

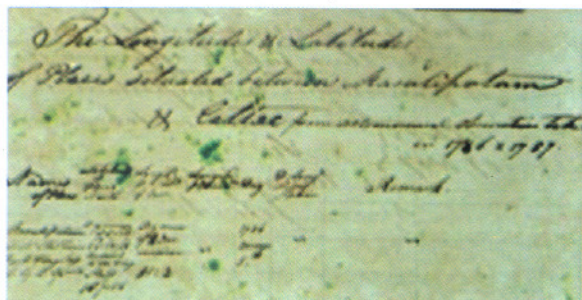
Michael Topping and the Origin of the Madras Observatory

East India Company's Astronomer and Surveyor, Michael Topping made a major contribution to astronomy in India by establishing the Madras observatory during his short career of eleven years (1785-1796). Topping arrived in Madras in 1785 after making some astronomical observations at Maldives and the coast of Ceylon. He journeyed to Calcutta from Masulipatnam by land, and fixed the positions of important places on the way. The log book of his return journey by sea in the Company ship 'Walpole' contains details of the effects of currents on the ship's course in the Bay of Bengal, which laid the foundation for the theory of currents in the Indian Seas. In 1788, Topping surveyed the Coromandel Coast, by a series of triangles starting from Madras, and going up to Masulipatnam, using Hadley's sextant made by Stancliffe.



Masulipatnam Fort and environs during Topping's time

He claimed that the mean of his astronomical observations for the latitudes, did not differ more than a few seconds from those given by geometrical mensuration. He walked large distances braving hot climates to make his measurements. In August 1789, he conducted a survey of Bay of Coringa and the mouth of river Godavari. Topping used William Petrie's private observatory in Madras to make observations of Jupiter's satellites, which complemented his field observations in determining longitudes and latitudes. He argued that astronomy was the reason for the East India Company's prosperity as a mercantile power and they should



First observation made at the observatory, fixing the longitude and latitude of Masulipatnam

therefore promote pure sciences like astronomy (his letter 27th Jan 1789, PC Vol. cliii). He prevailed over the opposition of the Chief Engineer, Major Maule, and had his plans for a new observatory implemented. This observatory was built on the banks of the river Cooum in Nungambakkam. The building had a conical granite pillar weighing more than 10 tons four feet in diameter at the base tapering to two feet at its height of 18 feet. On this was mounted a 12 inch alt-azimuth by Troughton.

H. S. E. Integer et Urbanus, cui summæ fuerunt animi dotes, quas ad extremum fovit, machinarum mirus artifex, necnon in literis humanioribus ac musicis versatus, Michael Topping, Mathematicus admodum solers. Ingenii multa quidem pignora posteris reliquit et missus in has regiones astronomiam excolere, Societatis mercatorum sumptibus speculum sideralem juxta Sancti Georgii arcem formavit et posuit. Officio fueto, promittens majora, occubuit febris, Januarii 7 A. D. 1796, Aet 48.

The epitaph of Topping's tomb which translates as: Here is buried, a gentleman of integrity and culture with tremendous gifts of the soul which he had cultivated extremely well. He was a wonderful engineer who was well versed in humanities and music. Michael Topping, the mathematician, has left for posterity many examples of his genius. He was sent to these regions to develop astronomy. Thanks to the merchants of the society he built and developed an observatory for stars near Fort St. George. While still in office and promising much more, he died of fever on Jan. 7, 1796 at the age of 48.

In 1791, during the British campaign against Tipu Sultan, Topping was engaged in the construction of gun carriages. Under the Madras Presidency, he established a Survey School with twelve students, which was one of the earliest technical schools outside Europe, and later transformed into the present-day Guindy College of Engineering. Topping got involved with repairing and expanding of the irrigation channels. He did a commendable work but unfortunately died in 1796 before finishing the task and reservoir networks.



Map of Madras