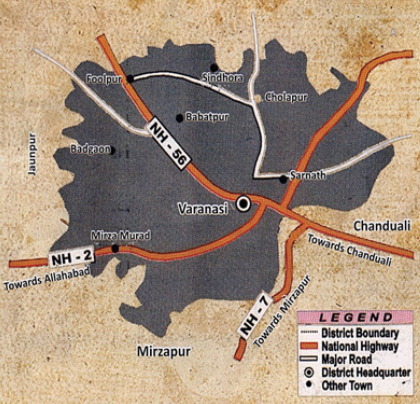
4. Digansha Yantra:- Digansha yantra, consisting of two cylindrical walls surrounding a central pillar, measures the angle of azimuth of a celestial body. Its central pillar as well as its walls are engraved in degrees and minutes at their top surfaces. Cross wires are stretched between the cardinal points marked over the outer wall. The observer uses one or more strings with one end died to a knob on the pillar and the other end to stone pebbles suspended over the walls. With these strings, the observer defines a vertical plane containing the cross-wire and the object in the sky. The angular distance of the vertical plane from the north point, read on the scales, indicates the azimuth of the body.

5. Dhakshinottara Bhitti Yantra:- Dhakshinottara Bhitti yantra consists of a graduated quadrant or a semicircle inscribed on a north-south wall. At the center of the arc is a horizontal rod. The instrument is used for measuring the meridian altitude or the zenith distance of an object such as the sun, the moon or a planet. It is difficult to observe a star or planet, particularly if the planet is near the horizon. For planets or stars near the horizon, the upper parts of the two scales would have to be read. However, the upper parts are difficult to access. The upper part of the south scale can only be approached with a ladder, whereas the upper section of the north scale, even with a ladder, is difficult and dangerous to approach.

Latitude: 25° 18' 28.23" N, Longitude: 83° 0' 38.63" E

Man Mahal which is also known as Man Mandir is located 5 km far from the Varanasi Cantt. Railway Station on the bank of Ganga River near Dashashwamedh Ghat.



Visiting Hours

Monuments remains open daily from Sunrise to Sunset

Entry Fee

For the tourists of India, BIMSTEK and SAARC Countries (Bangladesh, Bhutan, Myanmar, Sri Lanka, Thailand, Nepal Maldeev, Pakistan, Afganistan)	Visitor from Other Country
₹ 25/-	₹ 300/-

Free entry for children below the age of 15 years

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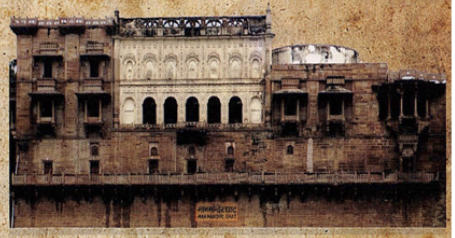
Man Mahal



Archaeological Survey of India
Sarnath Circle, Sarnath
Varanasi, U.P.

स्वच्छ भारत
एक कदम स्वच्छता की ओर

Please Come Forward to Preserve our Holy River Ganga

Man Mahal a beautiful example of Mughal Rajput architecture with stone balconied windows and painted ceiling, is famous for its observatory. Built in sand stone in around 1600 A.D., by Man Singh, the Raja of Amber and a celebrated general of the great Mughal, the Man-Mahal is situated on the western bank of river Ganga near the famous Dashashvamedh ghat of Varanasi. The observatory was built in Man-Mahal, Varanasi, in around 1734 A.D. by Sawai Jai Singh II who was a great astronomer, founder of Jaipur and a descendant of Raja Man Singh. Being impressed by the courage and intelligence of Jai Singh, Aurangzeb confirmed on him title of Sawai- meaning twenty five percent more. He built an observatory in Delhi by the order of Muhammad Shah in 1724. Apart from these he also built observatories at Ujjain, Mathura and Jaipur.

These observatories as known as Jantra Mantra which is a corrupt form of Yantra- Mantra, meaning the calculation with the help of instruments. The plan of this observatory was prepared by Samarath Jagannath, an astronomer and its work was executed by an architect from Jaipur Sardar Mohan under the supervision of Sadashiva.

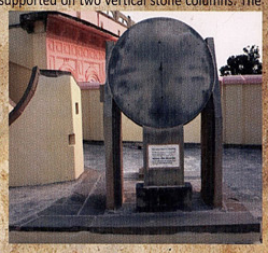
The instruments at this observatory are not in working condition. In 1824 A.D. when Bishop Heber visited observatory of Varanasi, these instruments were non functional. Some of the instruments which still exist. are the:-

1. Samrat Yantra
2. Nadivalaya Yantra
3. Chakra Yantra
4. Digansh Yantra
5. Dakshiontrrabhitti Yantra.

Brief description of astronomical instruments

1. Samrat Yantra:- Samrat yantra is Jai Singh's smallest unit, which count of one minute and it is tallest structure of the Varanasi observatory. The instrument is basically an equinoctial Sundial. The primary object of a Samrat is to indicate the apparent solar time or local time of a place. On a clear day, as the sun journeys from east to west, the shadow of the Samrat gnomon sweeps the quadrant scales below from one end to the other. At a given moment, the time is indicated by the shadow's edge on quadrant scale. The time at night is measured by observing the hour angle of the star or its angular distance from the meridian. To measure the declination of the sun with a Samrat, the observer can move a rod over the gnomon surface up or down until the rod's shadow falls on a quadrant scale below. The location of the rod on the gnomon scale then gives the declination of the sun.

2. Nadivlay Yantra:- It is supported on two vertical stone columns. The instrument is a single plate or slab of a few centimeters thick, sandstone, circular in shape and inclined parallel to the plane of the equator. This instrument is used to decide whether the celestial body is in the northern or southern hemisphere. When the sun is the northern hemisphere for the six months the northern dice is illuminated, when the sun is in the southern hemisphere during next remaining six months, the southern dice is illuminated.



3. Chakra Yantra:- The Chakra yantra is supported by two oddly shaped column of masonry and stones. The Yantra is a circular dial of metal, pivoted along its diameter parallel to the axis of the earth. This instrument is used for measuring the declination of the Sun, Moon and Stars and their distance in time hour angle for meridian.