

One might well ask, and we did ask, at Trombay, why produce Plutonium at all? It can be used in a future Breeder Reactor as fuel or alternatively it can be the explosive constituent of an atomic bomb. When highly purified as weapons-grade Plutonium, it has been stated that 500 grams is sufficient as a critical mass for a bomb, and we were told that Trombay had a capacity of producing it in kilogramme quantities, presumably per year. Dr Homi Bhabha assured us that India had no intention to produce any bombs, but if certain eventualities occurred, it would only take 18 months to do so.

In fact India did carry out a peaceful test explosion of an atomic nature on 18 May 1974, but apparently nothing further became known. By that time Dr Homi Bhabha had died and I had left the employment of the *Daily Telegraph*, so that I can only assume it was plutonium that was used as an explosive. No uranium enrichment plant was known to exist in India until our visit. Other tests were carried out years later, the last in 1998.

In the afternoon of our one-day visit to Trombay on 19 June 1965, we also saw the electronic laboratories. At the time of our visit, India was suffering from a severe shortage of foreign currencies and therefore pursued an intensive policy of self-sufficiency. The Electronic Laboratories were an excellent example. Started in 1952, four years before the plutonium production facilities became operational, Homi Bhabha had correctly foreseen that, without electronic equipment, neither atomic energy, nor rocket and space research, could be successfully carried out in India.

He therefore conceived the electronic laboratories as a joint establishment of school, university, industrial manufacture and government research centre. The first equipment made in 1952 were Geiger counters for atomic radiation measurement, followed by more general counting instruments. We saw a full scale production line, operated by women, of electronic research equipment destined for Indian universities, and I published a picture of it in the *Daily Telegraph*. Most welcome of all developments, Dr. Homi Bhabha told us, was the fact that some employees had reached the stage of leaving Trombay and setting up their own small electronic factories in the neighbourhood.

Two Chinese atomic bomb tests which had taken place shortly before our visit to Trombay had hardened Indian scientific opinion considerably, Dr Homi Bhabha said. Large quantities of plutonium would become available from two new atomic power stations to be built at Tarapur and in Rajasthan, expected to be operational in 1968. India would only join the Nuclear Non-Proliferation Pact, if all other countries, especially China, would also place their atomic power stations under international supervision.