Preserving Science (*a*) **IIA Archives**

Christina Birdie, P. Prabahar and B.S. Mohan

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Sketches of solar prominences made by John Evershed along with the solar spectrum with which he discovered the Evershed effect, Published in Resonance, Vol. 14, No. 11, Nov, 2009, (Cover Page)

	Journal of Astronomical History and Heritage, 12(3), 201-210 (2009).
. RAGOO	NATHA CHARRY AND VARIABLE STAR ASTRONOMY
N. Kame	eswara Rao, A.Vagiswari, Priya Thakur and Christina Birdle
	Institute of Astrophysics, Koramangala, Bangalore 560 034, India.
Indian	rao@iiap.res.in, vagiiap@iiap.res.in, priya@iiap.res.in, chris@iiap.res.in

Vintage maps in IIA archives, Christina Birdie and Vagiswari, A., IIA Newsletter, Vol. 13, No. 2, pp. 14-15, 2008.

The Indian Institute of Astrophysics has valuable antique maps in its archives. These original maps were published under the supervision of

C. Ragoonatha Charry and variable star astronomy, Rao, N.K., Vagiswari, A., Thakur, P. and Christina Birdie, Journal of Astronomical History and Heritage, Vol. 12, No. 3, pp. 201–210, 2009.

C. Ragoonatha Charry, the First Assistant at Madras Observatory from 1864 to 1880, was not only a noted Indian observational astronomer but also someone who emphasized the need for incorporating modern observationally-based improvements



Chintamani Ragoonathachari and contemporary Indian astronomy, B. S. Shylaja, Current Science, Vo. 96, No. 9, 2009, pp. 1271-1273.

Chintamani Ragoonathachari1 (1840–80) served the Madras Observatory under various cadres. His meticulous contributions fetched him the honour of membership of the Royal Astronomical Society. He conducted two solar eclipse expeditions in 1868 and 1871, and was the first Indian to be credited with the

discovery of two variable stars, R Ret and V Cep

Solar eclipses during 1868-1980 in which Madras, Kodaikanal Observatories and IIA participated, Christina Birdie & Vagiswari, A., IIA Newsletter, Vol. 14, No. 2, pp. 14-15, 2009

Participation in solar eclipse studies have been a notable characteristics of the institute for more than a century. For all major eclipses teams were sent and the expedition met with a considerable degree of success. Table presented here lists the various expeditions undertaken from 1868–1980, along with the results obtained



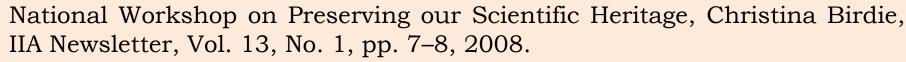
Michael Topping and the origin of the Madras Observatory, Vagiswari, A., Rao, N.K., Christina Birdie and Thakur, P., IIA Newsletter, Vol. 14, No. 1, pp. 16, 2009. East India Company's Astronomer and Surveyor, Michael Topping made a major contribution to astronomy in India by establishing the Madras observatory 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



This is the first observation record of viewing the f

the Society for the Diffusion of Useful Knowledge (SDUK).





The Indian Institute of Astrophysics, the Indian Institute of Science and the Tata Institute of Fundamental Research jointly organized a National Workshop on the topic 'Preserving Our Scientific Heritage' in IIA, Bangalore on January 21-22, 2008.

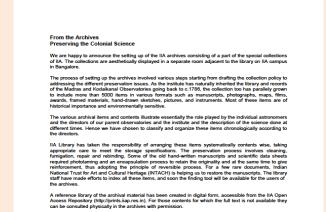


National Workshop on Preserving our Scientific Heritage - Poster



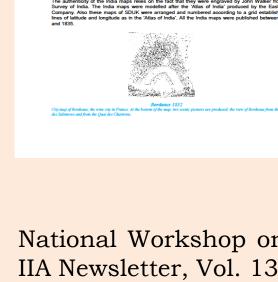
Evershed Effect Stamp Release

In Commemoration of the Centenary of Evershed Effect.



Preserving the colonial science, Christina Birdie and Vagiswari, A., IIA Newsletter, Vol. 12, No. 3, pp. 11–12, 2007.

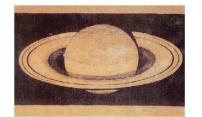
The process of setting up the archives involved various steps starting from drafting the collection policy to addressing the different





John Evershed: The Instrument Builder, Bagare, S.P., Vagiswari, A., and Christina Birdie, IIA Newsletter, Vol. 13, No. 4, pp. 6–7, 2008. John Evershed (1864-1956) is well known in astrophysics, particularly in the area of solar physics, for his discovery of the radial motion in sunspots, an effect which bears his name.





seen on January 1, 1853. He used the 6° Lerebours & Secretan refractor on an equatorial mc for viewing the planet. (Ref. Astronomical Observations made at the Hon. The East Ir Company Observatory Madras Vol. VIII, by W. K. Worster and W. S. Jacob, 1854)



From the IIA Archives, IIA Newsletter, Vol. 13, No. 3, pp. 12, 2008 W. S. Jacob, Director of the Madras Observatory (1849–1858), sketched this view of Saturn as seen on January 1, 1853.

preservation issues.

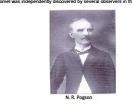
nhn Evershed (1864-1956) is well known in astrophysics, particularly in the area of s hysics, for his discovery of the radial motion in sumpots, an effect which bears his name. W less known though is that Evershed was a designer and builder of instruments, especi extensorpic instruments. While he was still at school and aged thirteen, Evershed construct a small but perfect prism given to him by his brother, he was thrilled to se of the solar spectrum split into its fine structure components. This exp

John Evershed: The Instrument Builder

by Norman Lockyer's observations of solar prominences, Evershed built himself icope with a battery of prima at his private observatory in Kenley, England He observe prominences between 1890 & 1903 and studied their pole-ward imgraphican. In 1893 of read about George Ellery Hale's investion of a new viewing device, the helioscope, and set about to build one for himself. In 1892, Evershed invested to of moorchromotic pholography of the whole disk of the Sun. He pholographed the set of moorchromatic pholography of the whole disk of the Sun. He pholographed the set of moorchromotic pholography of the whole disk of the Sun. He pholographed the set of moorchromatic pholography of the whole disk of the Sun. He pholographed the set of moorchromatic pholography of the set of the Sun. He pholographed the set of the set of the set of the set of the Sun. He pholographed the set of the set of the set of the set of the Sun. He pholographed the set of the Sun. He pholographed the set of the set of the set of the set of the Sun. He pholographed the set of the set of the set of the set of the Sun. He pholographed the set of the Sun He pholographed the set of the Sun. He pholographed the set of minences in the Hβ line. This was independent of Hale's in the same year. Actually, Hale is supposed to have stated that

In 1898, Evershed joined the total solar eclipse expedition of the British Astronomic: Association to Talni in India, where he used a home-made prismatic camera to secure beautifi Association to Tahm in India, where ne there a nume-mass presence where the india of the presence of the india of the second sec or course among ma pinter poststands in every successing used in scenes pinters to determine the prismatic camera for observing Comet Daniel in 1907 and Comet Halley in 1910. He identifie the cyanogen bands both in the micleus and the tail of Comet Daniel. In the case of Com Halley, he identified the cyanogen as well as the Swan bands in the nucleus and the carbo

In 1906, at the initiative of Golbert Waller, who was the Director General of Observatories in India, and with the support of William Harggins, Evenden was offsteel the port of Ansistut Director of the Kochukanal Observatory which he gladly accepted and joined in 1907. On their way to India, the Eventheds spent about a month at Monnt Wilson where Hale was busy building the fmonso observatory. Eventhed benefited from his scientific interactions there and also

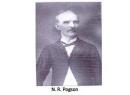


The Great September Comet of 1882 II (C\1882 R1) that Transited over the Sun - Pogson's Observations from Madras Observatory

e nineteenth century that launched a major astronomical project 'Carte du cief of photographing t singerich 1992, Ashbroook 1981). The huge post-perihelion tail was concave towards south and s æ the tusk of an elephant. 'Observing the comet with the naked eye at the seaside the whole tail to sur to rise', exclaimed Nursing Row (1982) from Vizagapatam on October 7, 1882. The comet had







Two interesting items from the old manuscripts are presented here. The first is a reproduction from an early manuscript which confirmed that the Madras Observatory, forerunner of the Indian Institute of Astrophysics, was established in 1780.

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He Observating Jon month the Planet & Hef forming long & Jern month the Planet & (South John He Paren

The great September comet of 1882 II (C1882 R1) that transited over the Sun - Pogson's observations from Madras Observatory, Kameswara Rao, N., Vagiswari, A. and Christina Birdie, IIA Newsletter, Vol. 12, No. 2, pp. 3-5, 2007

The great comet of 1882 (designated as $C \setminus 1882$ R1) was one of the most brilliant Sun-grazing comets of the nineteenth century that launched a major astronomical project 'Carte du ciel' of photographing the sky (Gingerich 1992, Ashbroock 1961).

