SAN TOMÉ: ASTRONOMICAL ORIENTATION AND EQUINOXES

VIDEO STRUCTURE

The video is centered around two main topics:

1. The astronomical orientation of the church, and an explanation of the celestial lines within the body of the Rotunda.
2. The equinoctial phenomena, with a brief overview of the Equinoxes in general and a focus on the equinoctial ray in San Tomé.

ASTRONOMICAL ORIENTATION

San Tomé's astronomical criteria can shed a bit of light into the mystery of its origins.

- The center of the circumference which the church was built upon is the junction between mount Ubione's meridian and the Canto Alto sunrise on 21st June.
- These criteria, typical of Irish and Scottish tradition, allow to speculate that whoever built San Tomé was a Celtic monk with an outstanding knowledge of astronomy.
- The Rotunda is also aligned with the sunrise on 3rd July, Saint Thomas's day.

THE EQUINOXES

An Equinox falls on the dates (22nd September and 20th October circa) during which the Sun crosses the celestial Equator, resulting in a day equal to the night.

- On these two dates, the Sun first rises and hits the column standing on the cardinal North. Then, at midday, the Sun places itself on the direction of the column representing the South.
- After that, it will begin its slow ride in the sky, until eventually reaching the moment in which the main phenomenon takes place.
- The phenomenon is made possible by the fact that the window above the entrance is actually slightly off center from the door. This is not a construction mistake, but rather a meticulously calculated trick.
- When the sunshine is cast into the narrow slit, it falls at such an angle that the majority of the light gets blocked by the matroneum; the remaining ray then pours directly into the back of the church, projecting the stunning image of the Sun.

A SKEWED AXIS

As with all human creations, the axis of the church is slightly tilted, even if just by 2 degrees North.

- This means that the solar disk is only projected in the exact middle of the apse three days before and three days after the Equinoxes.
- The phenomenon is still absolutely incredible, and highlights how impressive the astronomical knowledge of San Tomé's creator must have been.

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