mise en abîme

The use of self-references in art dates back centuries!

– Some coat of arms shields had a smaller version of the coat of arms as the center of itself (the abyme is what the center of a coat of arms is called).
– The “Murder of Gonzago” within Hamlet could be thought of as another version of self-reference.
– Some paintings have included mirrors within them, showing the same subjects as the main painting.
Droste effect

One type of self-referential image style is colloquially known as the Droste effect (so named for the brand of cocoa whose packaging had a lady carrying a tray with a container of the cocoa).

We will explore one of way accomplishing this via image editing...

Creating the Droste effect

We’ll start by photographing our scene, containing a glass-less frame placed somewhere within it.

– When taking the photograph, you’ll want the frame to appear as a reasonable size, so that we can “recurse” at least twice. It can also help to put a solid colored sheet of paper within the frame.

– After taking the photo, edit it for color, composition, etc. and crop it to the same aspect ratio as the frame.
Our Photo
The image we took during class can be downloaded (before rotating or cropping) from:
http://www.cs.umd.edu/~egolub/HDCC208N/DrosteOriginal.png

Recursively Placing the Photograph
First, duplicate the image’s layer, hide the base layer, and carefully erase what is inside the frame in the duplicate.

Next, start recording a new action and then:

- **Select-all** the image, go to **Edit**, select **Copy Merged**, and then **Paste** that merged copy.

- Go to **Edit**, then **Transform**, then select **Distort** and drag the corners of the image to the corners of the frame, having the distorted image slightly overlapping the frame. Once it is well-positioned, press enter to finalize the transformation and stop the recording of the action.

- Move that new layer down one level.

- Click on the topmost layer and play the action to do it again, move the result down one level, and repeat until you can no longer see a “hole” in the innermost image.
“Spicing it up” a little
To add a bit more realism to the overall effect, one thing that you can do as you go is to add an adjustment layer for hue/saturation above each new layer after you create and position it, setting the overall saturation to -20 to try to recreate the effect that actually printing out the image for each level of recursion might have had on the final result.

Practical (or Physical) Effects
Rather than rely on digital manipulation, you could also explore “practical effects” to create self-referential images.

– A tablet or laptop or even digital picture frame could be used within the scene to display the previous iteration.
– You could try mixing things up by slightly altering the scene each time (imagine four people holding the frame but each iteration has them in different positions relative to each other).