Sundials and Religion: A Happy Wedlock of Faith and Science Debasish Das

The oldest surviving sundial is believed to be housed in the Berlin Museum and dates back to 1500 B.C. It is thought that the sundial was first introduced in Greece by astronomer Anaximander in around 600 B.C. Roman dramatist Plautus, who passed away around 184 B.C., expressed his dissatisfaction with the invention of the sundial for dividing time. Ancient civilizations, such as the Egyptians and Greeks, had their own unique designs of sundials, such as the obelisk and hemicyclium, showcasing the remarkable ingenuity of their peoples





(Switzerland, 1950's | History of Time Measurement - Poster Stamps edited by Swiss firm Nestlé-Peter-Cailler-Kohler Chocolate in the series n.89 - Sciences, Discoveries & Explorations)

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The scientific knowledge of the Greeks was passed down to the Romans and then to the Muslims. In the 7th century A.D., the Muslims encountered the Greco-Romans and adapted their scientific knowledge of gnomonics to align with their religious beliefs, resulting in a harmonious combination of religion and science. The Umayyad Caliph 'Umar 'ibn 'Abd al-Aziz of Damascus was known to have used a sundial around 700 A.D. and in the 8th century, al-Fazari and Ya'qub ibn Tariq made significant contributions to the study of shadows. Sundials

were also used in European churches. (https://lighteddream.wordpress.com/2018/01/01/sundials-to-tell-the-times-of-

prayers-in-the-mosques-of-india/)

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(Israel, 2014 | Sundials used in different religious places - in Zoharei Chamma Synagogue, Jezzar Mosque and ancient Jewish quarters | SG 2299-2301)

Arab Dial with the fours of Proyects of Islam.

A First Day Cover from Algeria in 2011 shows a Sundial in the Great Mosque at Tlemcen with detailed prayer time calculation curves. (he Joint Issue between Slovakia and Slovenia of 2019 - Scot 813 show the Pleterje Sundial in Slovenia and the Stará Bystrica Astronomical Clock in Slovakia.



(https://www.atlasobscura.com/places/stara-bystrica-astronomical-clock)

Ibn al-Shatir, a 14th century astronomer from Damascus, is credited with inventing the polar horizontal sundial, which features a gnomon aligned with the North. This design spread from Damascus, with its popularity growing in Europe where it became a common garden ornament, and in India where it was integrated into Sanskrit astronomy as the "palabha-yantra."

In conclusion, sundials have a long and fascinating history in different religions dating back to ancient civilizations. From the simple shadow clocks of the ancient Egyptians to the ornate designs of the Renaissance, sundials have been used for both practical and artistic purposes throughout the ages. In Islamic culture, they have a special significance as they were used to determine prayer times. Today, while not used as much as before, they still serve as a reminder of our rich history and connection to the natural world.