



DESIGN
ARTS UTAH

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ARCHITECTURE DESIGN
SALT LAKE CITY

PULSAR HOUSE

The **Pulsar House** was inspired by the client's interest in science fiction and space. The design team began with research about pulsars (short for pulsating radio star), highly magnetized, rotating neutron stars that emit a beam of electromagnetic radiation. Observations of a pulsar in a binary neutron star system were used to indirectly confirm the existence of gravitational radiation.

We analyzed the activity of two specific pulsars and their interaction with the site: the Crab Nebula Pulsar and Vela Pulsar on the date of 8/16/2010 – a day that the client wanted to commemorate in form. The architecture was generated according to the physical relationships between each pulsar trail and the site in Utah. In the study models, each Pulsar trail is represented as the centerline of the negative space, the magnitude of the pulsar defines the lofting boundary of the centerline, and the geological location of the site is shown as the site, consisting of an original 4" x 4" x 4" box.

In the programming phase of the project, the Pulsar acts as a timeline moving through each scene of the client's daily activity. These events are all connected accurately in the architectural plan and section with the Pulsar location at that specific moment. The massing is a combination of TIME (the programming study) and SPACE (the form study). In responding to the site, we positioned the form below the ridgeline, the volume floats above the land as it falls away, and the linear windows on the facades are meticulously designed to create a dramatic projection effect using daylight, which changes continuously according to the time and seasons. We selected a metal as façade finish, which provides a patina of age, sustainability, recycling and adaptive re-use. It is also a metamorphic response to the local climate.

