



The British
Museum

Objects in Focus

Indian Astrolabe

Being in the Time and Space



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Free

Open Late Fridays
Room 3

britishmuseum.org

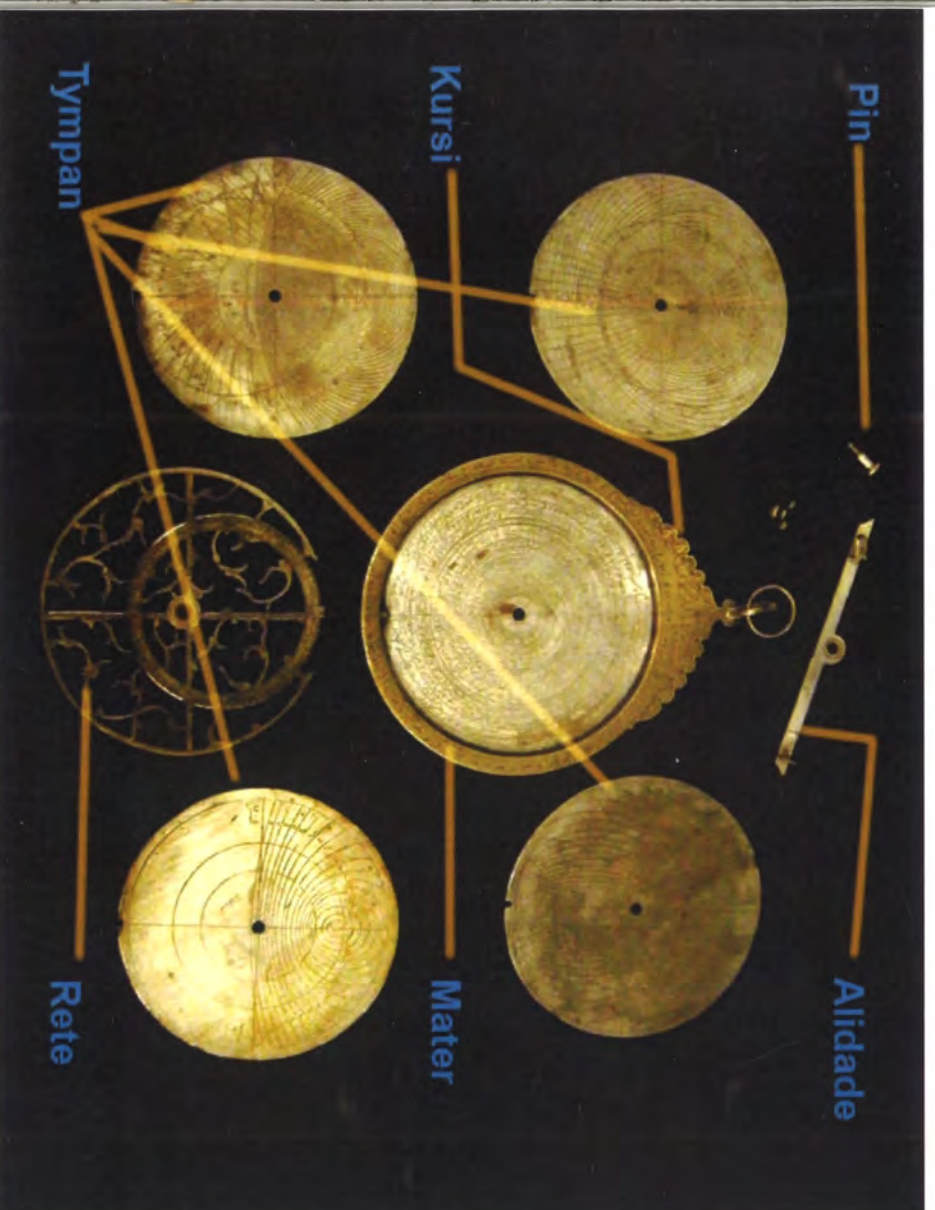
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Parts of an Astrolabe

Finding the Time and Space with engravings

There are several varieties of astrolabe. Most of them are flat disc types and the spherical or linear ones are extremely rare. The astrolabe that was found in India is a beautiful example of a flat astrolabe in the collection of the British Museum.



It consists of a disk, called the **Mater** (*umm* in Arabic), which has a certain amount of depth to hold four plates called **Tympan** (*safiha* in Arabic) in it.

A Tympan is made for finding the latitude and is engraved with circles, representing the part of the celestial sphere above the local horizon. The **Rete** (*ankabut* in Arabic) is an openwork circular disk, containing stereographic projection of the ecliptic and of the positions of some fixed stars. The mater is decorated by a triangular projection on top of it called **kursi**, to which are attached a shackle, a ring or a cord for suspending the astrolabe.

The back of the Mater (*zahr* in Arabic) is divided into four quadrants. Each of these include an engraved astrological table, many lines and scales. A diopter called **Alidade** with one vane is attached to the center of the mater at the back. This is the observational part of the astrolabe.

Look at the sun and the stars!

The Astrolabe between the eye and the sky!

- The astrolabe (Arabic: asturlab) is one of the most elaborate astronomical instruments used with the naked eye to calculate time and space by determining the positions of the sun and stars. It combines creative imagination and scientific calculation for time-telling, mapping, surveying, spiritual healing and predicting the future. It can be considered as the world's first computer, being a scale model of the sky at any particular period and locality. It was thought that a person who held the astrolabe, was in fact holding the universe.
- Astrolabes are beautiful works of art, whose engravings and decoration represent an exceptional quality of craftsmanship.



Ottoman astronomers at work around Taqī al-Dīn at the Istanbul Observatory.
© Istanbul University Library, F 1404, fol. 57a.

The astrolabe was invented in ancient Greece and was adopted across the Islamic world during the medieval period. Astrolabe use was not restricted to Persia and Syria, but also spread across Europe. In the 16th century, astrolabes appeared in Nuremberg and Italy also. Recent historical studies show that the usage of these sophisticated instruments is universal and not restricted to particular regions, religions and cultures. The technology and concept of astrolabe is still being used in today's GPS digital technology.

Astrolabe

Lahore, India (now Pakistan), Mughal Period

1070 AH 1659-1660 CE.

This astrological instrument consists of six brass plates with elaborate decoration on top and engraved tables and circles on both sides. A rotating two-dimensional sphere represents the motions of the sun and stars and was used for determining the position of them to calculate time and space.

This astrolabe was made by Muhammad Muqim, who belonged to a Lahore family and he made 37 astrolabes in his life-time. Making and using an astrolabe needs creativity and ingenuity. It was thought that a person who held the astrolabe, was in fact holding the universe.

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