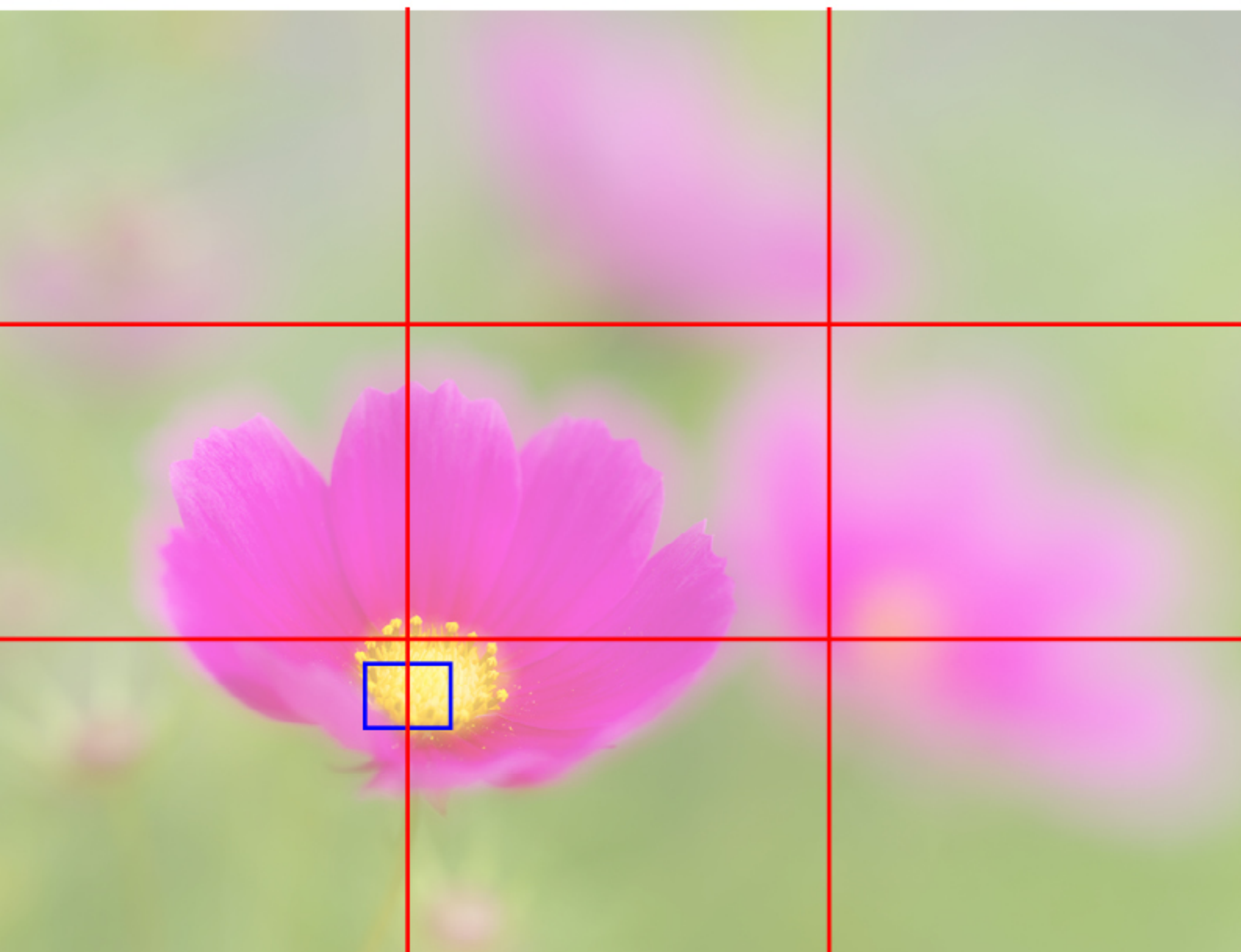
In Hokkaido, I saw innumerable stars in the night sky. So I decided to capture them using the 645Z's high-sensitivity settings. Since it was fully dark when I started shooting, I raised the sensitivity to ISO 6400, set the lens at open aperture, and selected a shutter speed of 15 seconds to minimize the movement of the stars. I also set the white balance to auto in order to reproduce the starlit sky exactly as I saw with the naked eye. Even though I turned off the camera's high-sensitivity noise reduction function, I was able to keep the image quality at an acceptable level. As I spotted the town lights beyond the marsh, I decided to use a silhouette of the trees as an accent in the foreground. Then, I framed the image as if those town lights were connected to the star-filled Milky Way.



Capture a gentle image of flowers

PENTAX 645Z; HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR; Aperture-priority AE
(F4.0; 1/500 sec.); ISO 200; +0.7 EV; WB: Daylight; Bright; multi-exposure (2 images)
A multi-exposure image of cosmos flowers (Shibecha-cho, Hokkaido)

Capture a gentle image of flowers



PENTAX 645Z; HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR; Aperture-priority AE (F4.0; 1/500 sec.); ISO 200; +0.7 EV; WB: Daylight; Bright; multi-exposure (2 images)

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I took the first image by focusing on the cosmos's pistil in the camera's AF mode, then switched to manual focusing to capture the second image, in which I kept all the elements out of focus.

Composition: center, bisection, trisection, triangle, diagonal

I positioned the cosmos at the lower left-hand intersection, so that I could create a sense of depth by making the viewer's eye point shift from the sharply focused flower to the unfocused upper right-hand area.

Color: tone, contrast, multicolor, monochrome

I set the dark-pink cosmos against the pale-green gradation of the background, while using the yellow pistil as a point of interest, in an effort to draw the viewer's attention to the sharply focused flower.

Create a multi-exposure image

Light: normal, backlit, diagonal, diffused, nightscape

Since shadows would produce strong contrast in the flowers and spoil the soft-focus effect of the image, I picked an overcast day for this shooting.

Height: high level, eye level, low level

After looking for the best position to compose the unfocused flowers in the background, I ended up setting the camera slightly lower than eye level.

Shooting angle: upward tilt, level, downward tilt, bird's eye

I tilted the camera at a slight downward angle, so that I could arrange the unfocused flowers in the background to the ideal position.

Angle of view: wide angle, standard, telephoto, macro

I chose a telephoto lens because I wanted to include just a few flowers in the image, to avoid an overcrowded background.

Depth of field: defocus, sharpen, deepen, auto

Along with the creative goal of defocusing every element except the main subject, I wanted to make the second exposure totally unfocused to create a soft-focus effect. For this purpose, I chose a rather large aperture.

Shutter speed: freeze, stretch, auto

I released the shutter the moment the wind died down, because wind would make the flower sway and cause subject shake.

Create a soft-focus effect with multi-exposure

When photographing flowers, I often apply a strong soft-focus effect. For this image, I decided to add a little touch of creativity by adding a multi-exposure technique. I made the first exposure by capturing the flower in sharp focus, then took the second exposure by throwing the entire image totally out of focus to create a blurry effect similar to the one provided by a soft-focus filter. Since I chose the Average mode to synthesize the two images, I could decide on the proper exposure compensation value quite easily. If the subject's position shifted in the second exposure, the misalignment could cause stained blurs. So I had to make the two exposures in quick succession when the wind died down. Compared with the 645D, the new 645Z responds quicker to this kind of shooting, so I could capture the image easily and flawlessly.



**Express the height
of a tree**

PENTAX 645Z, HD PENTAX-DA 645 28-45mm F4.5ED AW SR (28mm), Aperture-priority AE
(F16, 0.6 sec.), ISO 200, +1.3 EV, WB: Daylight, Reversal Film
An unusually-shaped tree (Teshikaga-cho, Hokkaido)

Express the height of a tree



PENTAX 645Z; HD PENTAX-DA 645 28-45mm F4.5ED AW SR (28mm); Aperture-priority AE (F16; 0.6 sec.); ISO 200; +1.3 EV; WB: Daylight; Reversal Film

Focus: auto, AF select, AF lock, auto-tracking AF, MF

I focused on the spot where the tree branched, using the camera's AF mode. The 645Z's multi-point AF sensor made it easy to pinpoint the focus on the intended spot.

Composition: center, bisection, trisection, triangle, diagonal

Although I used the trisection composition to arrange this image, I added the element of the diagonal composition because the tree's trunk extended from the lower left-hand zone to the upper right-hand zone.

Color: tone, contrast, multicolor, monochrome

I positioned the white trunk against the green background to define the tree more clearly. Although the sky in the background was totally washed out, it served to draw the viewer's attention to infinity.

Capture a tree against backlight

Light: normal, backlit, diagonal, diffused, nightscape

I took this image by looking up at a tree standing against backlight. The situation demanded the use of extensive exposure compensation to the overexposure side.

Height: high level, eye level, low level

Even though it would have been easier to stress the height of the tree by positioning the camera down low, I had to set it at eye level to avoid the branches that were between the camera and the tree.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since the subject was a tall tree, I tilted the camera upwards to express its height more effectively.

Angle of view: wide angle, standard, telephoto, macro

I selected the widest angle of view the lens provided, since I wanted to capture the height of the tree and the extension of its branches with an exaggerated perspective.

Depth of field: defocus, sharpen, deepen, auto

I closed down the aperture to F16 to capture all elements in focus, because I believed that precise focus was the key to expressing this tree's enormous energy.

Shutter speed: freeze, stretch, auto

Since there was no wind, I left the choice of shutter speed to the camera.

Express the height and unique shape of a tree

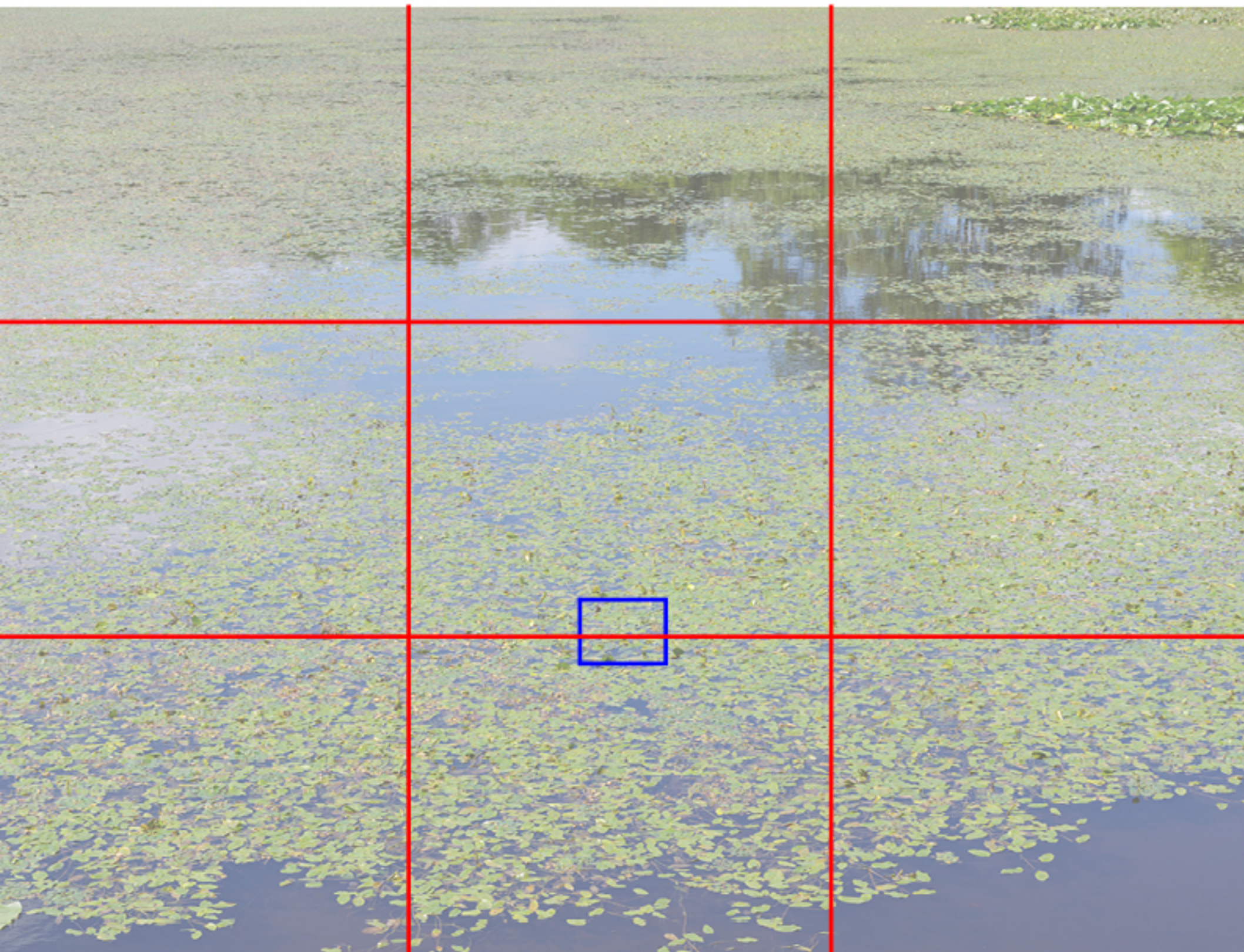
The interesting shape of this Erman's birch caught my attention, so I decided to capture its shape and height in an image. Because I wanted to make a white hole in the center of the trunk's twisted portion to define the tree's shape most effectively, I took a lot of time in selecting the best shooting position. I then adjusted the framing, using the wide-angle lens to enhance the perspective. Since the sky in the background cast strong backlight, I compensated the exposure considerably by adding 1.3 EV to a normal exposure value. I didn't care about a whitewashed sky in this case. Thanks to the high-grade HD coating applied to this lens, I could minimize the effect of color bleeding even against strong backlight. I took my time to examine the subject closely, compose the image and judge proper exposure settings before finally releasing the shutter.



Use the SR function

PENTAX 645Z, HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR; Aperture-priority AE
(F16, 1/80 sec.); ISO 200; +0.3 EV; WB: Daylight; Bright
The surface of a pond with reflections of distant scenery (Tsurui-cho, Hokkaido)

Use the SR function



PENTAX 645Z; HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR; Aperture-priority AE (F16; 1/80 sec.); ISO 200; +0.3 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Although I initially used the middle sensor to measure the subject's distance, I shifted the focus point to a spot about one-third away from the front edge, then locked the AF system to avoid accidental shifts.

Composition: center, bisection, trisection, triangle, diagonal

The image, which consisted of the surface of the pond and the reflections of distant scenery, was divided into three zones. I positioned the reflection of trees to the upper right-hand intersection to accentuate the image.

Color: tone, contrast, multicolor, monochrome

I focused on portraying the entire image with the gradation of blue shades, while adding the green water plants and the blue sky as accentuating elements.

Use an SR-equipped lens

Light: normal, backlit, diagonal, diffused, nightscape

When you wish to capture a brilliant image of scenery with a reflection of the blue sky on the surface of water, normal lighting is the best for your purpose.

Height: high level, eye level, low level

I stabilized the camera at eye level because I was hand-holding it, while I was on unstable footing on a sloping bank.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since I handheld the camera at eye level while standing a sloping bank, I looked down at the subject from a position slightly higher than the pond's surface.

Angle of view: wide angle, standard, telephoto, macro

In order to fill the entire image solely with the pond, I chose the telephoto lens to frame this scenery tightly while leaving all other elements out.

Depth of field: defocus, sharpen, deepen, auto

Since the primary theme of this composition is the pattern of water plants, I closed down the aperture to bring all elements in focus.

Shutter speed: freeze, stretch, auto

I activated the camera's SR function, which expanded the scope of handheld shooting, so I could use a shutter speed of 1/80 second. Without this function, I would have chosen 1/125 second instead.

Use the SR function to close down the aperture

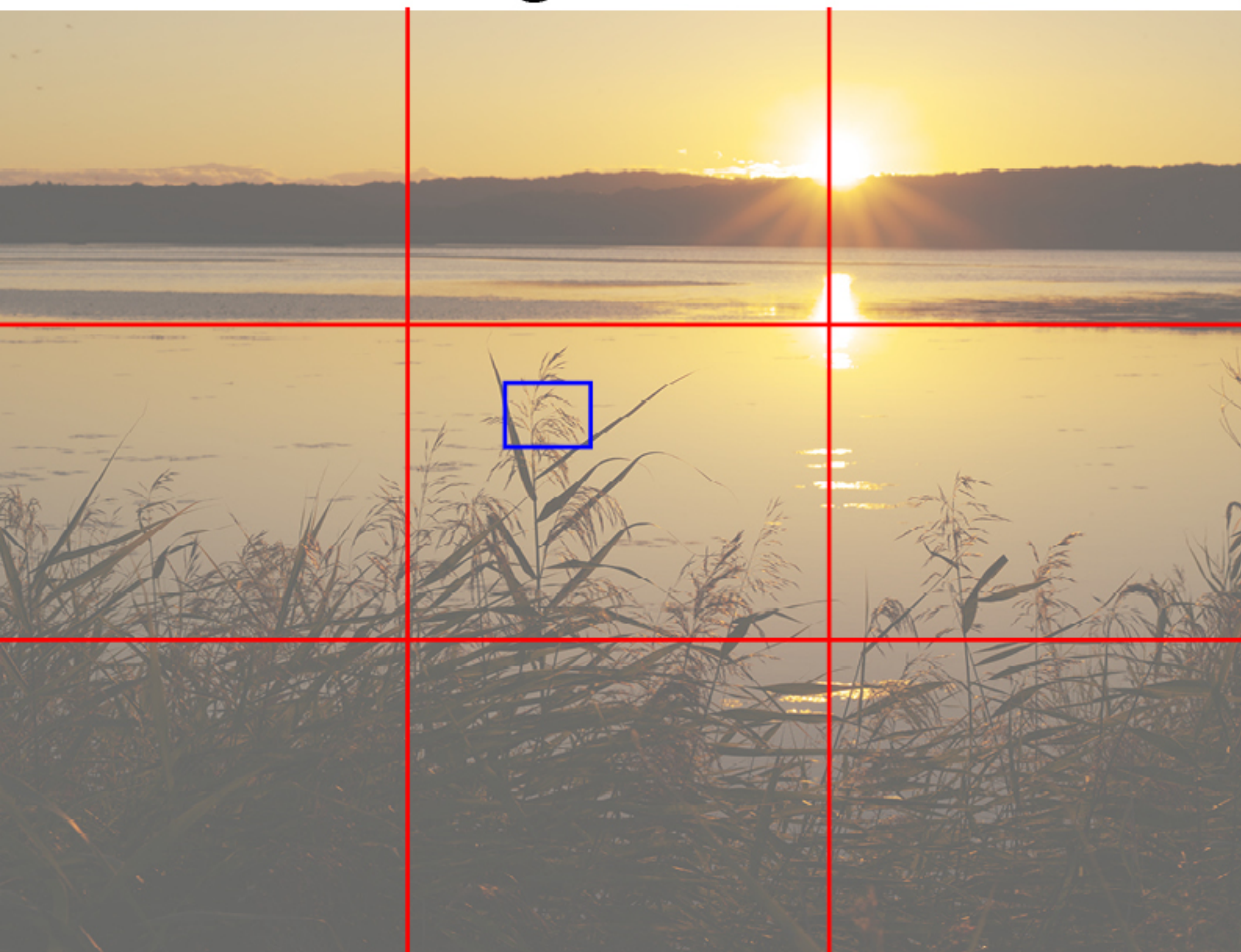
I spotted a beautiful reflection on the surface of a pond, but I couldn't avoid some reed grass with tripod shooting. I decided to handhold the camera while standing on a sloping bank. To create the pan-focus effect with a medium-format camera, you need to use an aperture two stops smaller than the one used for a 35mm-format camera to keep the subject in focus, although it would make the shutter speed too slow for handheld shooting. Thanks to the lens's SR (Shake Reduction) function, I managed to handhold it without raising the sensitivity. From two SR-equipped lenses usable on the 645Z, I selected the HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR. The combination of the SR function and high sensitivity elevates the photographer's mobility in the field to a level equal to that of 35mm-format photography.



Optimize the benefits of HD Coating

PENTAX 645Z; HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR; Aperture-priority AE
(F20; 1/80 sec.); ISO 100; -1.3 EV; WB: CTE; Bright
A lakeside view illuminated by the setting sun (Shibecha-cho, Hokkaido)

Optimize the benefits of HD Coating



PENTAX 645Z; HD PENTAX-D FA645 MACRO 90mm F2.8ED AW SR; Aperture-priority AE (F20; 1/80 sec.); ISO 100; -1.3 EV; WB: CTE; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Since I handheld the camera, I used the camera's middle sensor to focus on the head of a tall reed grass, then locked the AF system to reframe the image.

Composition: center, bisection, trisection, triangle, diagonal

The image has a typical trisection composition, with the head of the grass and the setting sun positioned close to their respective intersections to serve as the points of interest.

Color: tone, contrast, multicolor, monochrome

The entire image consisted of shades of red. In order to emphasize the sun's glare, I set the white balance to CTE to make the colors more vivid.

Don't be afraid to include the sun in your composition

Light: normal, backlit, diagonal, diffused, nightscape

This image featured the sun casting backlight on the scenery. In order to reproduce the gradation of the lake's surface more truthfully, I shifted the middle-tone key of the Custom Image mode to the plus side.

Height: high level, eye level, low level

Since I captured this image from an elevated point, the reed grass stood almost level with my waist. To bring the grass's head and the setting sun closer in the image, I squatted down to lower the camera position.

Shooting angle: upward tilt, level, downward tilt, bird's eye

After adjusting the framing to optimize the balance between the reed grass and the setting sun, I tilted the camera down to an angle that looked down at the lake's surface from an elevated ground.

Angle of view: wide angle, standard, telephoto, macro

Using the telephoto lens, I framed the intended area, cropping out other elements. This medium-telephoto lens provides the perfect angle of view for capturing a landscape with the feeling of someone gazing out at it.

Depth of field: defocus, sharpen, deepen, auto

Since the telephoto lens has a shallow depth of field, I closed down the aperture to define the background in greater detail.

Shutter speed: freeze, stretch, auto

I let the camera select both the sensitivity and the shutter speed. Although I handheld the camera, I wasn't affected by camera shake at all, thanks to the lens's SR function.

Use HD-coating lenses for backlit subjects

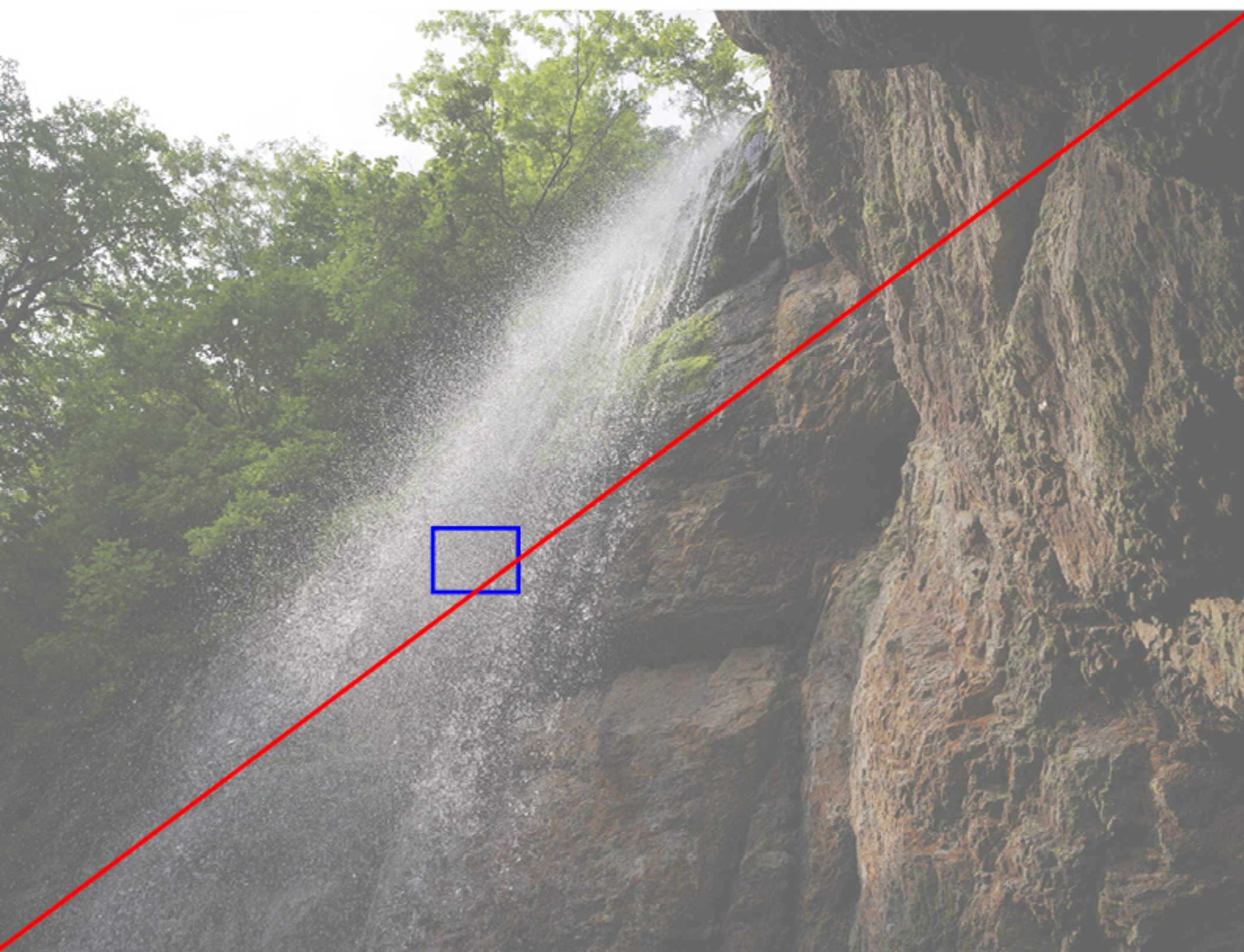
Because I like to include the sun in my images, I often use a composition like this image when shooting morning or sunset scenes. The focus of attention shifts from the nearby reed grasses to the setting sun to enhance a sense of depth and dramatize this landscape. When including the sun in your image, however, you must use a lens that can perform well in backlight while effectively eliminating ghost images. The HD-series lenses are ideal for this kind of shooting as they maintain a high level of contrast and minimize ghost images, even with images that are captured in strong backlight and under a brilliant sun. When I looked at this image through the viewfinder, it appeared too bright and even glaring. However, the final image came out exactly the way I intended, without any trace of ghost images.



Freeze waterfall splashes

PENTAX 645Z; smc PENTAX-FA645 45-85mm F4.5 (45mm); Metered Manual (F11; 1/1000 sec.);
ISO 1600; -0.7 EV; WB: Daylight; Bright
The flow of a waterfall frozen with a high shutter speed (Engaru-cho, Hokkaido)

Freeze waterfall splashes



PENTAX 645Z; smc PENTAX-FA645 45-85mm F4.5 (45mm); Metered Manual (F11; 1/1000 sec.); ISO 1600; -0.7 EV; WB: Daylight; Bright

Focus: auto, AF select, AF lock, auto-tracking AF, MF

Using the camera's AF mode, I set the focus on the bright midsection of the waterfalls in direct sunlight. Since most of the elements were at a distance, I could easily attain sharp focus across the image field.

Composition: center, bisection, trisection, triangle, diagonal

This image was composed along the diagonal line, with a flow of the waterfalls featured in the middle. This composition made it easy for me to express the motion of water.

Color: tone, contrast, multicolor, monochrome

This image's main theme was not color. By positioning the sunlit waterfall against the dark, shady background, I could draw the viewer's attention to the main subject, the flow of the waterfall.

Freeze the motion with a high shutter speed

Light: normal, backlit, diagonal, diffused, nightscape

The sunshine penetrating from the upper left-hand corner brilliantly illuminated the waterfall's flow. So I positioned the camera to a spot from which I could capture this sparkling flow.

Height: high level, eye level, low level

I selected a high shutter speed manually for handheld shooting, then positioned the camera at eye level to stabilize it.

Shooting angle: upward tilt, level, downward tilt, bird's eye

Since I could go around and behind the waterfall, I approached fairly closely and looked up at it. By including the rock wall in the foreground, I could add a sense of breadth to this image.

Angle of view: wide angle, standard, telephoto, macro

Because it was huge waterfall, I decided to frame it horizontally to express its grandeur, while setting the lens at a wide-angle focal length to include the rock wall in the foreground.

Depth of field: defocus, sharpen, deepen, auto

Since most of the elements lay at a distance, I didn't have to pay much attention to focusing, although I made sure to bring the nearby rock wall into focus.

Shutter speed: freeze, stretch, auto

I aimed at creating an uplifting image by freezing the flow of the waterfall and capturing its splashes. With a shutter speed of 1/1000 second, I could reproduce every drop of the splashes sharply.

Raise the shutter speed for a cool ambience

The subject was a rare kind of waterfall where I could actually go behind it. I looked up at it to create the ambience of being covered with cool splashes, while freezing the flow with a high shutter speed. I knew I could freeze every drop of the splashes at a shutter speed of 1/1000 second or faster, so I raised the camera's sensitivity to ISO 1600 to gain this speed. The splashes at the upper part of the flow were frozen perfectly, while those at the lower part were broken to express a sense of motion. In this kind of high-sensitivity photography, the 645D generated considerable noise, but this is not the case with the new 645Z. Because this was handheld shooting of a high-contrast scene, I fixed the camera's exposure settings manually to eliminate the risk of exposure fluctuations that could be caused by even the slightest shift in picture framing.

Looking back at the shooting

Compared with the 645D, the new 645Z has better basic specifications. Despite being a medium format camera, it also provides the mobility matching that of a 35mm-format SLR. Its excellent performance in the high-sensitivity range has expanded the possibility of medium-format enormously, making me feel that it has finally become a full-scale digital imaging tool, rather than a mere successor to film-format 645-series models. While the 645D offered a sensitivity of up to ISO 400 in the normal-use range and showed some noise at ISO 800, the 645Z has expanded this range to ISO 1600. At higher sensitivities between ISO 1600 and ISO 3200, image quality deteriorates slightly, but it's still good enough to produce beautiful photos with proper post-shooting image editing.

In terms of image quality, the 645Z features new technologies that make the best use of the outstanding image resolving power, which is assured by the approximately 51.4 effective megapixels. Because of its large image sensor, a medium-format camera requires the photographer to close down the aperture in order to increase the depth of field. This process causes the problem of diffraction. The 645Z, however, comes equipped with a diffraction compensation function that enhances the image's sharpness by one to two stops. You can close down the aperture without worrying about deteriorating image quality. Personally, I think it is also worth mentioning that the 645Z features a CMOS image sensor, instead of a CCD type. This reproduces a more natural, true-to-life image when the sun is in the image field.

Thanks to the increased number of AF sensor points, the 645Z's focusing accuracy has improved considerably, so I'm comfortable using its AF system without any hesitation. Its three-images-per-second continuous shooting mode allows me to capture many active subjects with ease. Even though I normally use a tripod to capture images rather slowly and deliberately, I can now hand hold the 645Z with confidence, making me more responsive and better equipped to handle unexpected shutter opportunities.

The 645Z's tiltable LCD monitor and live-view function have also expanded the scope of medium-format photography. FLUCARD compatibility enhances the freedom of wireless photography, while the optional Image Transmitter 2 software allows for remote camera operation and high-speed data transmission using a computer connected to the camera via a cable.

All PENTAX 645-series digital SLR cameras are compatible with old lenses from the era of film-format photography. The new 645Z is no exception, allowing the photographer to capture high-quality, fine-detailed images. With the introduction of the HD PENTAX-DA645 28-45mm F4.5 ED AW SR lens, a selection of zoom lenses now covers almost all angles of view necessary in scenic photography—from wide angle to telephoto. I also look forward to trying out new lenses in the future.

I have found no shortcomings with the 645Z. For those of you who have a stock of old film-format 645 lenses resting in the closet, I'd say that it's about time to switch to the new 645Z and make good use of your beloved lenses.

Yoshiaki Kobayashi, photographer

Born in 1969 in Tokyo, Yoshiaki Kobayashi has expressed the beauty and gentleness of nature through his photographic work, with subjects ranging from insects and flowers to sweeping scenery. He is currently working on a photographic project in Hokkaido titled Inochi-no-keshiki (The Landscape Full of Life). He has also published two photo books, Inochi-no-Keshiki: Kushiro Shitsugen (The Landscape Full of Life in the Kushiro Marsh) and Inochi-no-Keshiki: Kita no Daichi Kara (The Landscape Full of Life in the Northlands), both of which are available from DLMarkt.
<https://www.facebook.com/kobayashi.yoshiaki.kumausi/>

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Born in 1975, Titoce Saito is the former editor of a monthly photo magazine. Currently based in the city of Chitose, Hokkaido, he is working to establish a publishing business in this provincial area, while also publishing digital books. He is currently marketing a series of photographic technique guidebooks titled Boro Photo Kaiketsu Series (The Solutions to Poor Photography) and a series of e-books titled Foton available through the Amazon Kindle Store.
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