

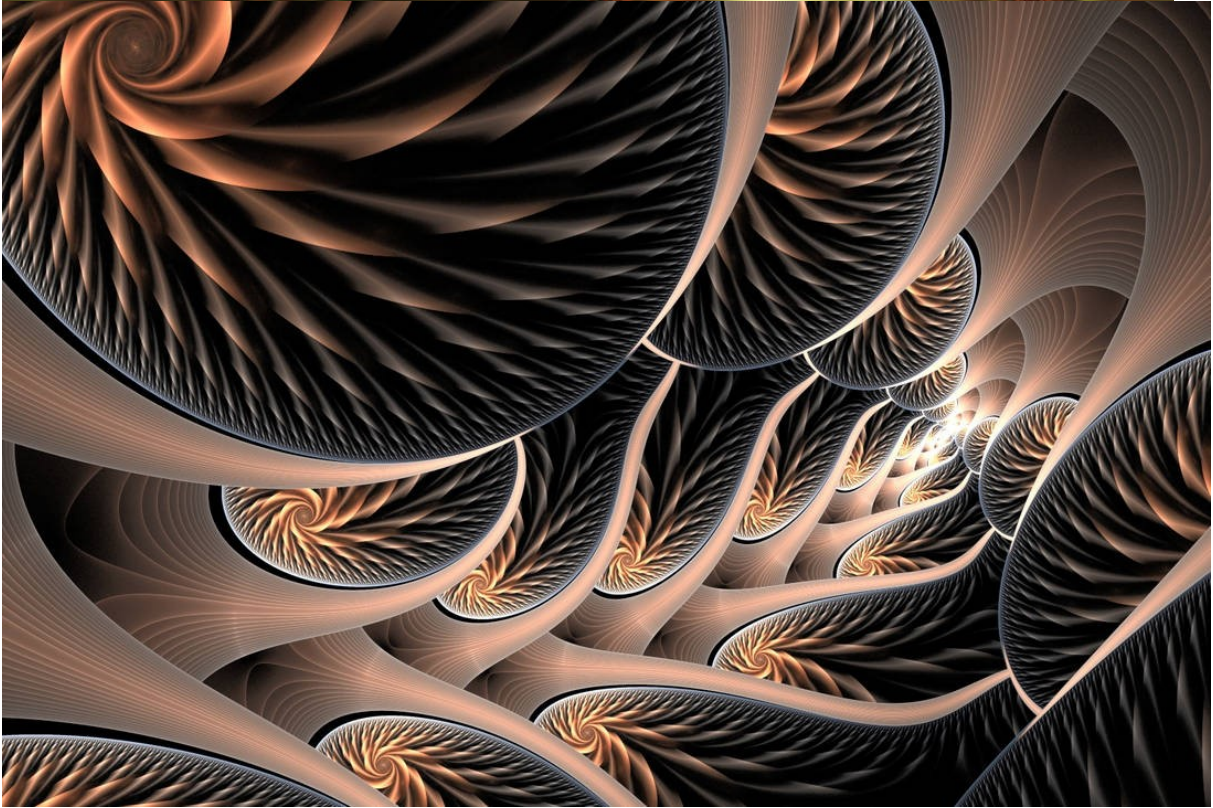
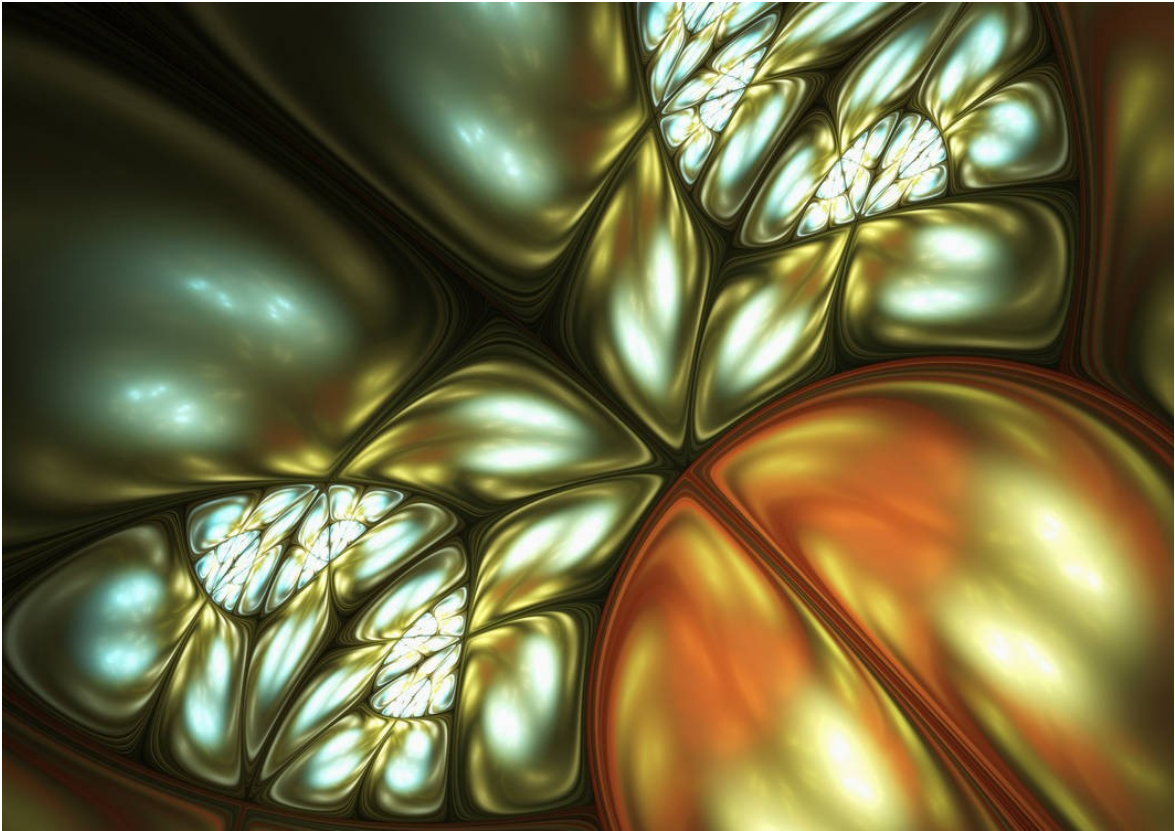
Filling Half Planes

by tatasz

There are a few variations that map the whole plane to a half plane. For example, flux, deltaA and several others (either by themselves or in combination).

Lets first take a look at a few works featuring those and then learn how to fill it up.



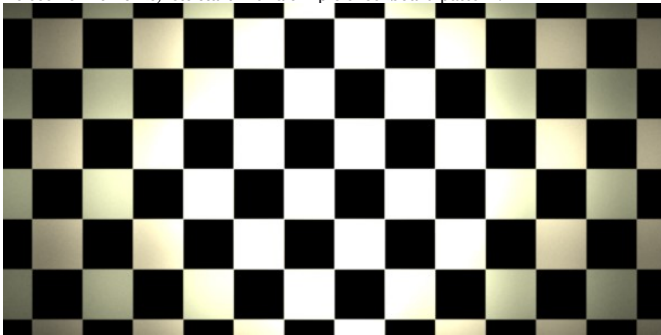




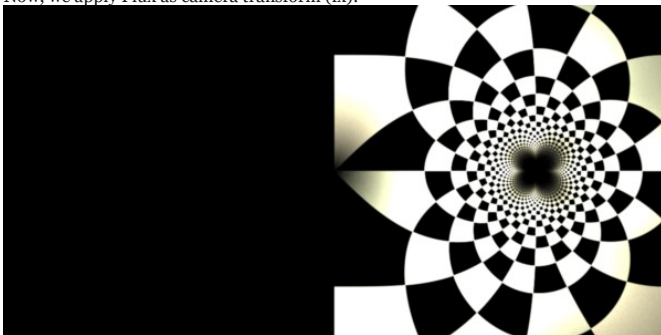
HALF PLANE

Those transformations take the whole plane and map it into half plane, leaving the other half empty. Flux and DeltaA are two examples of such transforms.

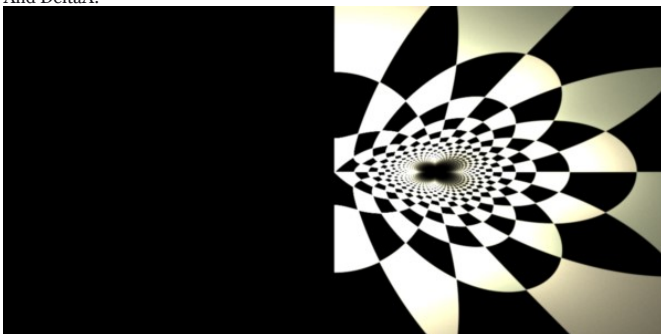
To see how it works, lets start with a simple checkboard pattern:



Now, we apply Flux as camera transform (fx):



And DeltaA:



The checkboard patterns covers all plane, but after we apply flux, we have half of the plane empty. So, back to puzzle, we now need to find an element that fills this empty half of the plane.

There are several other transforms that may create half planes, for example eScale or the hemisphere + curl combination.

Itself

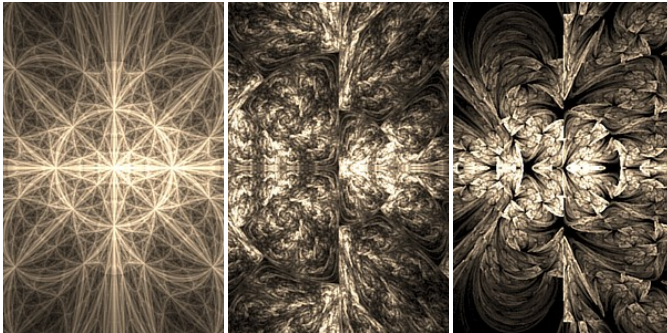
As Flux fills in half of the plane, we can just add a second flux transform and flip it (using the post affine) to fill the other half. Or, instead of Flux, use DeltaA - or any other similar transform. Another option is to use a linear (again, flipping it).

Flux + Flipped Flux:



You may take a look at the parameters here: [Flux Base](#)

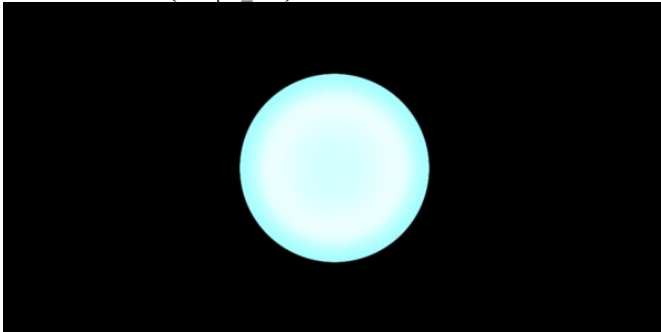
A few examples of this filling with deltaA: deltaA + linear (left), deltaA + flux (middle), deltaA + eScale (right)



Bubble

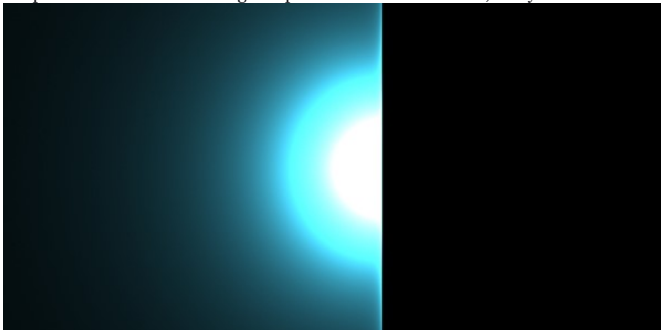
Bubble or any other round transform (sineblur, hemisphere, etc) can be mapped into half plane using the curl transform. There are basically two ways to do it, leading to slightly different visual results.

We start with bubble (with pre blur):

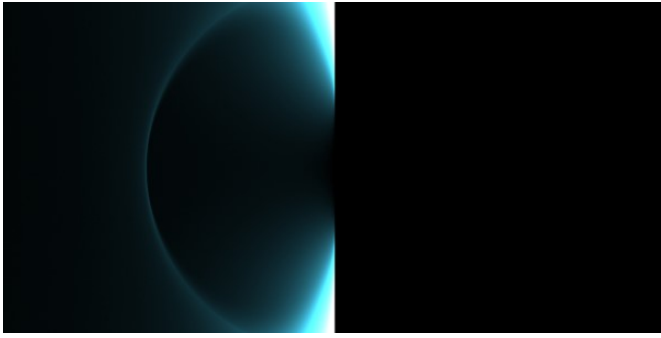


To transform this bubble into half plane, you can add a post curl, with $c1=1$: [Bubble to Half Plane 1](#)

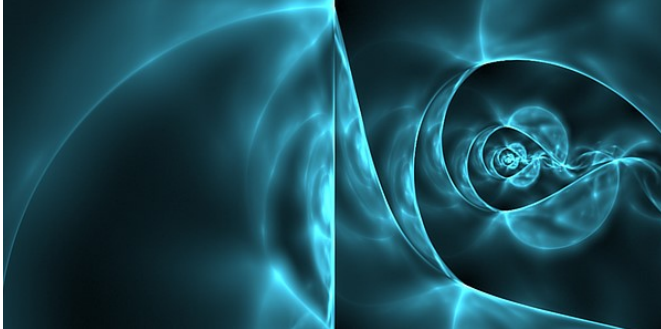
Keep in mind that the resulting half plane will be not centered, and you will need to shift the post affine 0.5 unit to the left to fit with flux without overlaps.



The second method is to add a linked transform with curl, set $c1=0.5$ and then shift 1 unit to the left: [Bubble to Half Plane 2](#)
Pay attention to the weights on this one 🤖

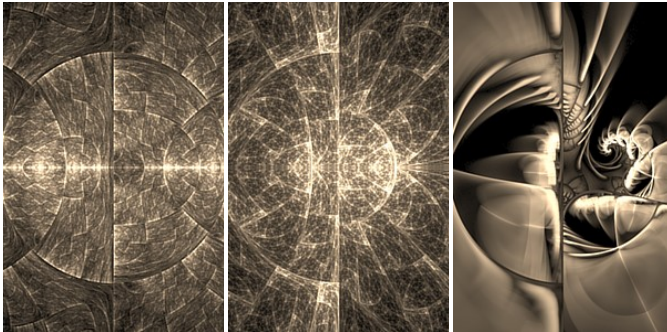


Now, lets fill the empty half plane of flux with bubble (second method): [Flux + Bubble](#)



See that there are no overlaps, and the blurry bubble fills the flux in perfectly.

A few examples of halfplane filled with hemisphere or similar transforms: flux + scry (left), deltaA+scry (middle) and eScale + blurry scry (right).



You may also check a particular case of this, the

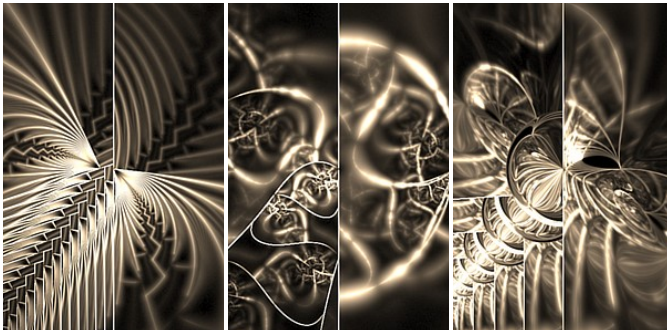
[Double Bubble Tut](#) by [piethein21](#)

Crop

And, of course, you can fill a half plane by cropping something to fill just half of the plane. For cropping, i recommend using smartcrop (static=2 for compatibility with Chaotica, power =1 and radius=0 to crop the bottom half plane, then rotate the post transform to fill in into your design).

Any variation that maps whole plane to whole plane can be usedfor this technique - linear, spherical, waves2, loonue...

Below a few examples (with some pre blur): spherical + linear - both cropped (left), cropped bTransform + flux (middle), cropped loonie + deltaA (right).



Some example parameters (you will need [SmartCrop](#)): [DeltaA + cropped Spherical](#).