

When we see Wimbledon live, or the opening ceremony of the Olympics, via satellite, we seldom remember the person who first suggested that satellites could be used for communication purposes. Even when that person entered the Glorious Abode on 19 March 2008, few TV channels remembered him with gratitude. Even Science Fiction buffs who read his novels avidly must have failed to notice the demise of a great Scientific Prophet—Sir Arthur C. Clarke who predicted not only communication through geostationary satellites, but also advances in computer technology.

Clarke was born in Minehead, Somerset, England on the 16th of December 1917. As a boy, astronomy attracted his attention and he spent hours gazing at the night sky with his simple binoculars. At the age of thirteen, he built his own optical telescope and used it for serious observations. He also enjoyed reading science fiction, something that inspired him to write hundreds of science fiction novels later. Even at a tender age, he built transmitters and crystal radio receivers. He studied up to secondary school and since he was unable to afford a university education, got a job as an auditor in the pensions section of the Board of Education.

His avid interest in reading technical books, however, made him a scholar in science without a degree. During the Second World War he served in the Royal Air Force as a radar specialist and was involved in the early warning radar defense system, which contributed to the RAF’s success during the Battle of Britain. He later wrote the semi autobiographical novel Glide Path, based on his wartime experiences. After the war he earned a B.Sc. degree (with honours) in mathematics and physics at King’s College London.

In 1945, he proposed the concept of setting up three geostationary satellites that will help the world to communicate. Since the first man-made satellite Sputnik I was launched only on 4 October 1957, this must have been a daring prediction of his time.

A geostationary satellite is a satellite that has its revolution period equal to the earth’s rotation period. When viewed from any geographical point, it will appear to be stationary above it. To satisfy this condition, the satellite has to orbit the earth at a height of 36,000 km above the equator. Technologically, it would not have appeared feasible at that time. An orbit of 36,000 km above the equator is officially recognized by the International Astronomical Union (IAU) as a “Clarke Orbit”, in his honour. The concept was published in the “Wireless World” magazine in October 1945. Clarke would have made billions if he had patented his idea. But like the great Marie Curie, who refused to patent her discovery of Radium, Clarke’s only intention was to make the world a better place to live.

Clarke also wrote a number of non-fiction books describing space flight and space colonies. The most notable of these may be The Exploration of Space (1951) and The Promise of Space (1968).

Even though he was 90 years old, he was active till the end. Only a few days before his death, he reviewed the final manuscript of his latest science fiction novel, The Last Theorem, co-written with the American author Frederik Pohl.
In 1948, he wrote the novel *The Sentinel* for a BBC competition. Though the story was rejected it changed the course of Clarke’s career. The story formed the basis for his masterpiece, *A Space Odyssey*. Strangely, the novel was published after the release of the film *2001: A Space Odyssey* that was partly based on it. The tagline of the film was “Let the Awe and Mystery of a Journey Unlike Any Other Begin”. The film was released in 1968, and it was the combined effort of Clarke and its director Stanley Kubrick.

In many ways it differed from the novel on which it was based, but both the film and the novel were instant successes. The timing of its release was perfect, since it was during the intense preparation of NASA’s effort to put man on Moon. When the film was released in India, just a few months after Neil Armstrong walked on the Moon, there was a heavy rush to see it initially. The film had some mystical element attached to it and some philosophical implications embedded that was not appreciated by the Indian audience. In no time, its popularity waned. Even in 1968, it appeared so improbable that we would ever build a computer that would pick a quarrel with us! It appeared extremely farfetched that it would happen in the year 2001! The film, however, won an Oscar for Special Visual Effects and was nominated for two more awards.

In a lighter sense, Clarke proposed the following three “laws” of prediction (in the essay “Hazards of Prophecy: The Failure of Imagination”):

1. When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.
2. The only way of discovering the limits of the possible is to venture a little way past them into the impossible.
3. Any sufficiently advanced technology is indistinguishable from magic.

He later commented that he could have proposed more, but since three laws of motion were sufficient for Newton, his three laws should serve equally well! However, the temptation to add a fourth law was so irresistible that he stated: “For every expert there is an equal and opposite expert.”

As a boy, astronomy attracted Arthur’s attention and he spent hours gazing at the night sky with his simple binoculars. At the age of thirteen, he built his own optical telescope and used it for serious observations.

Clarke lived in Sri Lanka from 1956 until his death in March 2008, having emigrated there when it was still called Ceylon, first in Unawatuna on the south coast, and then in Colombo. He held citizenship of both the UK and Sri Lanka. He was an avid scuba diver and a member of the Underwater Explorer’s club. Living in Sri Lanka afforded him the opportunity to visit the ocean year-round. It also inspired the locale for his novel *The Fountains of Paradise* in which he describes a space elevator. This, he believed, ultimately will be his legacy, once space elevators make space shuttles obsolete.

His many predictions culminated in 1958 when he began a series of essays in various magazines that eventually became “Profiles of the Future” published in book form in 1962. A timetable up to the year 2100 describes inventions and ideas including such things as a “global library” for 2005.

In the 1980s Clarke became well known to many for his television programmes *Arthur C. Clarke’s Mysterious World* and *Arthur C. Clarke’s World of Strange Powers*. In 1986, he was named a Grand Master by the Science Fiction Writers of America.

In 1988 he was diagnosed with post-polio syndrome, having originally contracted polio in 1959, and needed to use a wheelchair most of the time thereafter.

In September 2007, he provided a video greeting for NASA’s Cassini probe's flyby of Iapetus (which plays an important role in *2001: A Space Odyssey*).

In the 1989 Queen's Birthday Honours, Clarke was appointed Commander of the Order of the British Empire (CBE) “for services to British cultural interests in Sri Lanka”. The same year he became the first Chancellor of the International Space University, serving from 1989 to 2004. He also served as Chancellor of Moratuwa University in Sri Lanka from 1979 to 2002.

Sir Clarke passed away at Colombo’s Apollo Hospital on 19 March 2008 after a brief illness. Even though he was 90 years old, he was active till the end. Only a few days before his death, he reviewed the final manuscript of his latest science fiction novel, *The Last Theorem*, co-written with the American author Frederik Pohl.

In the foreword of his novel, 2001: A Space Odyssey, Clarke wrote:

“Behind every man now alive stand thirty ghosts, for that is the ratio by which the dead outnumber the living. Since the dawn of time, roughly a hundred billion human beings have walked the planet Earth. …Now this is an interesting number, for by a curious coincidence there are approximately a hundred billion stars in our local universe, the Milky Way. So for every man who has ever lived, in this Galaxy, there shines a star.”

May be Clarke was not serious about the statement that he made. But we can be sure that he will continue to shine like a bright star among the scientific greats of our time for years to come!

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