

# Popular Science Writing in Bengali – Past and Present

*The Bengali language is a rich repository of science writing. Here's a look at some of the magazines, books and science writers in Bengali.*

**S**CIENCE writing in Bengali started in the early 19<sup>th</sup> century. The first science book published in Bengali was named *May Ganit* (May's Arithmetic). It was first published in 1817, about two hundred years ago. *Digdarshan* was the first science magazine in Bengali brought out in April 1818. From then onwards, popular science writing in Bengali started flourishing and subsequently a number of Bengali science magazines were born.

The second popular science Bengali magazine was named *Pashyavali* (The Animals). It was started in 1822. Father Lawson was its compiler and designer. Every issue contained a description of a particular animal. The first six issues contained write-ups about the lion, bear, elephant, rhino, hippo, tiger and cat. All of these were then brought out in the form of books by the Calcutta School Book Society. This magazine continued for about six years.

In 1832, after a gap of ten years, the magazine *Bijnan Sevadhi* was brought out from Calcutta by the Society for Translating European Science. After five issues, its publication stopped. The next year, in 1833, the fortnightly Bengali periodical *Vigyan Sar Sangraha* appeared but it continued for just about a year. It was a bilingual magazine. In it, the column on the left used to be in English and the column on the right was the translated version.

In fact, during the 19<sup>th</sup> century about 65 Bengali science magazines were published in undivided Bengal. They covered a wide range of science subjects. This pioneering effort of Bengal

in popularizing science among readers in the local language is unparalleled. Many science writers, both known and unknown, contributed thoughtful science articles to make the people aware of science and its applications.

Getting influenced by scientific discoveries and inventions, and observing human progress, Bengali science writers started writing various popular science and science fiction books in the later half of the 19<sup>th</sup> and early 20<sup>th</sup> centuries. These played a vital role in popularising science among the people. Needless to say, the country at that time was under the shackles of British rule.

'Sahitya Samrat' (an honorary title literally meaning Emperor of Literature) Bankim Chandra Chattopadhyay's writing on science in Bengali is amazing. His book entitled *Vigyan Rahasya* (published in 1875) is a splendid piece of work on science and science popularization. It is actually a compilation of several articles on different scientific topics. Acquiring scientific knowledge through extensive studies of the then European science, he wrote all those articles in simple language, citing simple examples.

In one of his articles, *Ashcharya Sourapat* (Astounding Solar Shower), to make one understand the distance between the Earth and the Sun, he wrote, "If there were a railway between the Earth and the Sun, then how much time would a train have taken to travel to the Sun? Answer—If the train runs day and night with a speed of 20 miles per hour, it will take 520 years, 6 months and 16 days to reach the Sun. That means, that the seventh

generation of descendants of the person who boarded the train would not survive to reach the sun." With numerous such examples he described different characteristics of the Sun including the outflow of its internal energy.

Jagadananda Roy's *Shukra Bhraman* (Travels to Venus) is probably the earliest Bengali science fiction story. It was written in 1857 but published in 1879. The story described an interstellar journey to Venus and the aliens that were seen there. This story was written much before (about a decade) H.G. Wells, a notable science fiction writer, described aliens from Mars in his book *The War of the Worlds* in 1889.

Hemlal Dutta's *Rahashya* (The Mystery) was published in 1882, in two instalments, in *Bigyan Darpan*, a magazine brought out by Jogendra Sadhu and edited by Prananda Kavibhusan. This story revolved around a character that visited his friend's house that was completely automated. Automatic doorbells, burglar alarms, brushes that cleaned suits automatically and many such futuristic gadgets were described in the story. The tone set in the story is of wonder at the rapid automation of human lives.

Physicist J.C. Bose's *Palatak Tufan* (The Runaway Storm) is a marvelous story that used the rationality of scientific theory to tell a tale of a storm at sea. The frightening waves of the sea during the storm were controlled by dropping a bottle of *Kuntal Keshori* (the brand name of a hair oil at that time) on the waves. The science behind this was the effect of surface tension.

Premendra Mitra was one of the most eminent science fiction writers in Bengal

*Bengali writers, who took a lead in popularizing science in their own language about 200 years ago, are continuing their activities tirelessly. It is a kind of relay race...*



From left:  
Premendra Mitra,  
Sukumar Ray, S.N.  
Bose, Rabindranath  
Tagore

in the early 20<sup>th</sup> century. His stories *Piprey Puran* (The Story of Ants) and *Mangal Bairi* (The Martian Enemies) are well known amongst Bengali readers. *Piprey Puran* gave a description of the invasion of the world by huge ants who are intelligent, technologically more advanced than humans and very well-organized and disciplined. In *Mangal Bairi*, the earth is attacked by Martians who destroy the earth's entire ecosystem.

Sukumar Ray's stories, like the *'Alice'* stories of Lewis Carroll, are full of puzzles and wordplay. Sukumar Ray seems to be playing with the fact that names are arbitrarily imposed on things by humans for their own convenience. These names are inherently related with the nature of the things.

His most prominent book is *Heshoram Hushiarer Diary* (The Diary of Heshoram Hushiar). In the story, Heshoram meets an animal during his journey through the Bandakush Mountains. The creature had a long, pained, woe-begone face and Heshoram called it a "Gomratharium" ('gomra', in Bengali, means sullen). Another animal was neither an alligator, nor a snake, nor a fish, but resembled, to some extent, all the three together. Its terrible howls, a sound between the cries of kites and owls, made Heshoram call it "Chillanosaurus" ('chillano' means to shout).

Sukumar Ray probably assumed that his readers would be bilingual enough to know or identify the Latin English words such as *Aquarium*, *Tyranosaurus*, etc and indulged in this cross-lingual wordplay.

Ramendra Sunder Trivedi was another eminent Bengali science writer and an architect of Bengali science writing during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. His seminal contribution was in the field of Bengali Scientific Terminology. Thereafter, we come to Rabindra Nath Tagore.

We know Rabindra Nath Tagore as a great poet, writer, philosopher, painter and singer. But many don't know that he was also a great science writer. He wrote a marvelous book named *Visva-Parichay* in 1937 where he explored Biology, Physics and Astronomy. He wrote articles on topics like atomic structure, the evolution of the earth and other planets, life sciences, earth sciences, etc. All these articles were written in a very simple way, with a literary flavour and enriched with a number of analogies drawn from our day-to-day life. Unless one knows science well and understands it thoroughly, it is very difficult to write such lucid articles on science. His poems, containing extensive naturalism, stressed his respect for scientific laws. He also wove science into many of his stories. Sir J. C. Bose, the greatest Indian scientist of that era, wrote to Tagore in a letter, "If you were not a poet, you could have become a great scientist". What a compliment to a great man from a great scientist!

Acharya Prafulla Chandra Roy, Prasanta Chandra Mahalanobis, and even S.N. Bose and M.N. Saha wrote about science in Bengali to create awareness among people during the pre-independence era.

In the 1960s, the world famous film director Satyajit Ray, son of Sukumar Ray, appeared on the stage of science fiction as a writer. He created a character named Professor Shonku in a book first printed in 1961. He wrote *Byomjatrir Diary* (Diary of a Space Traveller) for the magazine *Sandesh*. He wrote a number of science fiction books titled:

About 40 science fiction stories revolve around the character Prof Shonku, the scientist-cum-inventor. Shonku's world is a real world, a human world. He invented

pills that make one yawn and see nightmares. He invented fish-pills to give to his cat, Newton, who accompanied Prof. Shonku on his journey to space.

Like his father Sukumar Ray, Satyajit used words such as:

- (i) **Annihilin**: A pistol that annihilates any living thing. It does not work on non-living things.
- (ii) **Miracural**: A drug capsule that cures any ailment except common cold.
- (iii) **Shankoplane**: A small plane capable of vertical take-off and landing and with magnificent mileage.
- (iv) **Shankolite**: The alloy with which shankoplane was made.
- (v) **Omniscope**: A combination of telescope, microscope and x-ray machine.
- (vi) **Air-conditioning pill**: A capsule that keeps the body temperature normal in extreme climates.
- (vii) **Somnolin**: A sleeping pill that works in any condition.
- (viii) **Neo-spectroscope**: An instrument for seeing ghosts.
- (ix) **Linguagraph**: An instrument that records and translates into Bengali sounds made in any language.

Another prominent author is Shirshendu Mukhopadhyay. His book *Monojdar Adbhut Bari* (Monojda's Strange House) had a character who was a scientist carrying out unearthly genetic experiments with the aim of producing new varieties of vegetables and fruits.

Currently, notable literary magazines in Bengali that include science subjects are *Desh* (fortnightly), *Anandamela* (weekly), *Sandesh*, *Suktara* (monthly), and *Sananda* (fortnightly).

In Bengal, many science magazines were born, ran for some time and were



From left: Bankim Chandra Chattopadhyay, Humayun Ahmed, Md. Zafar Iqbal, J.C. Bose

then discontinued, either due to lack of a sufficient number of regular contributors, or due to a paucity of funds. *Gaveshana* is one such magazine. *Gyan O Vigyan* started by S. N. Bose and published by Bangiya Vigyan Parishad since 1948 has been in print without any break for about 63 years. Naturalist Gopal Chandra Bhattacharya, as the editor of this magazine, shouldered the responsibility of its publication till his dying day.

Besides these, *Utso Manush*, *Kishore Vigyani*, *Prokriti*, etc. have also been coming out regularly for a long time. *Kishore Vigyan* is the mouthpiece of the Paschim Banga Vigyan Mancha. Leaving aside *Gyan O Vigyan*, the following two are the most prominent among the few other Bengali magazines that are exclusively devoted to science in current times. One is *Gyan Bichitra*, published and edited by Debananda Dam and brought out almost single handedly by him from Tripura. It

Satyajit Ray



started in 1976 and is going strong. The other is *Kishore Gyan Vigyan*, a monthly Bengali science magazine started in 1980.

Many popular science books (including fiction) have also been written in Bengali for general readers and children. Among the books written by Sankarshan Roy, the titles *Bajromanik Rahasya* (The Mystery of Bajromanik, a Kind of Diamond), *Vigyani Goyenda* (Scientist Detective) and *Rakta Probal* (Blood-red Coral) are worth mentioning. The book *Bajromanik Rahasya* was published as a serial in *Gyan Bichitra*.

The book, *Sera Kalpa-Vigyan Omnibus*, written by Adrish Bardhan is a marvellous compilation of 30 astonishing science fictions stories. Stories such as *Samayer Ghurnipake* (In the Whirl of Time), *Bihanga Vivishika* (Dreaded Birds), *Atanka Graha* (Planet of Fright), *Kankda* (The Crab), *Mehgani Jangaler Vismay* (Wonders of the Mehgani Forest), etc. are included in the book.

Biman Basu, a notable popular science writer (who mainly writes in English and once was the editor of popular science magazine *Science Reporter*) has written quite a few popular science books in Bengali. His *Graha Parichay* and *Star Watching* are two such books that are very popular.

Amit Chakrabarty is another name who used to be associated with the Kolkata Radio Centre for a long time and has written about a dozen popular science books for children.

Since Independence, about 100 science magazines have been published in Bengali; but almost 2/3 of them could not survive or are about to die. The number of magazines that are coming out regularly these days, apart from *Utso Manush*, *Kishore Vigyani*, *Prokriti*, *Kishore Vigyan* and *Gyan O Vigyan* mentioned a little earlier, is around 35.

The contribution of Bangladesh towards the popularization of science in Bengali is also worth mentioning. *Vigyan Samayiki* is a very popular science magazine. Bangladesh has a magazine named *Moulik* devoted exclusively to science fiction.

Some of the eminent Bengali science writers from Bangladesh are:

(i) **Quazi Abdul Halim:** Has written the science fiction book, *Mahashunyer Kanna* (Tears of the Cosmos).

(ii) **Humayun Ahmed:** Wrote the first modern Bangla science fiction novel, *Tomader Jonno Valobasha* (Love for You All) in 1973; and two other books, titled, *Tara Tin Jon* (They Are Three) and *Irina, Ananta Nakshatra Bithi* (Endless galaxy).

(iii) **Md Zafar Iqbal:** He is the most popular science fiction writer in Bangladesh and has about 22 popular science books to his credit. His first book *Copotronic Sukh Dukho* is so popular that some poets use the word "copotron" in their poems.

Today, many young science fiction writers are coming up in Bangladesh. Anik Khan, Asrar Masud, Sajjad Kabir, Rabiul are among them, to name a few.

Bengali writers, who took a lead in popularizing science in their own language about 200 years ago, are continuing their activities tirelessly. It is a kind of relay race, the baton of which is taken over by every generation of authors to create awareness and scientific temper among the people of their time.

Dr Nikhil Chandra Mondal is former Editor, *Indian Journal of Radio & Space Physics*, published by CSIR-NISCAIR. Address: 178-B, Pocket-C, Mayur Vihar Phase-II, Delhi-110 091; Email: ncmondal@yahoo.co.in; mondal.nikhil@gmail.com