The Wonders of Creation Reveal God's Glory

Extra Features

Light and Color

Each artist's work is a reflection of the individual—a personal expression of creative skill and imagination.

But are such expressions limited to human works of art? Or are they also displayed in the natural world?

We live in a world rich in spectacular colors. Everywhere we look, different shades and hues captivate our eyes. Some are subtle variations. Others are sharp contrasts. Together, they draw our attention to the striking beauty that exists all around us in creation.

But where do all these colors come from? The answer has to do with the nature of light and how it interacts with different surfaces.

Light usually appears white to our eyes. However, white light can actually be separated into all the different colors of the visible spectrum, each color corresponding to a different wavelength. Most objects contain chemical substances called pigments that absorb certain wavelengths and reflect others. What is reflected back to the eye by each object appears as the wonderful variety of colors that we see.

However, among the most exquisite colors displayed in nature are those that come from a phenomenon known as iridescence. These brilliant colors can vary, depending on the angle of your view. How are these shimmering colors produced? In most cases, iridescence is caused, not by chemical pigments, but by precise structural patterns within the surface of an object. For example, the wings of Morpho butterflies are covered in tiny semitransparent scales. On each scale, we find layers of microscopic, evenly spaced ridges, which, in turn, have still smaller ridges on their sides. The distance between these tiny ridges is actually smaller than a wavelength of light. They break up the light waves and create an interference pattern. As a result, some colors are canceled out and others are intensified. These intensified light waves are reflected back to our eyes as a dazzling blue. Yes, these brilliant "works of art" are the result of ingenious and intricate design.

Spectacular colors can be found not only in objects around us but above us as well.

As the sun goes down, magnificent sunsets paint the sky with breathtaking colors. What is behind this artistry in the sky? As sunlight travels to the earth, the light strikes air molecules and dust particles and is diffused, or scattered. The extent to which a light wave is scattered, however, depends on its wavelength. Blue light waves have a shorter wavelength and are widely scattered throughout the atmosphere. That's why we see a blue sky when the sun is well above the horizon on a clear day. However, when the sun is near the horizon, the light must travel through more of the atmosphere to reach our eyes. Blue light, with its shorter wavelength, is scattered before it ever reaches us. On the other hand, the longer red and orange light waves can travel farther through the atmosphere and adorn the sky with the golden and crimson colors of the sunset.

What a rich diversity of colors have been used to "paint" our earthly home.

When we take time to observe their beauty, we are drawn closer to Jehovah God, the greatest Artist. For just as each artist's work is a reflection of the individual, so too the beautiful colors Jehovah has chosen for each of his creations are daily reminders of his deep love for us. Yes, "Everything he has made pretty in its time."—Ec 3:11