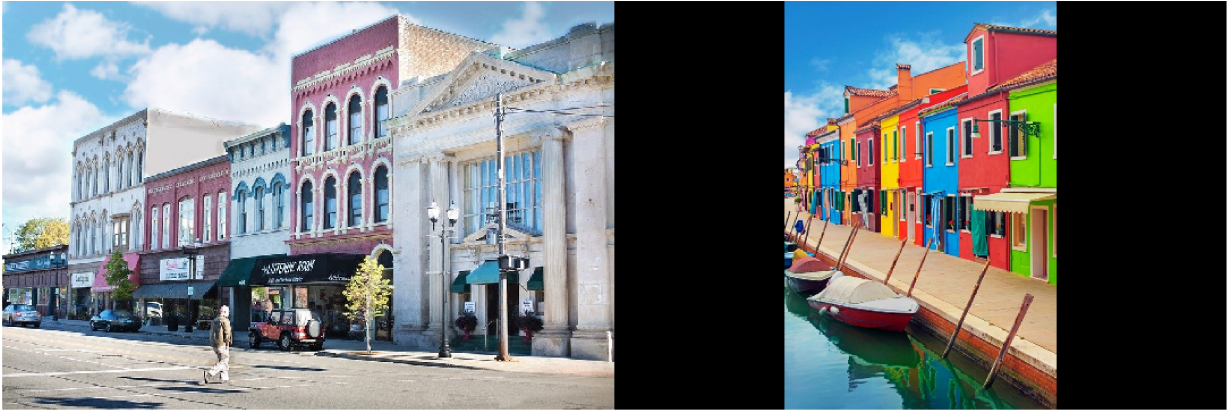# Color transfer between images

Color transfer will transfer the color tone from the source image to the target image.

Step 1: Input images are a source and a target image. Display both images.

Step 2: Convert RGB to lαβ color space. Images have size [m n 3]. You can use function "reshape" to change the size to [m*n 3]. So that we can multiply with other matrices.

Step 3: Compute the mean and standard deviation of each of the lαβ channels for the source and target images.

Step 4: Subtract the mean of the lαβ channels of the target image from target channels.

Step 5: Scale the target channels by the ratio of the standard deviation of the source divided by the standard deviation of the target, multiplied by the target channels.

Step 6: Add in the means of the lαβ channels for the source.

Step 7: Convert lαβ back to RGB color space.