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Drawing CC 4A

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Research Paper

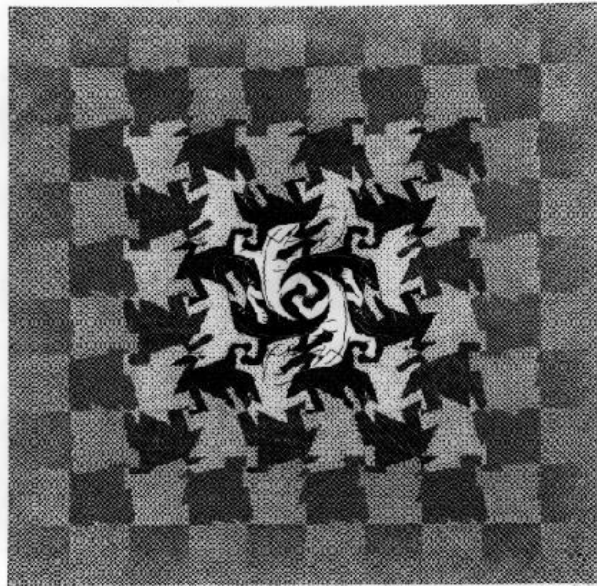
MC Escher in 3-D

MC Escher was a famous graphic artist who is incredibly renowned for his works of impossible structures. He “was a craftsman, book illustrator, tapestry designer, and muralist but his primary work was a print maker” (www.nga.gov). Throughout his lifetime, Escher had works based on mathematics, realistic landscapes, tessellations, and much more. He used architecture, such as his works on impossible structures and mathematical geometric shapes, to give his artworks a three-dimensional form.

Coming from a father who was a civil engineer, Escher decided to study architecture. However, a week later after he enrolled in the School for Architecture and Decorative Arts in Haarlem, he decided that he would prefer to study graphic art instead (www.mcescher.com). Although Escher didn't pursue architecture as he planned to from the beginning, he did play with it and applied it to some of his artworks.

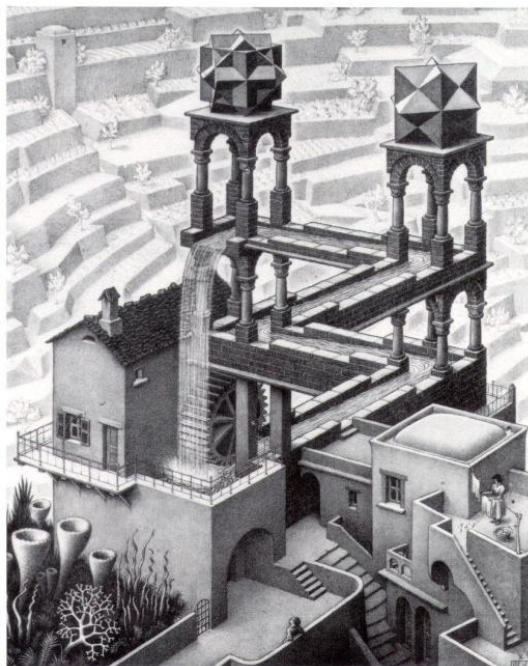
Unlike several artists, Escher didn't just create two-dimensional artworks. He made works of art that seemed to come out of the picture instead of a flat image on a sheet of paper. To give his artwork a pop-out-of-the-page look, Escher used contrast to emphasize the shadows in his works. His use of geometric shapes in his tessellation pieces shows the image going from a lighter to darker, or vice versa, as if the image is displaying a grayscale. In some of his works, the shapes he used for his tessellations didn't always stay the same. He continued to use contrast on the artwork, but at the same time he morphed the geometric shape into an animal. The picture

literally transforms from a shape into something entirely different. From using a geometric shape, Escher was able to manipulate and gradually change its form from a two dimensional figure into a three dimensional image. In several of his artworks, he favored reptiles, birds, and fishes for his tessellations. The image below is a woodcut that Escher called *Development I* in which he used both contrast and geometric shapes to form a work of trompe l'œil. This style of painting depicts object with photographically realistic detail (www.meriam-webster.com). It forms an illusion and fools the eye into believing that what one is looking at is realistic enough to grasp and touch, yet it's only a piece of flat artwork that's framed to the wall. In actuality, trompe l'oeil is nothing but an optical illusion that deceives one's perception and gives a false impression of reality (www.dictionary.com). The lizards in *Development I* appear to be jumping out from the flat surface; however, in actual reality, it isn't. Similar to several of his other works, *Development I* slowly changes its shape. In this case, it goes from squares at the outer edges of the image into a lizard at the center.



(www.mcescher.com).

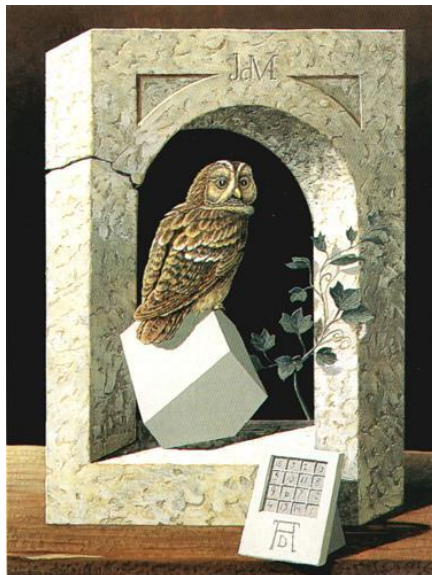
Aside from tessellations, Escher had some realistic artworks from when he resided in and traveled around in Italy. He drew landscapes and “sought out high places and dramatic vistas to sketch” (www.users.erols.com). A few of his later works were inspired by the sights of his sketches. Some of his art wasn’t based on real sceneries, but drawings from his imagination. His famous works of impossible structures best illustrate his use of his imagination and architecture. Escher continues to use geometric shapes and contrast in his works of impossible structures to continue the three dimensional look. The figure on the left, the *Waterfall*, includes the impossible triangle, also known as the tri-bar, three times. At first glance, it appears to be possible; however, when one takes a closer look at the image, the direction the water flows doesn’t match up with where the water falls. Also, the *Belvedere* shown at the bottom on the right, the ladder that the two people in the image are climbing leads up to an empty space at the second level of the building since on the first level, several of the pillars don’t match up with where they are supposed to go (www.trese.cs.utwente.nl).



(www.mcescher.com).

By applying his knowledge of architecture, Escher was able to make his artworks appear to be more realistic than they actually are. Much like an optical illusion, these structures are misleading at first glance and may appear to be possible when they are not. Escher played with architecture and the result was a realistic, and yet not possible structure.

Today, you can find many of MC Escher's work on the internet, serving as a symbol that his artwork is still being enjoyed today. His use of contrast in his tessellations helped transform his artwork into looking three dimensional. Escher's impossible structures also influenced later artists, such as Jose de Mey, to follow in his footsteps.

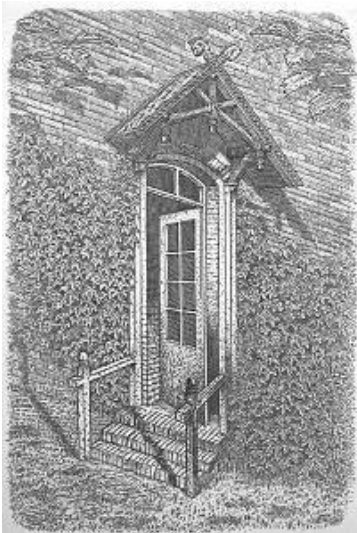


(www.planetperplex.com)

Mey stated that Escher's works left an "enormous impression" on him, specifically the *Wrinkling*, *Quagmire*, and the *Dewdrop* that he says he'll never forget (www.im-possible.info). The image above of the owl is one of several artworks that Mey did on impossible figures. It is originally called *Ontmoeting tussen De Steen van de wijze Dürer en de uil van J. de Mey*, and translated, its name is *Encounter Between the Stone of the Wise Dürer and J. de Meys Owl*.

Perusing this piece of artwork, there doesn't seem to be anything wrong with it until one comes to notice the bottom left and right corner in which the pillar does not chronologically match up.

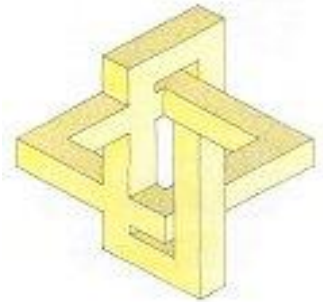
Mey was not the only artist who was inspired by Escher's artworks. One hundred years later, artists such as Istvan Orosz, Sandro del Prete, and Oscar Reutersvärd, like Mey, also had several works on impossible figures. Instead of tessellations, these artists focused more on emphasizing architecture and geometrical shape to give off a trompe l'œil illusion. Escher was able to incorporate architecture and mathematics toward his artworks, giving off the effect of a three dimensional image that, whether possible or impossible, several later artists used as well.



Istvan Orosz



Sandro del Prete



Oscar Reutersvärd

(www.im-possible.info)

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