

Venetian Distorting Mirrors

(artworks)

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Abstract

Venice. Bell tower of Santa Maria Maggiore, near to the jail, reflected into the water. But the water is moving, distorting reflections. Thus, water is acting as a distorting mirror, a well-known phenomenon in physics. Such a distorting mirror is a complex anamorphosis because there are multiple curvatures; thus, it is a non-trivial mathematical object. It reminds one of the results of electronic creation, of artificial transformation.

From a purely aesthetic side, the image "Venetian Distorting Mirrors" may remind us of Surrealism in painting. Is Nature once more suggesting paths through math and the arts?

This picture has been taken with a mobile, without using any filter and

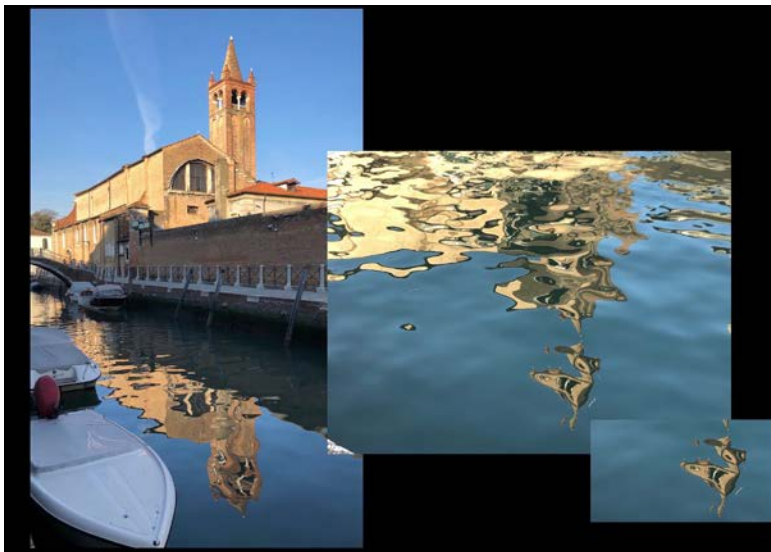
avoiding any post-processing. The sequence of explanatory images presents the original bell tower and some reflections, including the one used for "Venetian Distorting Mirrors."

Living in Venice for a postdoc, I have been continuously stunned by the beauty of this city on water. According to the poetry Nobel prize J. Brodsky, water, with its mirroring, doubles beauty. Water creates a "fugitive mirror," as J. L. Borges wrote. When water moves, it modifies the mirrored shapes creating distortions, as transformational processes.

Bio. Maria Mannone is a theoretical physicist and composer. She gained her MSc in Theoretical Physics and three masters in Piano, Composition and Orchestral Conducting in Italy, her Master 2 ATIAM at IRCAM-UPMC Paris VI Sorbonne, and her Ph.D. in Composition in the US, at the University of Minnesota. Her interdisciplinary research deals with music, mathematics, and forms of nature. She created the "CubeHarmonic," a new musical instrument based on the Rubik's cube. Her most recent books are "Mathematics, Nature, Art" and "Simmetrie fra Matematica e Musica" (Palermo University Press).



“Venetian Distorting Mirrors,” picture by M. Mannone



Explanatory pictures