

Rapid Reading

Look at the illustration below. What do you see? Some people might see a rabbit facing to the right, while others might see a duck facing to the left. This illustration shows how our eyes can be tricked, what is called an optical illusion. Such illusions have been used in various ways which we can see in our daily lives.

First, one example is the manner in which they have historically been incorporated into structural designs. The *karesansui* (dry landscape) garden at the Zen temple Ryōanji in Kyoto illustrates such a use. Its surface may look completely level, but actually, it inclines towards the garden's south-east corner. Also, the west-side earthen wall is slightly higher at its northern end. These factors create an optical illusion that makes this surface look deeper. This effect is the same as the one seen in the Ponzo Illusion (Figure 1), in which the horizontal line closer to the top looks longer than the line below it, even though the two are exactly the same length.

Second, another optical illusion can be seen in the picture below, which shows the interior of a house that appears to have an extremely high ceiling. The effect is caused by the Fick Illusion (Figure 2), in which the vertical line seems longer than the horizontal line despite their lengths being precisely the same. Using this effect can make a room look more spacious than it actually is.

Third, another technique employed recently is to create, on a two-dimensional surface, the appearance of a three-dimensional object. In one train station, for instance, people are frequently unable to find an elevator located in a blind spot. To assist them, a sign that appears to be three-dimensional is painted on the floor. The sign is of significant help in sending people in the right direction.

Last, they can be used at an intersection with no traffic lights. Crosswalk designs that look three-dimensional have been painted on some roads to prevent traffic accidents. From the viewpoint of approaching drivers, it looks like large concrete blocks are in the road. Hopefully, drivers will slow down when they see them, before nearing the crosswalk.

Of course, the power of optical illusions is limited. It cannot make a garden larger, nor can it make a ceiling higher. Over time, a crosswalk painted to appear three-dimensional will lose its effectiveness in preventing accidents. Drivers will come to realize that what they are seeing is just an illusion. Nonetheless, with such limitations kept in mind, it should be possible to find an even wider variety of useful applications of optical illusions.

total words 435

_____ min. _____ sec.

TRUE OR FALSE



1. () 2. () 3. () 4. () 5. ()

1. The *karesansui* garden uses the same type of optical illusion as the Ponzo Illusion.
2. In the Fick Illusion, the upper line looks longer than the lower line, even though they are the same length.
3. Drivers believe without a doubt that three-dimensional crosswalks on streets are real concrete blocks.
4. Optical illusions can make gardens larger and also ceilings higher.
5. In spite of their limitations, optical illusions have the potential to be effectively used in wider ways.