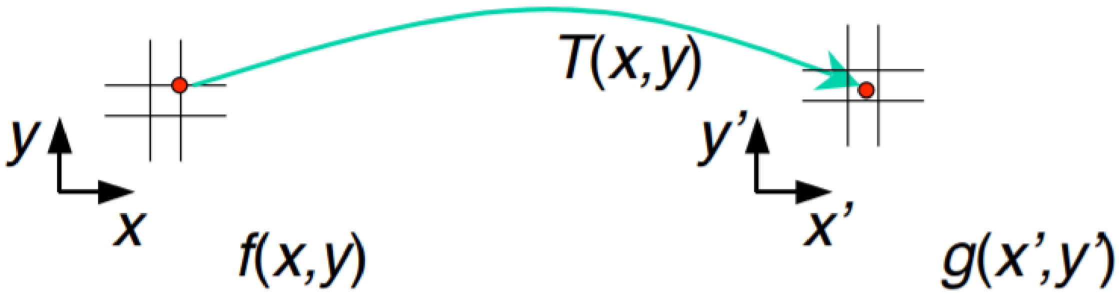
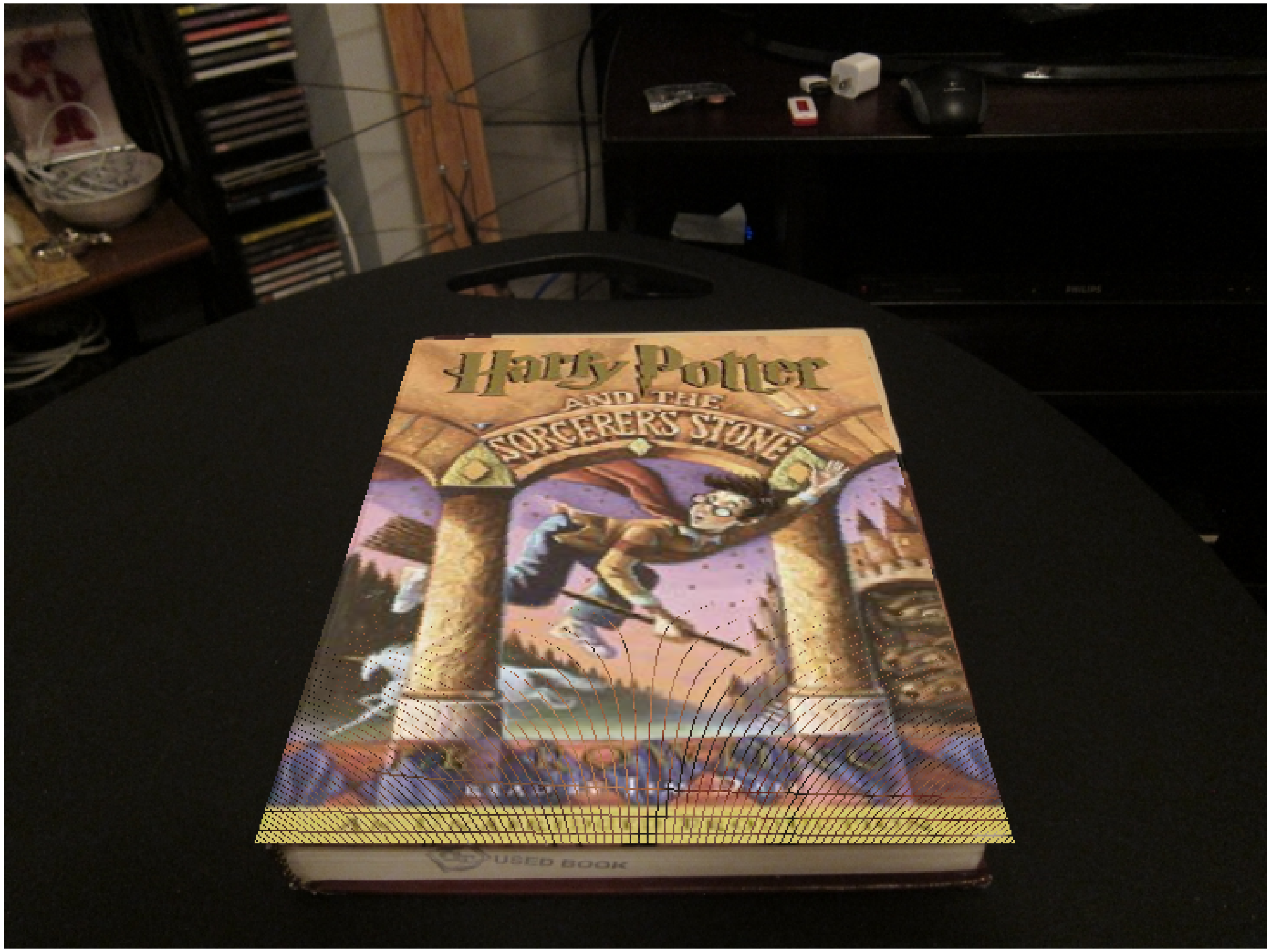
Warping :



For each pixel location (x,y) in image, apply the Homography transformation (T) to result (x', y')

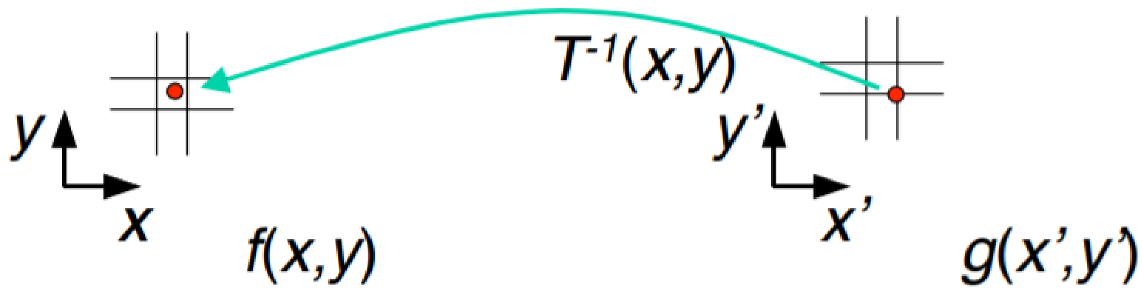
(x', y') = T(x,y) $\forall$ pixel locations (x,y) in f
g(x', y') = f(x,y)

$\therefore$ g(T(x, y)) = f(x,y) for each (x,y) in f
where g - warped image, f - original image



Projection looks good.
As we are applying transform for every pixel in original image, the transformed pixel locations might not span the entire locations of the transformed image. This results in holes in the transformed image.

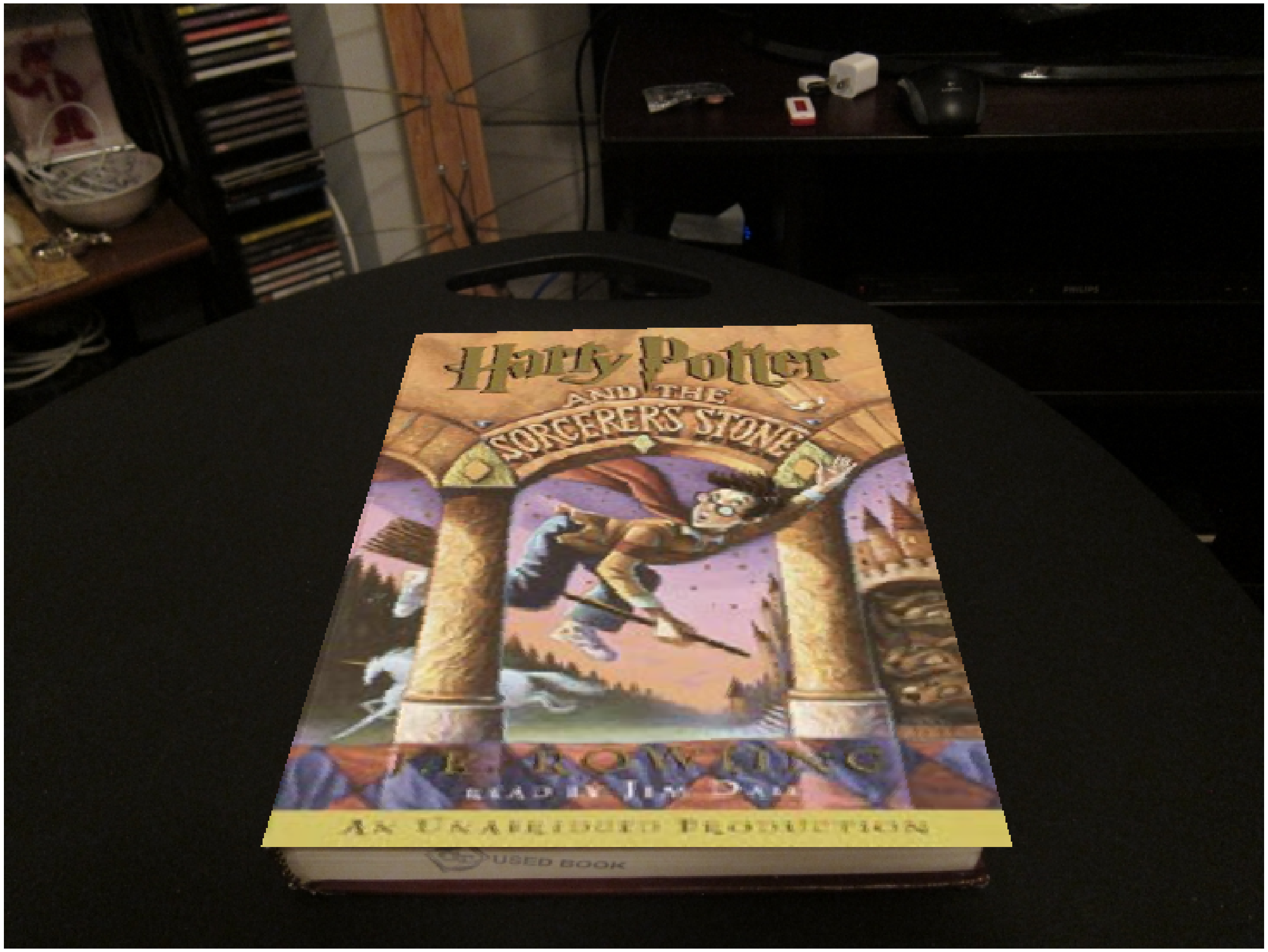
Inverse Warping:



For each pixel location (x',y') in final (transformed) image, find the corresponding location in original image by applying the inverse of Homography transformation (T)

$(x,y) = T^{-1}(x',y')$ $\forall$ pixel locations (x',y') in g
$g(x',y') = f(x,y)$

$\therefore$ **$g(x', y') = f(T^{-1}(x',y'))$** for each (x',y') in g
where g - warped image, f - original image



As all the pixels in the final output are mapped with pixels in the original image (by T^{-1}), **no holes are observed**