

Sonic Planetarium: Satellite Pipes Guide

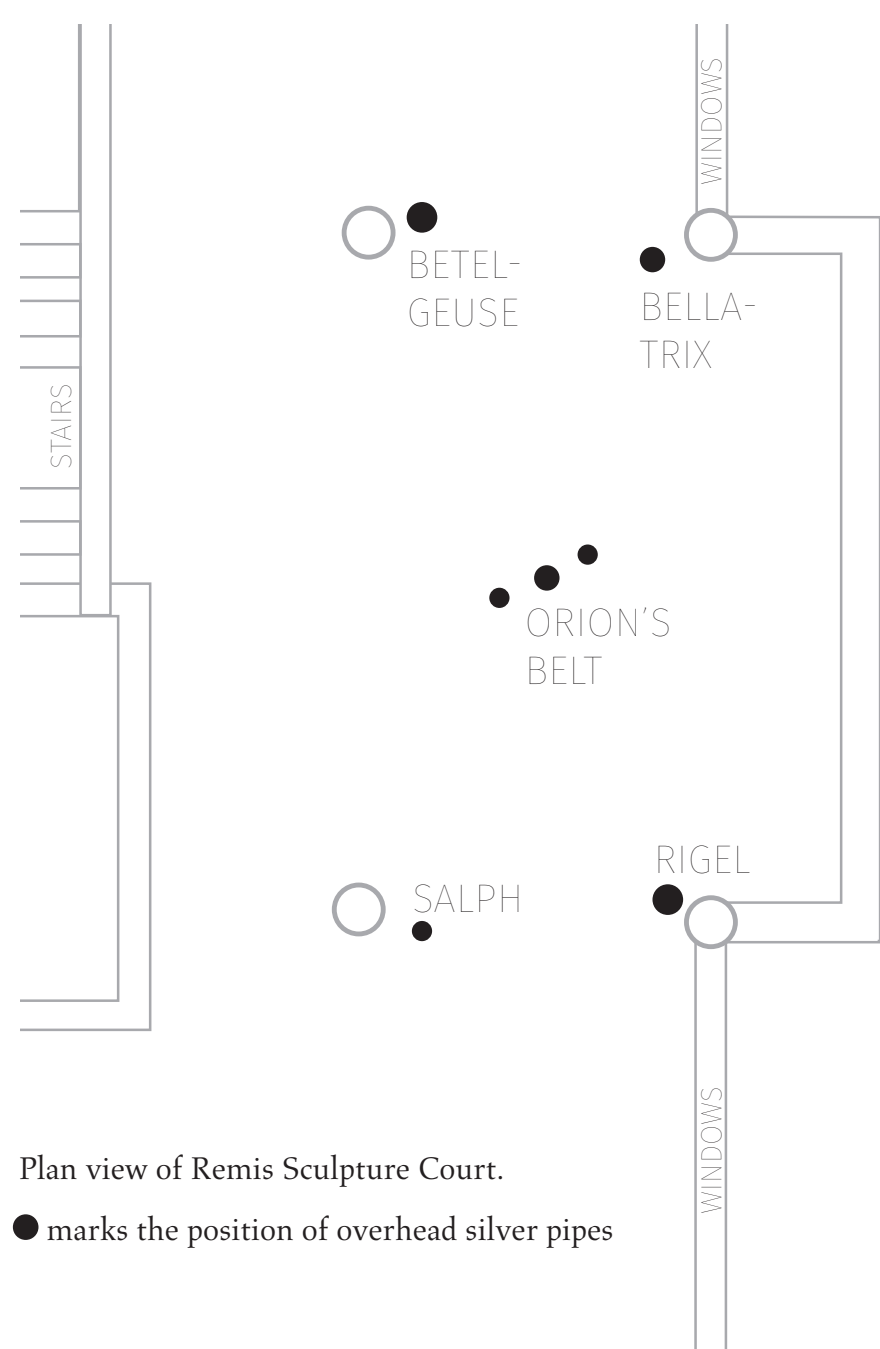
The seven silver cylinders play sounds which represent objects in Earth's orbit passing overhead in real time.

On view November 2018 – May 2019

What if we could hear into space? *Sonic Planetarium: Satellite Pipes* plays audio representing satellites and other orbiting objects that are within radio transmission range of Tufts University in real time.

Each pipe is assigned a category of orbiting object and named after the stars in the constellation Orion. The map and descriptions below detail the source and type of each sound.

The sounds are recordings from radio transmissions from that satellite in the past, or interpretive sounds representing that satellite or object. See sonicplanetarium.net for more information and how to participate by adding your audio to the growing model.



BETELGEUSE

This pipe features cube satellites, the International Space Station, sounds of data packets containing system position and status, and other mission data as well as human voice contacts with the ISS.

BELLATRIX

Listen here for vintage transmissions. These are recordings from satellites launched prior to the destruction of Skylab in 1979. Most of these satellites are defunct; their past transmissions remind of their persistent presence in orbit.

ORION'S BELT

This pipe is assigned amateur radio satellites, which in addition to satellite functions, operators use to make voice or morse code contact with each other over thousands of miles.

SALPH

These are interpretive sounds which represent objects in orbit. Many orbiting things never have transmitted (e.g. debris), and so other sounds are used to represent these objects in the sound model.

RIGEL

This pipe features weather satellites and earth observation satellites which send data from optical sensors. These sounds are likely image data of our area and the surrounding landscape.

Sonic Planetarium is a growing model. As of November 2018, about 200 satellites are represented as sound in *Sonic Planetarium*. Since there are far more functioning and non-functioning satellites and tracked pieces of debris in Earth's orbit, numbering in the thousands, *Sonic Planetarium* invites the public to contribute audio representing these orbiting objects. sonicplanetarium.net/participate/

Heidi Neilson is an interdisciplinary artist interested in giving visual and sensible form to the connections between people on the ground and off-planet conditions and infrastructure. Born in Oregon, Heidi Neilson received a BA in biology from Reed College and an MFA in painting from Pratt Institute, and lives and works in New York. Her ham radio call sign is KD2ESI.

Neilson's *Sonic Planetarium: Satellite Pipes* is a production of the Tufts University Art Galleries' new program of temporary public art projects—TuftsPUBLIC—featuring Wave Farm in residence. Based in Acra, New York, Wave Farm is a nonprofit arts organization driven by experimentation with broadcast media. As pioneers of sound and transmission art, Wave Farm brings their creative use of public space to Tufts's campuses through installations by Heidi Neilson, Jeff Thompson, and SMFA 1630 AM, a short wave radio station for 230 Fenway Campus (and available online at wavefarm.org/listen).

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