The astrolabe is a very ancient astronomical computer for solving problems relating to time and the position of the Sun and stars in the sky. Several types of astrolabes have been made. By far the most popular type is the *planispheric astrolabe*, on which the celestial sphere is projected onto the plane of the equator. A typical old astrolabe was made of brass and was about 6 inches (15 cm) in diameter, although much larger and smaller ones were made.

Astrolabes are used to show how the sky looks at a specific place at a given time. This is done by drawing the sky on the face of the astrolabe and marking it so positions in the sky are easy to find. To use an astrolabe, you adjust the moveable **components** to a specific date and time. Once set, much of the sky, both visible and invisible, is represented on the face of the instrument. This allows a great many astronomical problems to be solved in a very visual way. **Typical uses** of the astrolabe include finding the time during the day or night, finding the time of a celestial event such as sunrise or sunset and as a handy reference of celestial positions. Astrolabes were also one of the basic astronomy education tools in the late Middle Ages. Old instruments were also used for astrological purposes. The typical astrolabe was not a navigational instrument although an instrument called the *mariner's astrolabe* was widely used in the Renaissance. The mariner's astrolabe is simply a ring marked in degrees for measuring celestial altitudes.

The **history of the astrolabe** begins more than two thousand years ago. The principles of the astrolabe projection were known before 150 B.C., and true astrolabes were made before A.D. 400. The astrolabe was highly developed in the Islamic world by 800 and was introduced to Europe from Islamic Spain (al-Andalus) in the early 12th century. It was the most popular astronomical instrument until about 1650, when it was replaced by more specialized and accurate instruments. Astrolabes are still appreciated for their unique capabilities and their value for astronomy education.

About the Astrolabe Website

This page provides a very brief definition of planispheric astrolabe principles. Links are provided to pages with more details. The astrolabe in the picture was made by the French scientist and craftsman Jean Fusoris in about 1400 (*photo courtesy Adler Planetarium and*

Astronomy Museum). Click on the image to display a biographical sketch of the maker and large pictures of the front (121K) and back (51K) of the instrument. You can also download **The Electric Astrolabe** and a template for making a *Mariner's Astrolabe*.
If, after looking through this site, you find you would like to actually own an inexpensive astrolabe reproduction, take a look at **The Personal Astrolabe**.
Details on the description, history, use, theory and design of all types of astrolabes and selected related devices can be found in the author's recently published book, ***The Astrolabe***.
Also included is a description of a monumental sculpture based on the anaphoric clock, an astronomical machine from ancient times that was a precursor of the astrolabe. The ***anaphoric star disk*** is the centerpiece of a restored park in downtown Kansas City, MO and is very likely the largest and most accurate device of this type ever made.
A page with **links to other relevant web pages, references and astrolabe reproductions** is attached.
A page is included that shows astrolabes made by **individuals**. Please send us a note if you have made an astrolabe that you would like to have included.

Collections

The largest astrolabe collection in North America, and the best displayed in the world, is at the Adler Planetarium and Astronomy Museum in Chicago, IL. The permanent Adler exhibit, "The Universe In Your Hands: Early Tools of Astronomy," includes many of the rare and beautiful astrolabes in the Adler collection along with other pre-telescopic instruments such as sundials and armillary spheres. Other astrolabe collections in North America are at the Smithsonian National Museum of American History (Washington, DC) and Harvard University (Cambridge, MA).
The largest astrolabe collection on public display is at the Museum of the History of Science, Oxford, UK. Other collections in the UK are in the National Maritime Museum (Greenwich), The British Museum (London), The Science Museum (London) and the Whipple Museum of the History of Science (Cambridge).
European continental museums with astrolabe collections include

Museo di Storia della Scienze a Firenze (Florence), Germanisches Nationalmuseum (Nurnberg), Conservatoire National des Arts et Metiers (Paris), Museo Naval (Madrid), Observatorio Astronomica di Roma (Rome) and the Musees Royaux d'Art and d'Histoire (Brussels).

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