

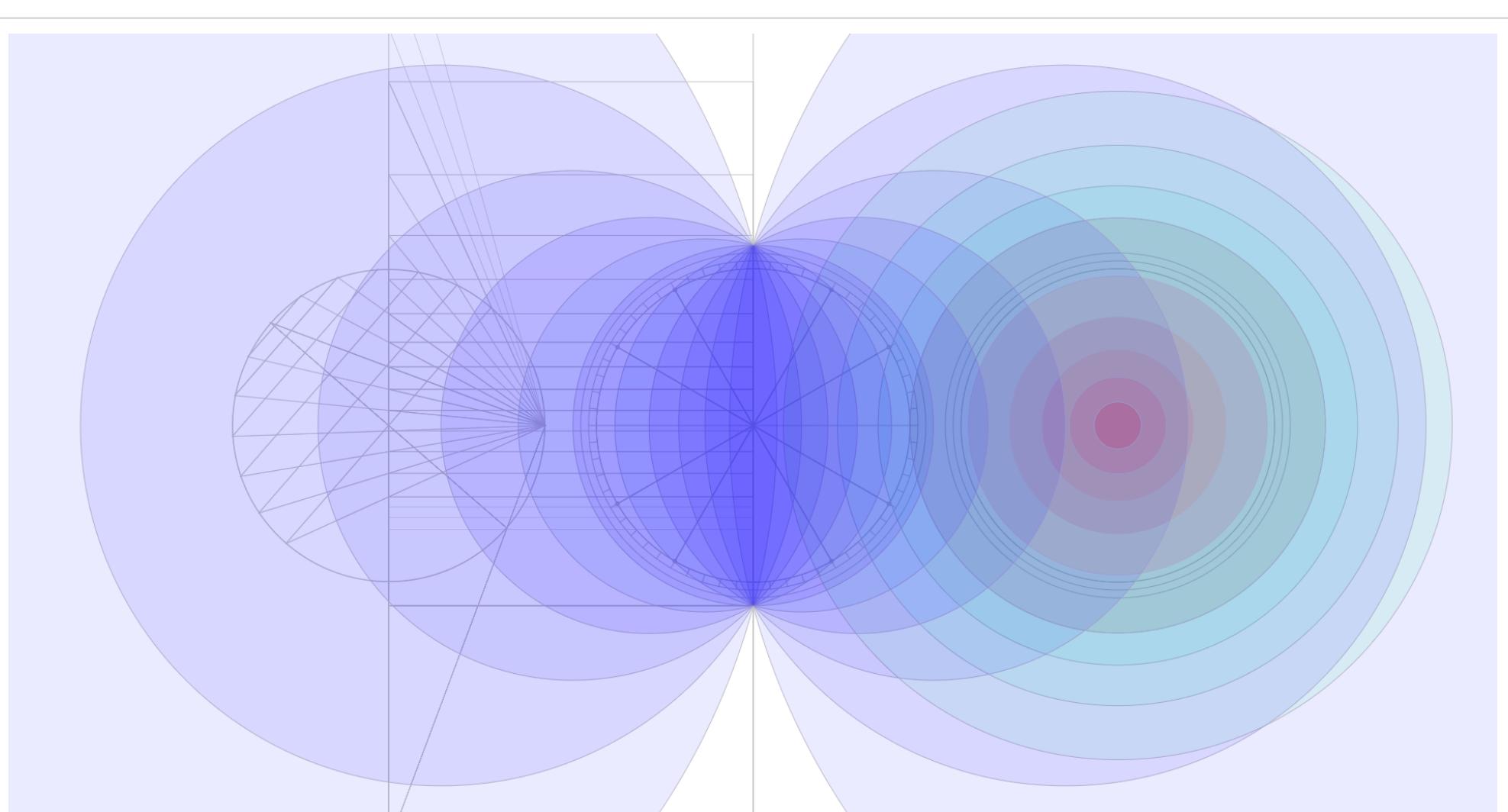
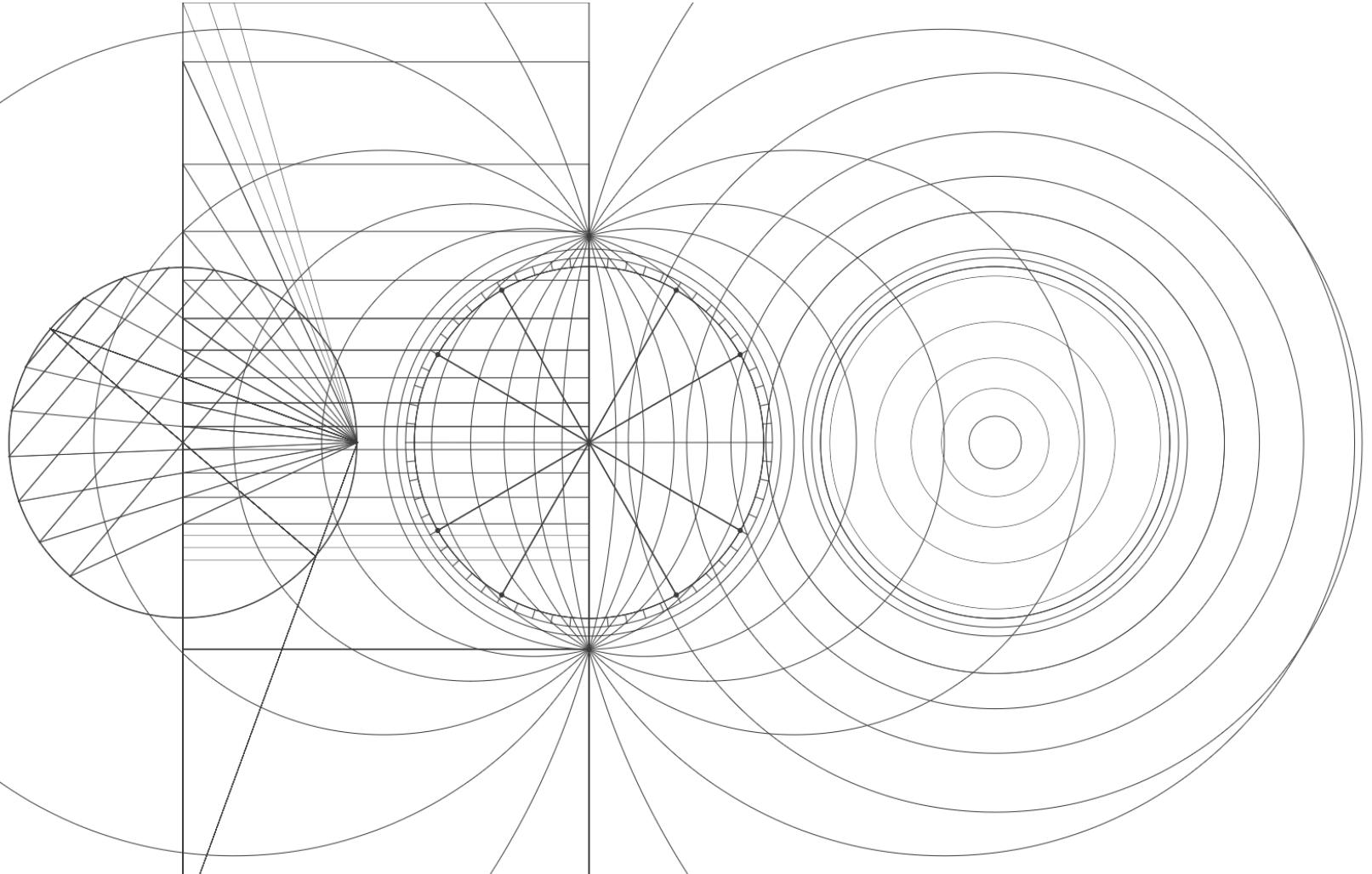
Heavenly Lines

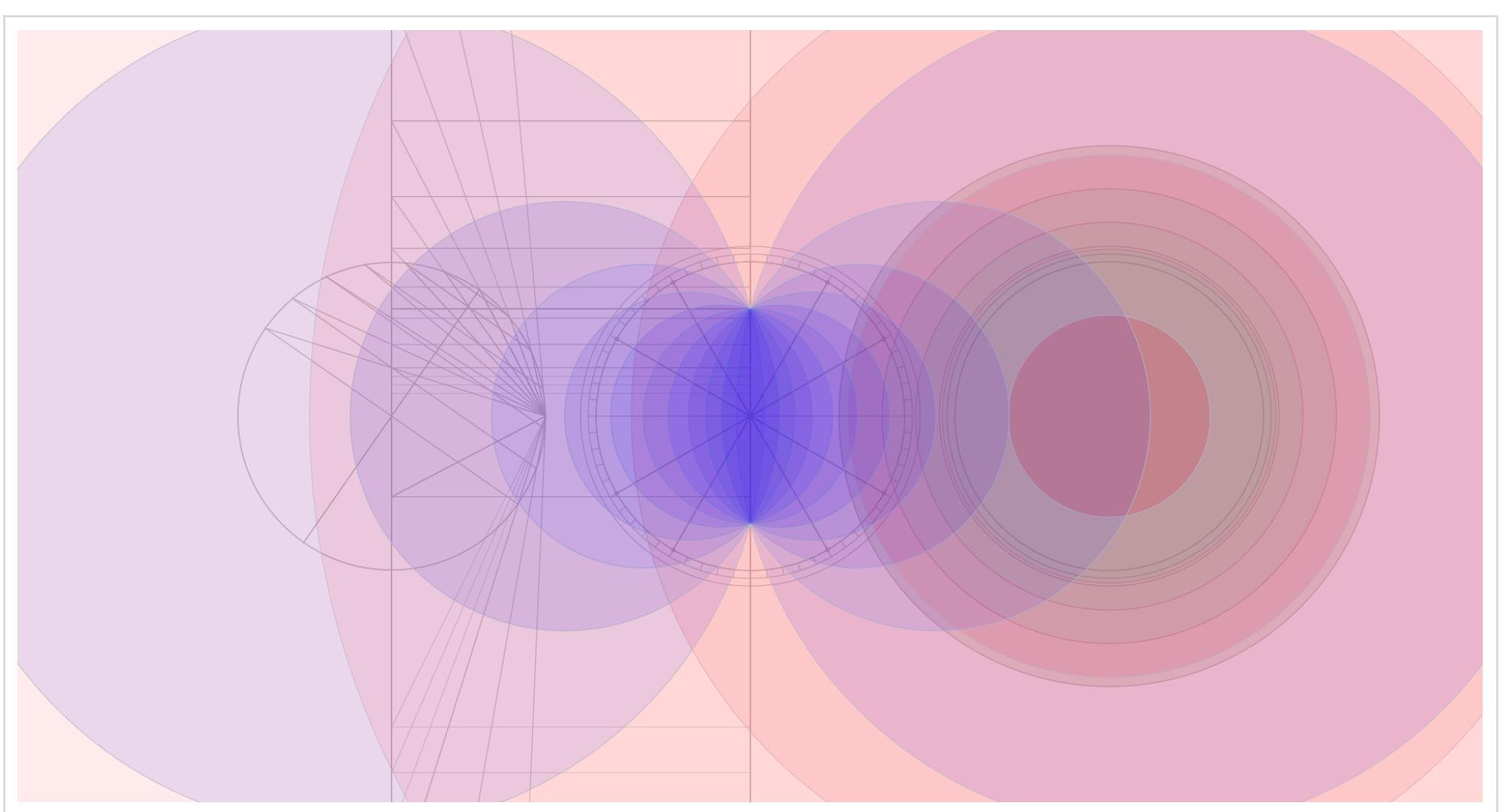
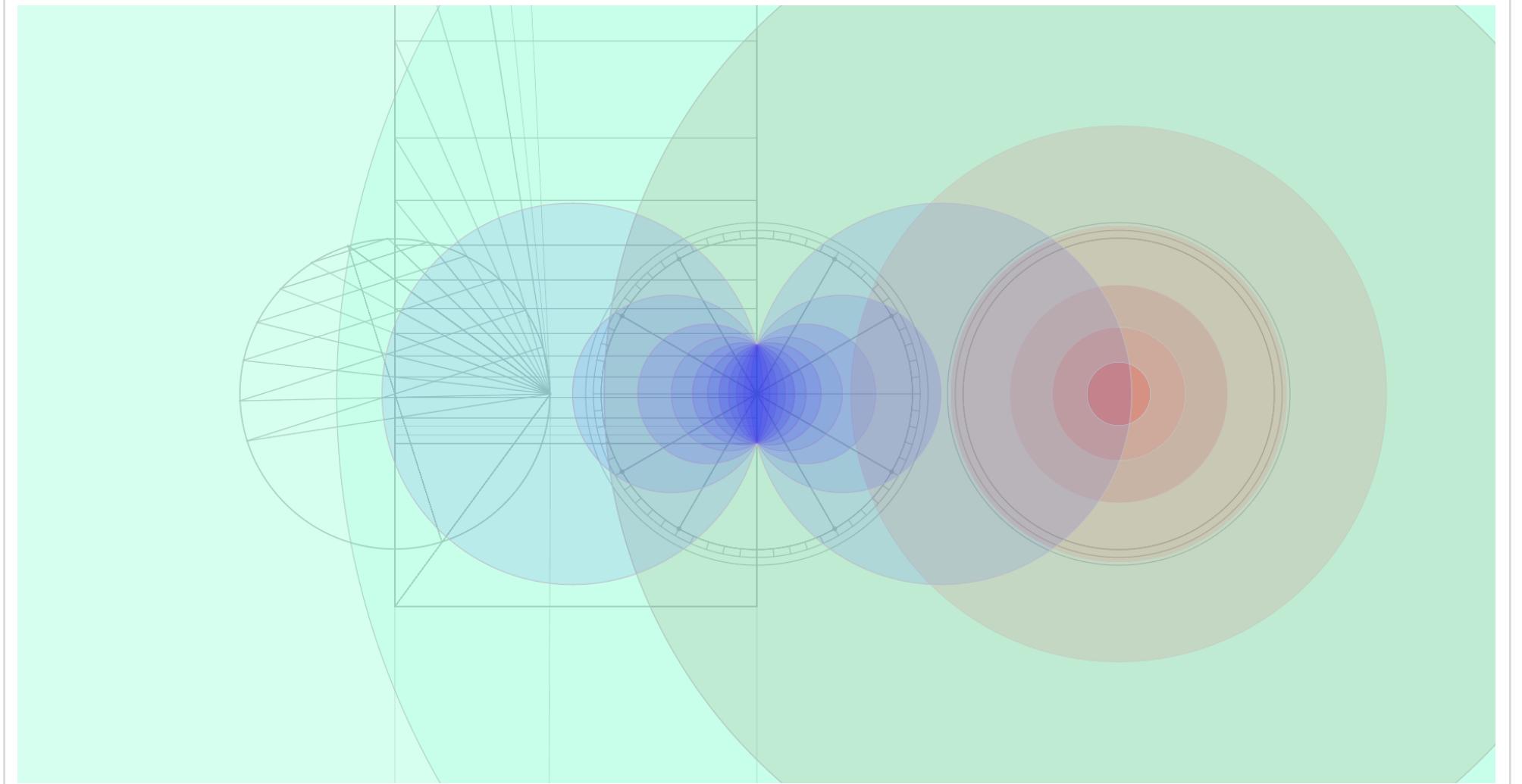
Astrolabes for future use on Mercury,
Venus, Mars, Jupiter ... and even Pluto

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An astrolabe (Arabic: أَسْطُرلَب) is an intricate inclinometer employed by ancient astronomers and navigators to measure the altitude of a celestial body above the Earth's horizon. The first universal astrolabe was invented by the Islamic scholar Abu Ishaq Ibrahim al-Zarqali (b. 1029). Unlike its predecessors, his 'Tablet of the Astrolabe' projected both the equatorial and ecliptic coordinate systems on a vertical plane that cut the celestial sphere at the solstices, permitting its use at any latitude or longitude.

Inspired by al-Zarqali, I sketched construction lines to create astrolabes for each of the eight planets plus Pluto, appending his trigonometry calculations to contemporary NASA data and JavaScript. Variation between the digital drawings results from each planet's unique obliquity to orbit in addition to their distinct rotational and orbital periods.





WIESNER STUDENT ART GALLERY

Second floor of the Stratton Student Center, MIT Building W20

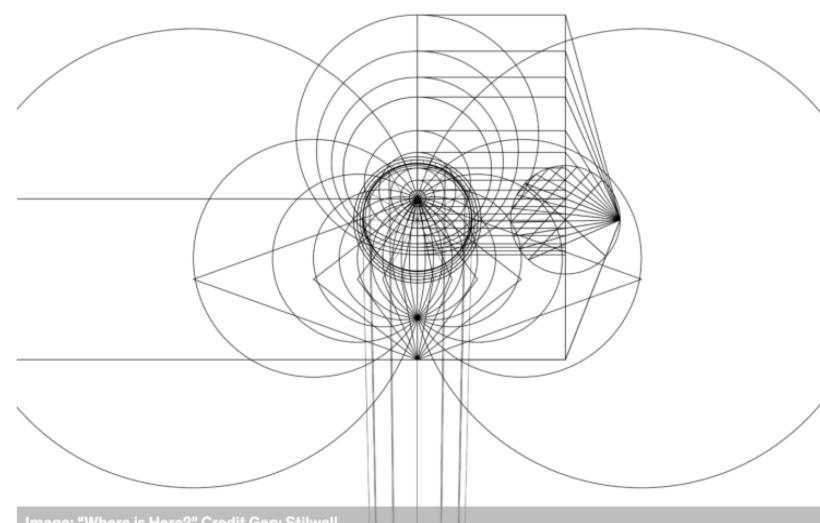


Image: "Where is Here?" Credit Gary Stilwell.

CURRENT EXHIBITION

Opening Reception: Thursday, December 6, 2018 / 4-6pm

A dual exhibition featuring work by Gary Stilwell and Cole Hoffer
Curated by Sam Magee

On Display: December 2018

Where is Here?

Gary Stilwell, a Fellow in MIT's Advanced Study Program, creates art inspired by ancient astronomers and navigators. His work presents astrolabes constructed for future use on Mercury, Venus ... and even Neptune, taking into account each planet's unique obliquity to orbit, orbital period and rotational period. The project was initiated within the course EC.050/EC.090 Recreate Experiments from History.

