

Historical Note

Scientific Activities of Fr. Alphonso De Penaranda: A Jesuit Priest in the late Nineteenth Century

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Abstract

In the 1870s, St. Xavier's College had the phenomenal service of a great teacher cum missionary in Fr. Alphonso de Penaranda and grew up with the true spirit of the Jesuits. Fr. Penaranda was an enthusiast in spreading the culture of modern science and astronomy in continuing and cultivating the activities initiated by Fr. Eugene Lafont and others in the late 1960s. Fr. Penaranda was instrumental by being a projection of a great teacher with impeccable human qualities and found a special mention in the life story of Rabindranath Tagore (*Jiban-Smriti*). Fr. Penaranda continued his astronomical studies and popular science reporting till his last breath in 1898.

Key words: Astronomical observations, Fr. Penaranda, Jesuits, St. Xavier's College.

1. INTRODUCTION

During the early nineties in British India, the spread of education across India had an integral part of active contribution from the Christian Missionaries setting up different educational institutions along with the efforts of the ruling British and pioneers among native Indian luminaries. In the 1860s, the Universities of Calcutta, Mumbai and Madras heralded the cause of modern form of mass education not only in the field of arts and humanities but also in the expanding field of science and technology. By the same time, the Jesuits (Fr. Verstraeten, History of St. Xavier's College) had set a number of Institutions like St. Xavier's College in Calcutta (Kolkata), St. Joseph's College, Loyola College, Madras across the country. A number of missionaries (mostly Belgian at that time) dedicated to the vision of modern science coupled to their religious activities started path-breaking

work in science education. We are aware of Fr. Eugene Lafont, a close collaborator of Mahendra Lal Sircar in establishing (Biswas, 1994) Indian Association for the Cultivation of Science (IACS) with the fame of Raman discovery later on. Fr. Lafont was instrumental in setting up modern laboratories and observatories in St. Xavier's College and promoting active research in the field of meteorology and astronomy. He successfully guided students like Sir J C Bose, P N Bose, Swami Bijnananda of Ramakrishna Mission, Belur for illustrious science careers and popularizing science through mass education activities like evening lectures and demonstrations, modeling etc (*Annals of SXC*). Another great achievement of Fr. Lafont was his visionary involvement in forming an active group of colleagues (H. Holton, St. Xavier's College History) with overwhelming dedication to research and teaching. Fr. Alphonso de Penaranda was one among them.

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2. EARLY LIFE

Very little is known about the childhood of Fr. Penaranda. He was born on 7th March 1834 in a noble family in Spain. Penaranda de Duero was a small village and municipality in the province of Burgos, Castile and Leon in Spain. After studying Classics near Brussels, he joined the Society of Jesus on 25th May, 1851. In higher education, he got trained in Mathematics and Astronomy (ARSI). He studied at Louvain Perannos Oeroe in the province and on the 2nd January 1869, he was admitted to the final wishes of priesthood. Charles A, his brother was already with the Mission Calcuttensi, but died at a young age in 1871. As a replacement, Fr. Penaranda was selected for the Calcutta Mission and he landed in Kolkata, the then capital of British ruled India on 14th May, 1874.

3. JOINING ST. XAVIER'S COLLEGE, CALCUTTA

In the true legacy of expanding the scope of modern education in Bengal, the then hub of British Rāj, St. Xavier's College was founded in 1860. In the sixties, Fr. Lafont had already initiated research and popular science activities with a few associates. Fr. Penaranda joined St. Xavier's College on November 14, 1874. He regularly lectured in the field of Astronomy. In 1876, he took over the prefectship of studies from Fr. Henry.

4. TAGORE AND PENARANDA

It is well known that Rabindranath Tagore had an uncomfortable time (Tagore, *My Reminiscences*) with the different schools like Oriental Seminary and Normal School, he had attended. In 1875, he got admitted in St. Xavier's School in February. Young Rabindranath was 14 years old only. But he lost his mother on 8th March immediately thereafter and was in a state of shock. He was irregular in the school. His relationship with teachers, primarily Father L D Voice and Father A D Penaranda somehow continued up to March 1876. Tagore had never found school education very interesting. But he liked a few teachers in several schools he attended. At St. Xavier's

School, Tagore's heart was touched by Fr. Penaranda. The latter taught Rabindranath Tagore during 1875–76 and could inspire some joy in the young heart amid the darkness of prototype education that many may not like. In *Jiban-Smriti*, Tagore wrote about this unique experience:

One precious memory of St. Xavier's I still hold fresh and pure—the memory of its teachers.....This is the memory of Father de Penaranda. He had very little to do with us—if I remember right he had only for a while taken the place of one of the masters of our class. He was a Spaniard and seemed to have an impediment in speaking English.....I know not why, but my heart went out to him in sympathy. His features were not handsome, but his countenance had for me a strange attraction. Whenever I looked on him, his spirit seemed to be in prayer, a deep peace to pervade him within and without....

5. ASTRONOMICAL OBSERVATIONS

Fr. Penaranda contributed regularly on the 'Astronomical Occurrences' column in the journal of *Indo European Correspondence (IEC)* published on every Wednesday during the 1880s. Movement of Planet Mars (1979) was reported with minute details as observed. On January 4, 1881, Fr. Penaranda left Calcutta in starting a new Jesuit College now known as St. Alosius College in Mangalore. This new college was started at a temporary building at Kodyalimil on 12th January 1880 under the superiorship of Fr. Willy S J. The courses like FA and BA were opened in the six fields of mathematics, natural sciences, writing, history and geography, languages and Christian doctrines. Much is not heard on this period of stay for Fr. Penaranda. He returned to Kolkata in the next year (1882) probably in February. Immediately, he resumed his regular contributions to the *IEC* journal. A brief report is available on the May 17 solar eclipse of 1882. But for a couple of years up to 1888, the reports are scanty and possibly observatory was under renovation with the installation of modern telescopes and meteorological instruments. Henceforth Fr. Penaranda is found to contribute quite regularly in the *IEC*. A few highlights of his regular reports are:

1889: On 20 Sept Mars and Saturn conjunction was observed and reported in detail.

1890: On 24th February, Fr. Penaranda informed the public about the present most favourable position of planet Neptune that has just passed its opposition to the sun and was nearest to the earth at a distance of 762 million miles. He also referred to the impending conjunction of Mars with the double star β Scorpionis on March 5 at 10 pm. On 10th May, the transit of planet Mercury took place and Father gave an elaborate explanation of the phenomena. On 16th June, Solar Eclipse observation was made by SXC team at Bhagalpur. It was 4th October when the occultation of the planet Jupiter by the full moon happened and completely visible at Calcutta. That was one of the rarest and most interesting of all the astronomical occurrences. Fr. Penaranda used the 9" Equatorial telescope to confirm the occultation starting at 11.25 pm and ending 35 mins later. The planet remained completely hidden for 21 mins.

1890: On 26th Nov, Neptune and Moon had fallen in line.

1891: 10th May, Transit of Mercury was studied and reported in detail.

1892: 4th Oct, Occultation of Jupiter at full moon was observed.

1893: Under the direction of Fr. Penaranda, St. Xavier's Astronomical Observatory published as many as 13 reports on the astronomical occurrences including the sun, moon, transit and conjunction of many planets.

1895: On 13th Feb, Fr. Penaranda published in the *IEC* an elaborate study of the Inverted image on the retina and explained the mathematical precision of the indications furnished by our eyesight.

1896: On May 8, Fr. Penaranda was appointed to the special committee for observation of total solar eclipse in the year of 1898. Thus the observatory used to get day by day popular with footfalls from the academics and laymen and at certain point of

time, regular notices were to be issued for the imperative appointment prior to the visits.

6. CONTINUITY TILL DEATH

Then the same spirit continued with rejuvenated interest in the field of Astronomy. In the month of August 1898 Fr. Penaranda had some liver related illness and could not get well. He died on the morning of 16th September, 1898 and the great soul thus rested finally in eternal peace. In the obituary note (ARSI) sent to the headquarters of the Society of Jesus in Italy, it was aptly mentioned that Fr. Penaranda believed in two central missions: firstly, Science is always open to everyone and Astronomy is an experience with more delighted watch. Fr. Penaranda will always be remembered as a missionary dedicated to the noble mission of a teacher as well as a true astronomer heralding Indian Science.

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BIBLIOGRAPHY

- Annals of St. Xavier's College, (1835–1935), 38 DB 485.
- Biswas, A K. Reverend Father Eugene Lafont and the Scientific Activity of St Xavier's College, *Indian Journal of History of Science*, 29.1(1994):77–88.
- Fr. Verstraeten, *History of St. Xavier's College*, 1935–1984, 38 DB 454 B.
- Holton, H. *St. Xavier's College History 1879–1888*, 38 DB 451.
- Indo European Correspondence*, vol. XV No. 21, May 26 1880 and No 24, June 16, 1880, Obituary Note of Fr. Penaranda, ARSI and <http://www.sjweb.info/arsi/>
- Tagore, Rabindranath. *My Reminiscences*, The Project Gutenberg eBook, downloaded on 07.12.2017 at 10.11 am from the site www.gutenberg.net.