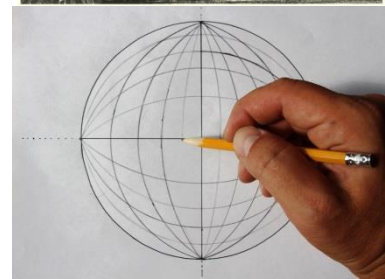
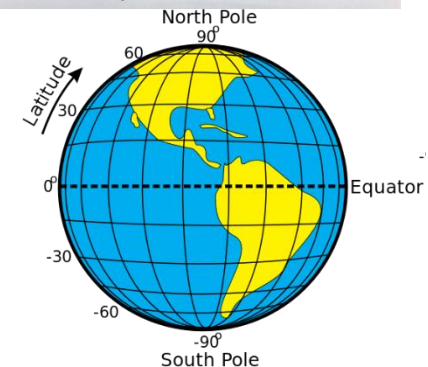
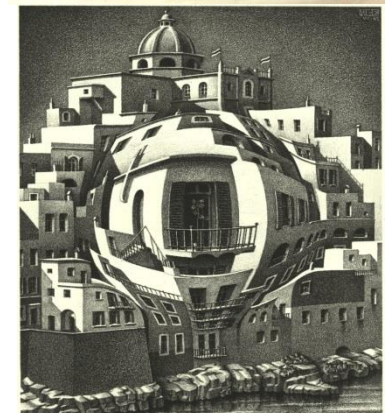
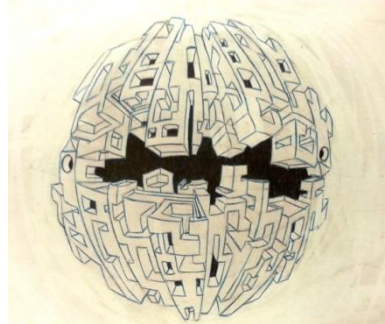
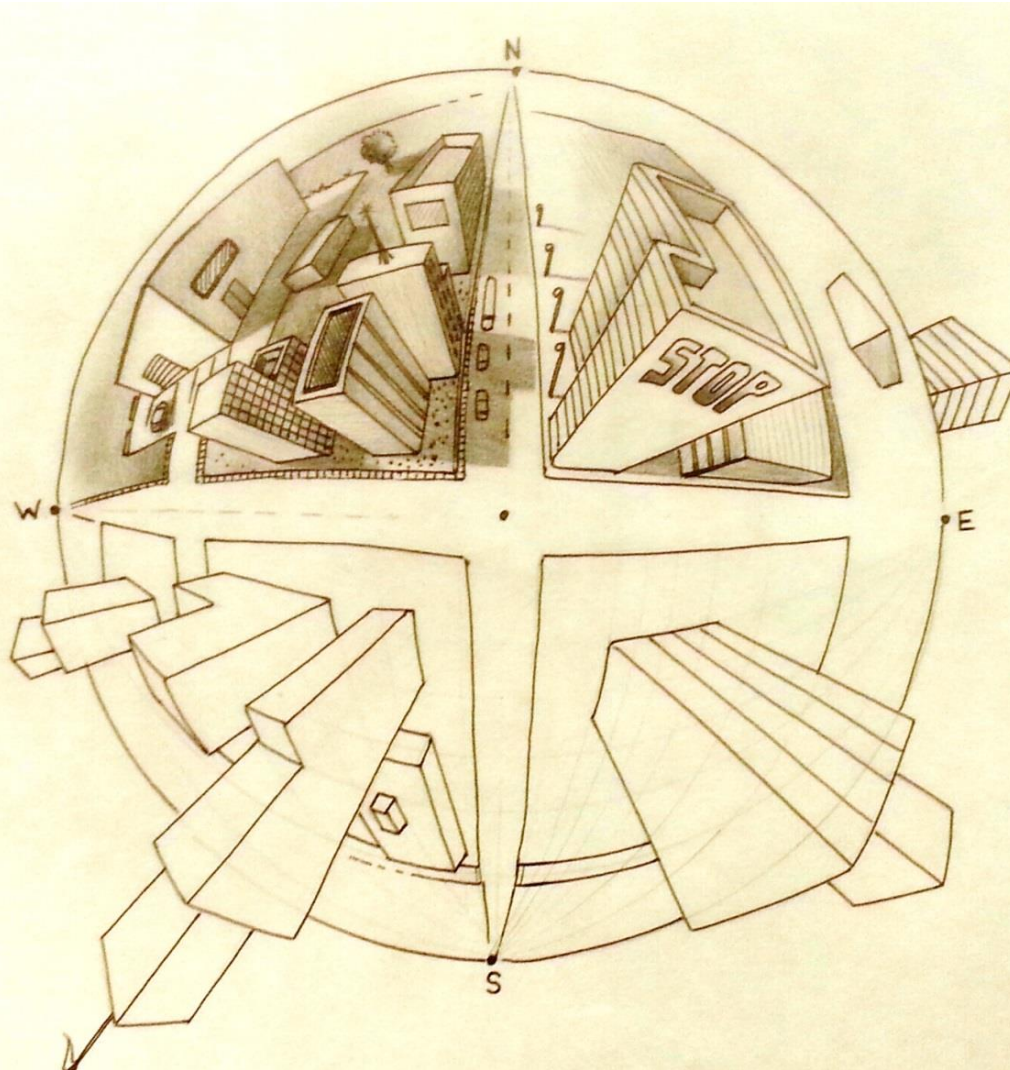
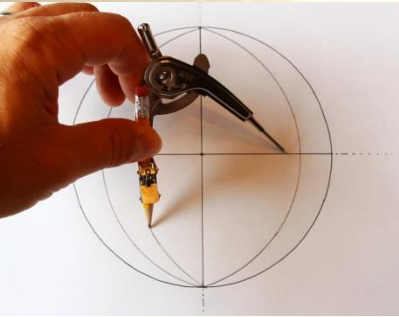
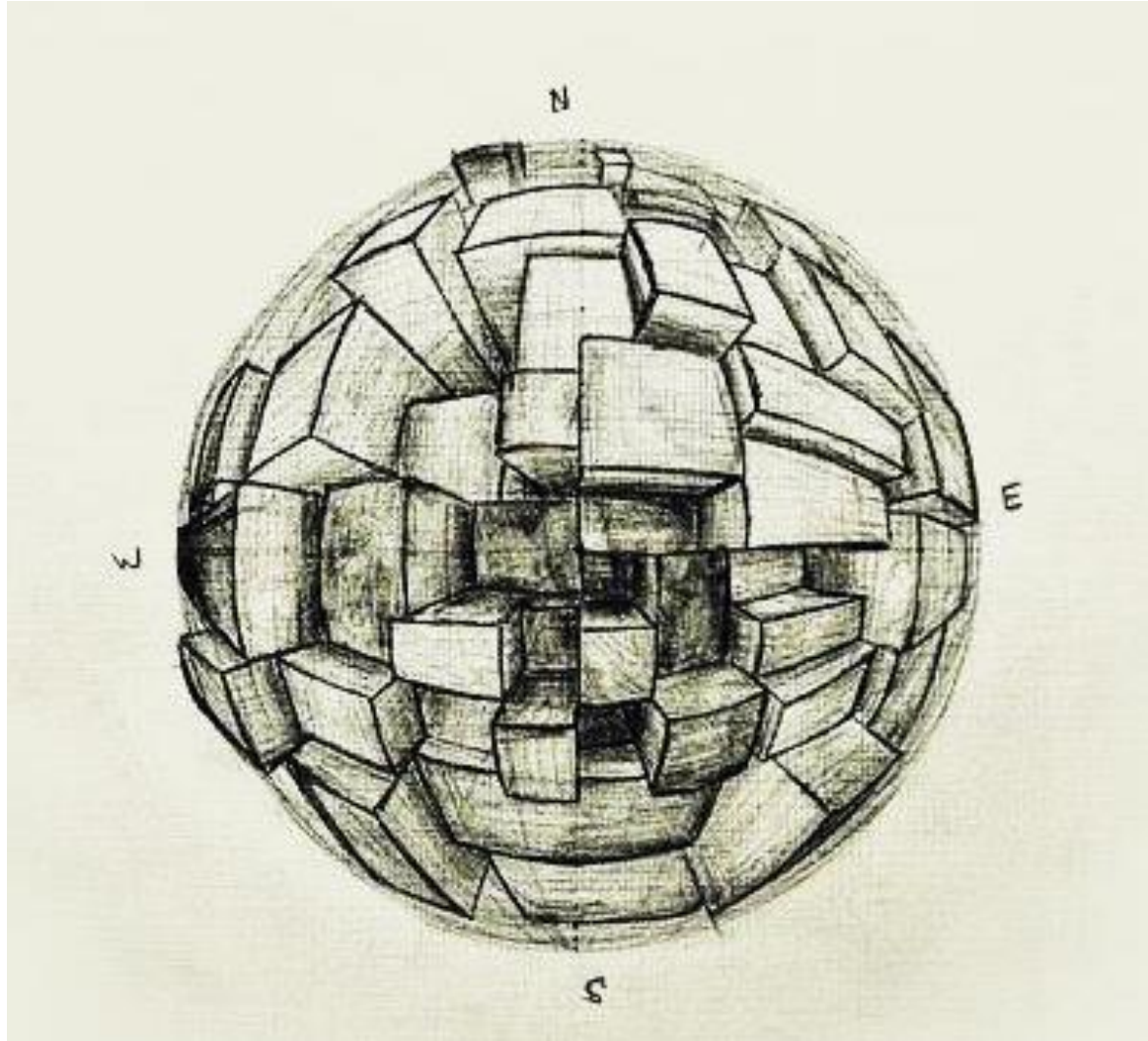


# How to draw in 5-Point Perspective!



**5-Point perspective** (also known as *Fish-eye*, *Curvilinear*, or *Spherical perspective*) is a system of perspective, using five points. Using a circle as a starting point, you capture everything from North to South and from East to West (The 5<sup>th</sup> point is located in the center)



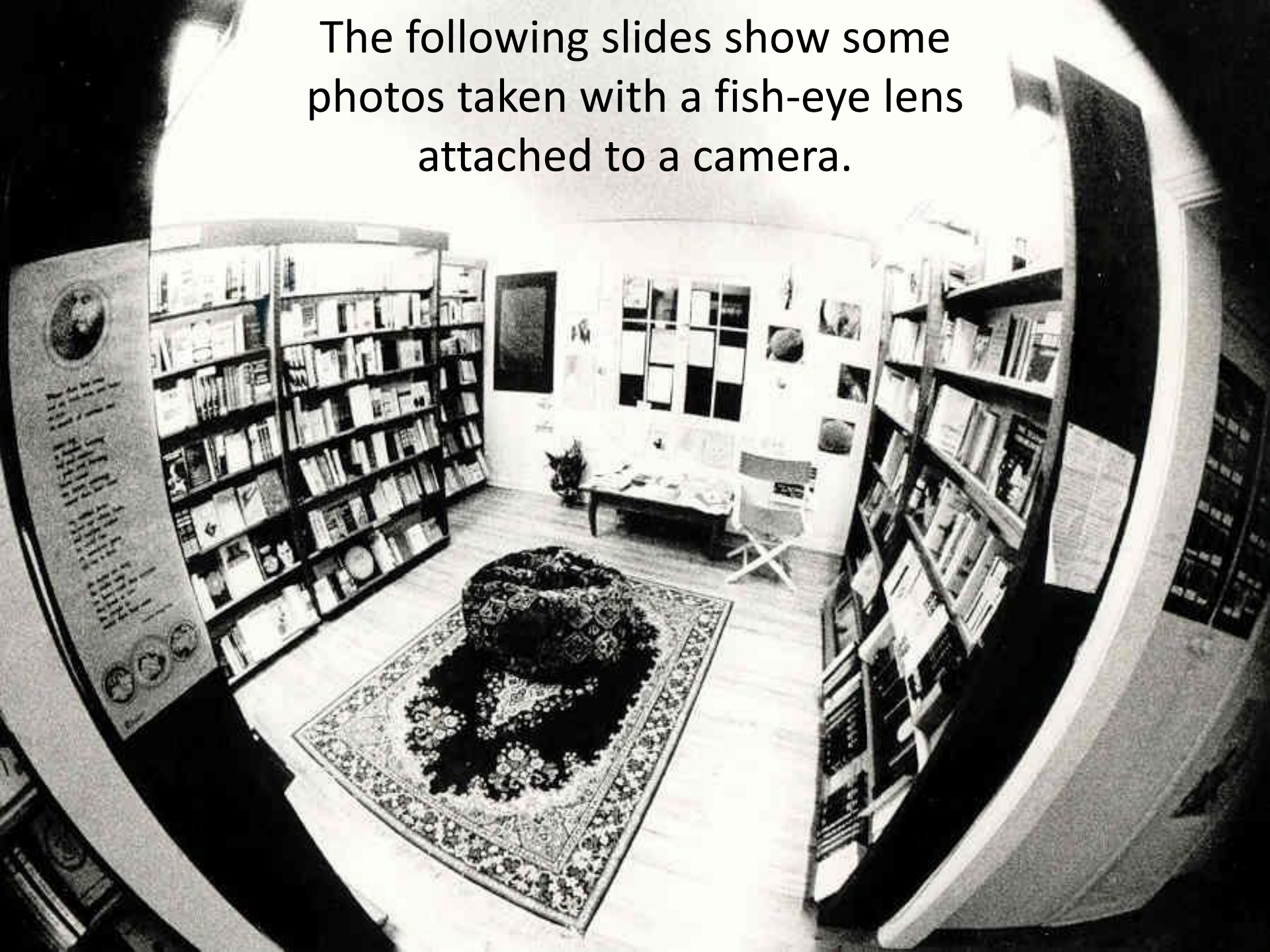




**Most Cameras can be fitted with a “Fish-Eye” Lens. This allows the camera to bend the perspective of the shot into a rounded image.**



The following slides show some photos taken with a fish-eye lens attached to a camera.















LIBERTY

1870 1870

1870 1870

ONE WAY

PAYO Checks Cash  
Financial Services

COOP

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

U.S. Bank

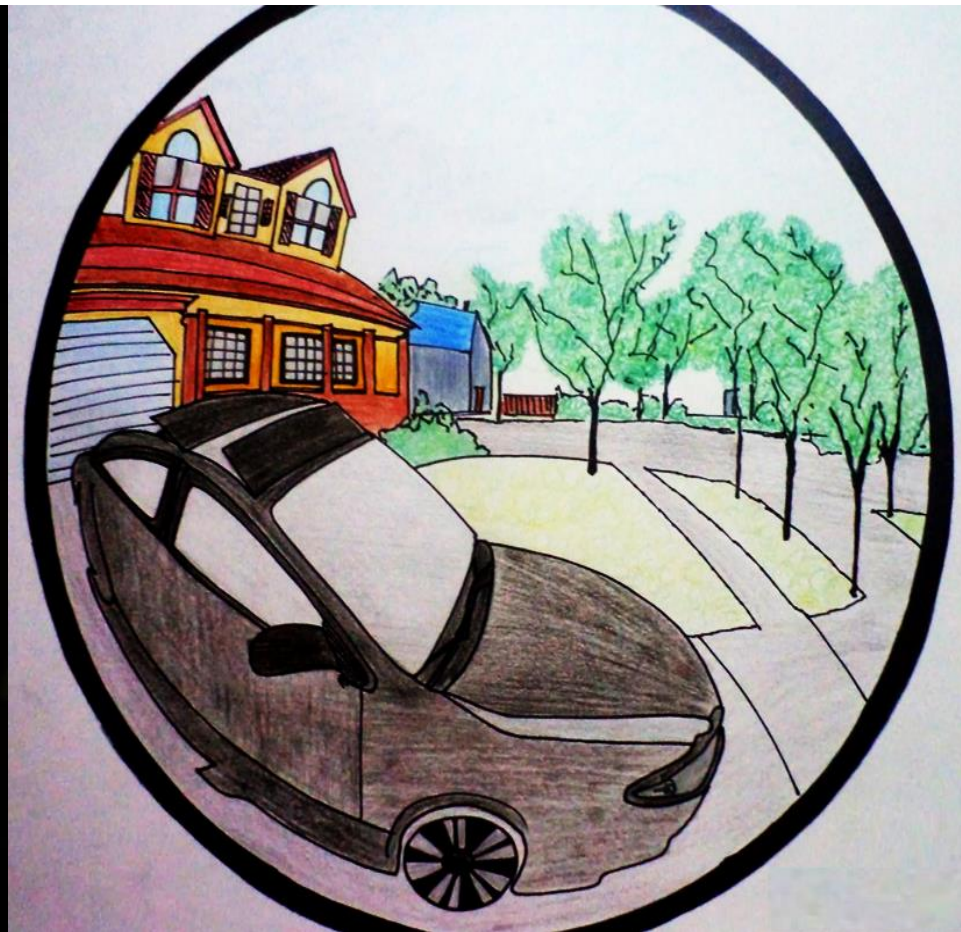
U.S. Bank

U.S. Bank

U.S. Bank



Taking a photo with a fish-eye lens or phone application is one way to capture this spherical look, and you could use your photo as a reference for your drawing.



\*But, this can very challenging if you don't understand the underlying structure of a 5-point perspective drawing.



# So...how can you draw your own ideas in 5 point perspective?

You'll  
need a  
compass.



These  
come in  
many  
shapes  
and sizes.

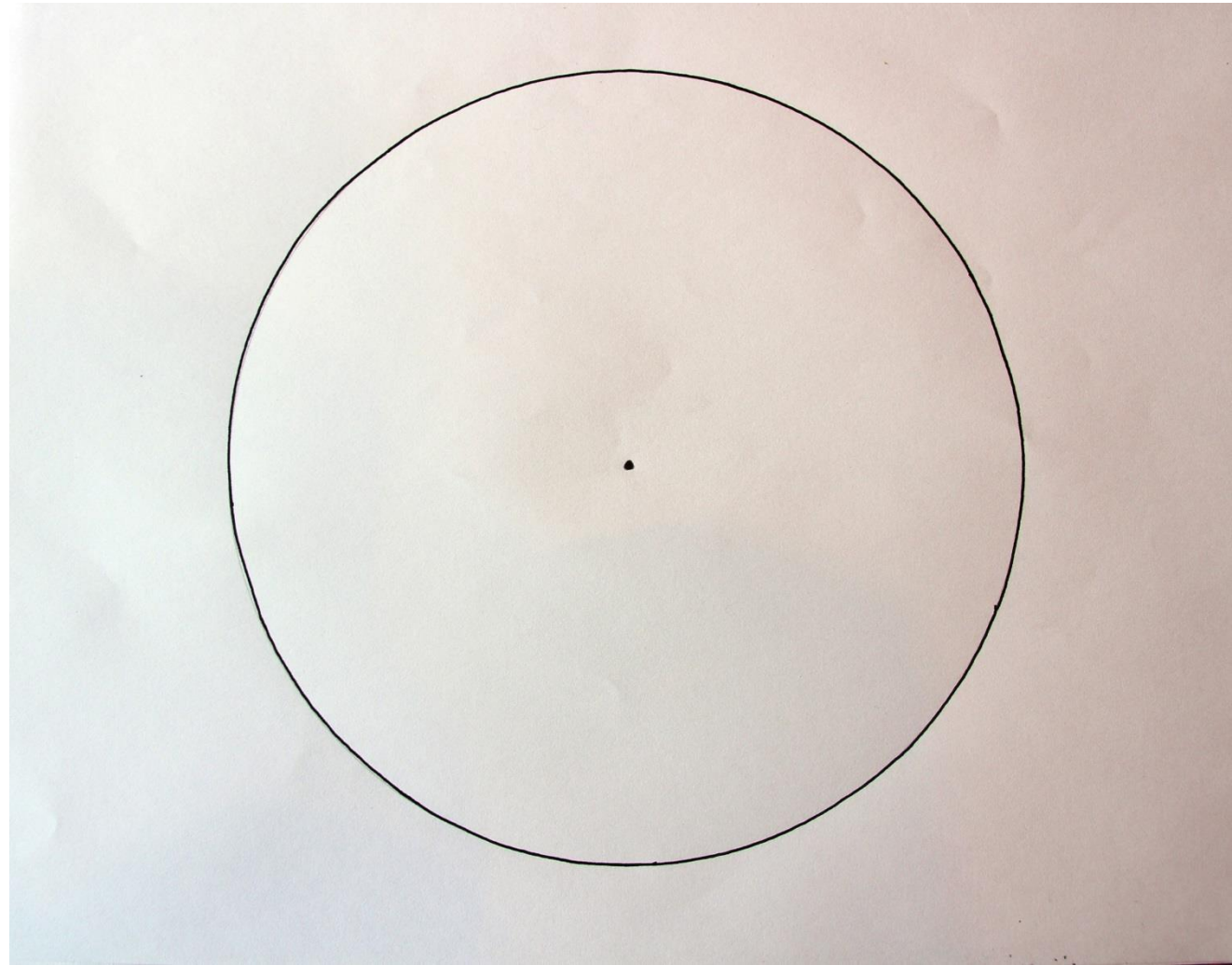


Let's draw one by hand so that you can see the underlying structure, and be able to create your own curvilinear worlds.

Step 1:

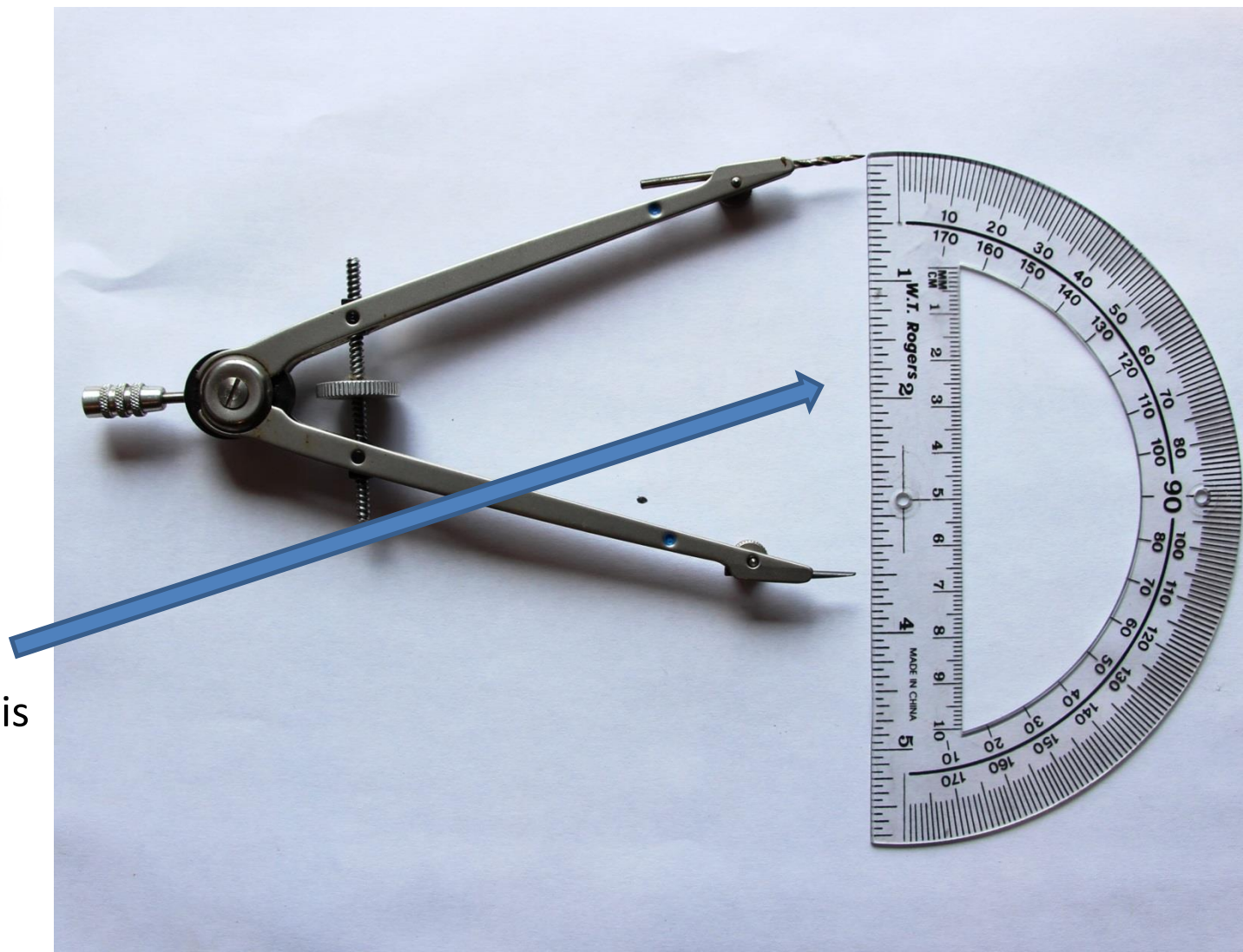
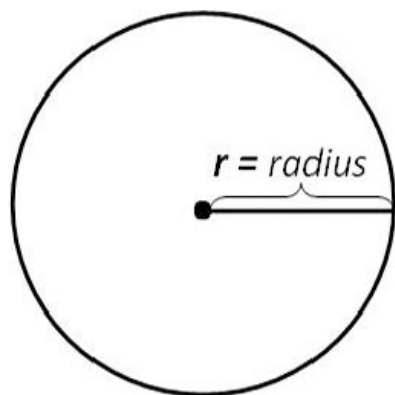
Use a compass to draw a circle.

Make sure to make a small dot in the center of the circle.





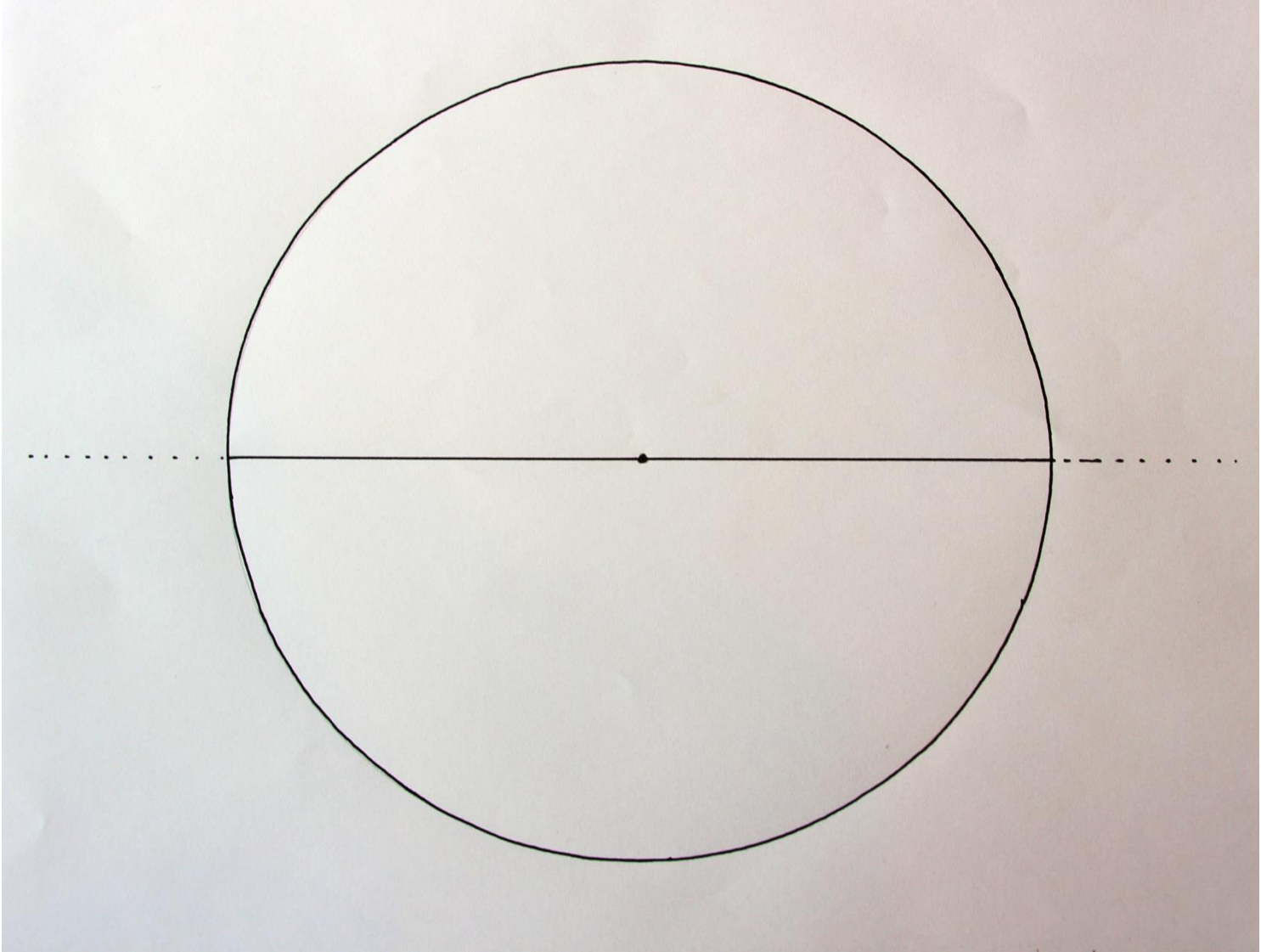
To find the radius of your circle, you can use a ruler (or protractor seen below) to measure the distance between the fixed point end and the graphite end of your compass.



The circle in the following examples will end up being 7 inches across (because the radius is  $3\frac{1}{2}$  inches)



After drawing your circle, draw a straight horizontal line through the center point of the circle.

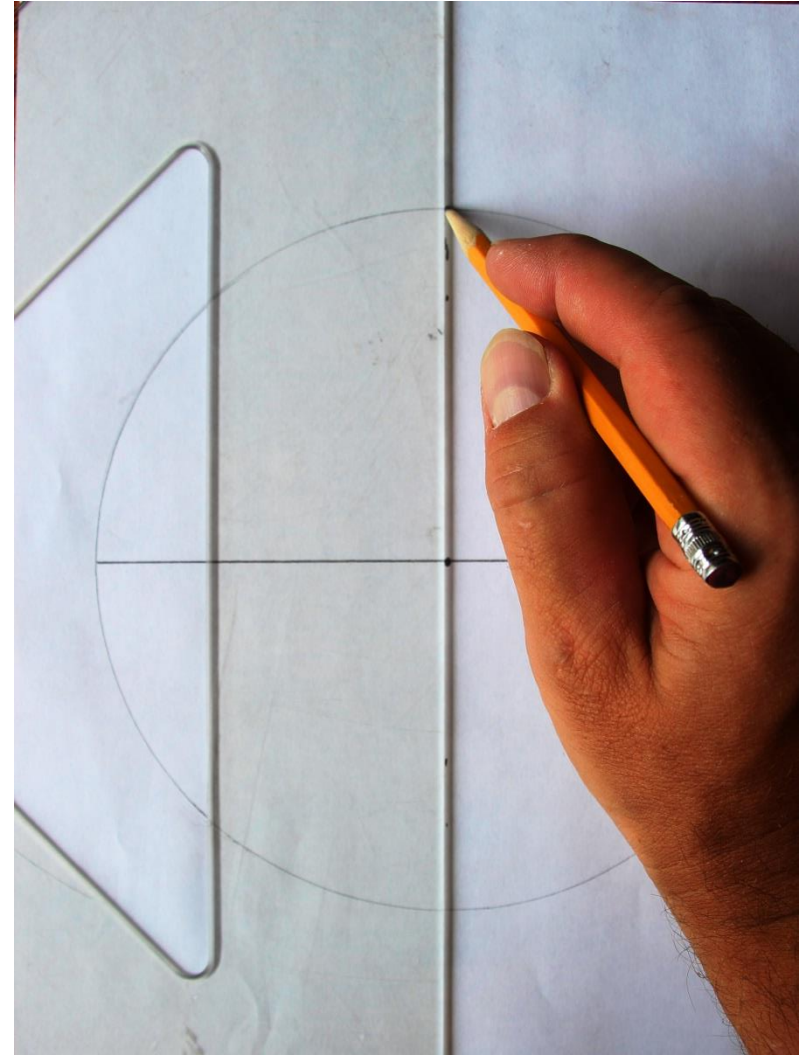
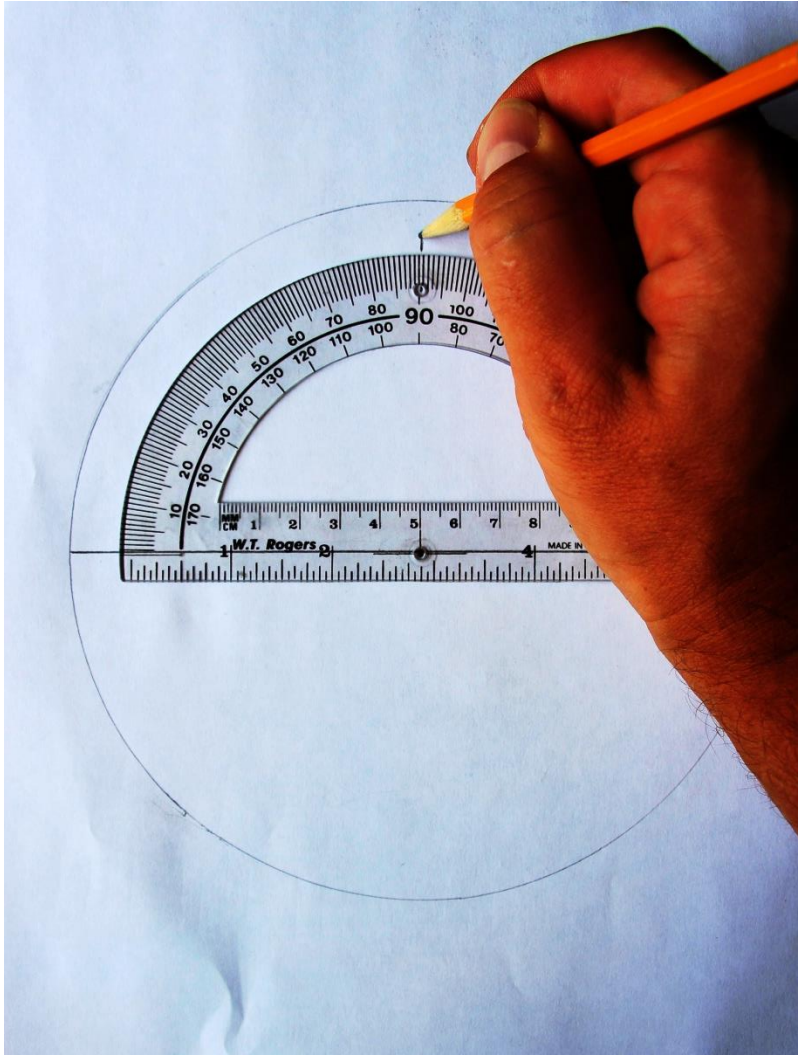
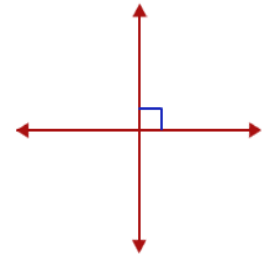




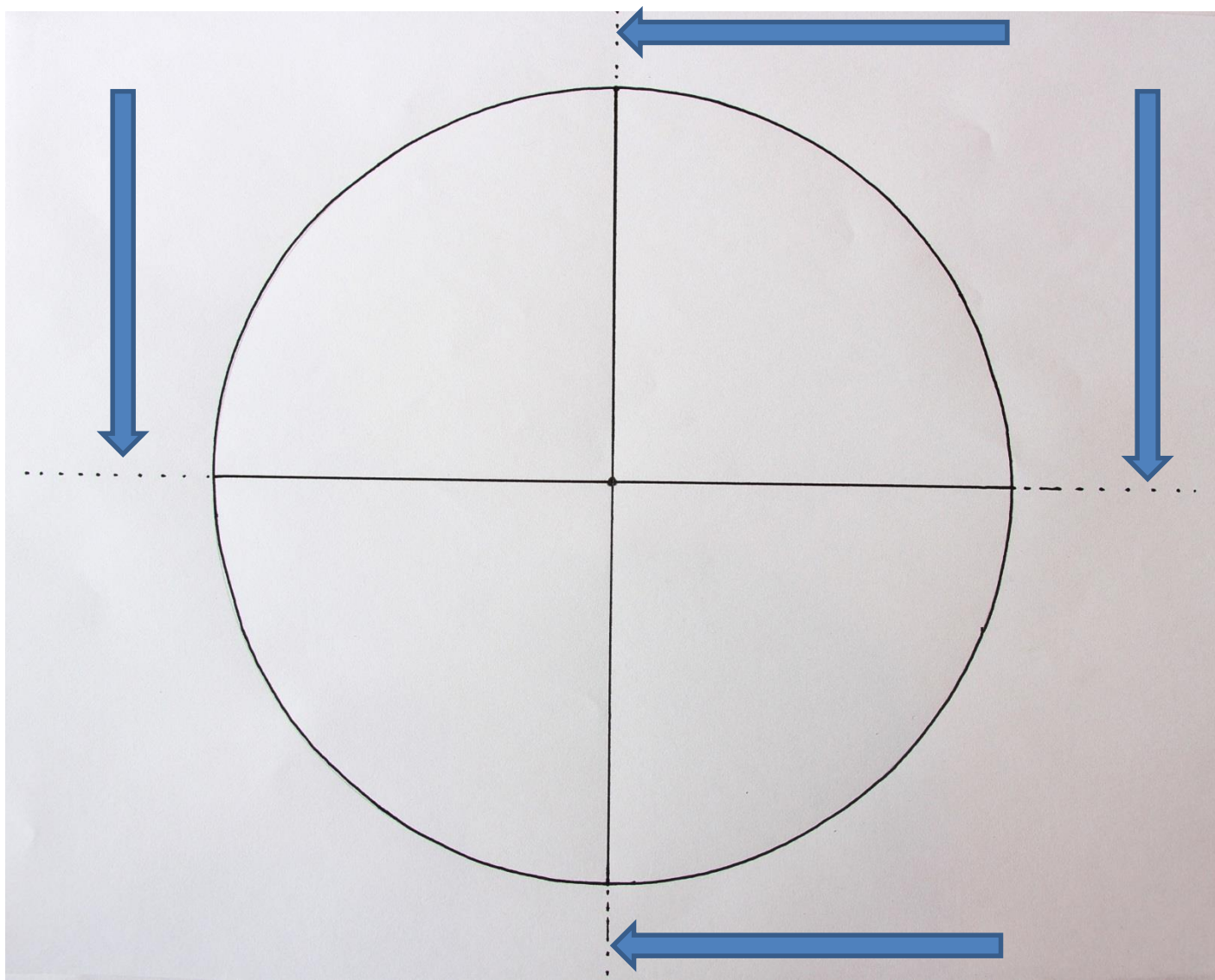
Next, you need to make a vertical line through the center point. This line *MUST be perfectly perpendicular* to the horizontal line you just made.

Use a protractor, or a plastic triangle with a right angled corner to ensure that the line is indeed perpendicular.

Perpendicular:



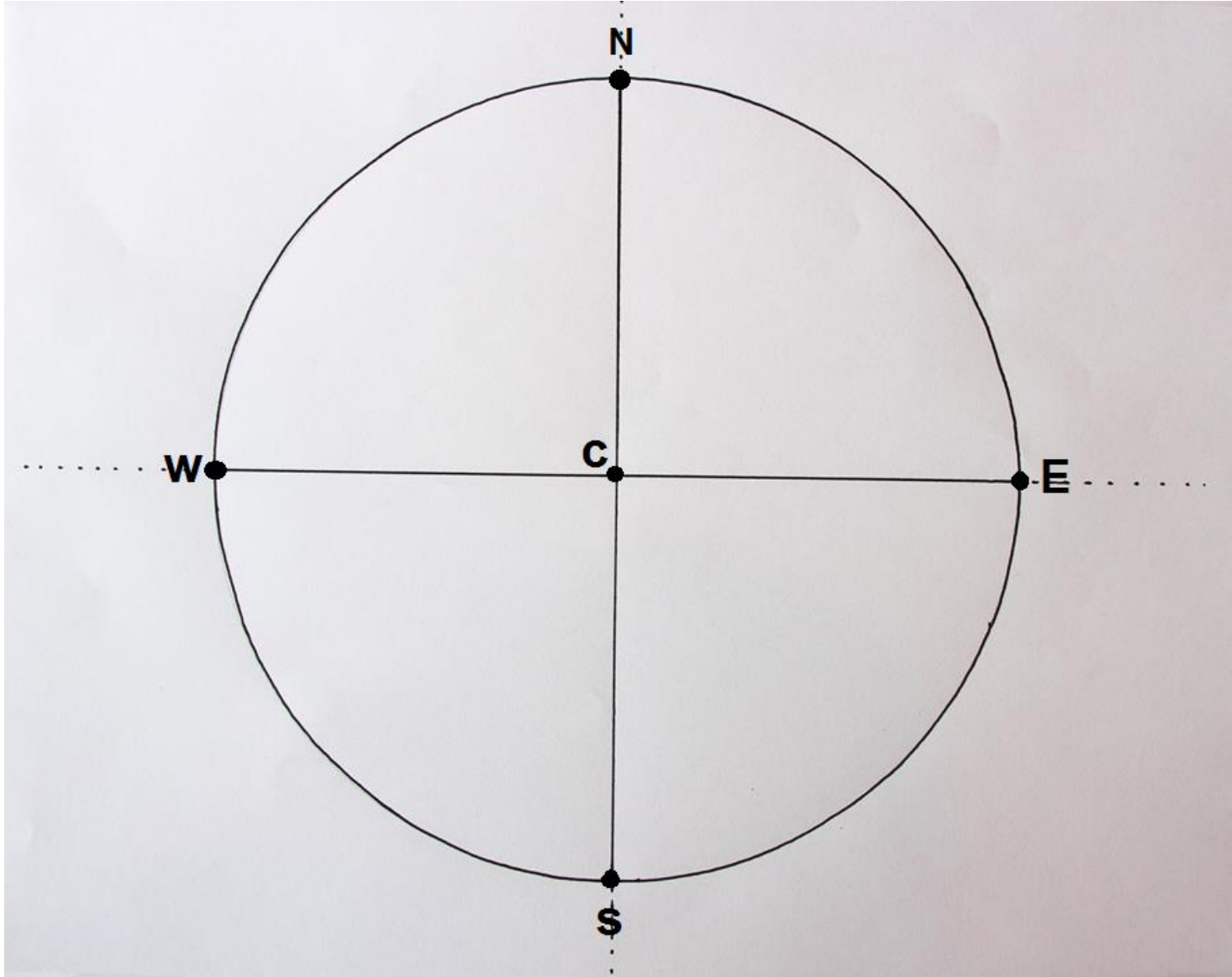
Drawing lightly, extend these lines beyond the boarder of the circle (You'll soon see why this is needed in some of the upcoming steps).





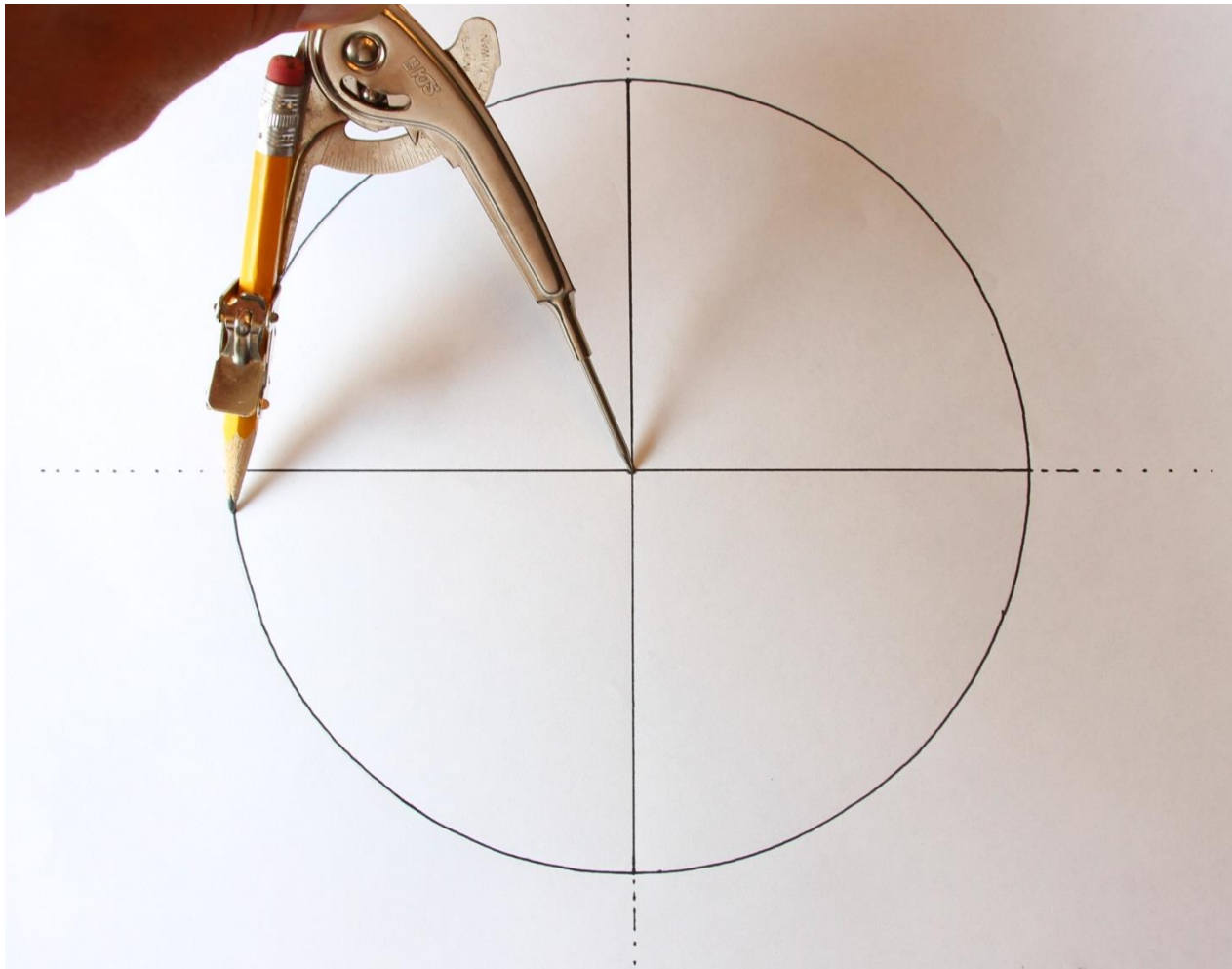
These will be your five points (hence the term: five-point perspective).

*\*You don't need to label them, but think of them as North, South, East, West, and Center.*



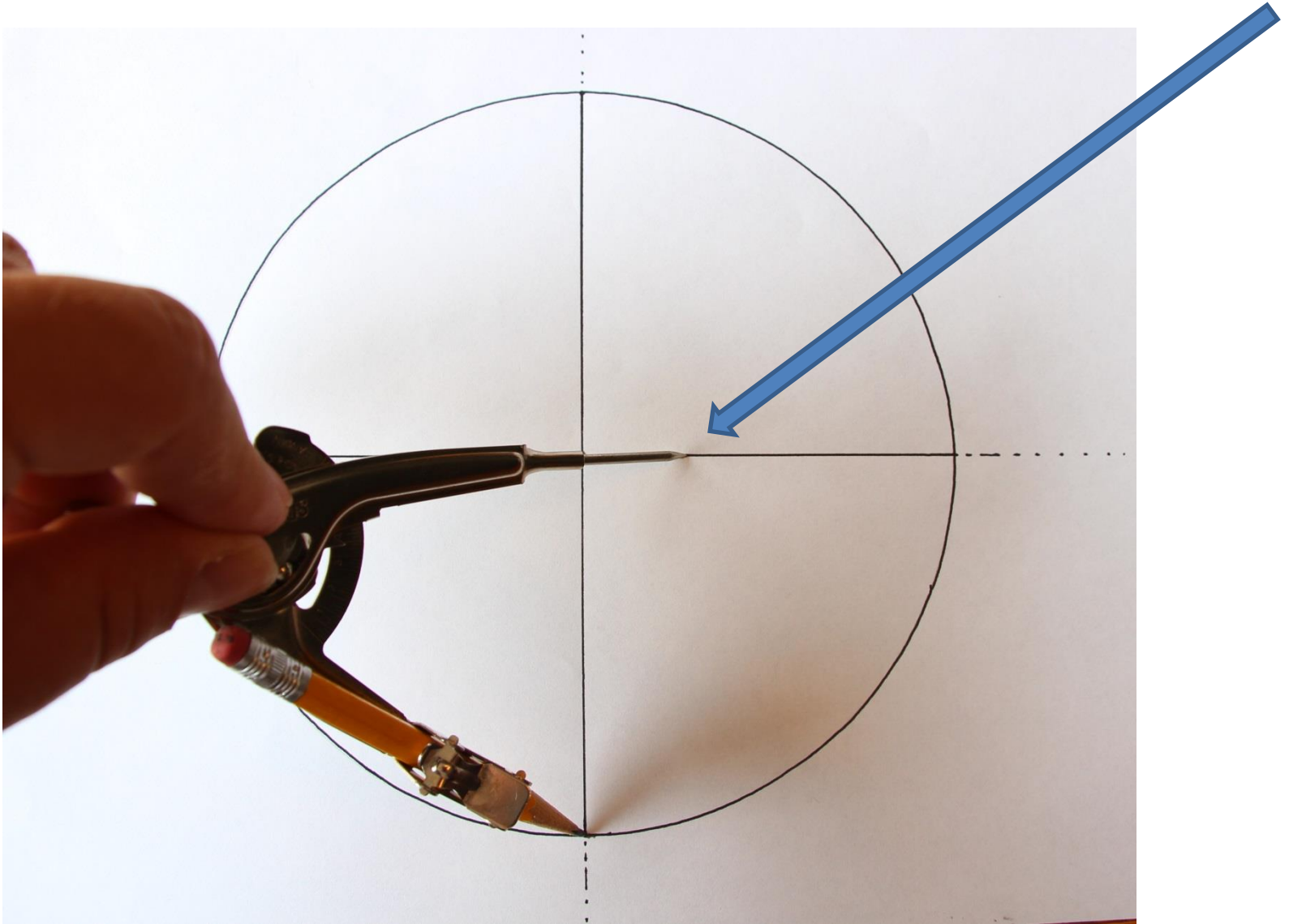
Now it's time to add additional curved lines to the inside of the circle to create a curved grid of "latitude" and "longitude" lines.

*\*Notice that when the compass point is centered, we create the outermost part of the circle...*



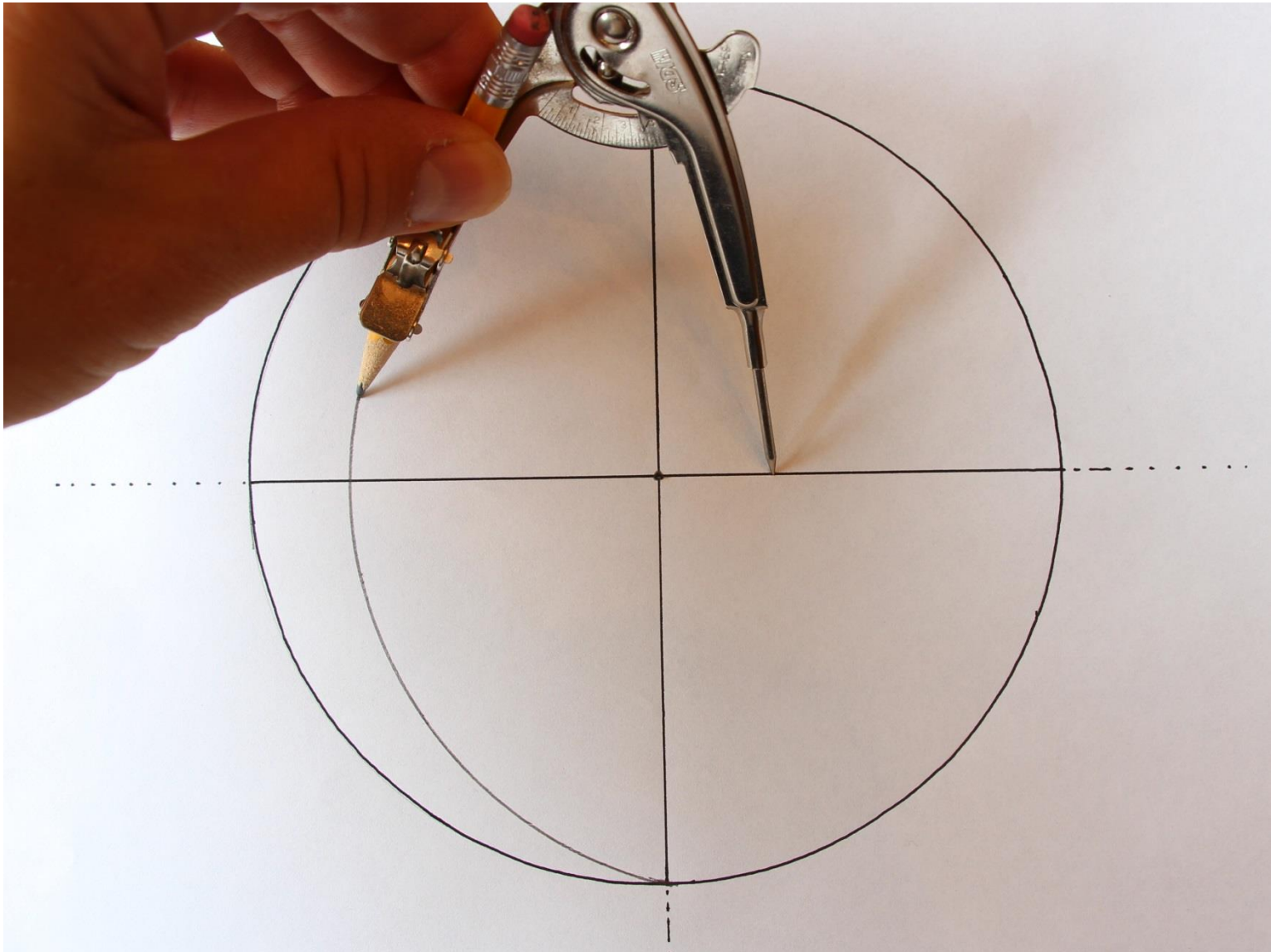


Now, pick a random spot (about an inch from the center) to place the compass point.



Open the compass slightly so that the pencil point lines up at the “South” point.

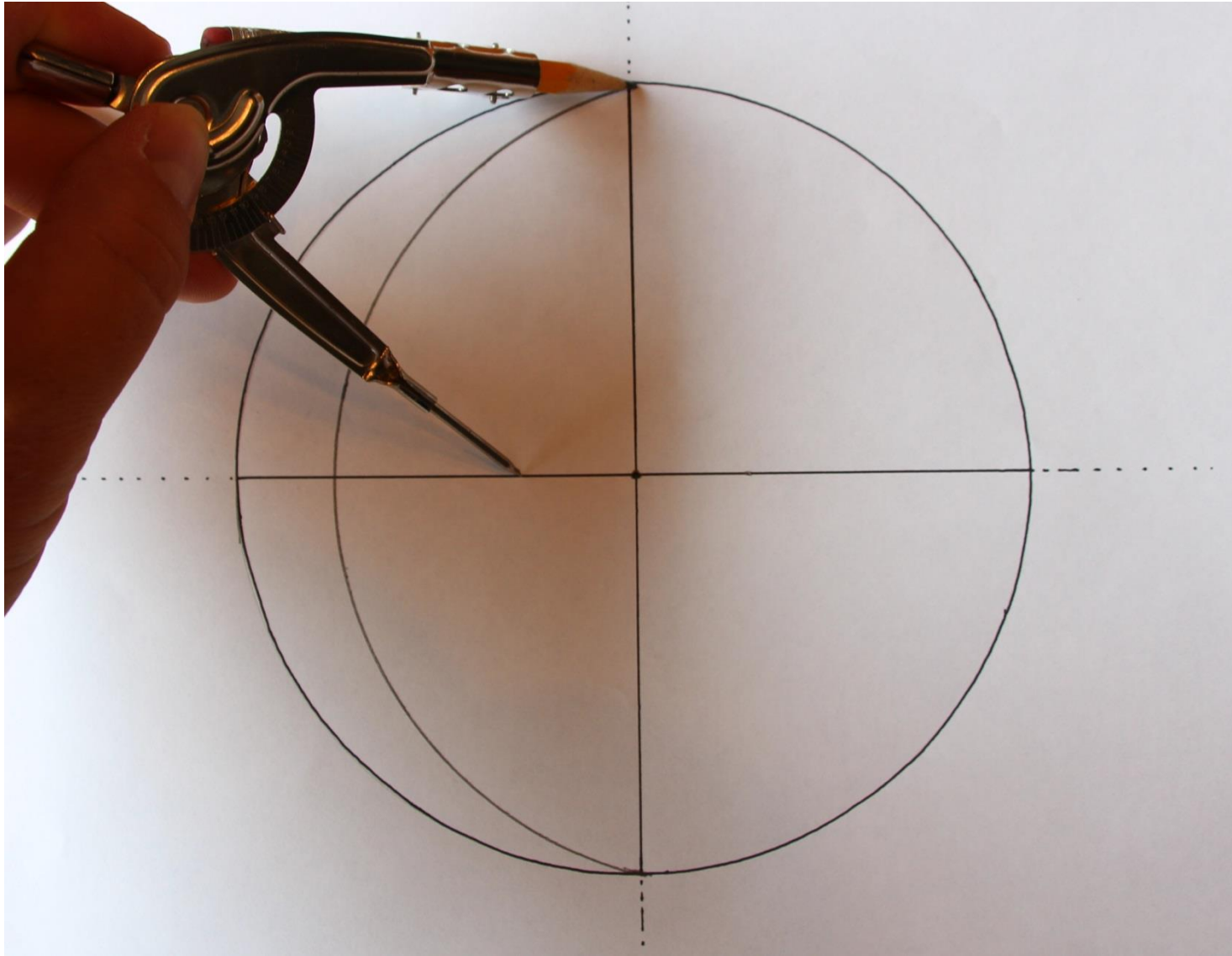
Keep the compass point in place and draw your first “arc”.



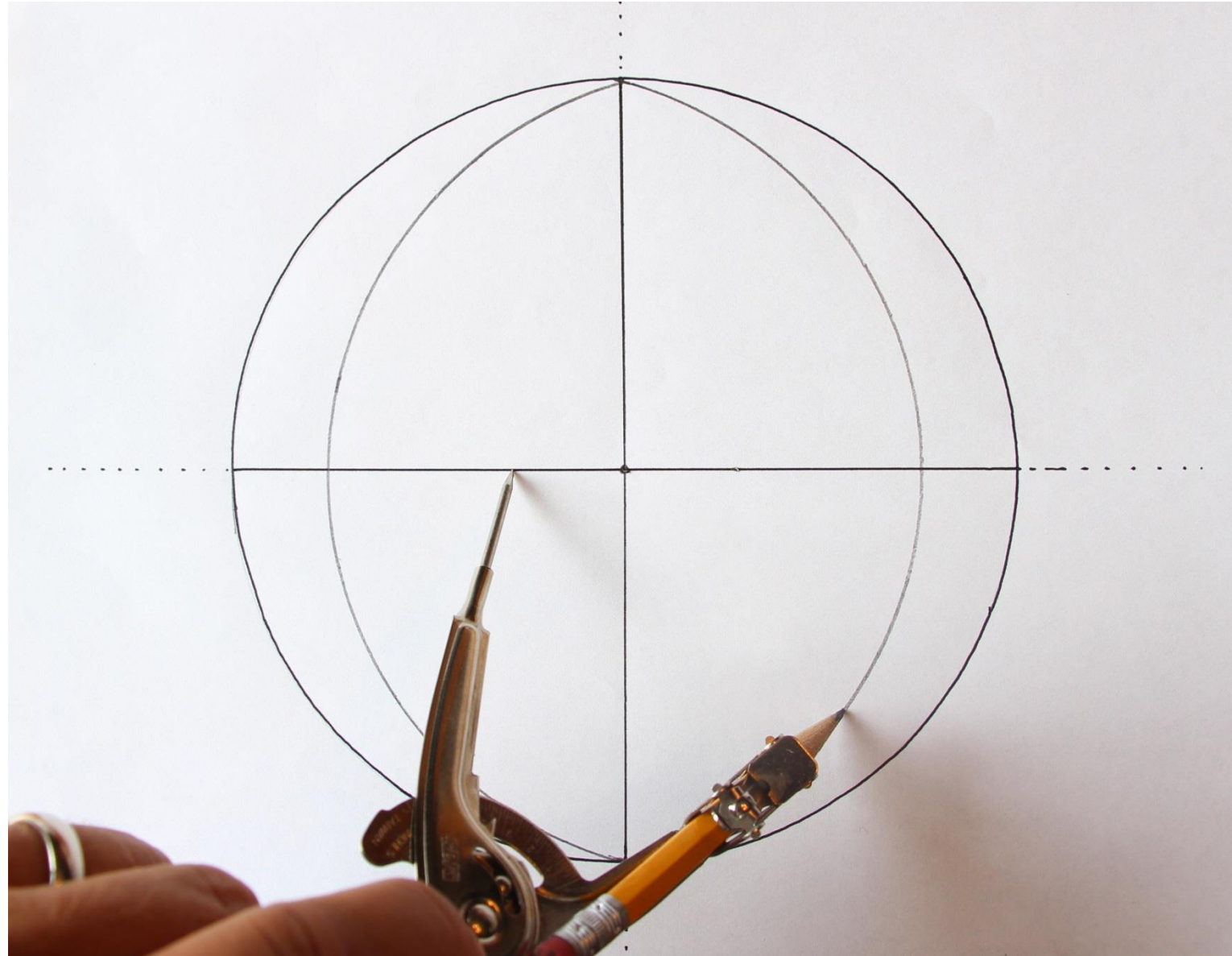


**Let's draw an arc on the other side.**

Without opening or closing the compass, place the pencil point on the North point, and move the compass' fixed point until it touches the horizontal line.



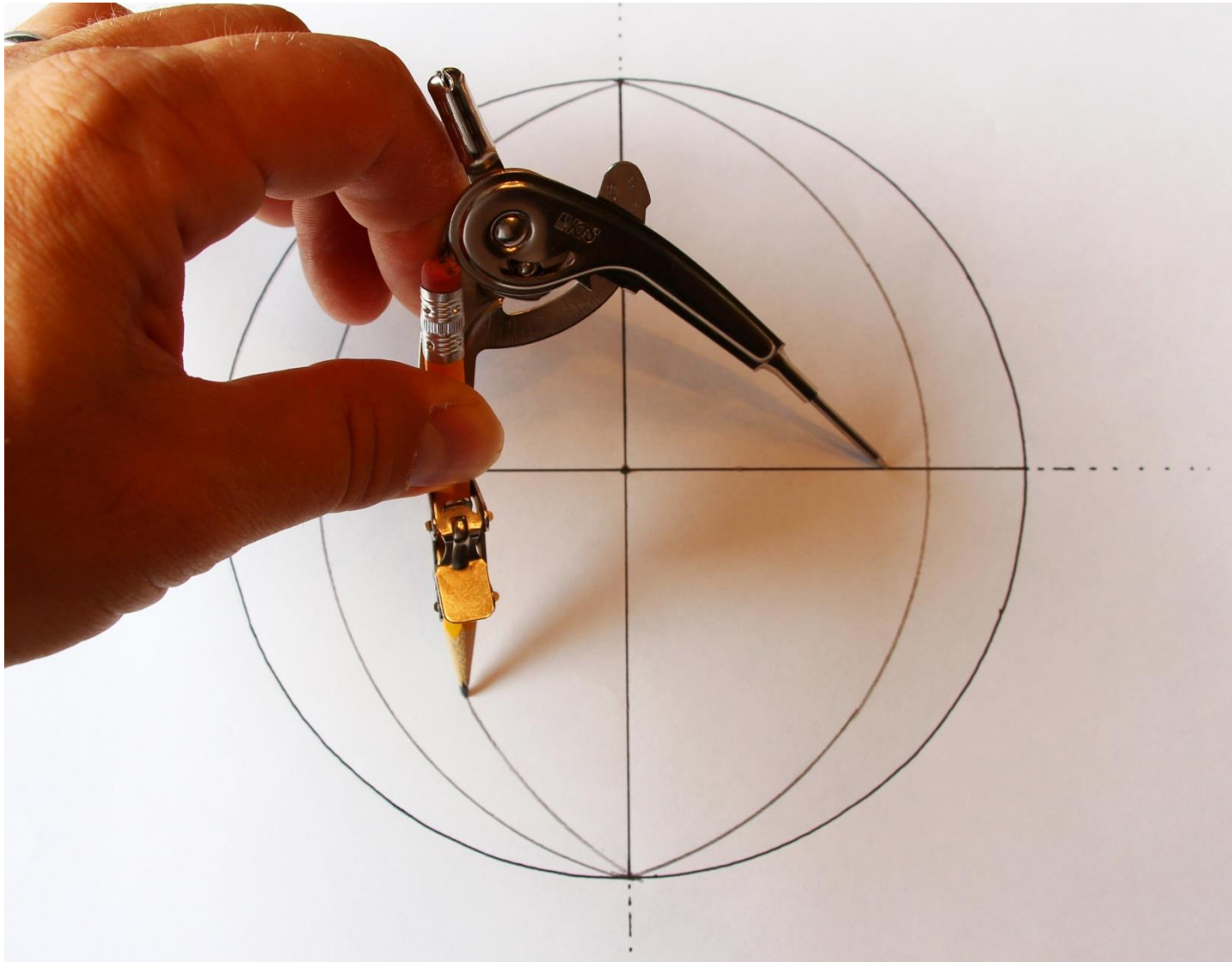
By keeping the compass at the same width, you can now draw an identical arc on the other side .



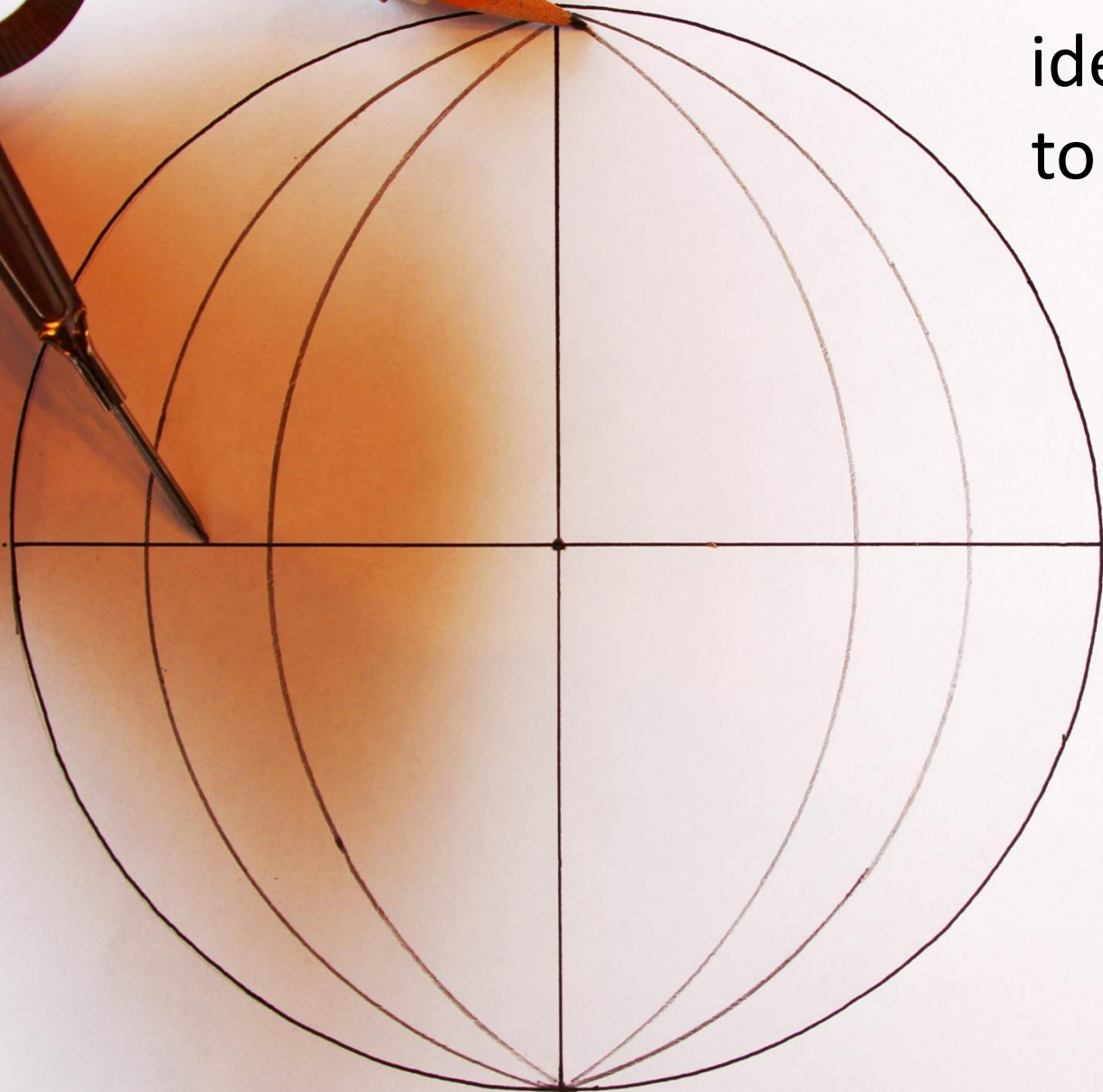


To draw another arc, move the fixed point of the compass out further along the horizontal line.

Open the compass width so that the pencil point touches the South point, and draw the next arc.

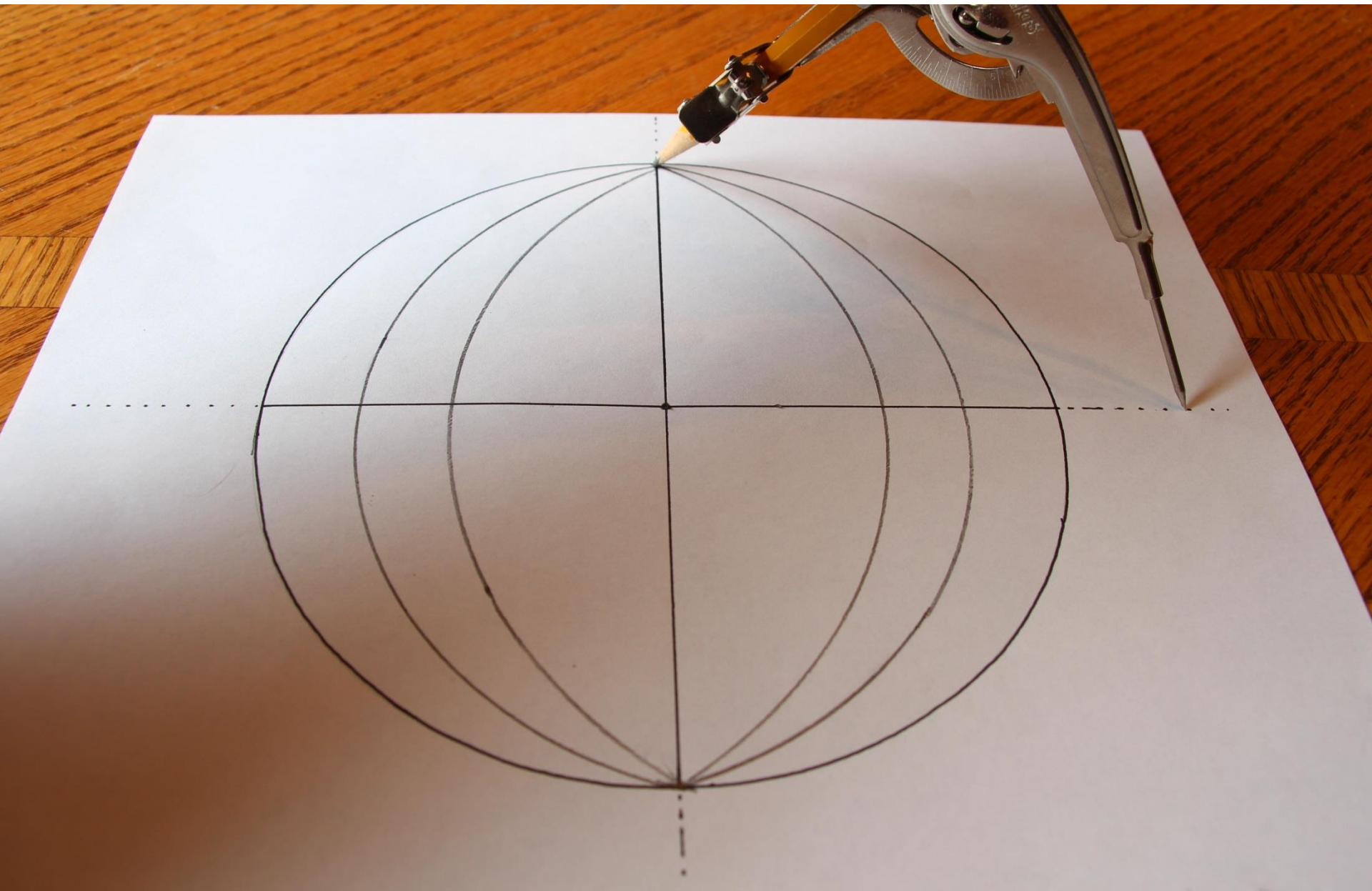


Add an  
identical arc  
to the other  
side.

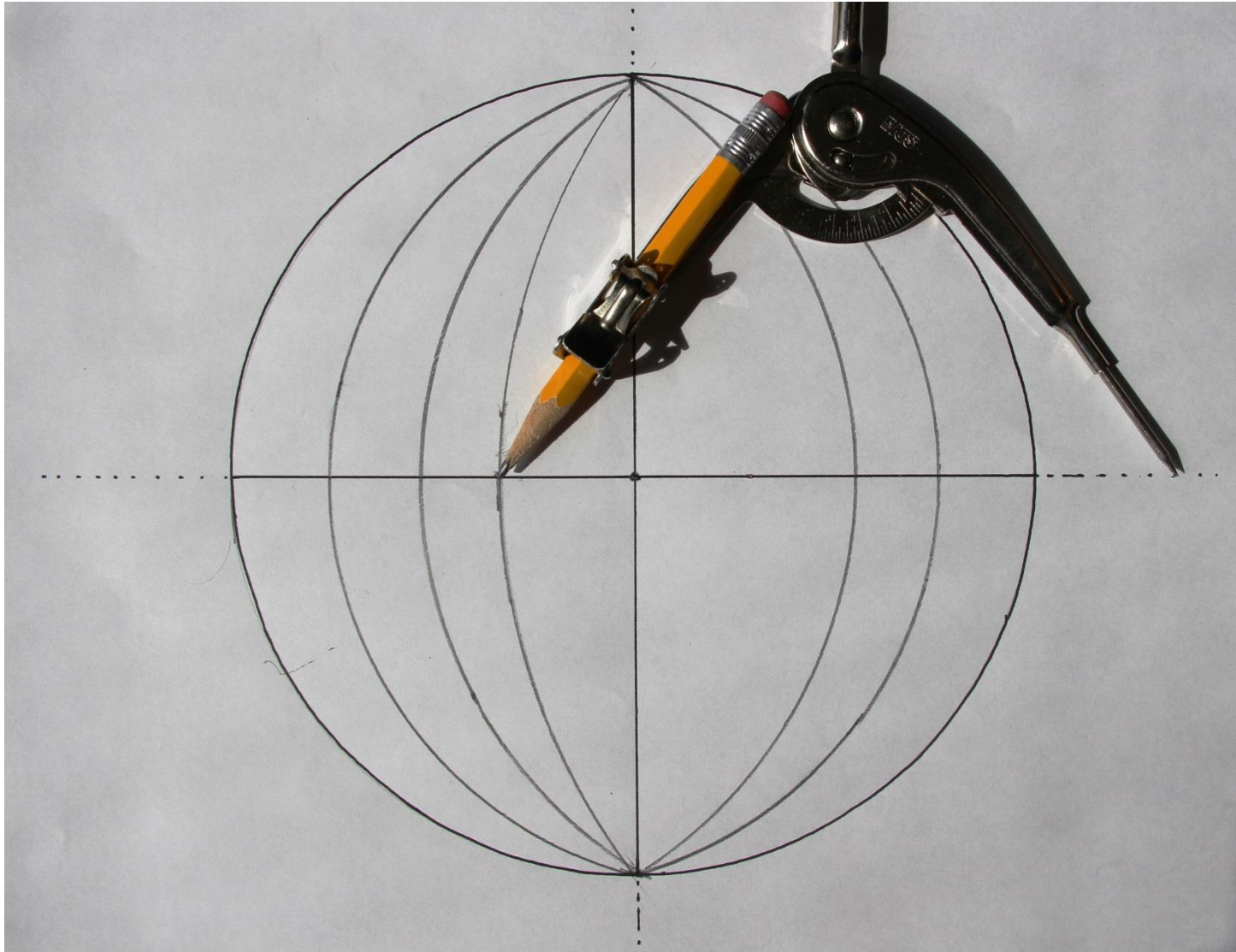




To create additional arcs you'll eventually need to place the fixed point of the compass outside of the initial circle, while insuring that it is placed along the horizontal line.

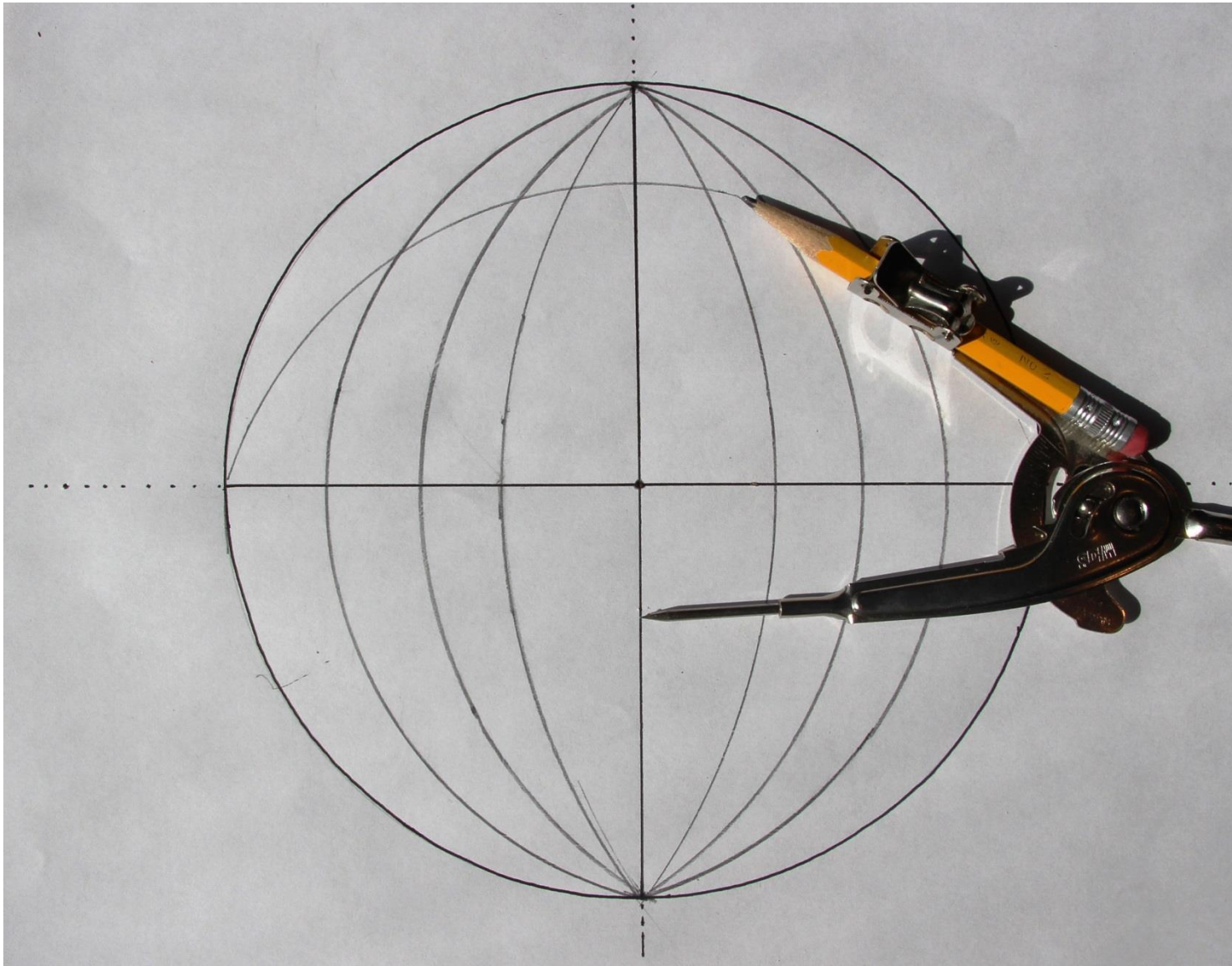


Notice that the width of the compass must continually expand so that the pencil point touches the North and South points.

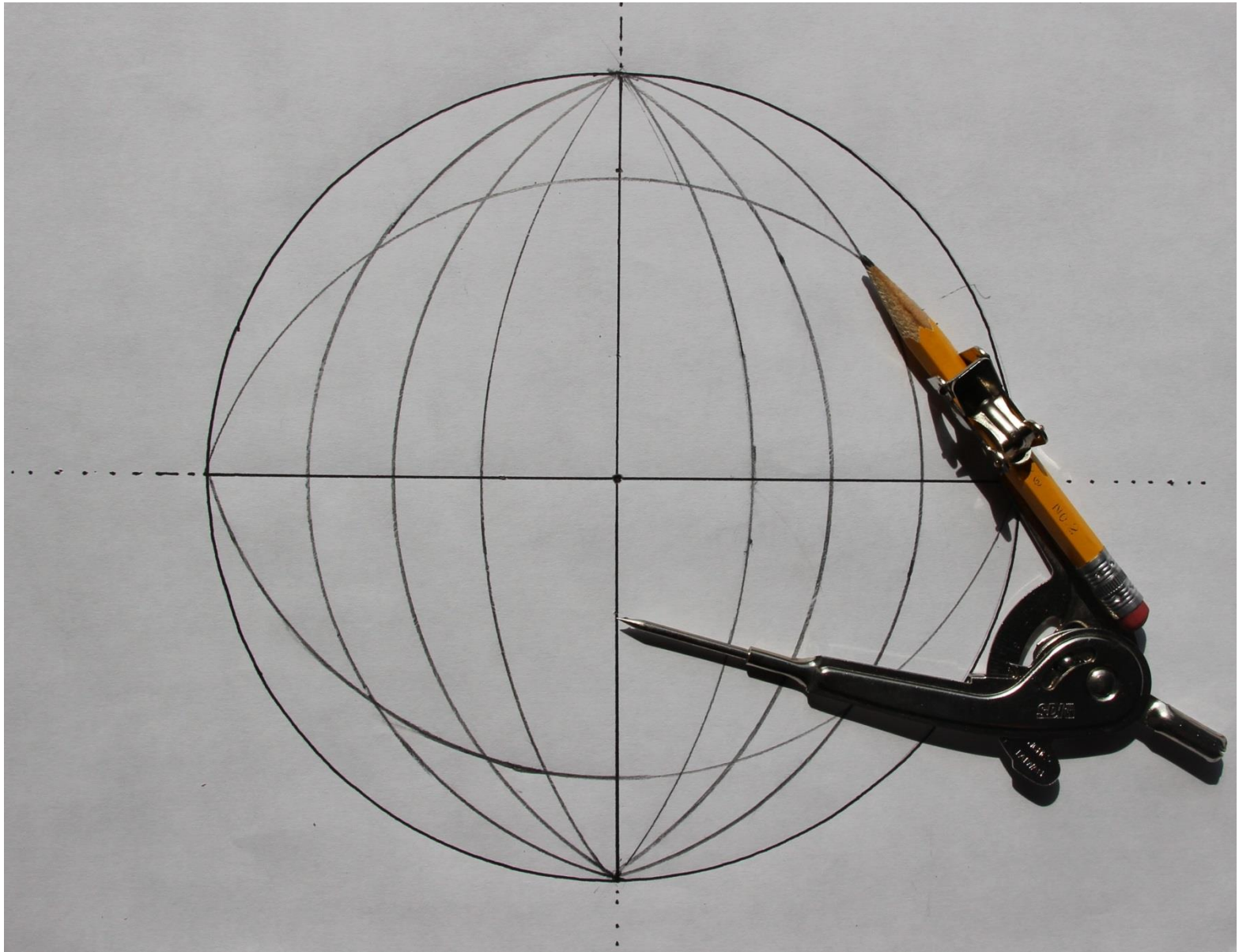




To create the latitude lines, repeat the previous steps, but instead move the fixed point of the compass along the vertical line instead (or turn your paper  $90^\circ$  and repeat the previous steps).



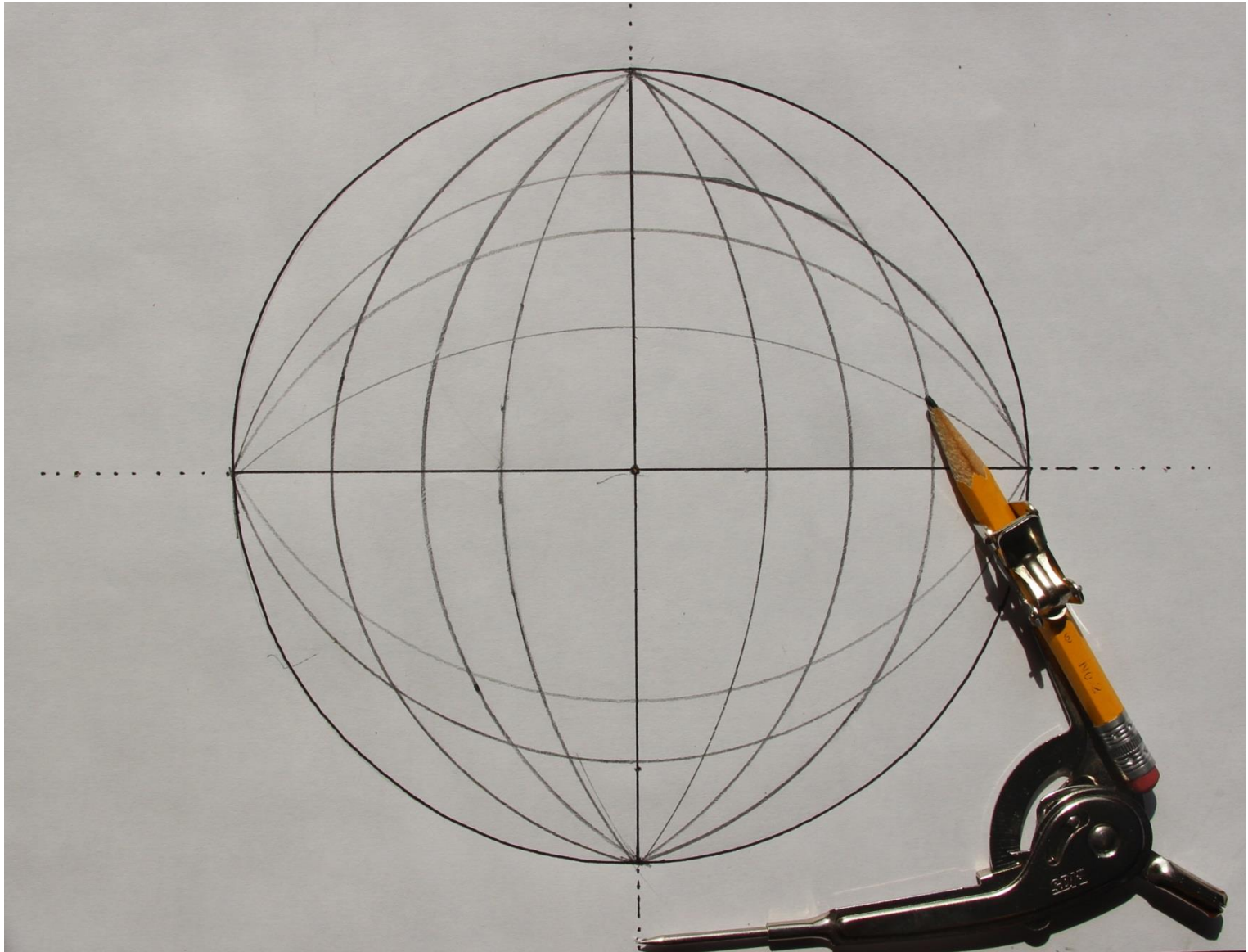
Don't forget to draw the corresponding arcs as well.





**Side Note:**

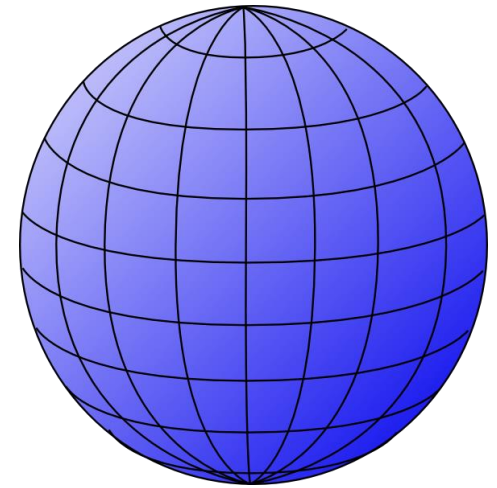
**You** get to decide where to place the arcs. Notice that these arcs have more or less space between them. With additional effort, you can space them more evenly, but it is not necessary, as we are simply trying to create a basic underlying structure.



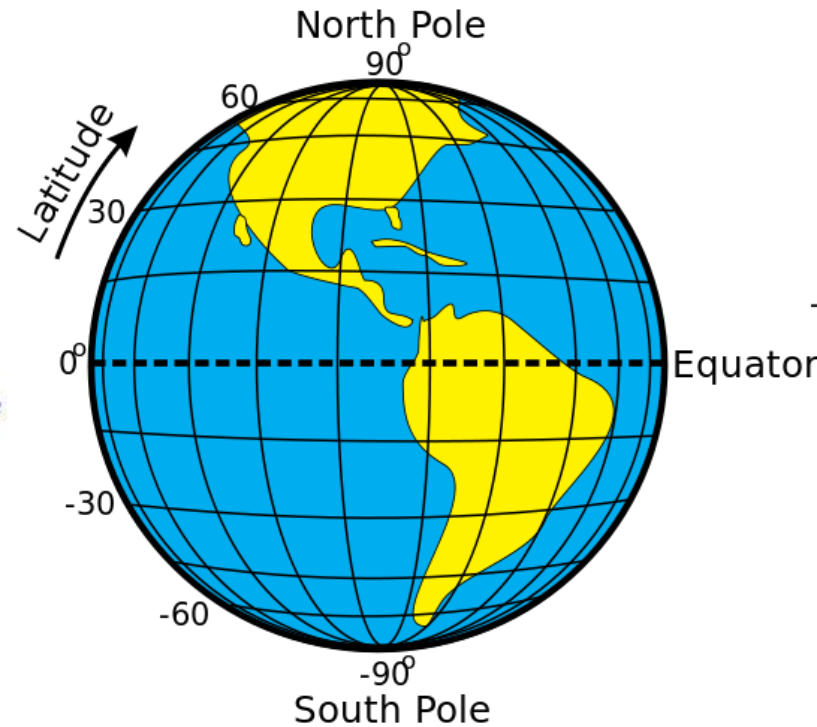
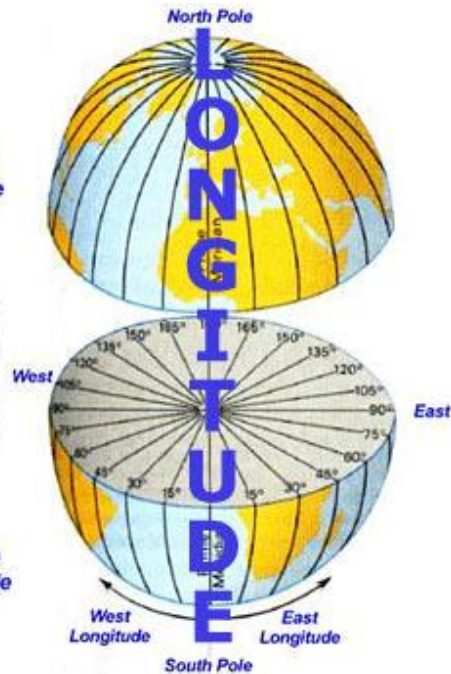
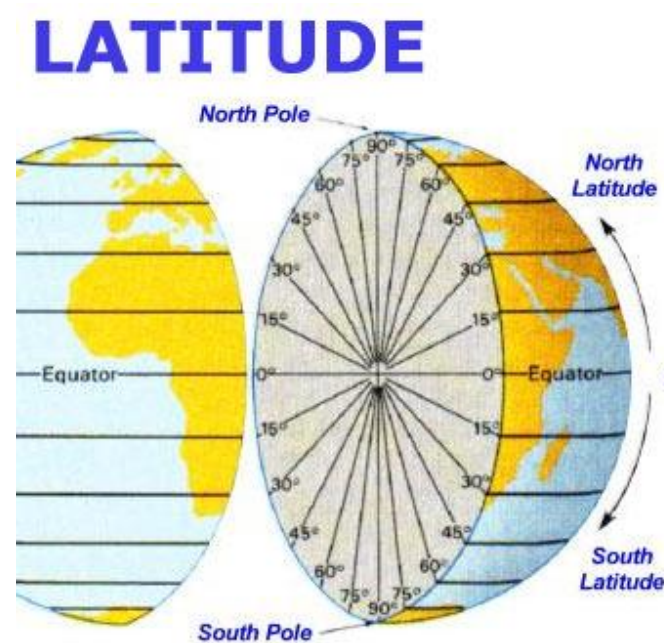
**FYI:**

**A map maker is formally called a *cartographer*.**

A cartographer is trained in cartography, which incorporates elements of both science and art.

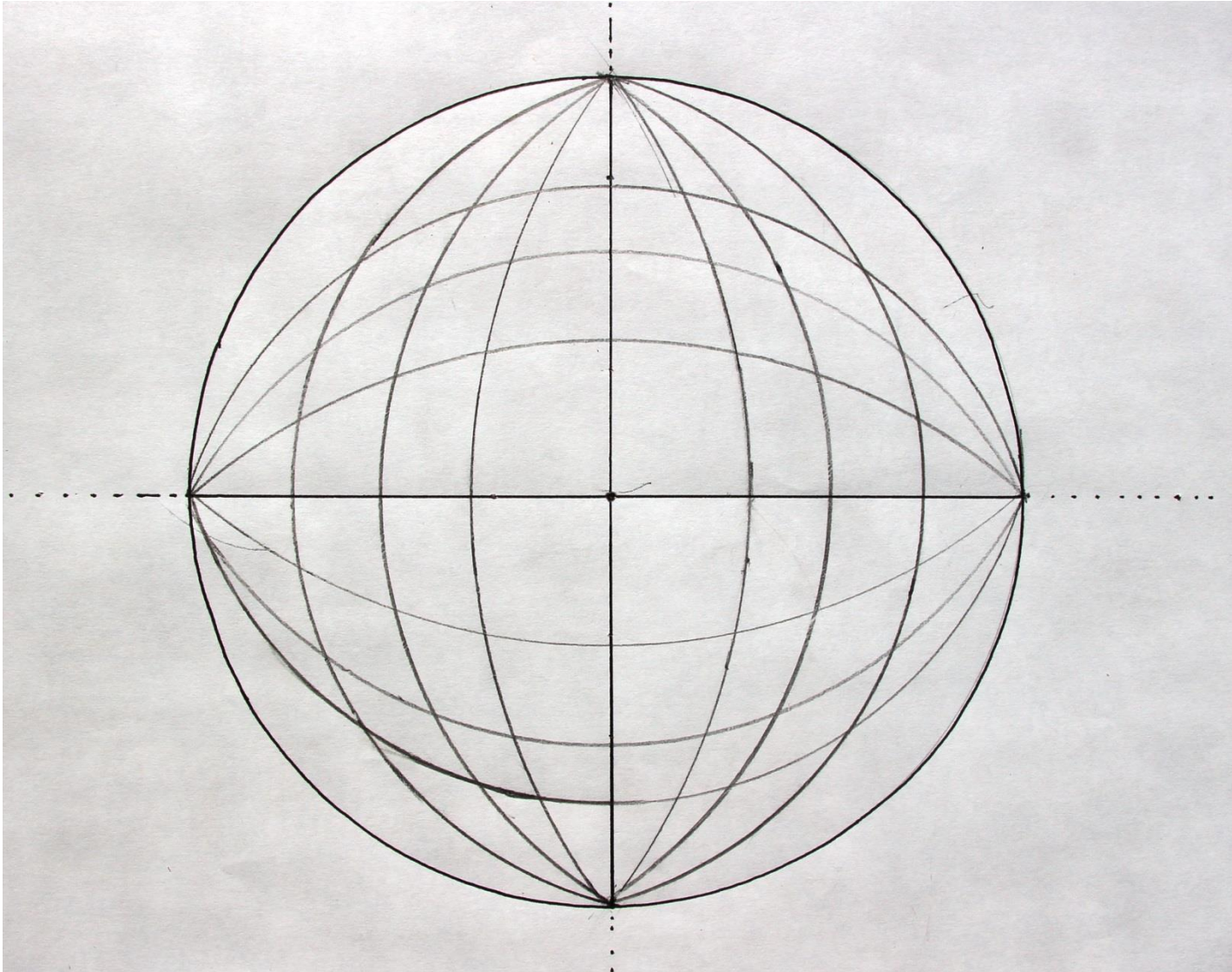


## LATITUDE

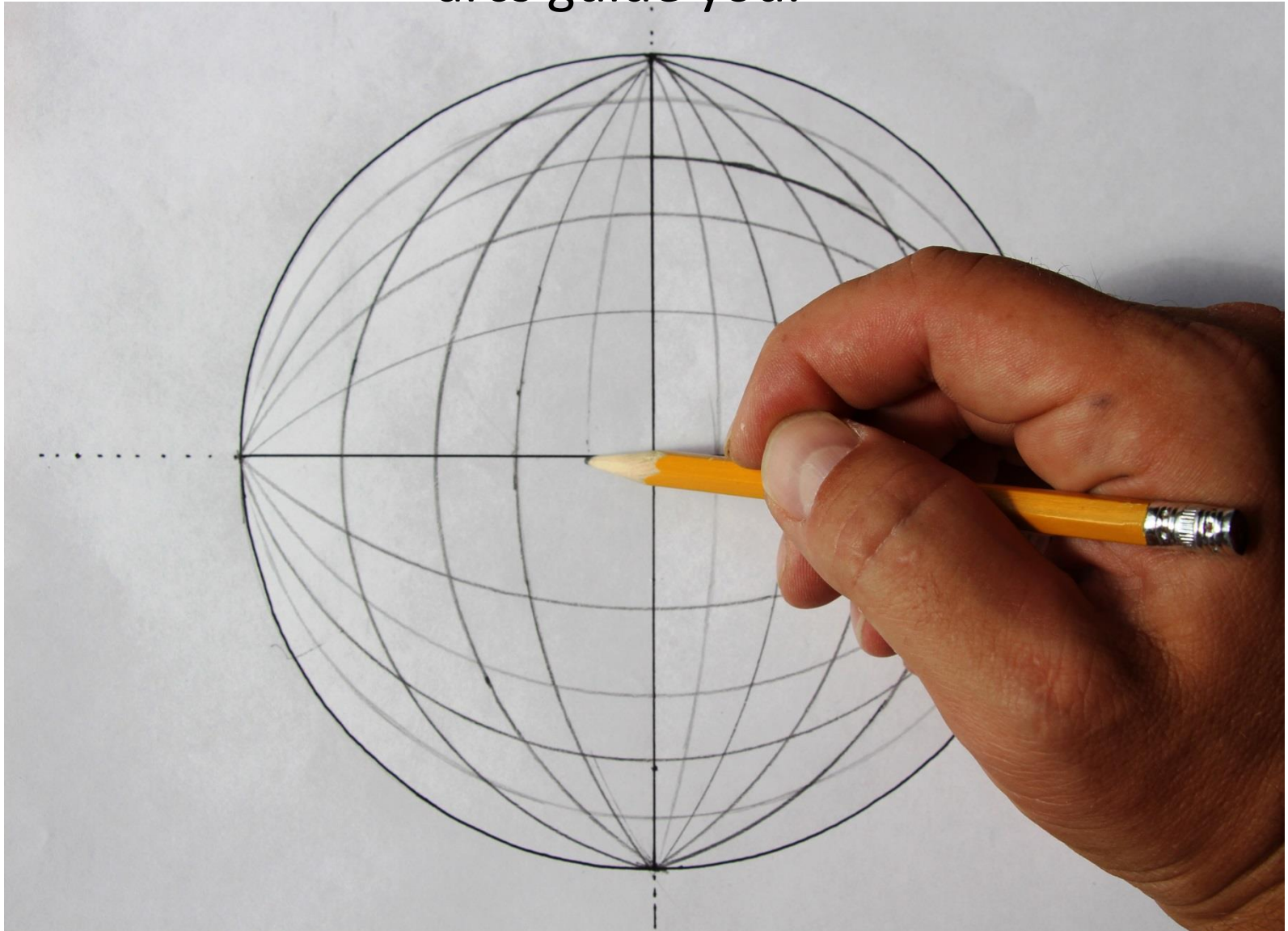




You can use your compass to draw as many lines as you like, but once a handful of latitude and longitude lines are drawn...

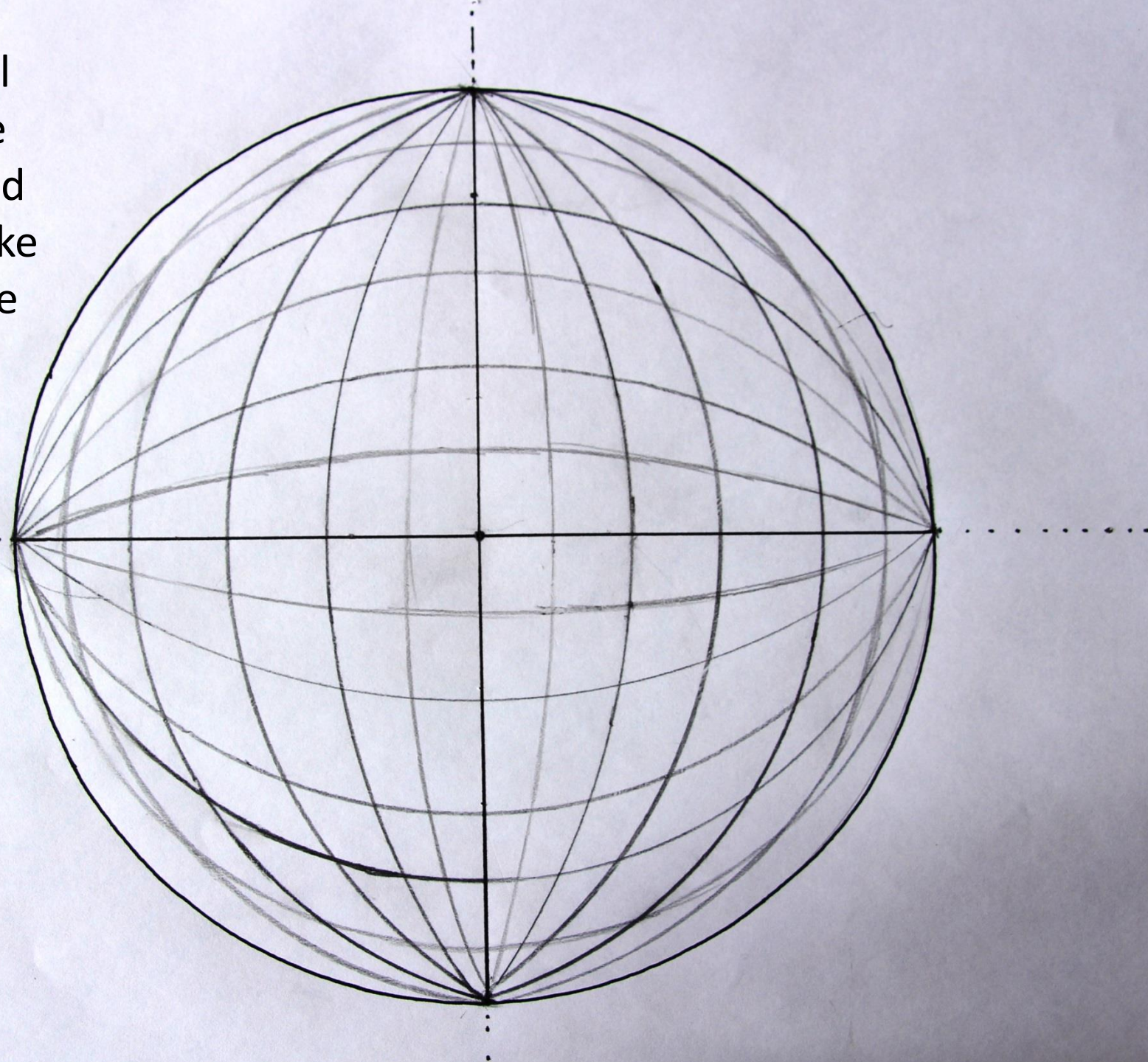


...you can add additional lines by drawing them by hand if you like. Let the existing arcs guide you.

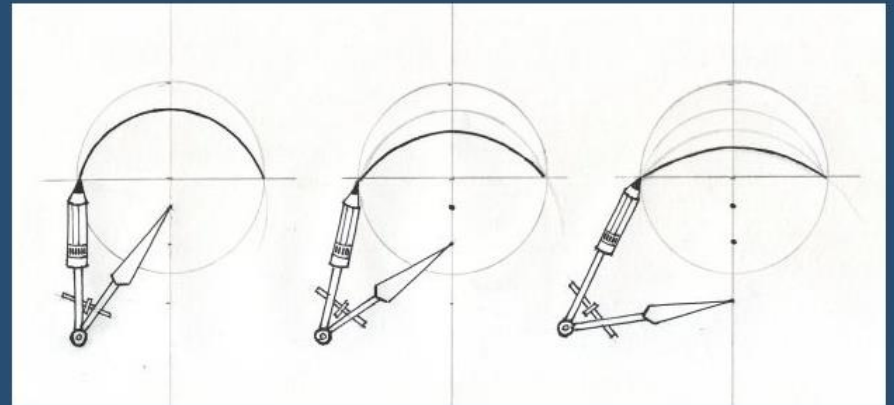
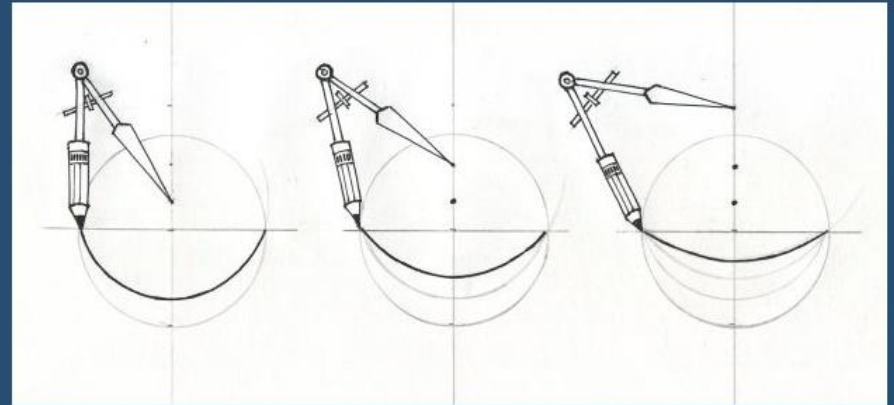
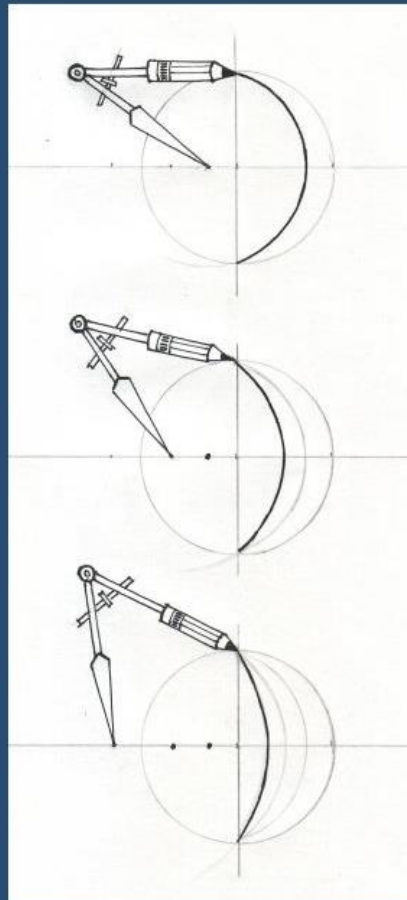
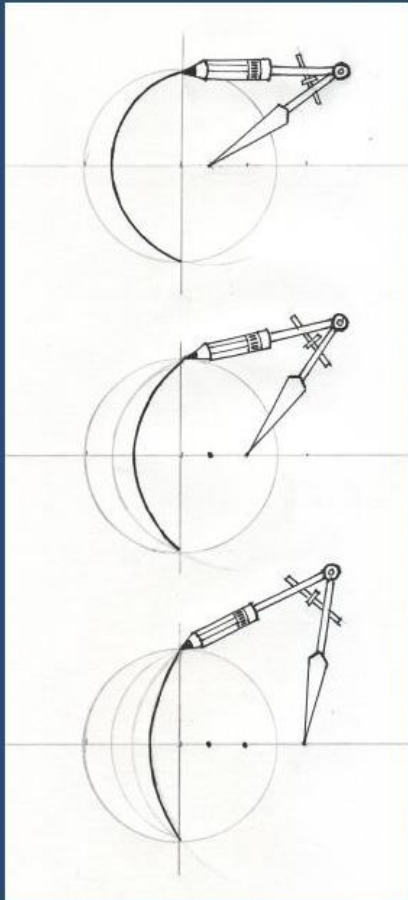




Additional lines have been added here to make a complete grid.



The following images can be printed and distributed to your class for ease in remembering how to construct a five-point grid system.

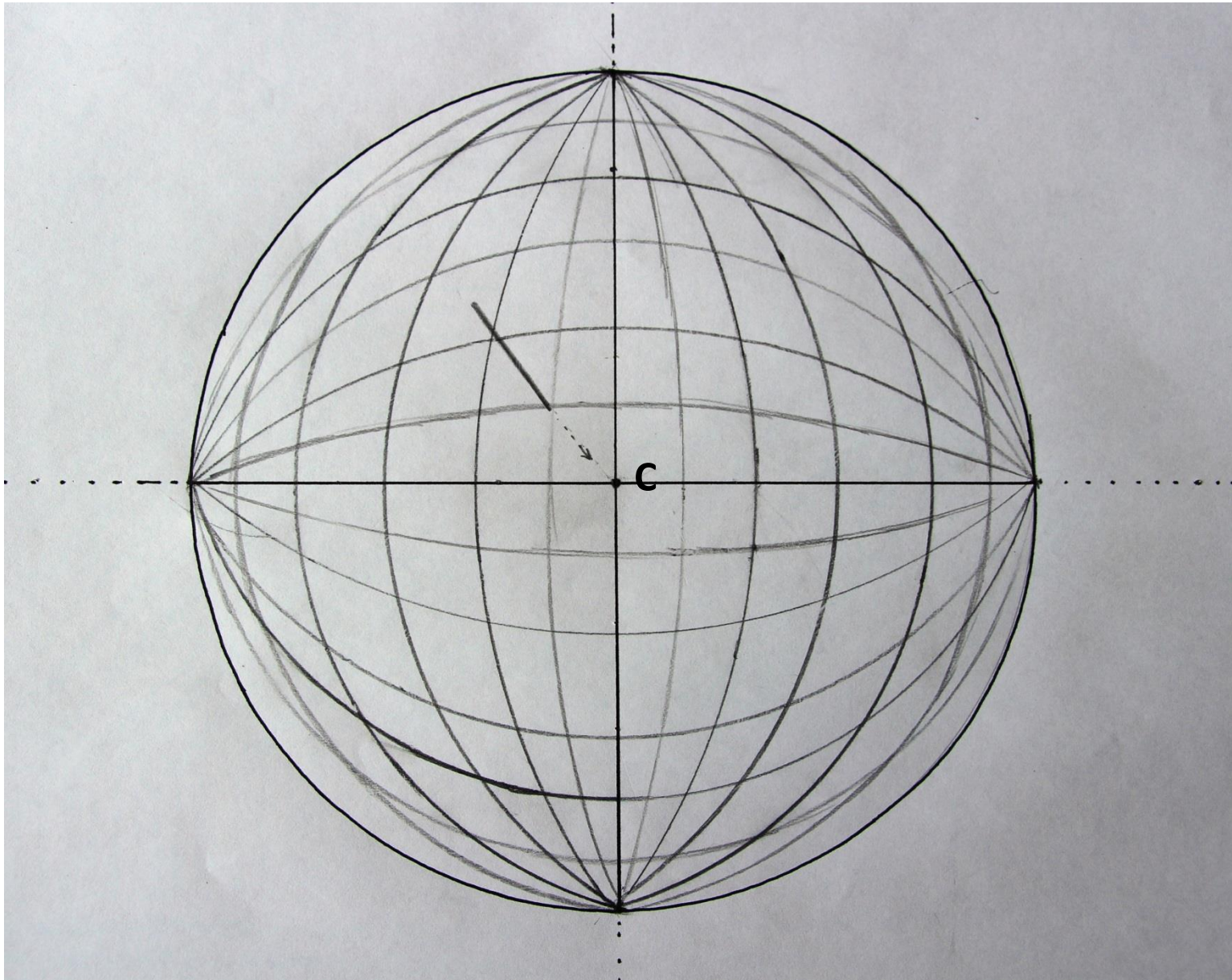




Now that we have  
constructed our own  
5-point grid, lets  
draw some simple  
forms!

\*\*\*Important: A basic understanding  
of *three-point perspective* would be  
helpful in comprehending how to use  
*five-point perspective*.

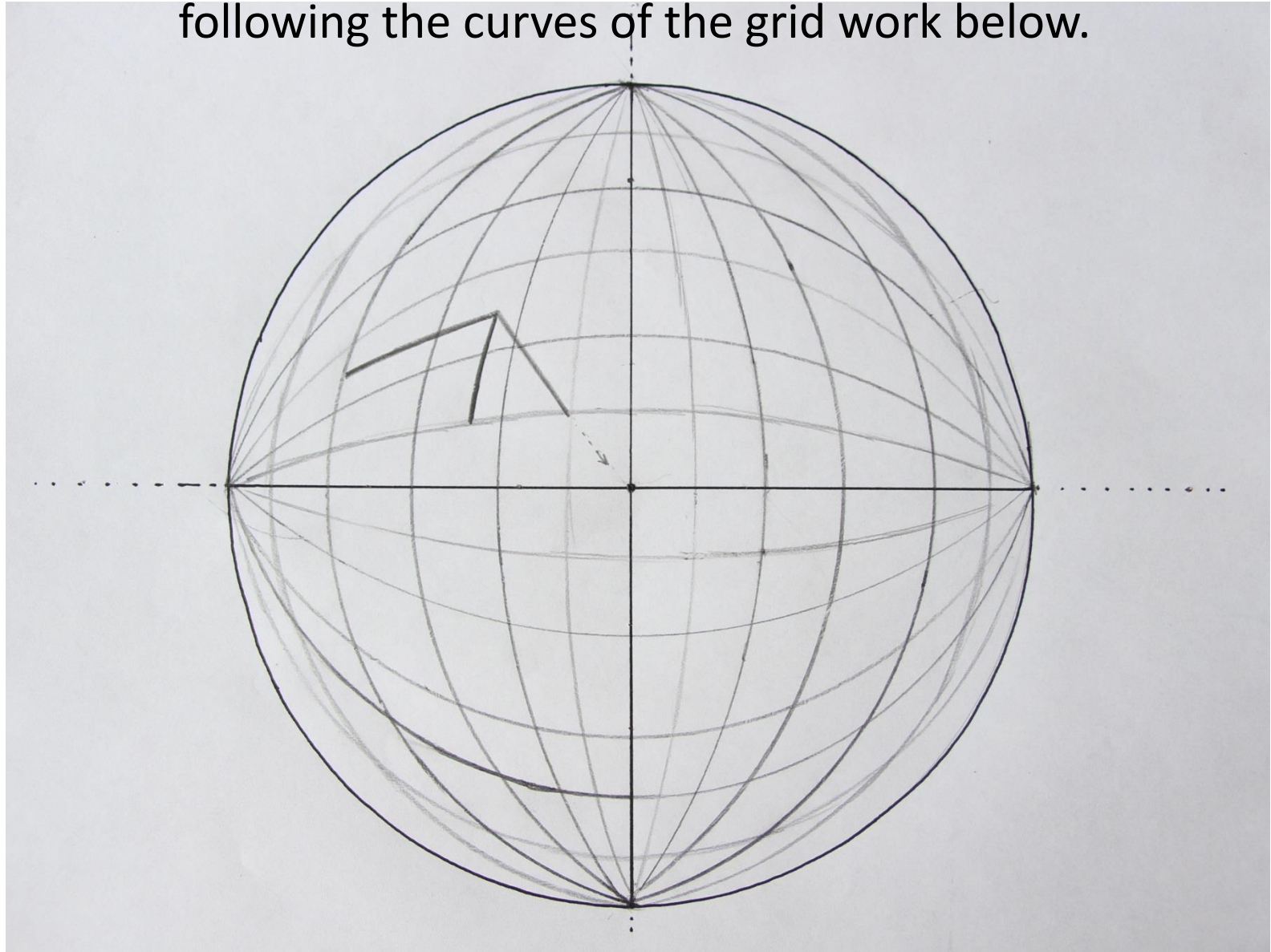
One way to get started is to choose an intersection of latitude and longitude lines and extend a straight line outward from that point. Notice that this line should reference (point toward) the center (**C**) point.



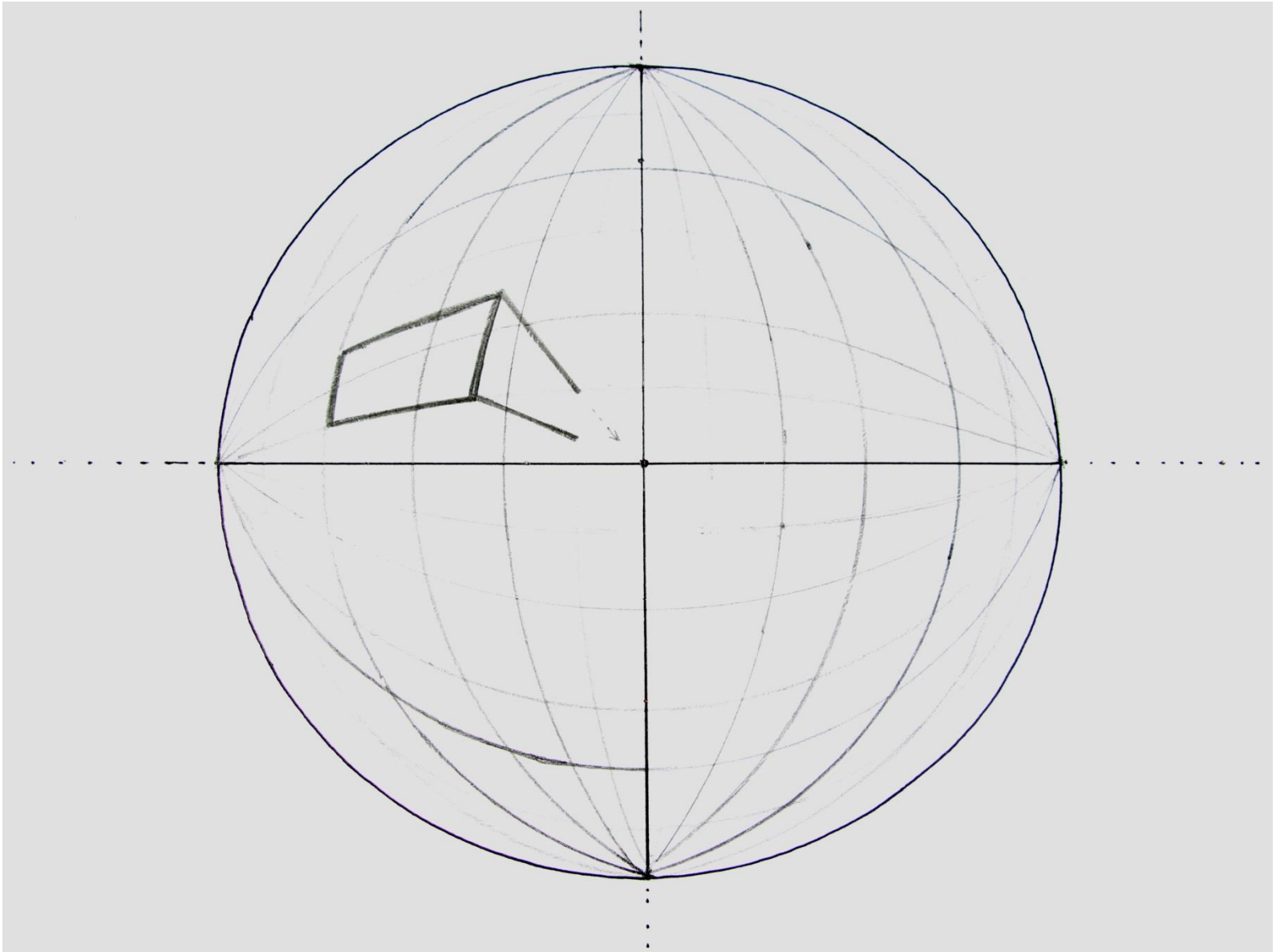


To take this form a step further, addition lines are added.

These new lines reference the North and West points (because the form is located in the North / West quadrant), by following the curves of the grid work below.

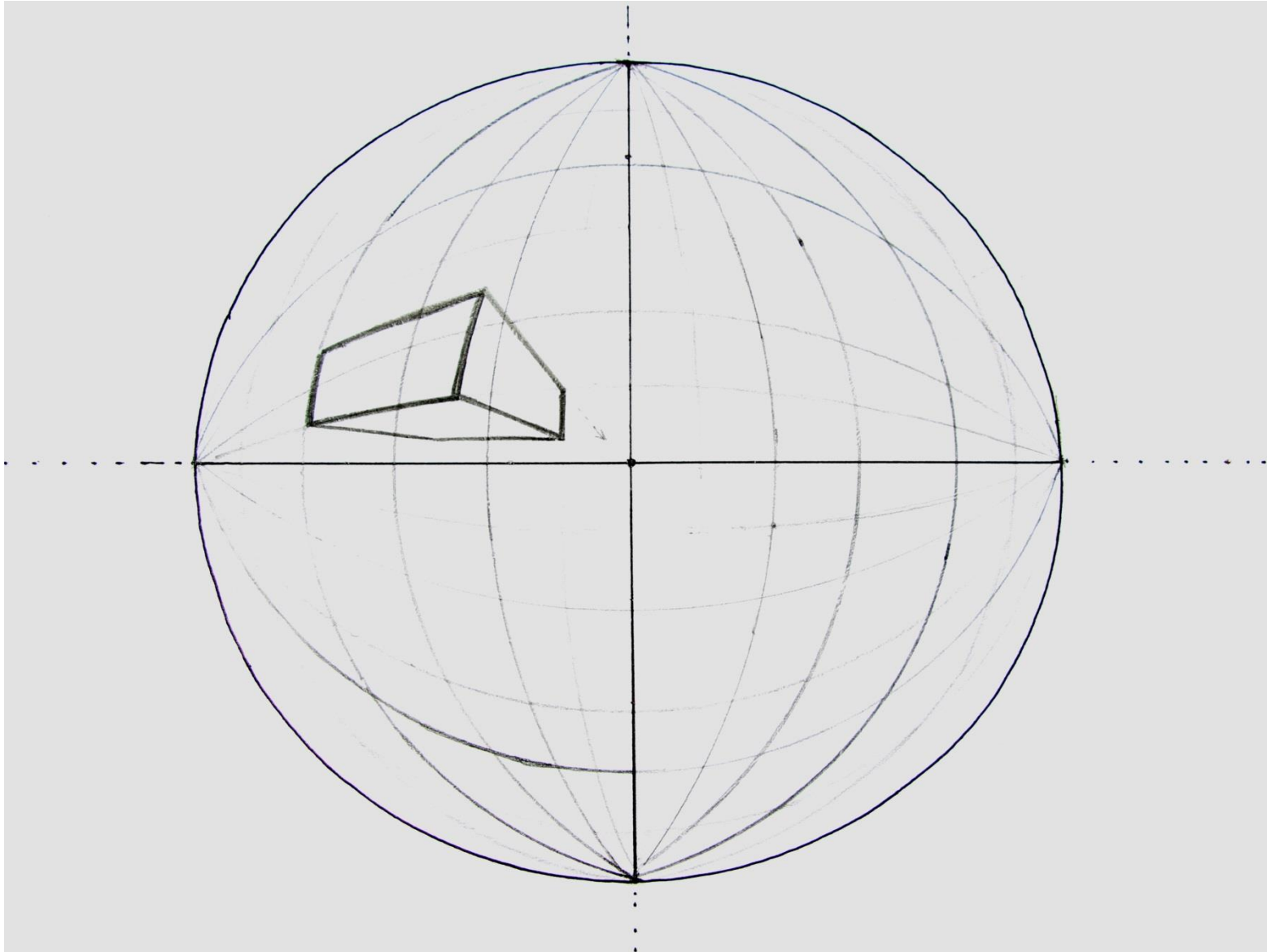


# Complete the top:

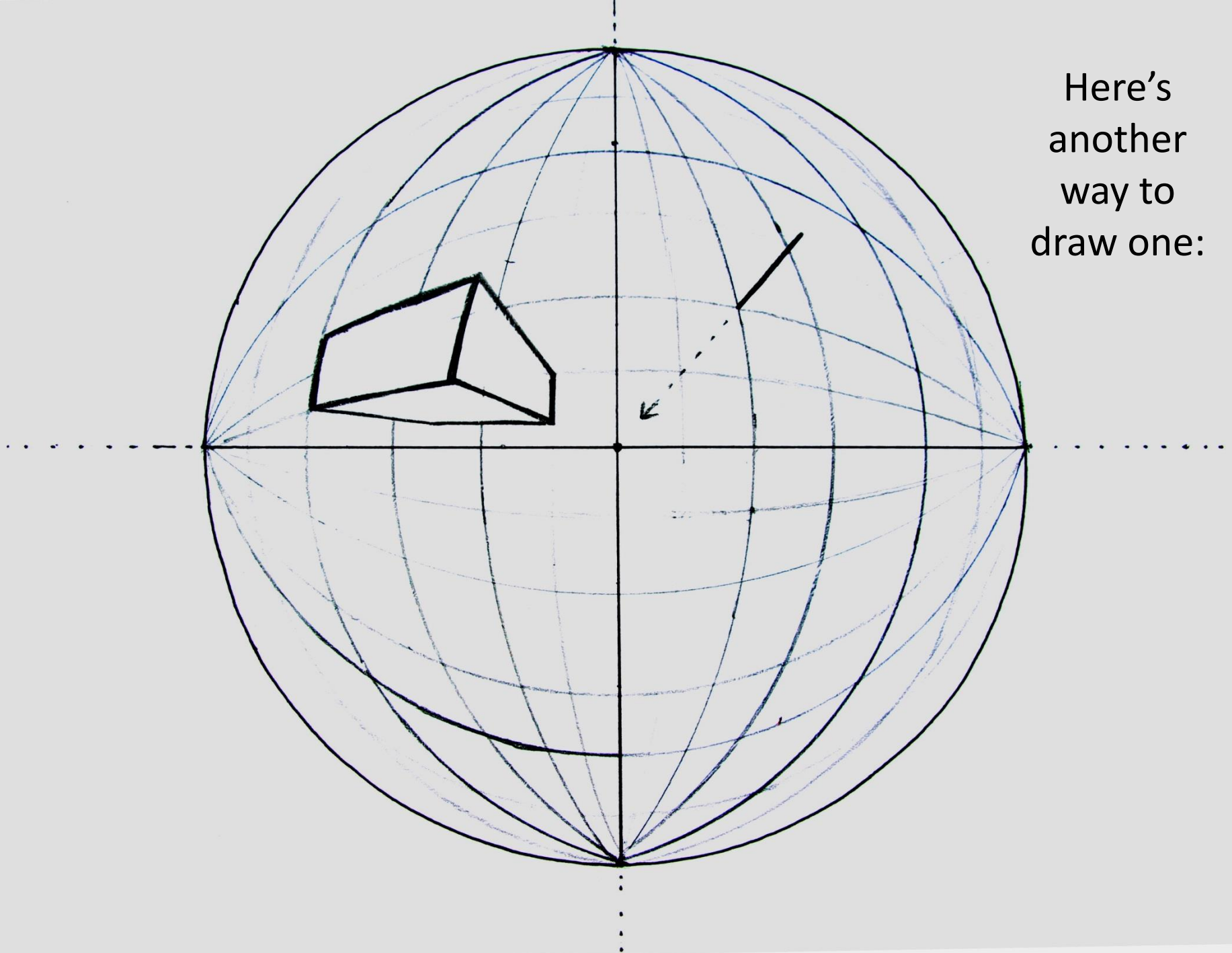




# Complete the form.

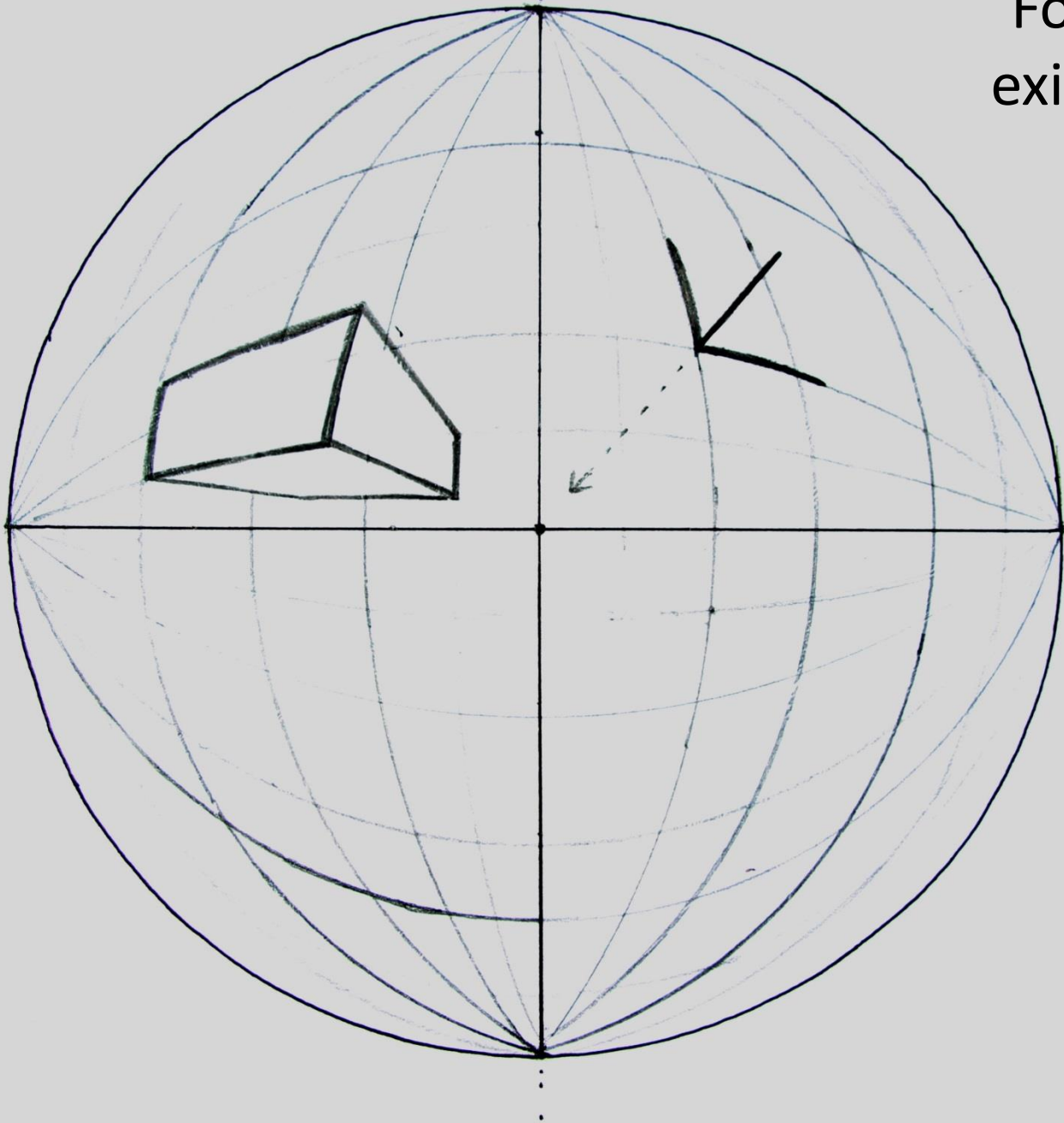


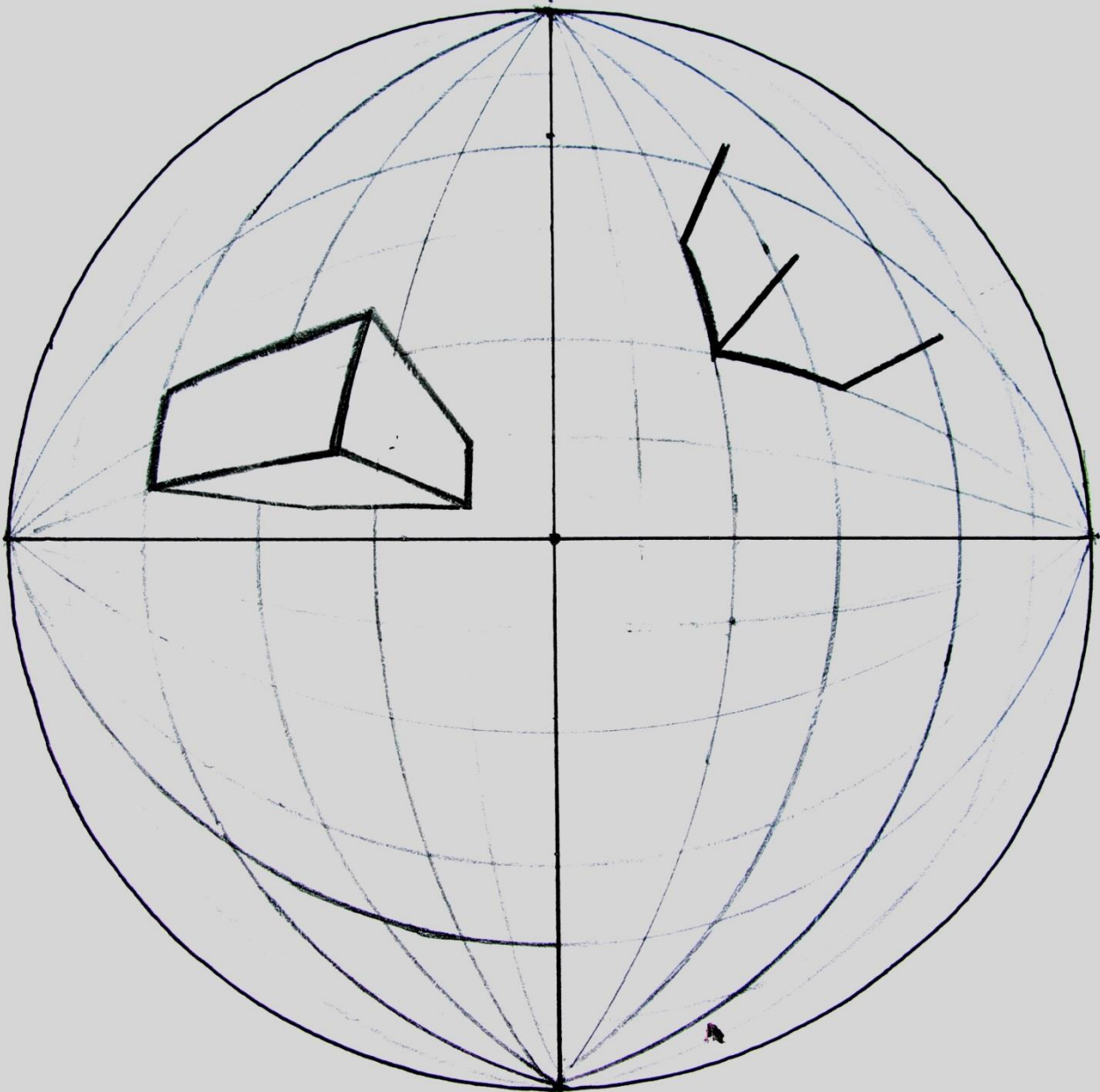
Here's  
another  
way to  
draw one:





Follow the  
existing grid  
lines.

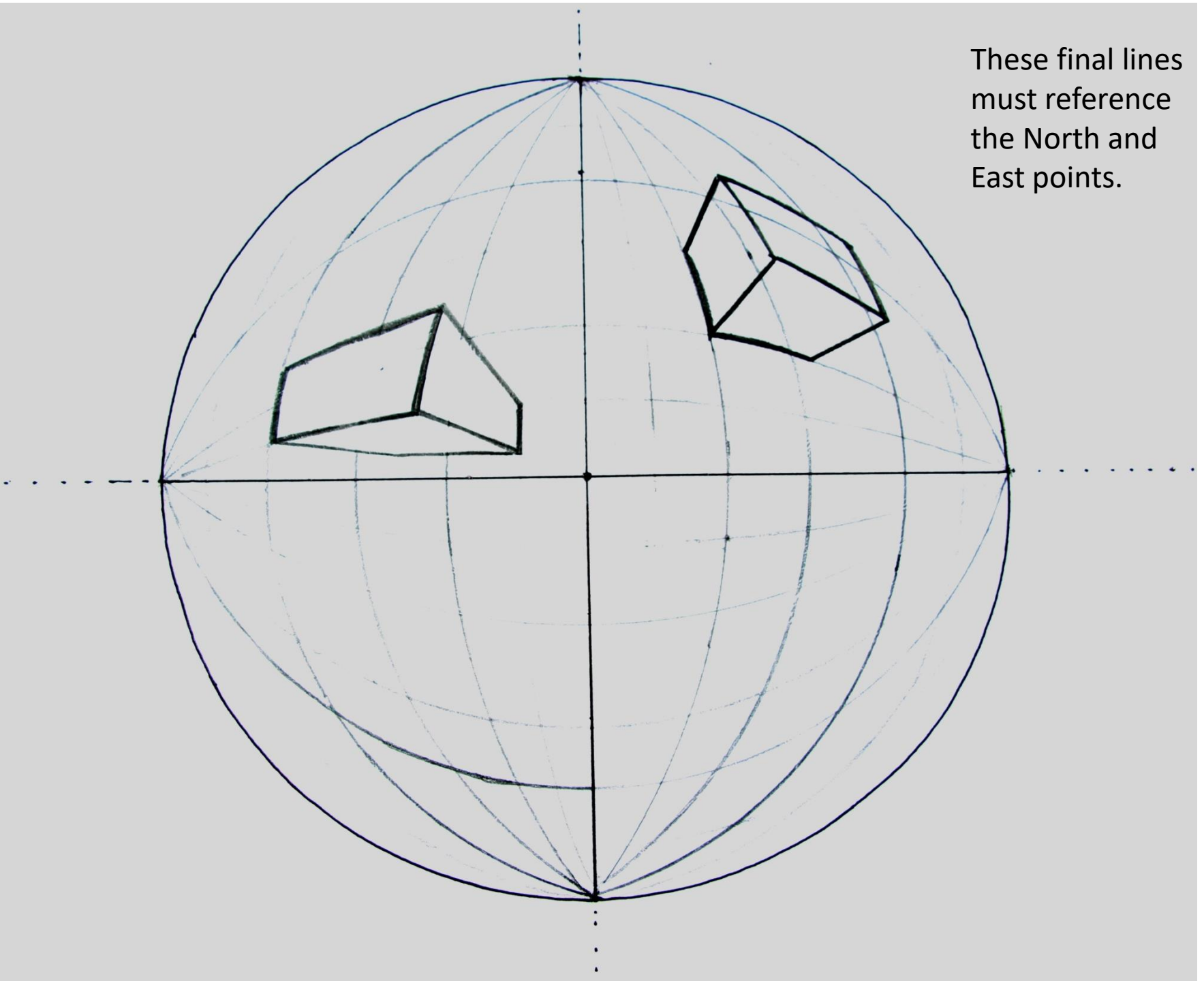




Notice how all of the lines which give the structure height, must point toward the center point.

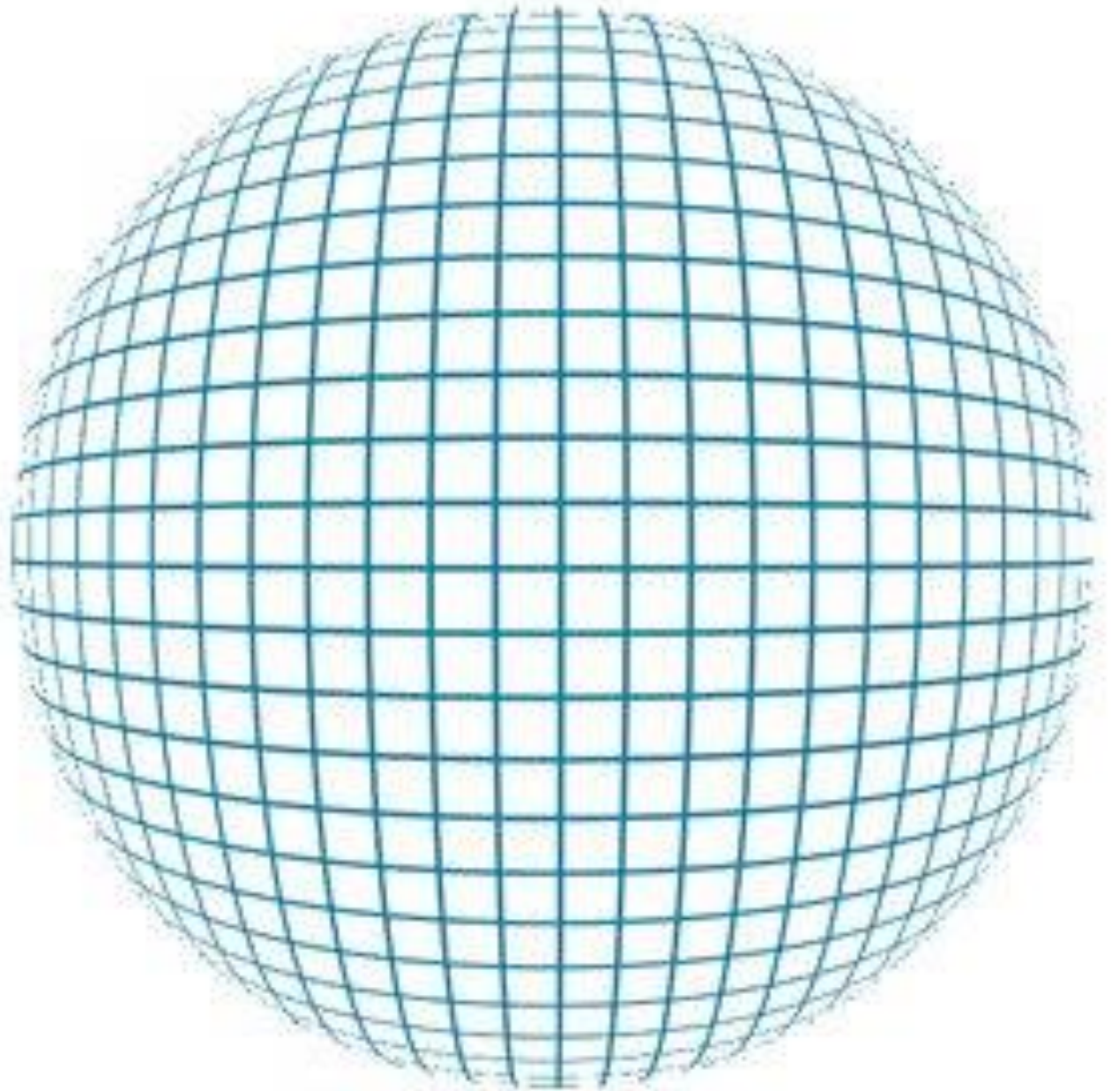


These final lines must reference the North and East points.



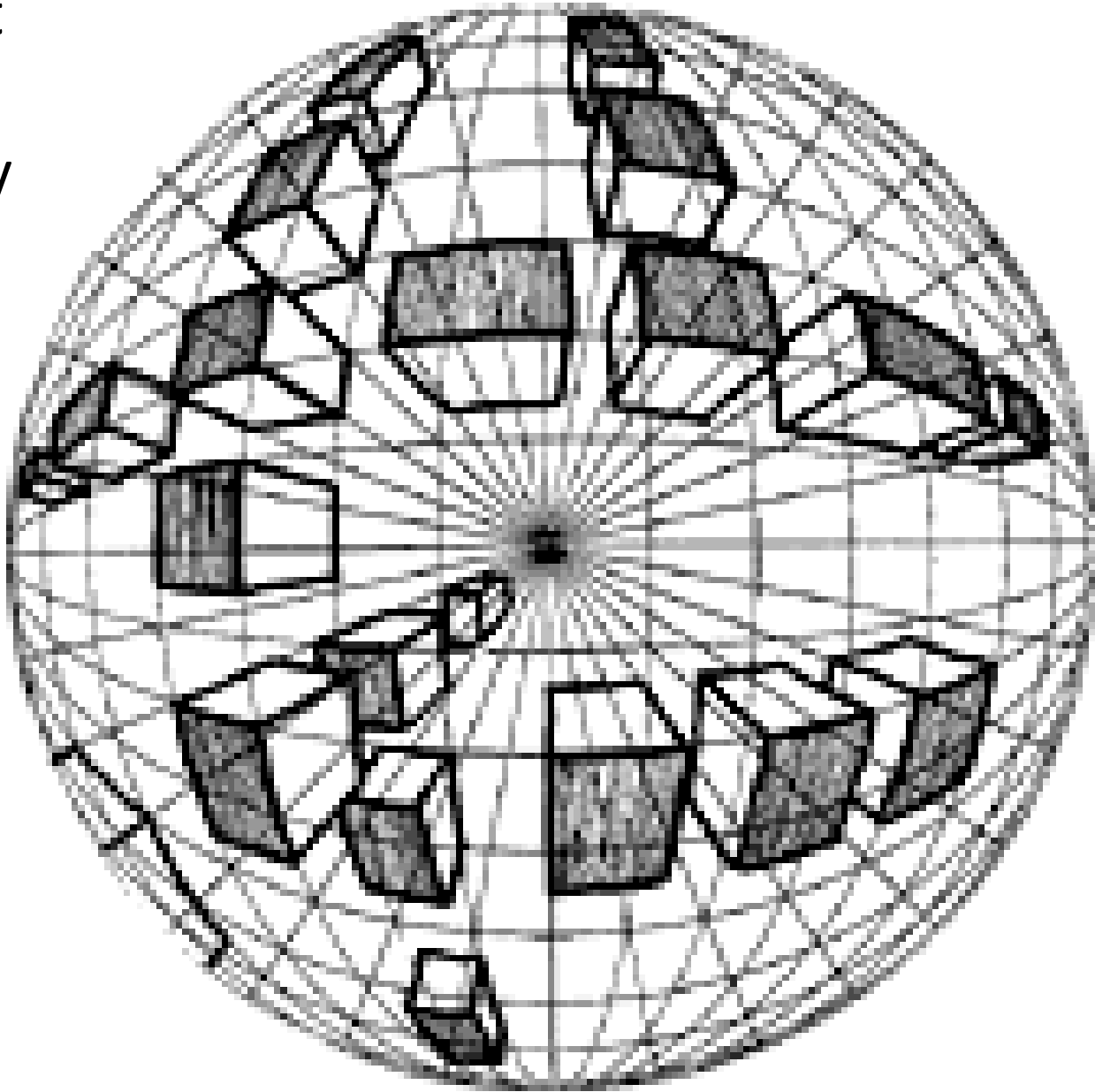
Some artists like to construct a permanent and perfected grid which they will use again and again.

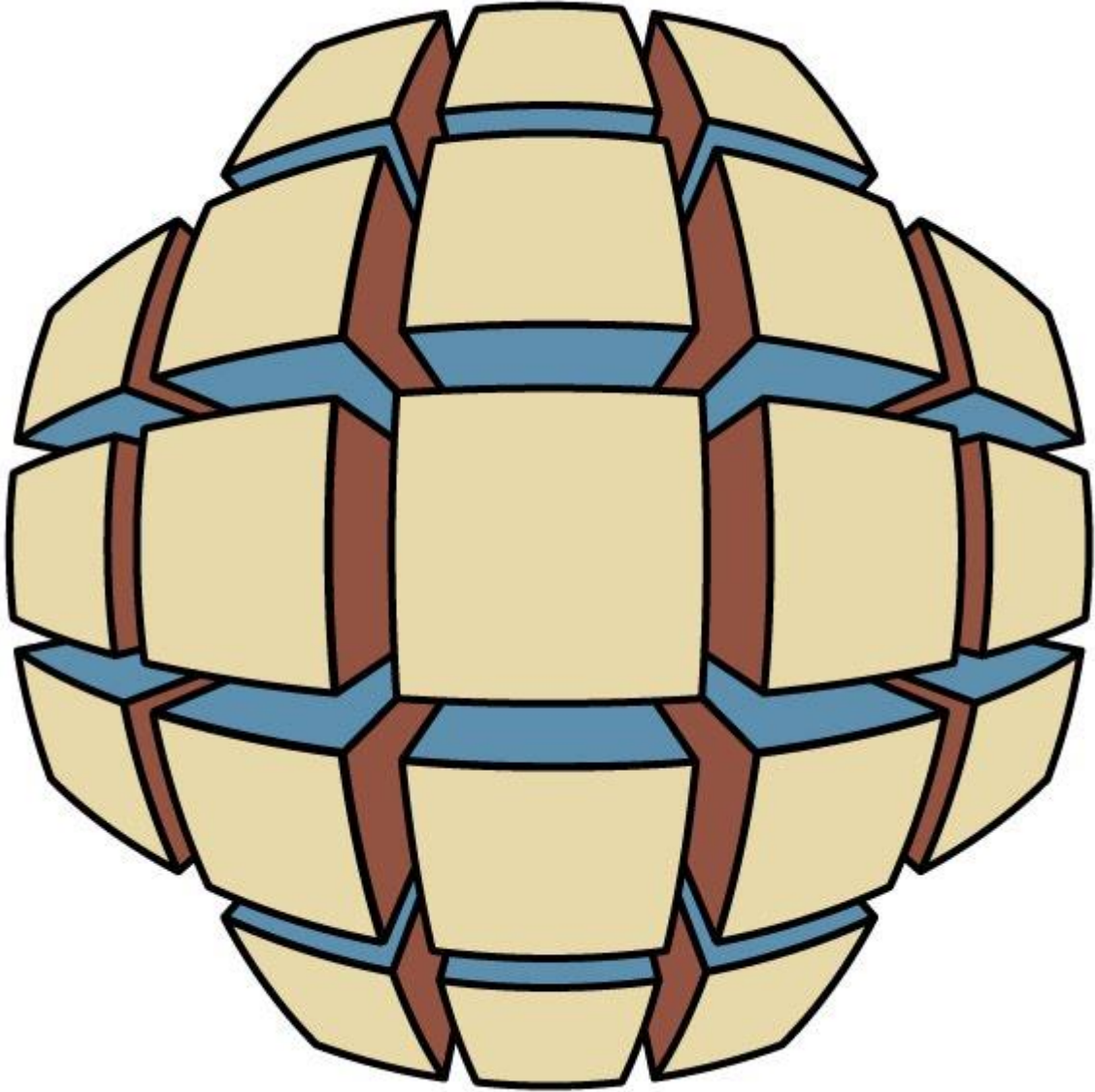
This type of grid can be used with tracing paper or a light table, so that the grid is simply used as an underlying structure or guidelines to create a new 5-point perspective drawing.



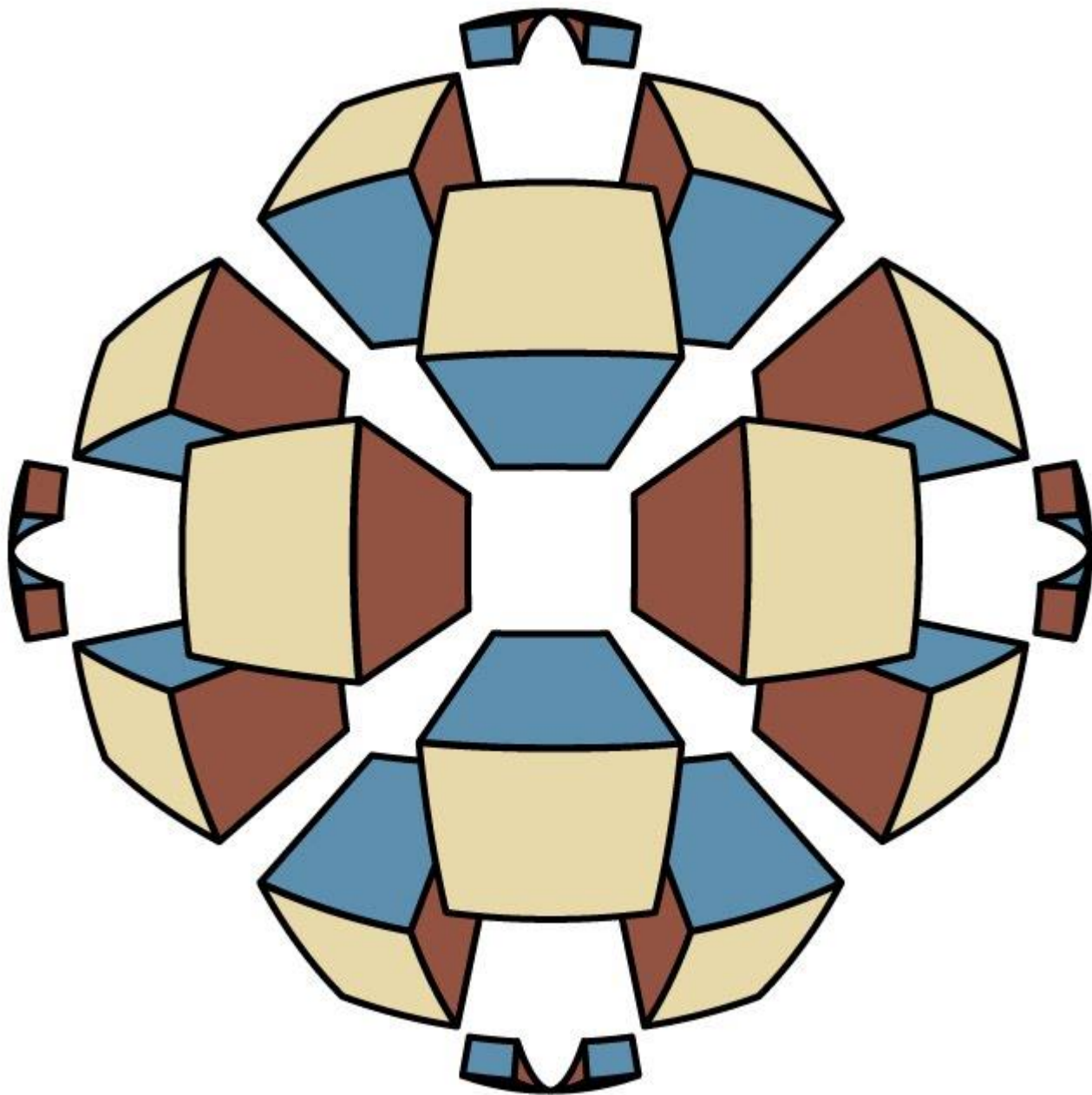


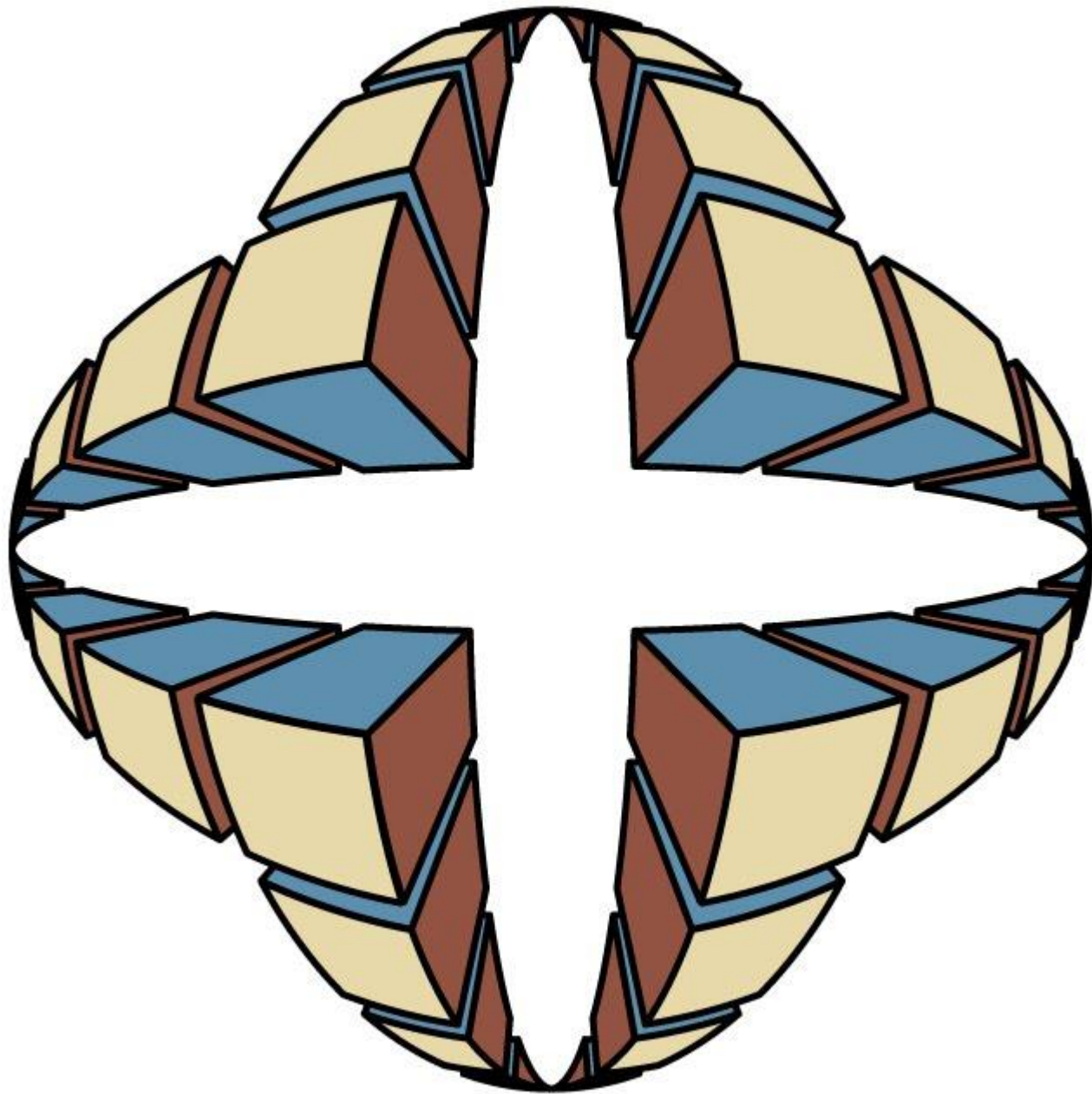
When first  
getting  
started, try  
basic  
geometric  
shapes.





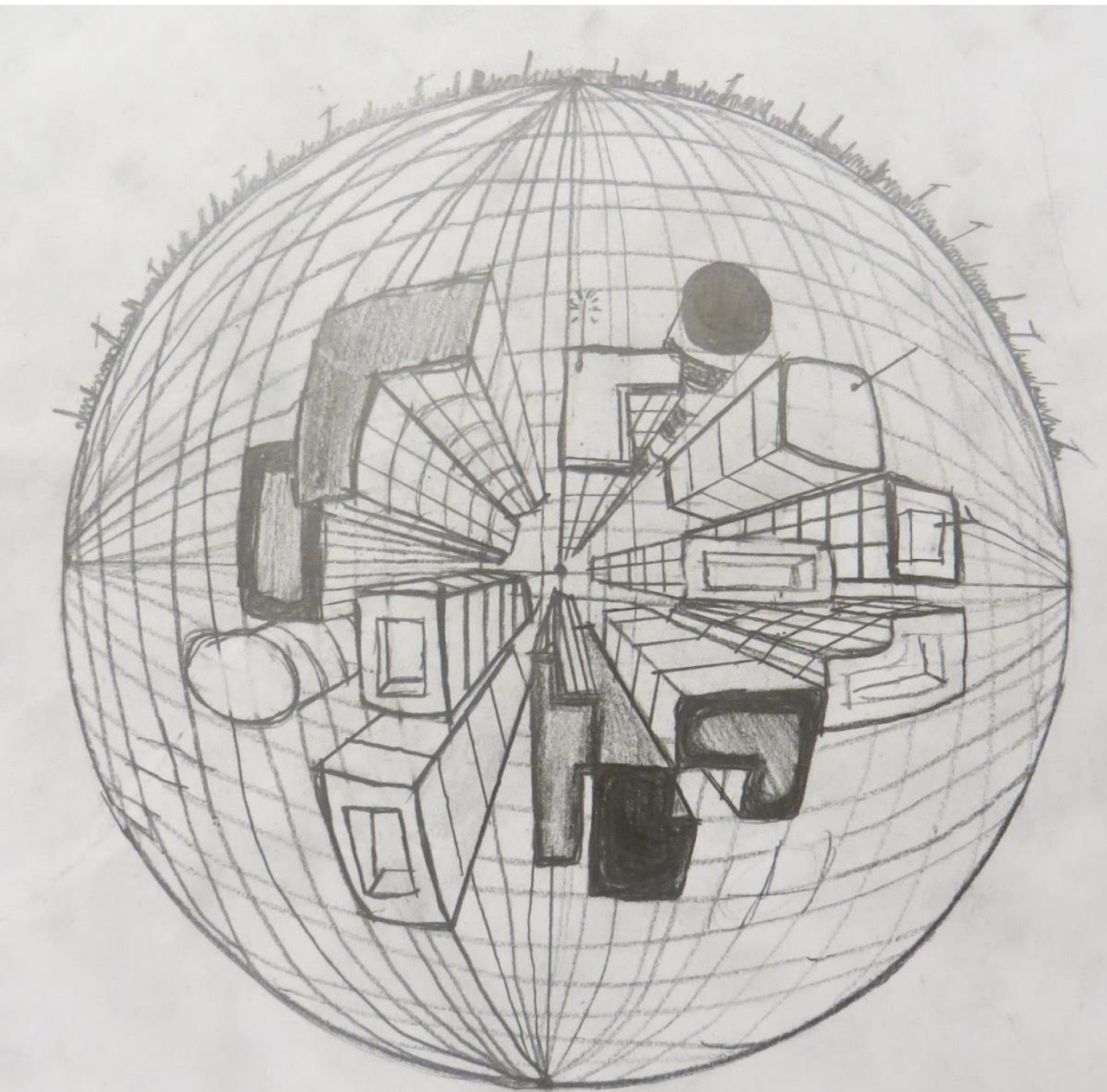






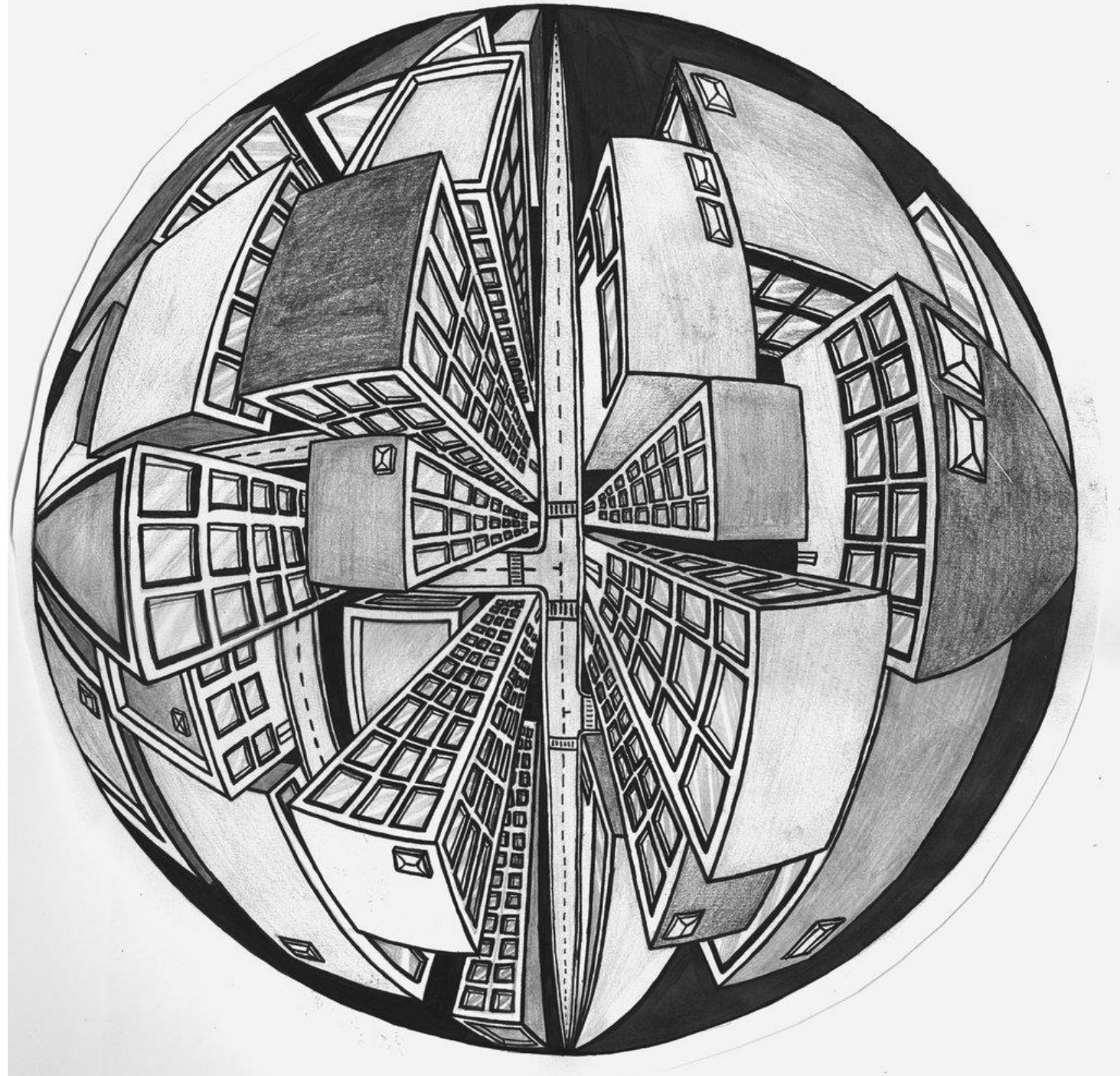
Once you feel comfortable, try adding more and more details.

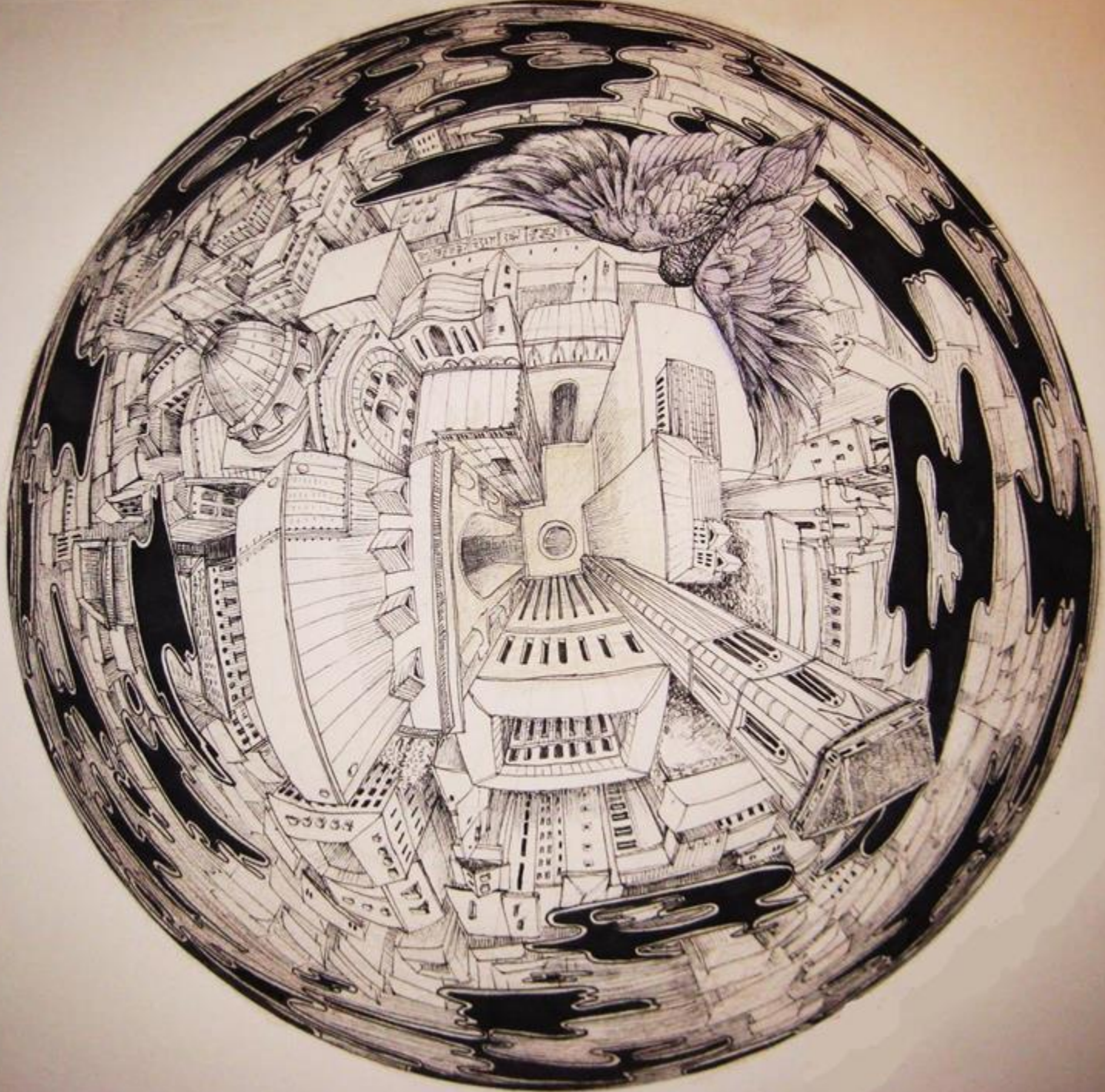
Here are some Exterior **“Birds-eye”** views:



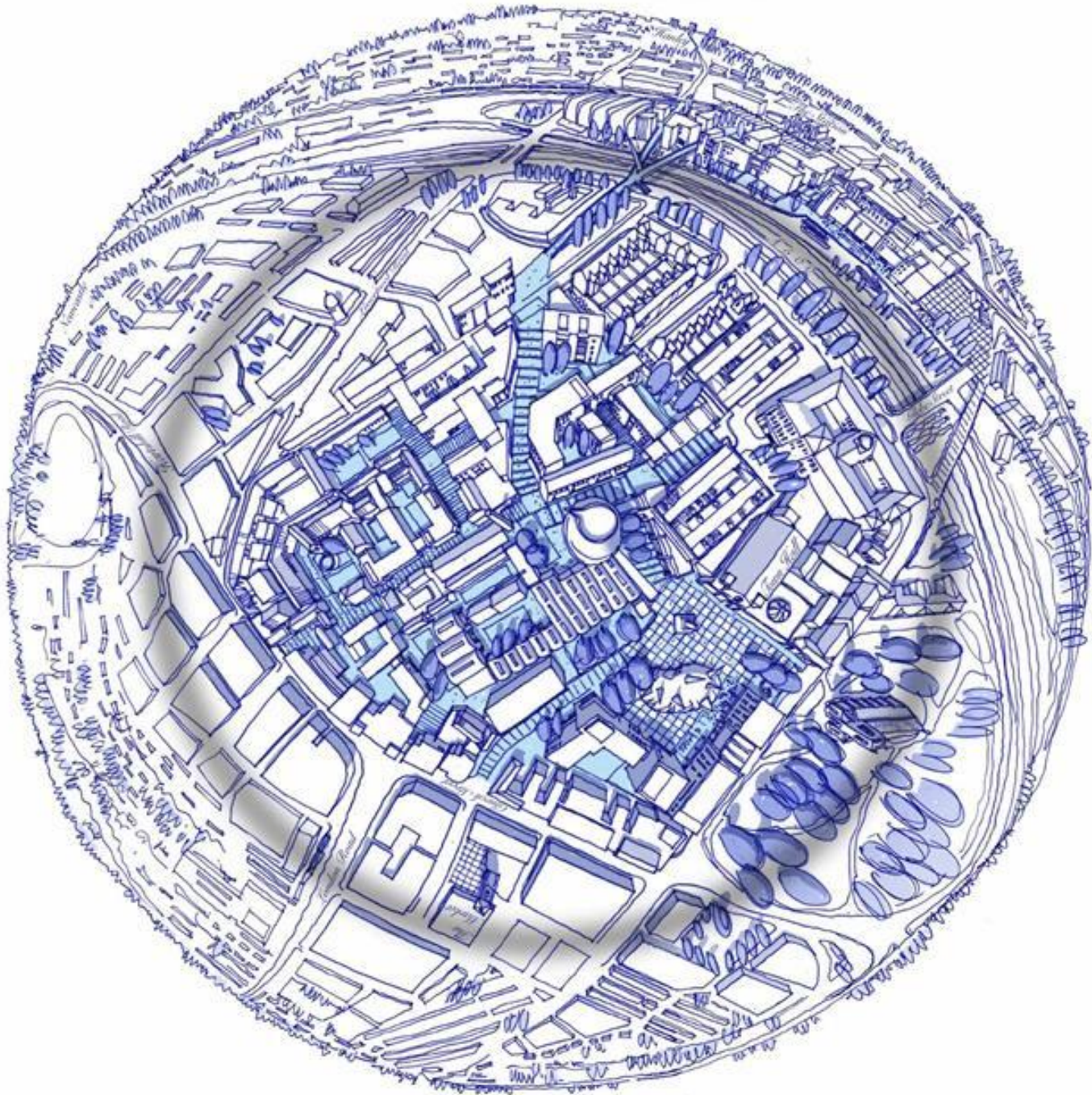
[link to 5 point video](#)



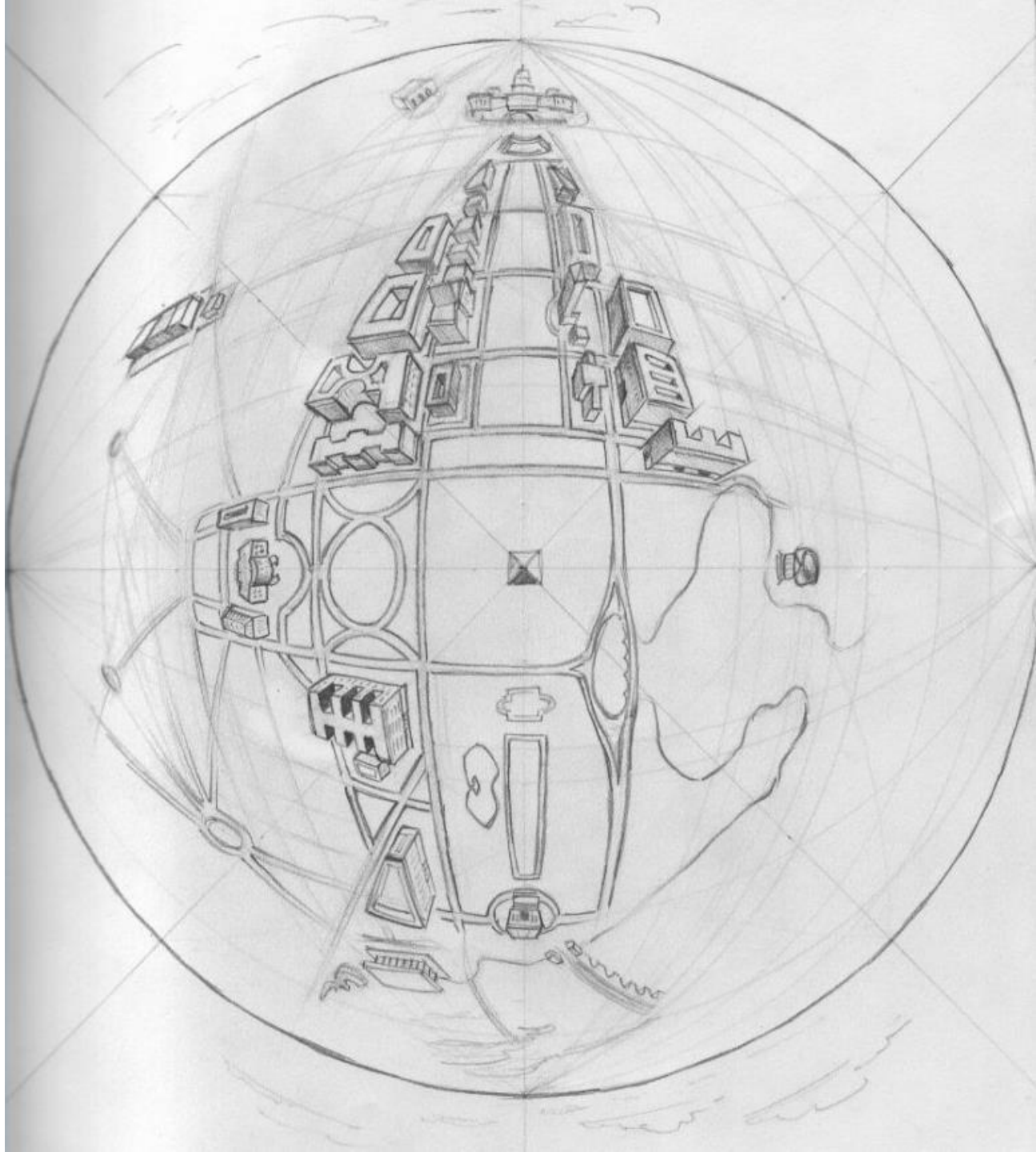


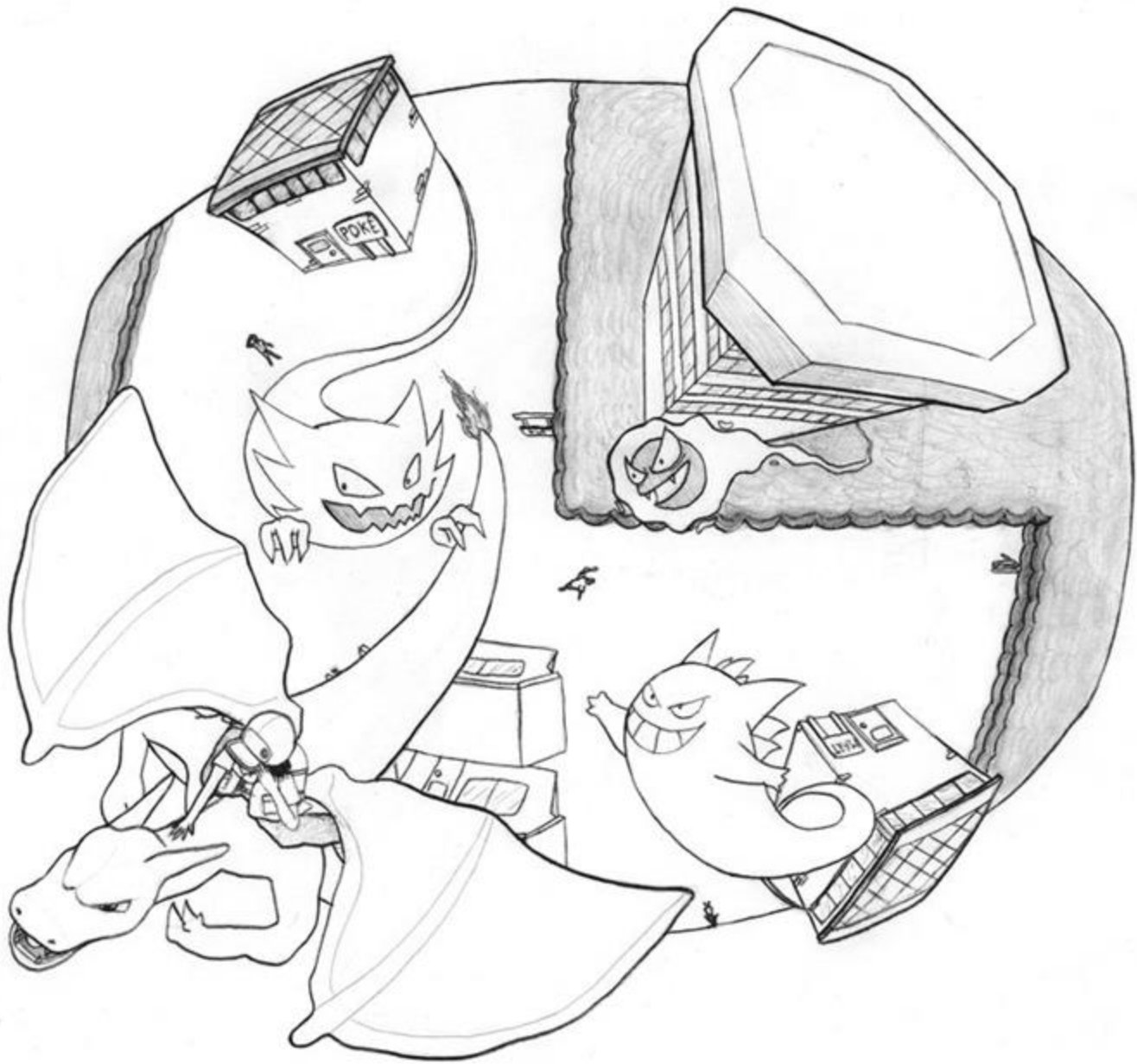




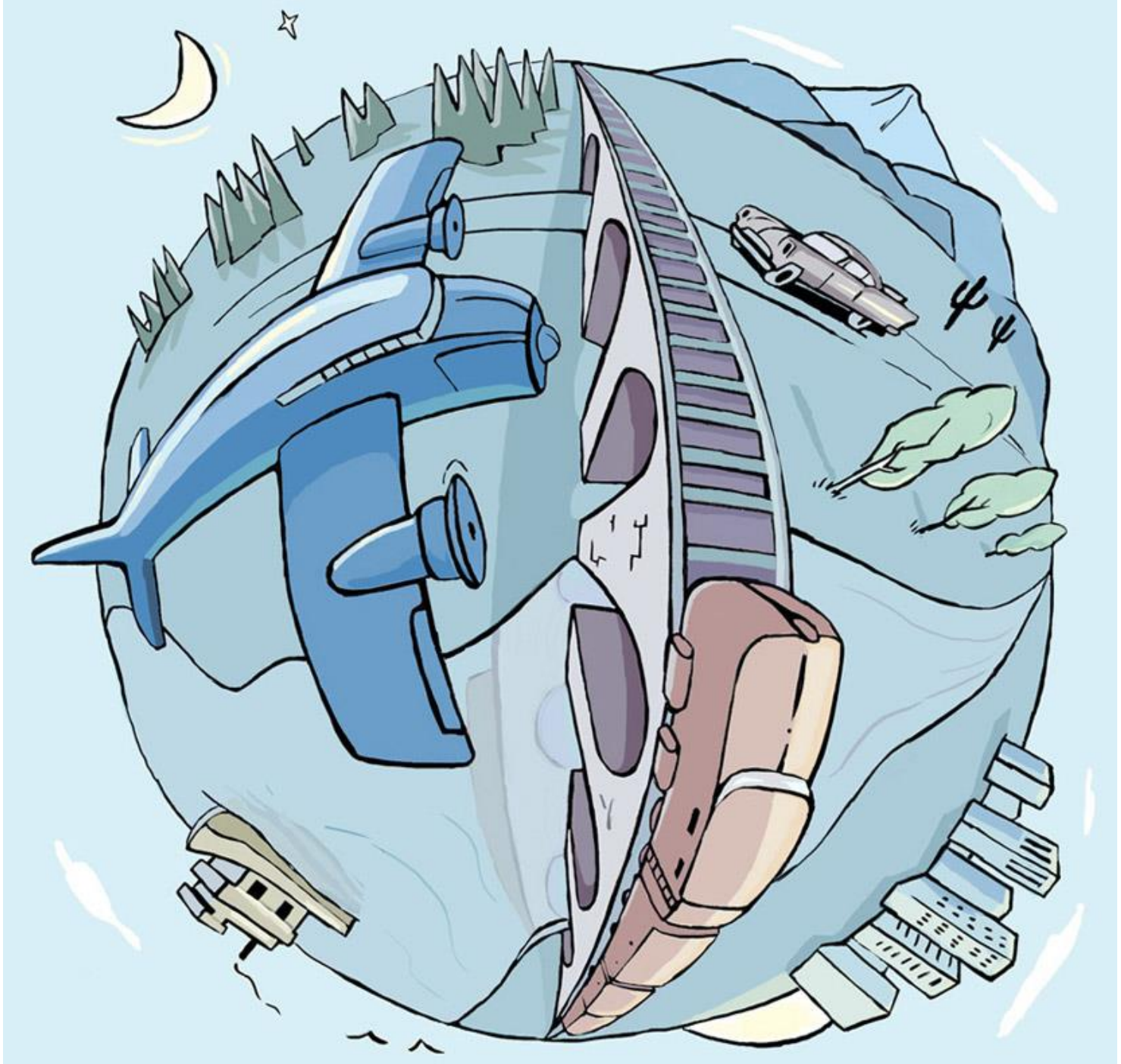


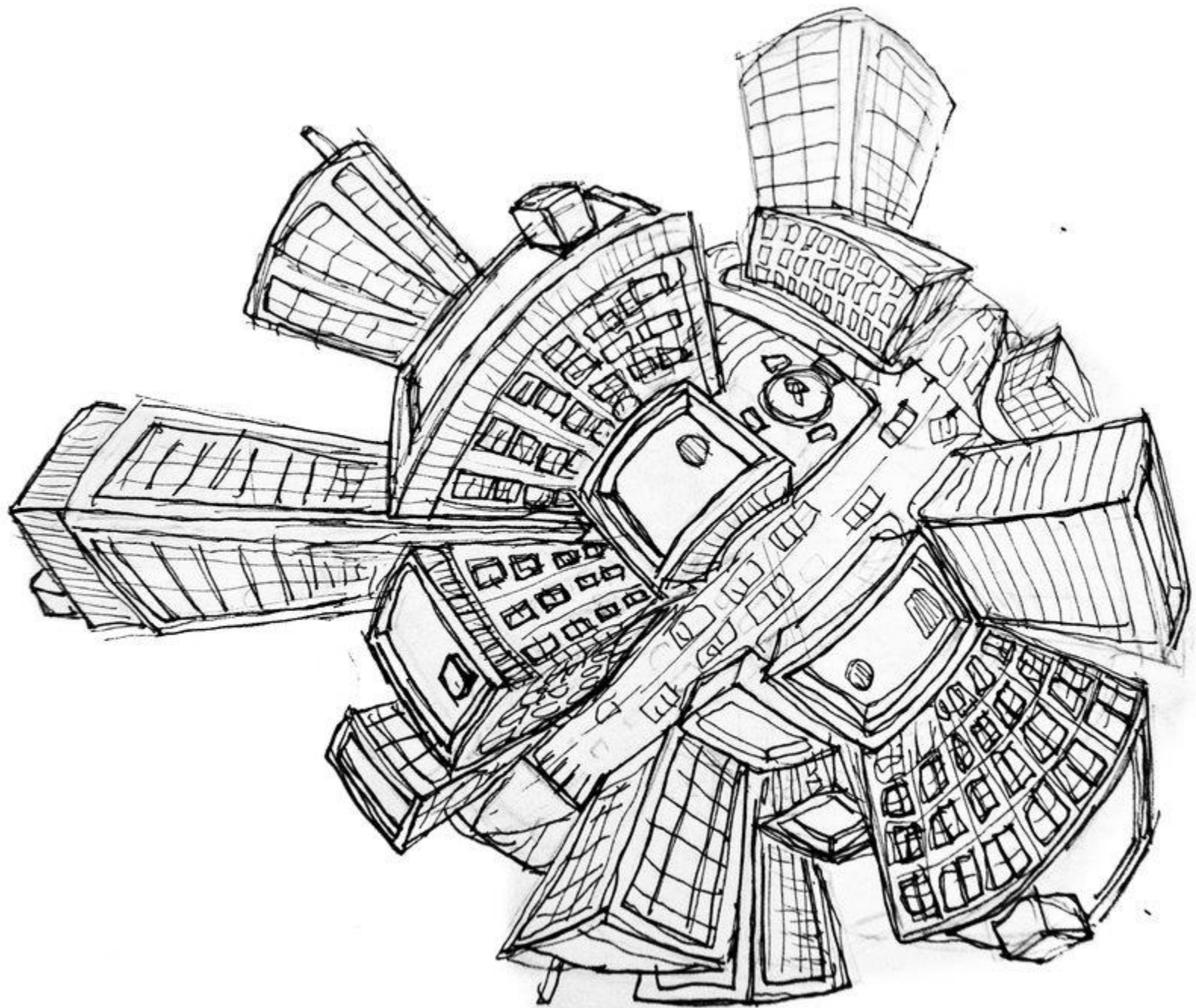










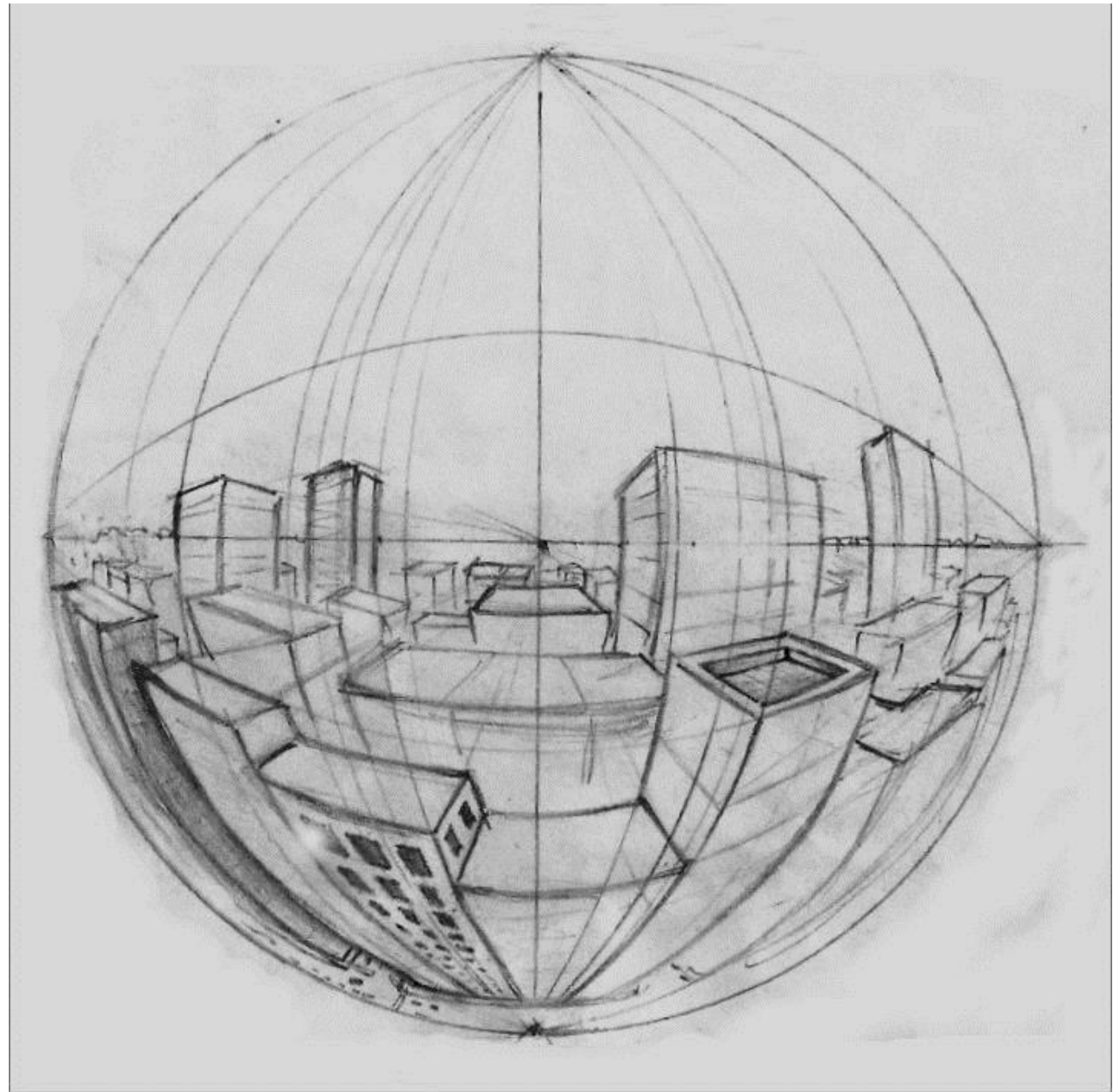






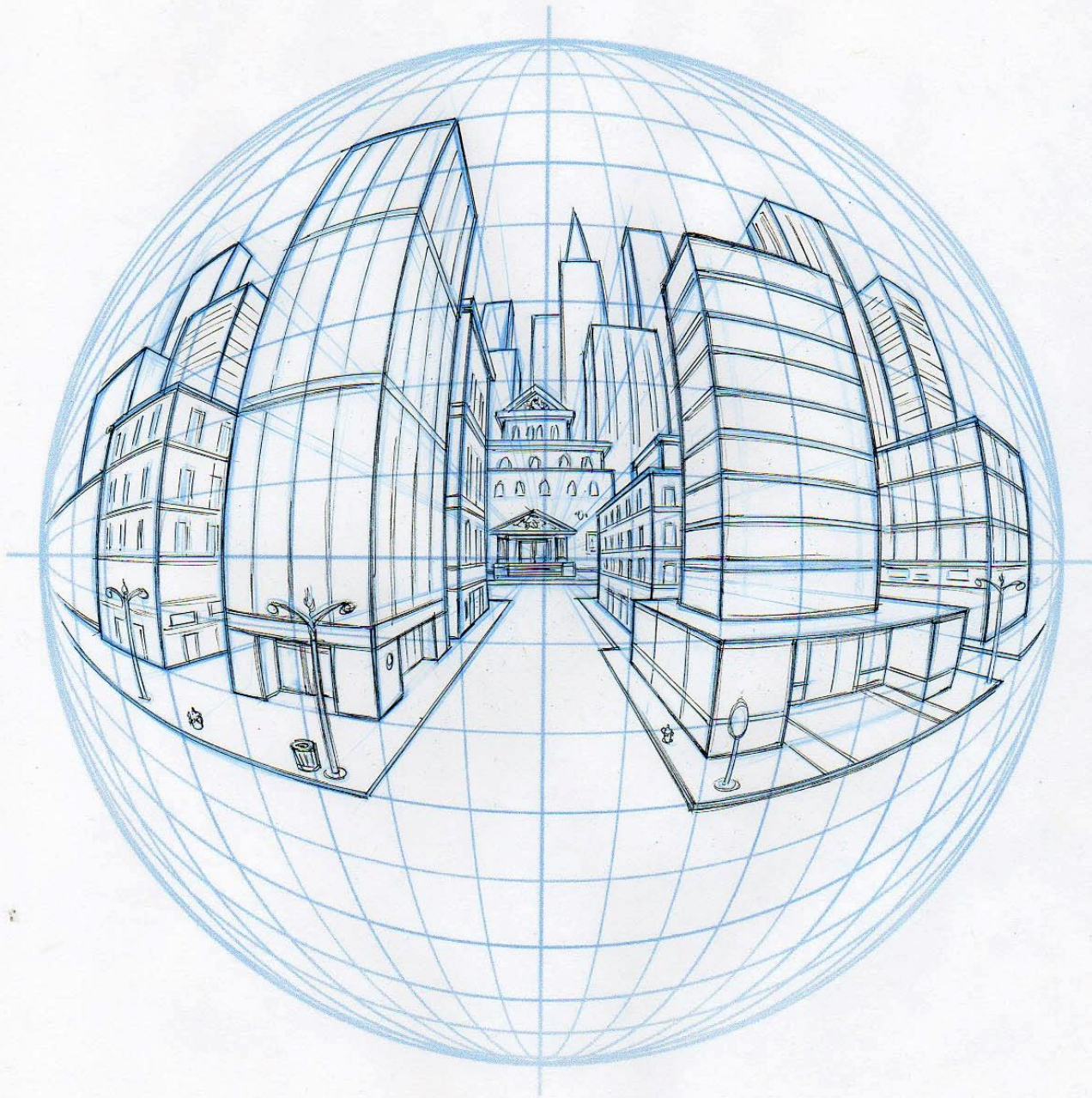
# Horizon View

# Exterior

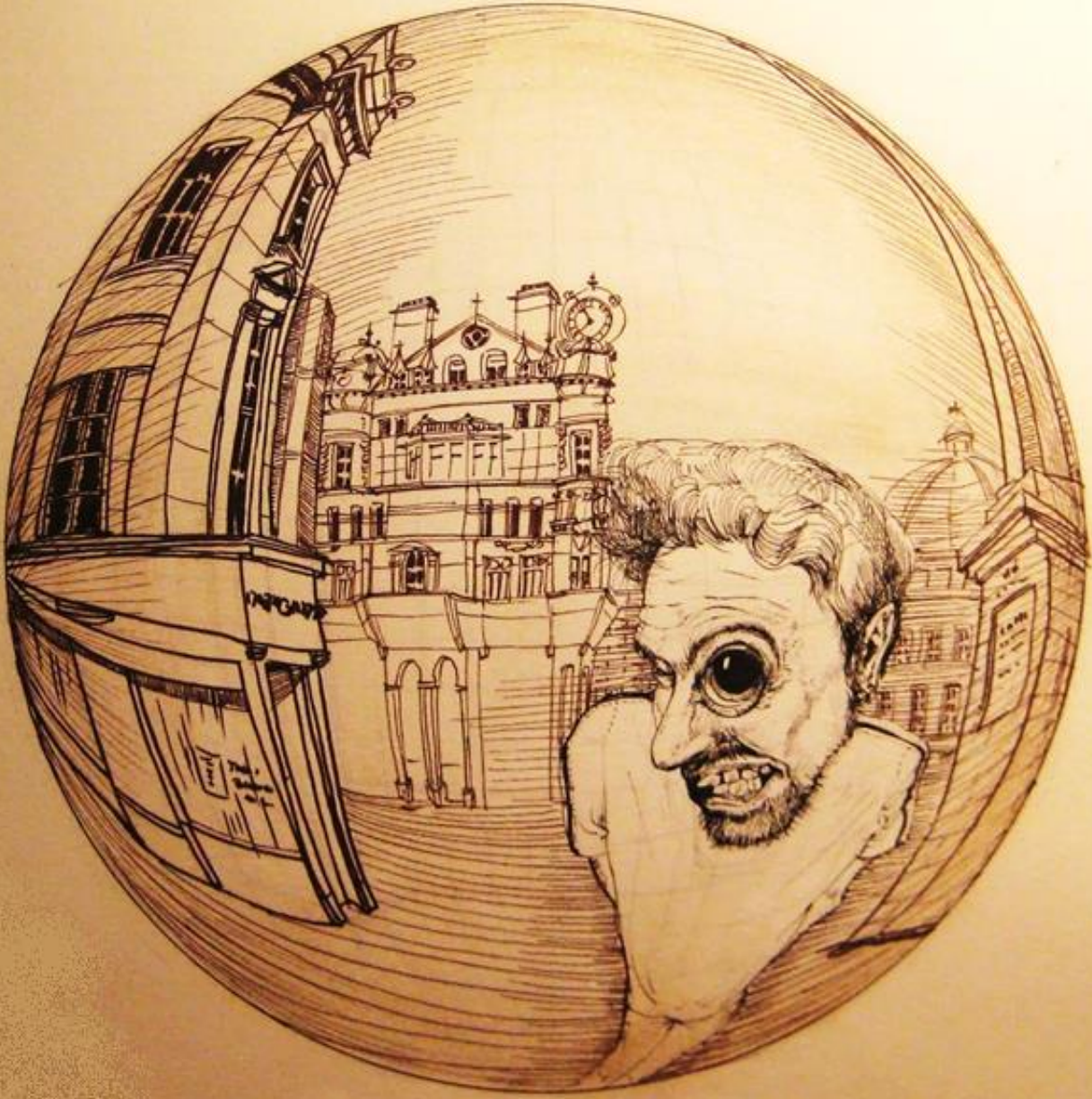


[link to 5 pint video horizontal view](#)

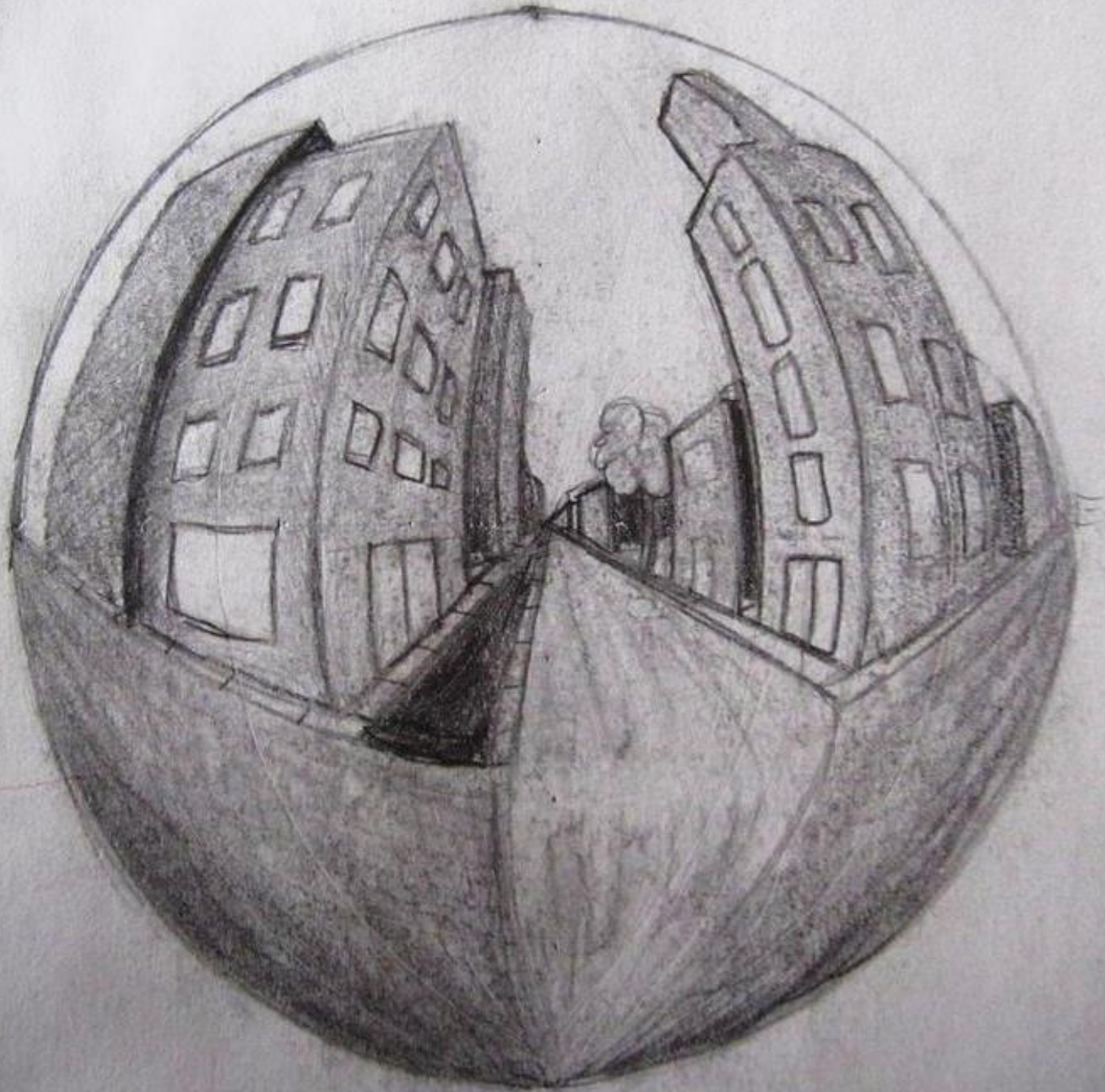


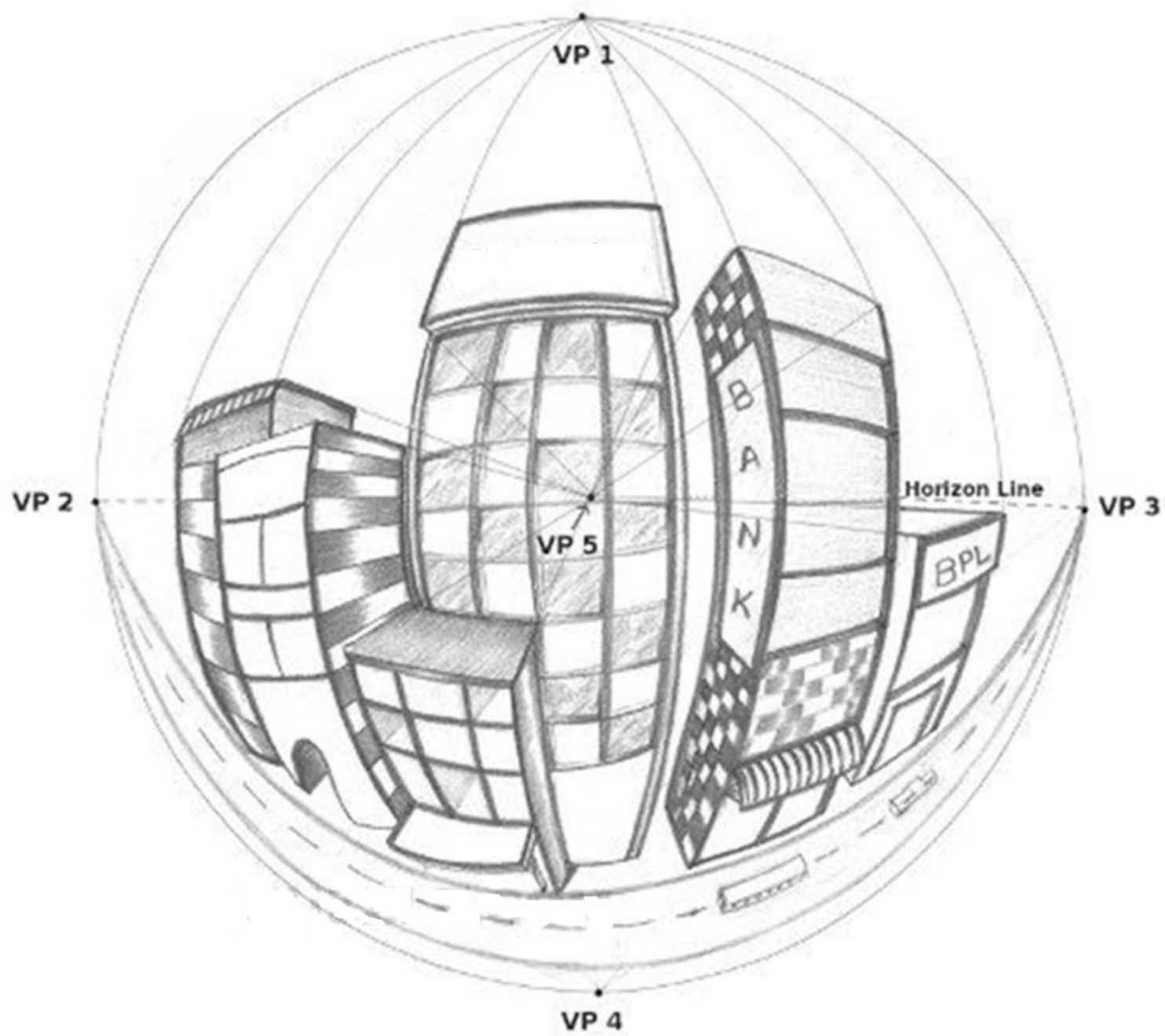






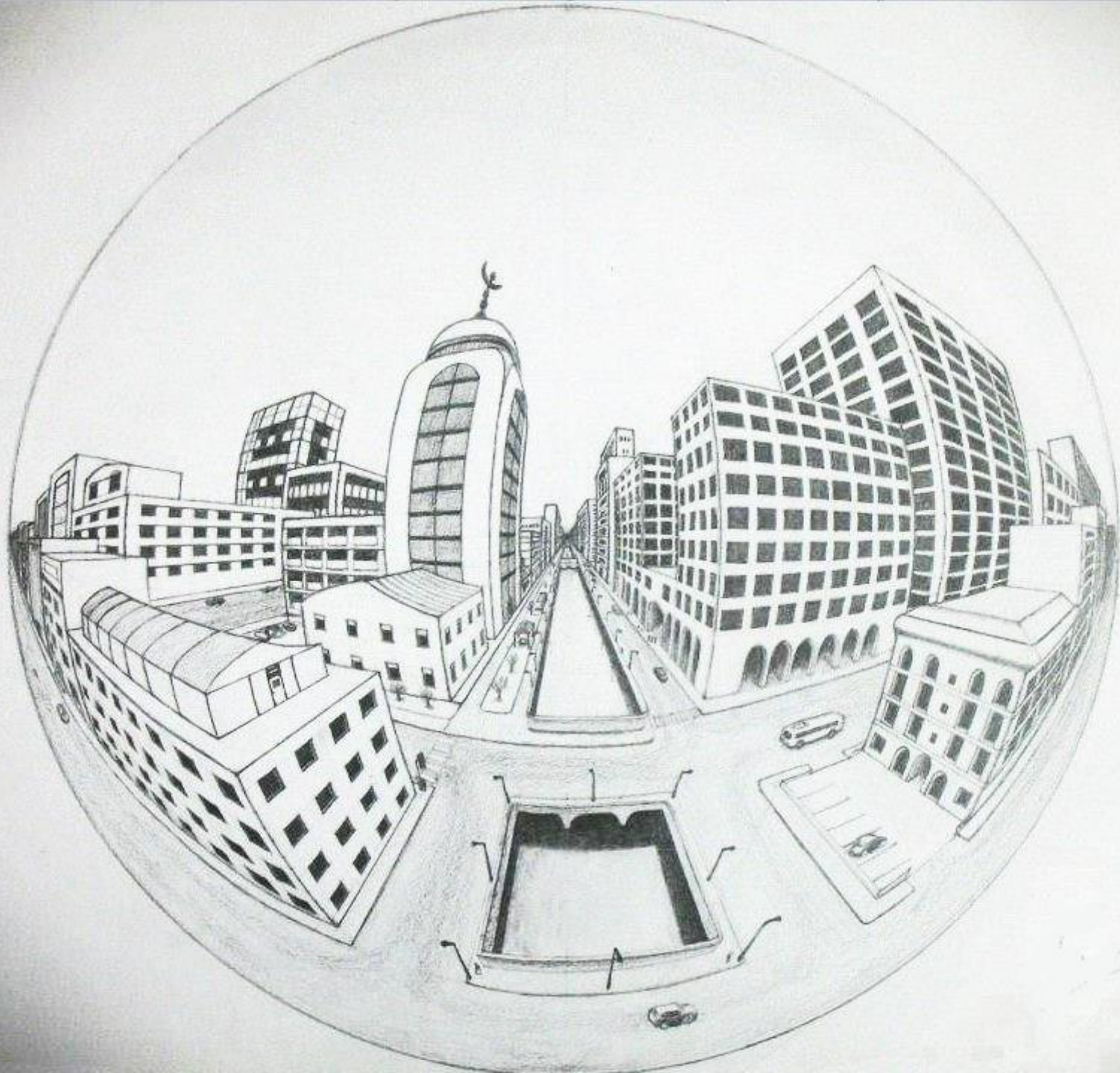




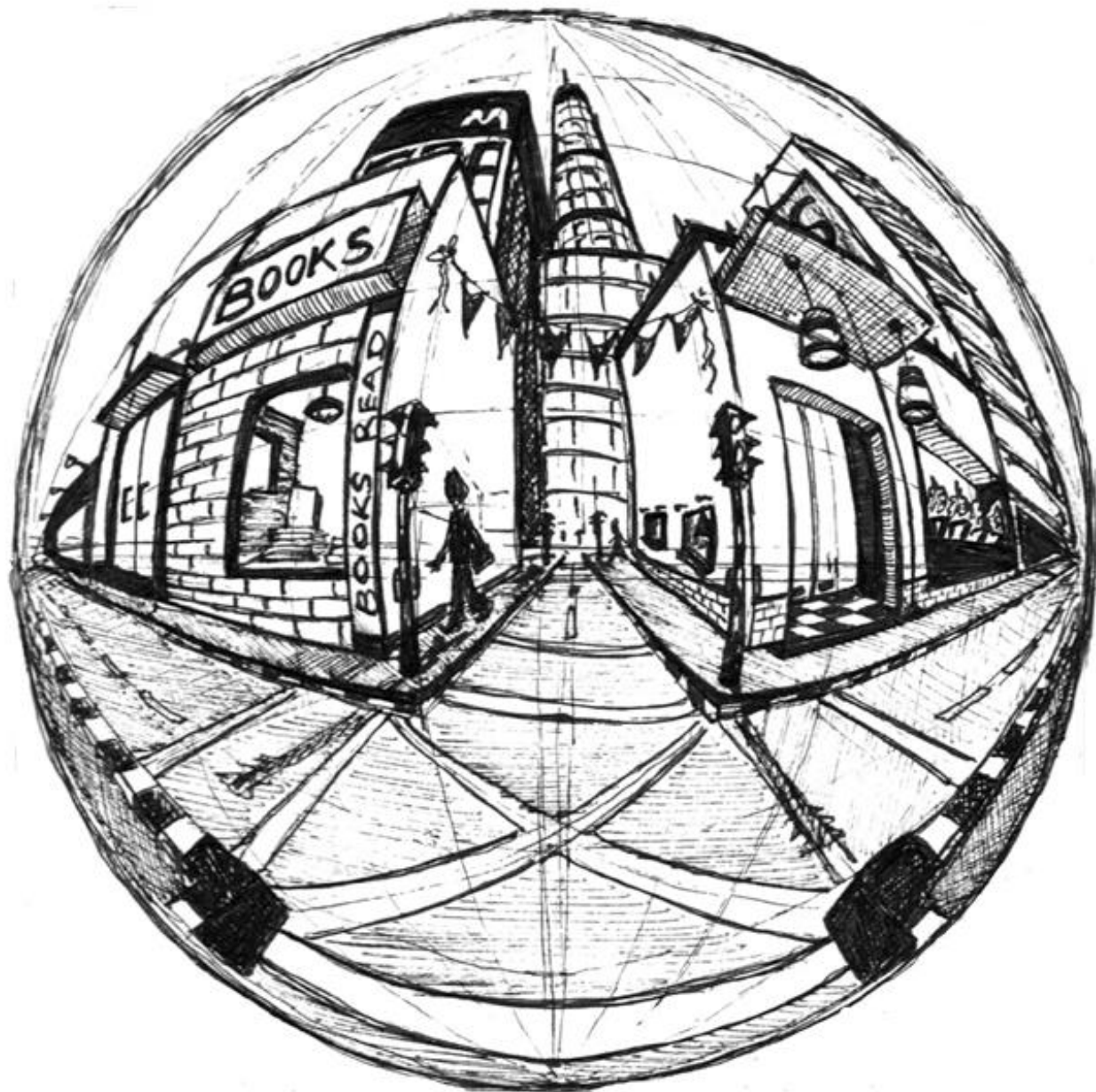








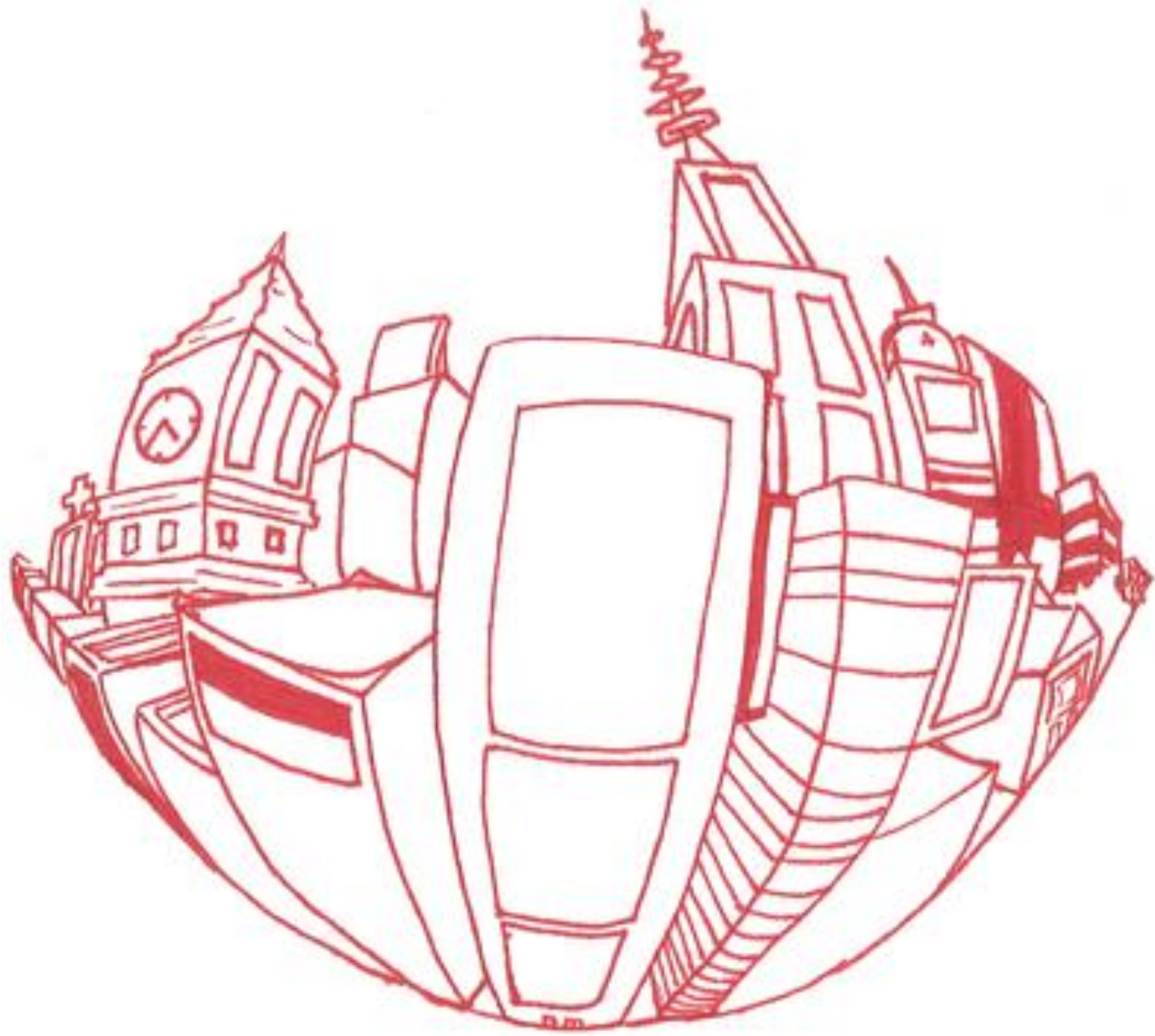




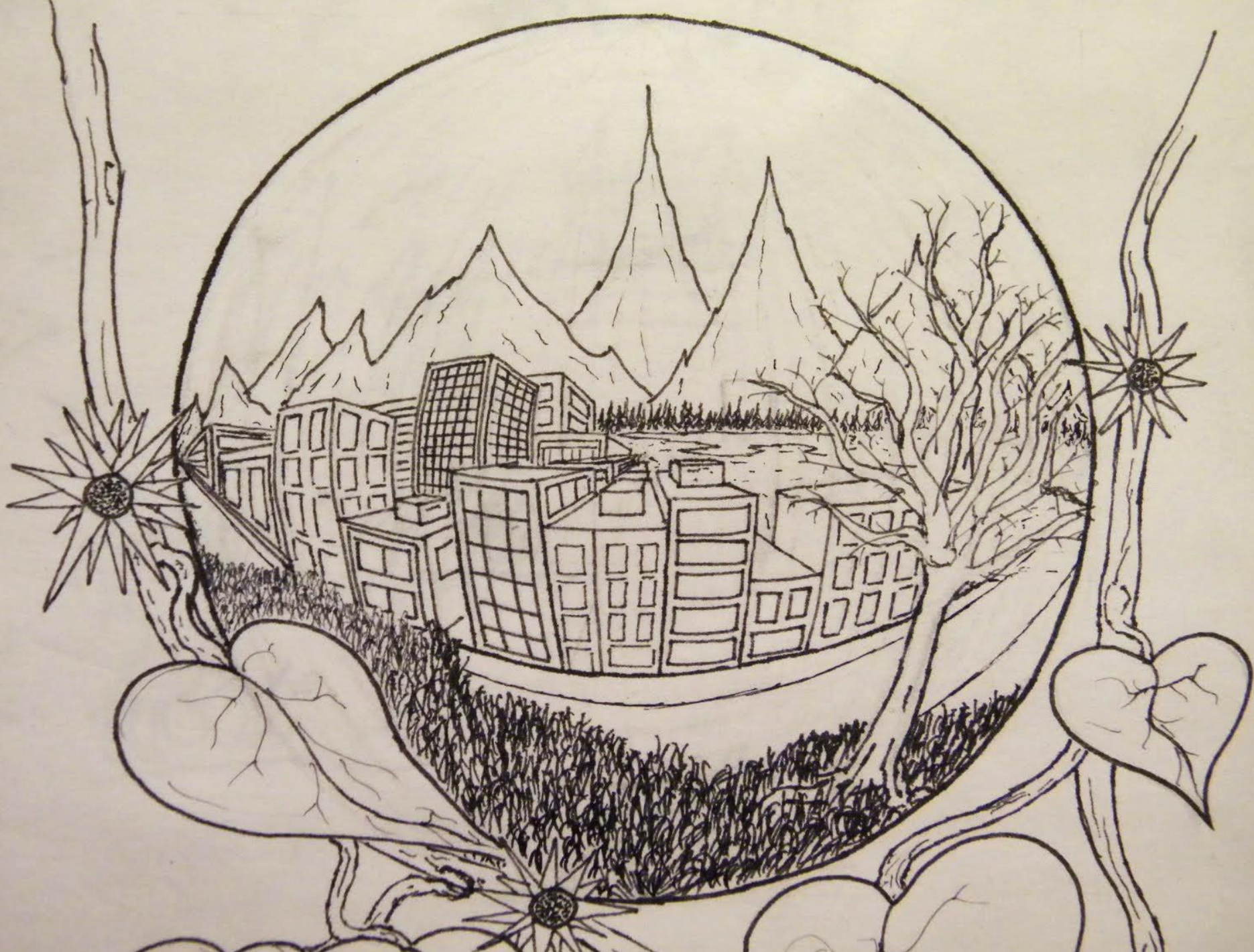


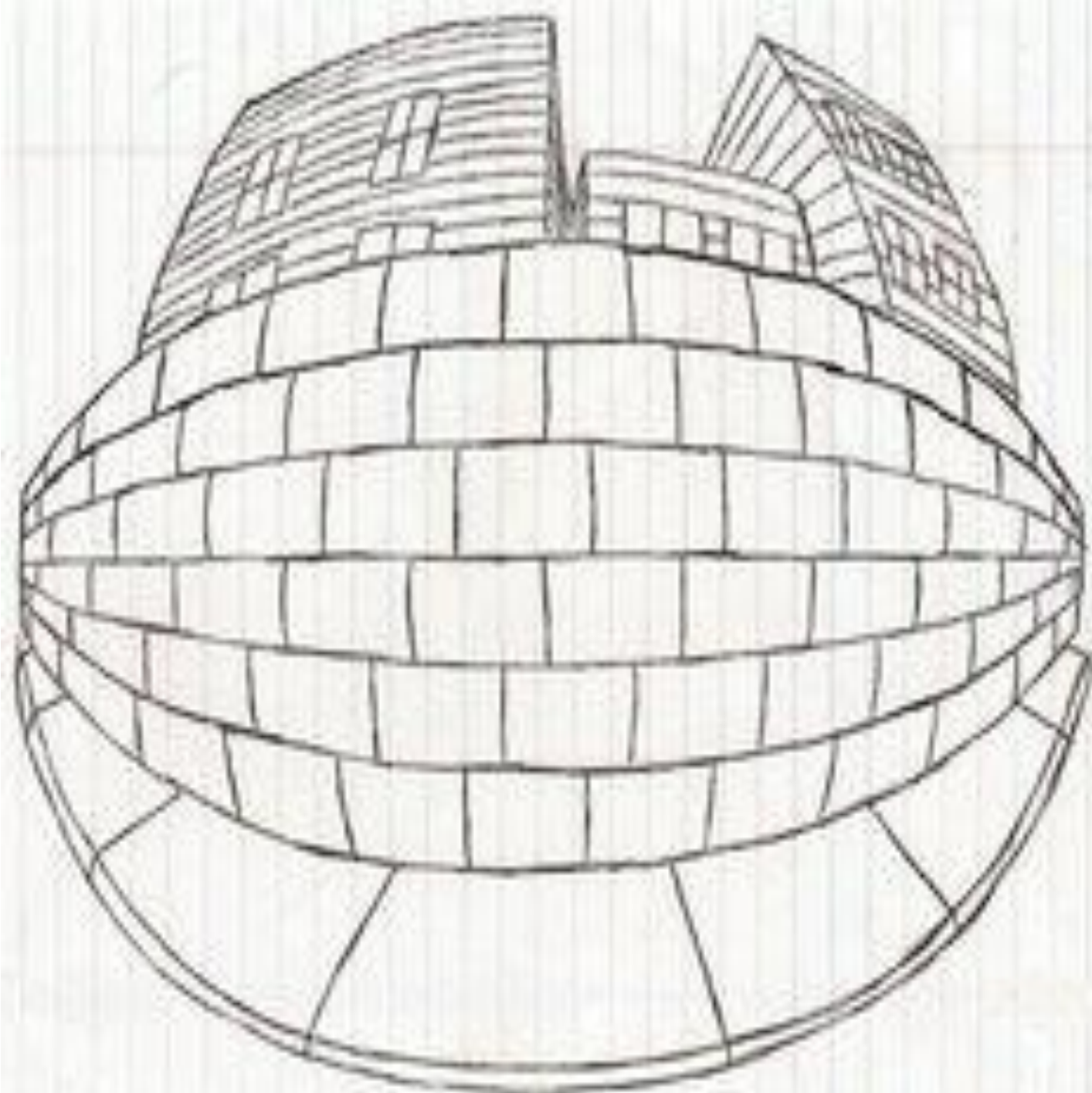






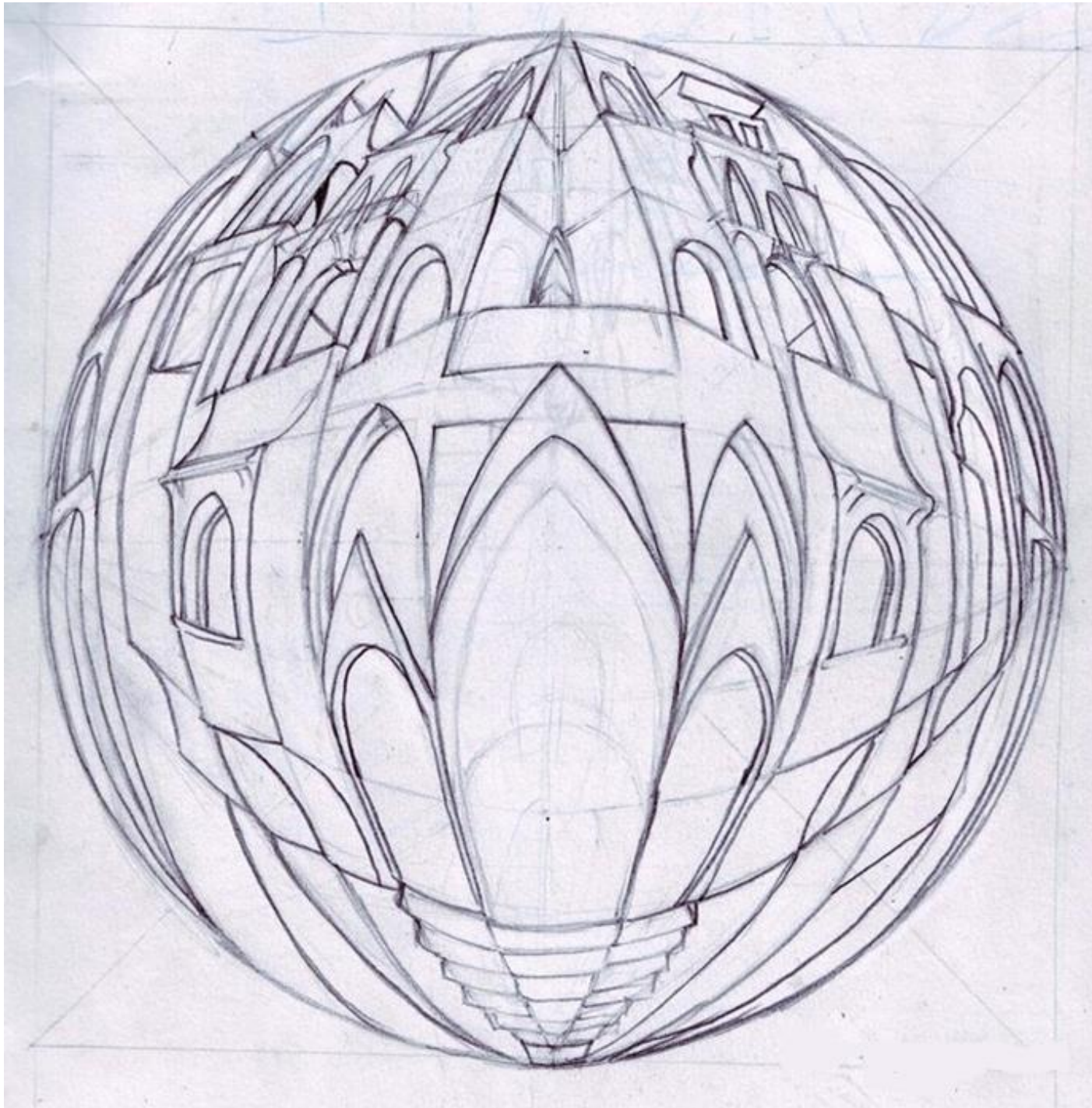




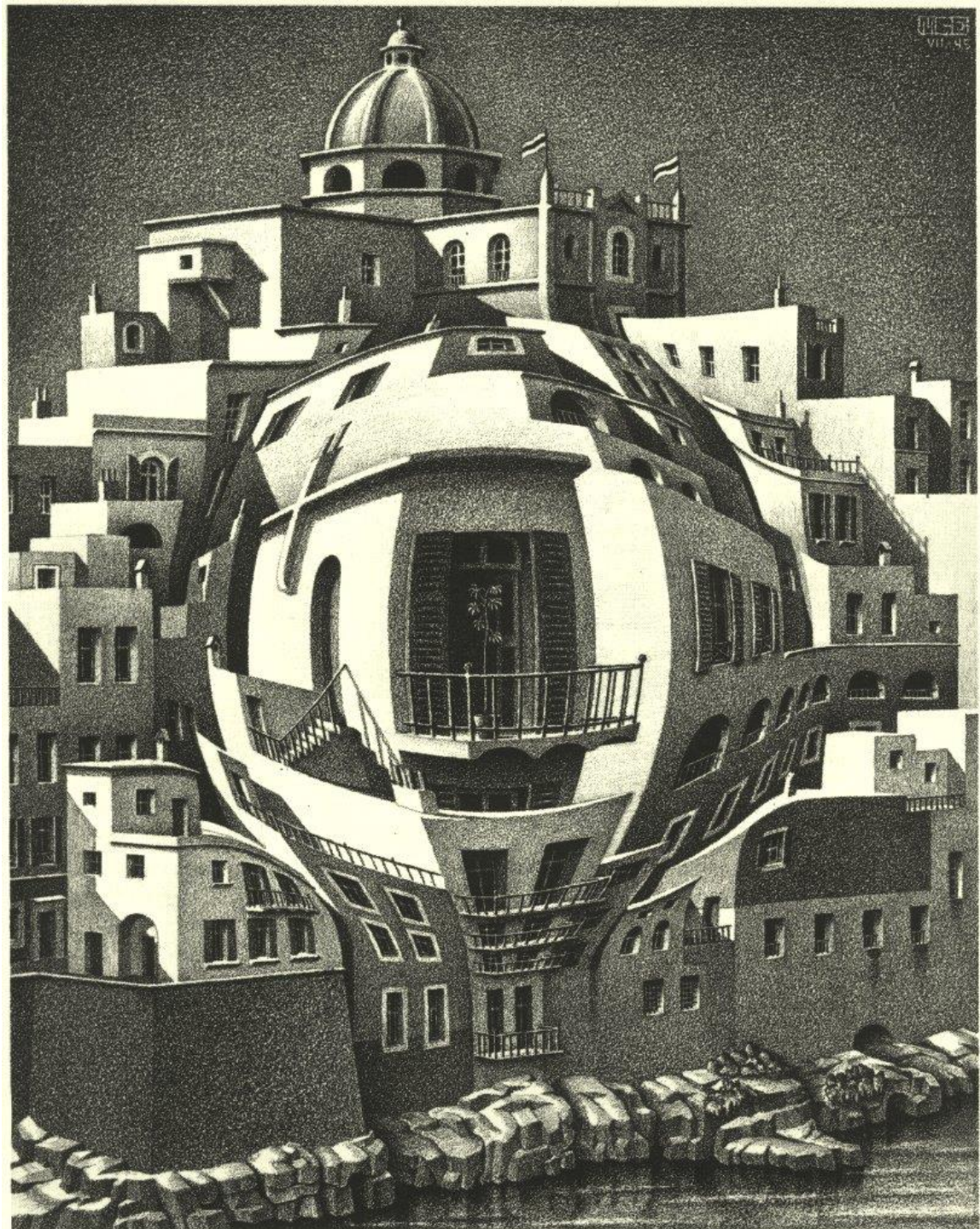










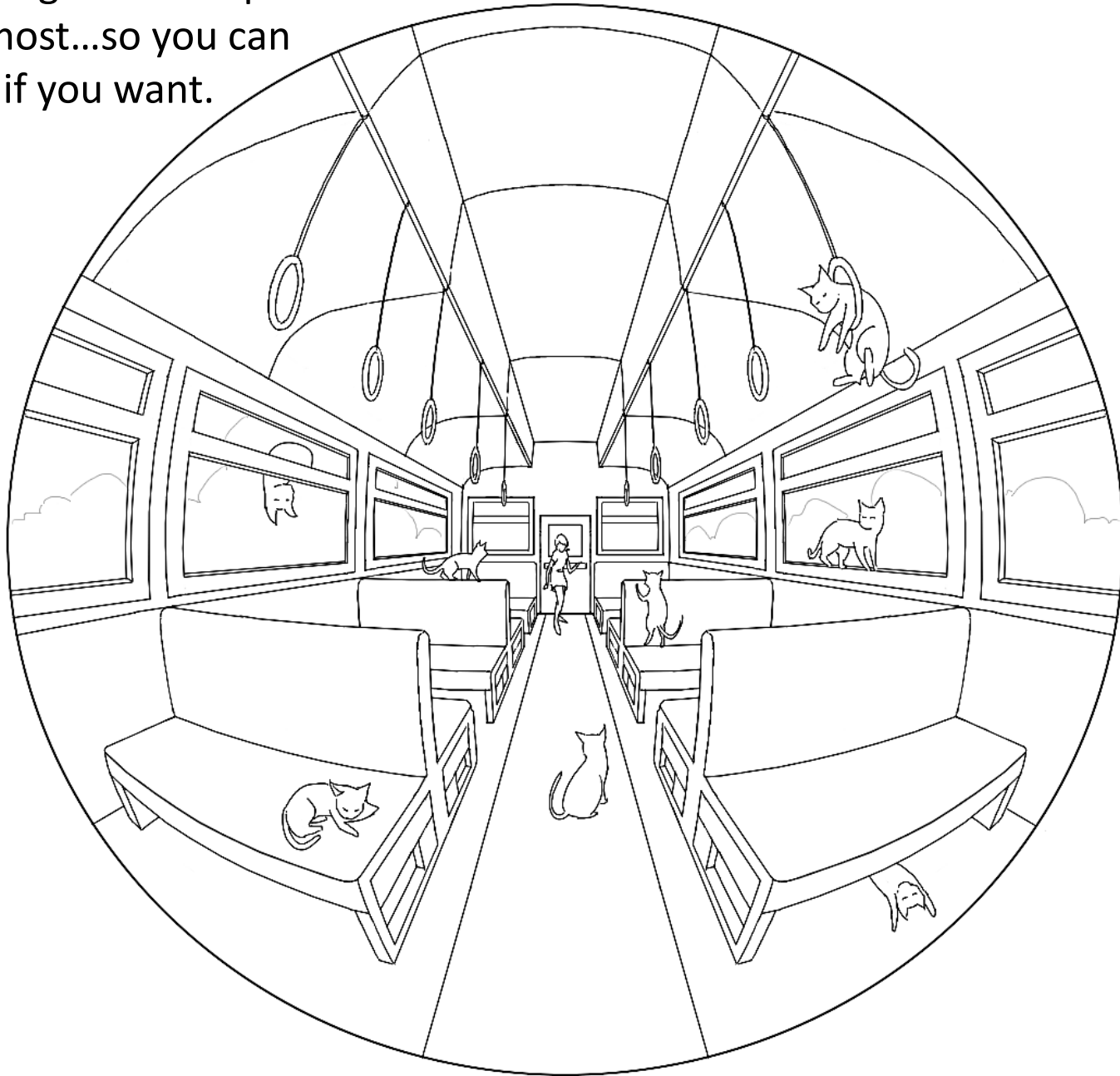


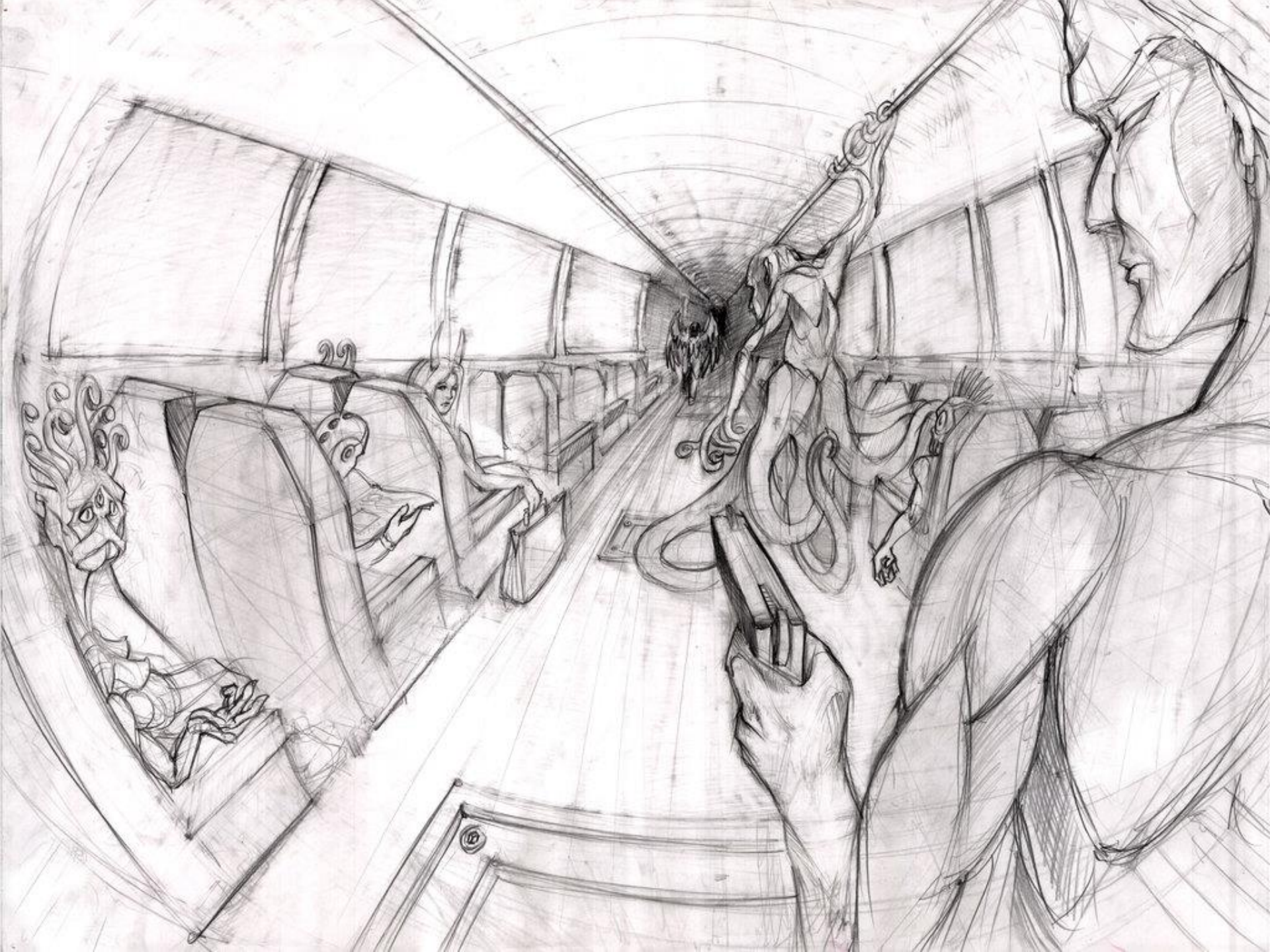






The outer edges of the sphere  
bend the most...so you can  
crop them if you want.

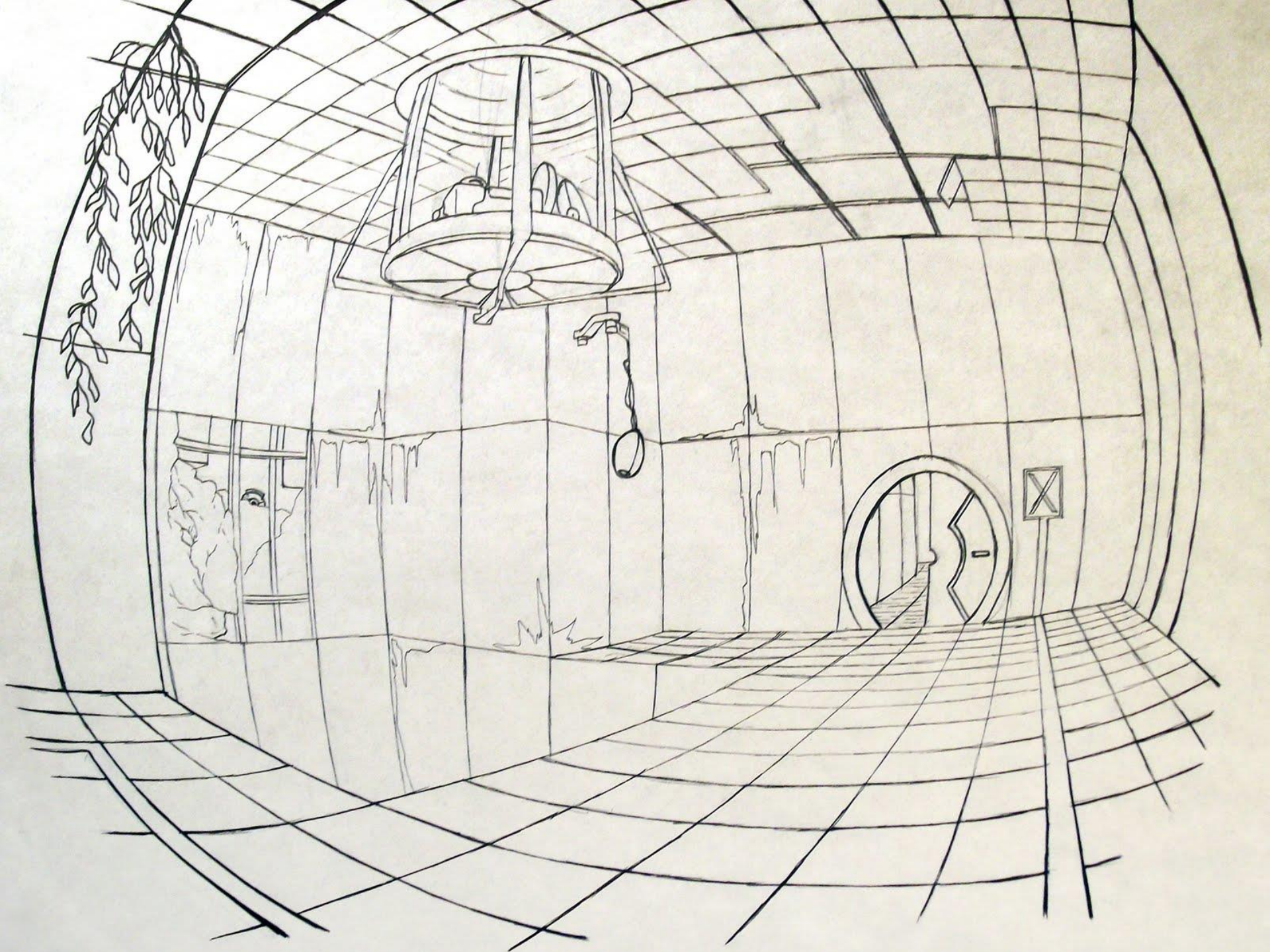








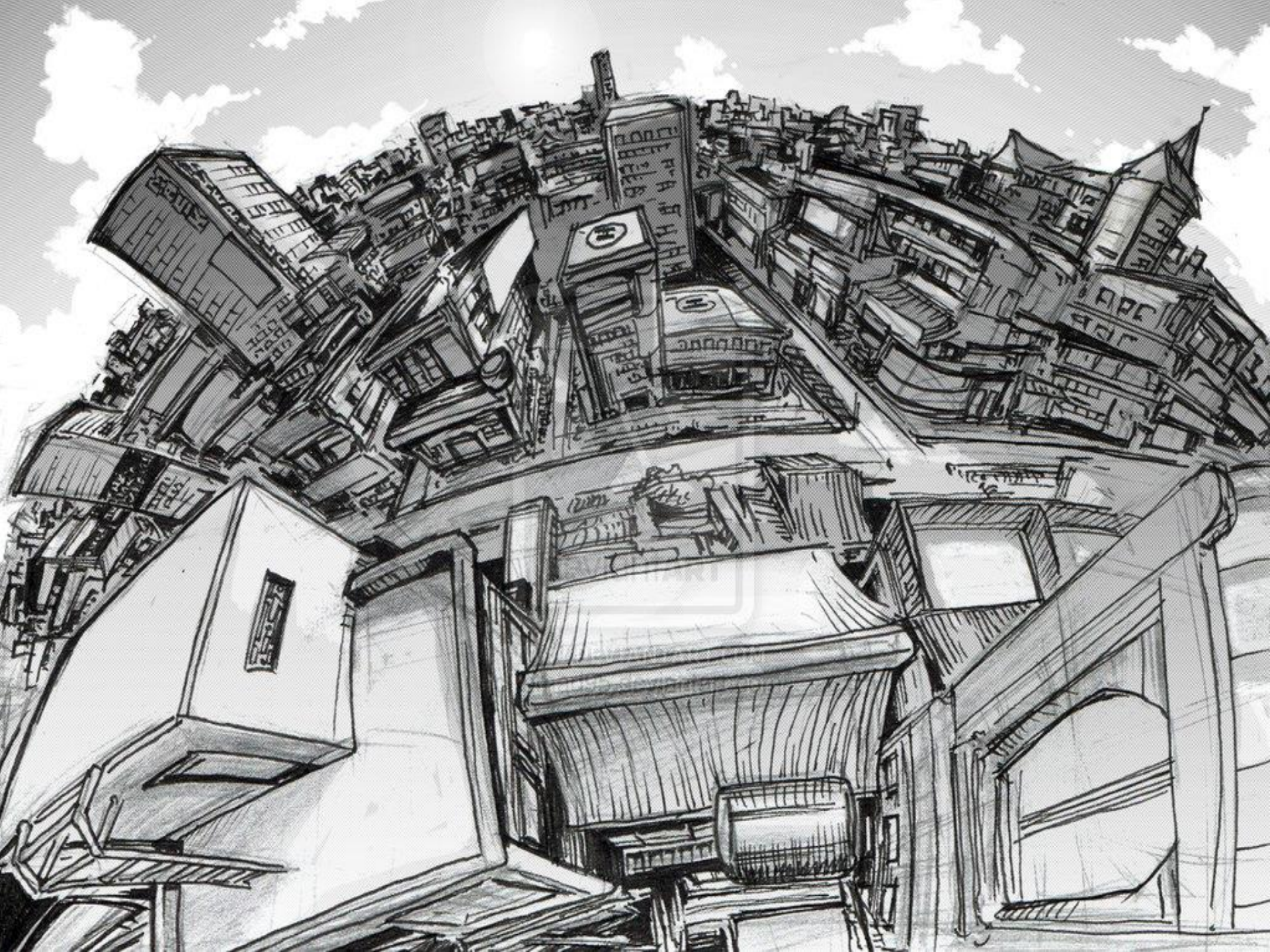






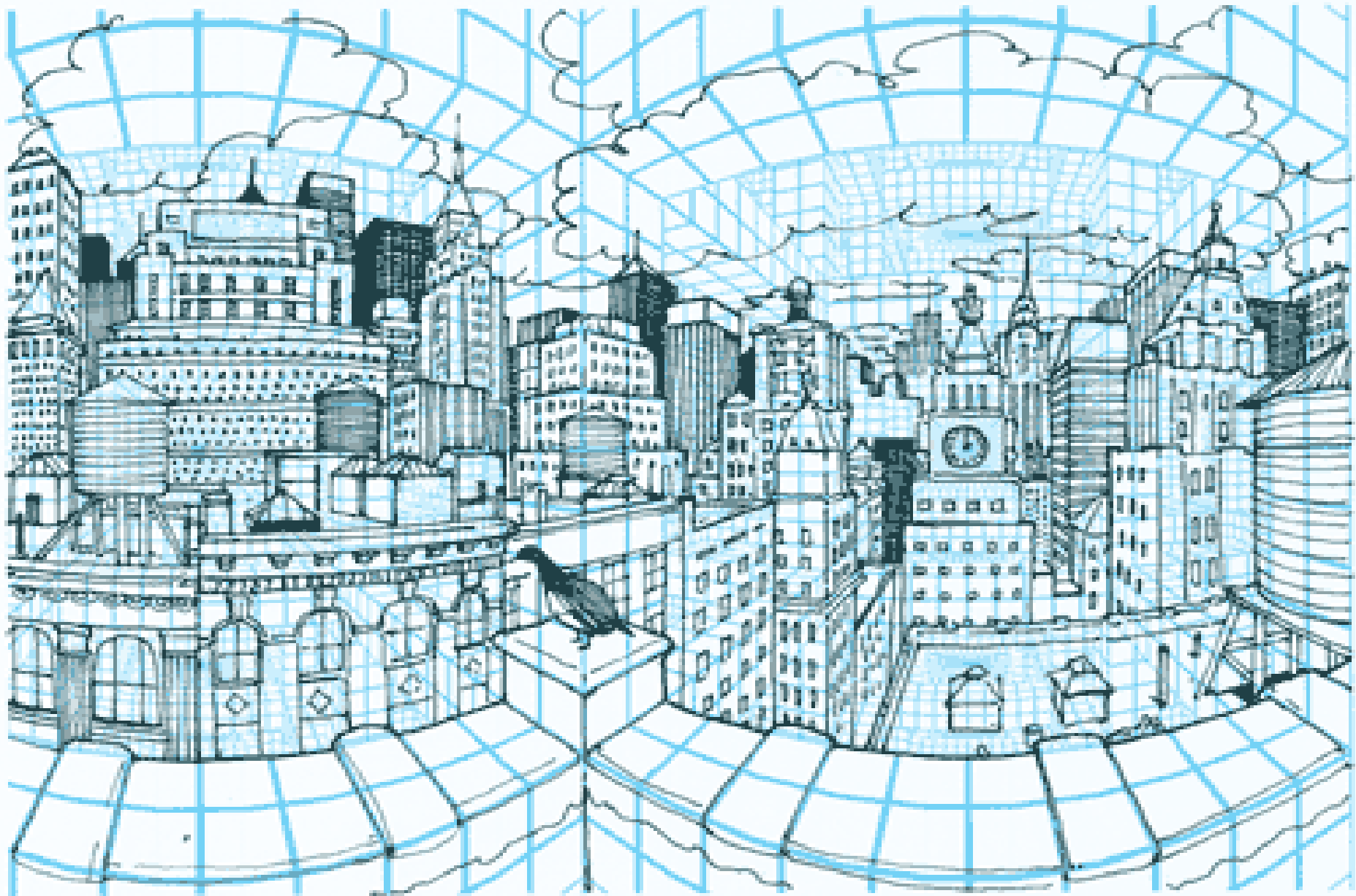






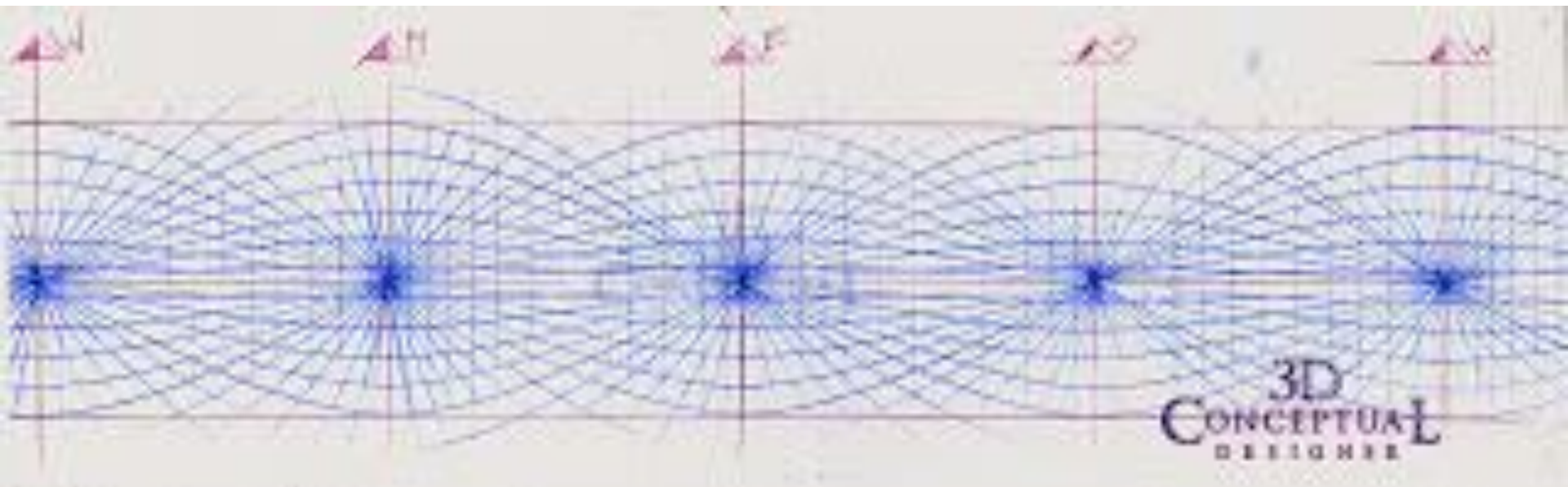


Variations:



Merging Two Spheres...





...or more than two

