

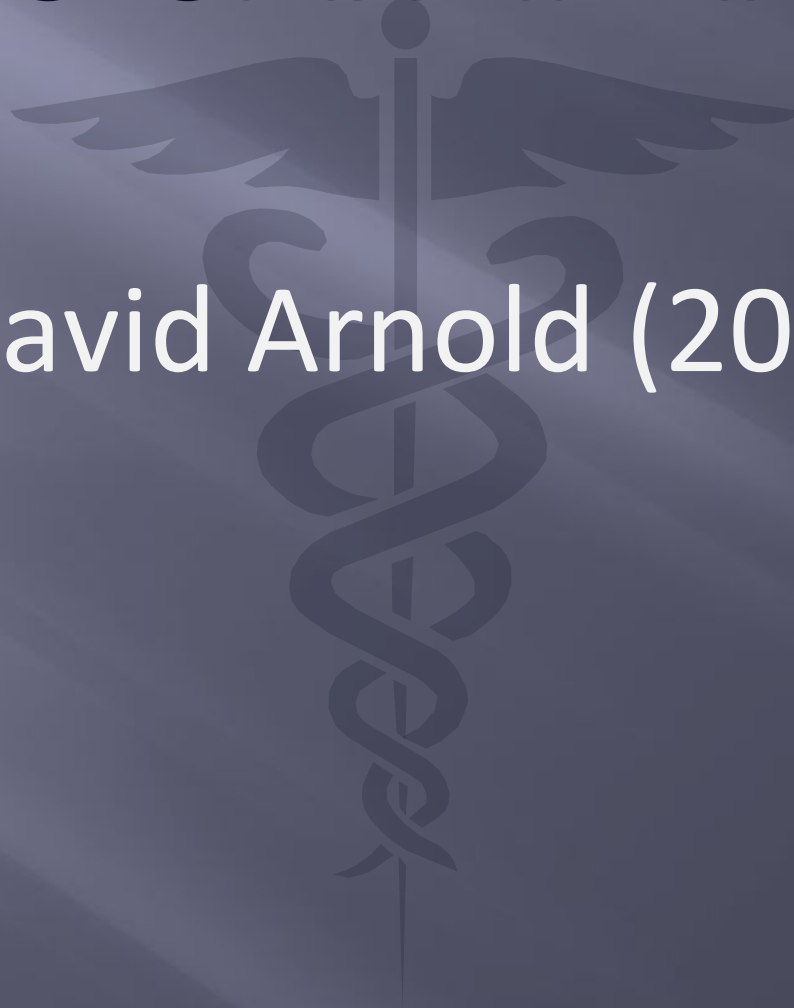
COLONIAL SCIENCE: PEOPLE, PLACES, QUESTIONS

UNIT II, PART 1

HM 216

SCIENCE, TECHNOLOGY AND MEDICINE IN COLONIAL INDIA

David Arnold (2004)



From Ch. 5: “Imperial Science and the Indian Scientific Community”

- **Imperial Science**
- Tropical Medicine
- An Indian Scientific Community



COLONY vs. METROPOLIS

(Board of Scientific Advice vs. Royal Society)



IMPERIAL SCIENCE

Why push science & technology in colonial India?

Because the British government were owners of

“the **largest landed estate in the world**, ...the prosperity of the country is at present mainly dependent upon agriculture, ...its economic and industrial resources have been very imperfectly explored, and ... funds available for research are very limited.”

(Arnold, 136)



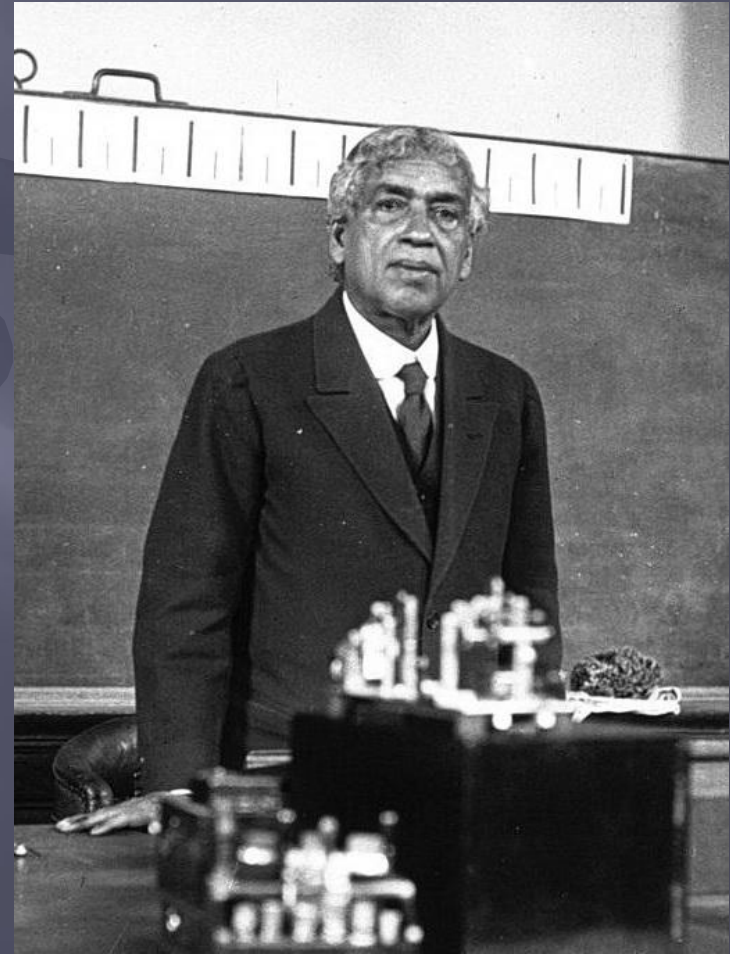
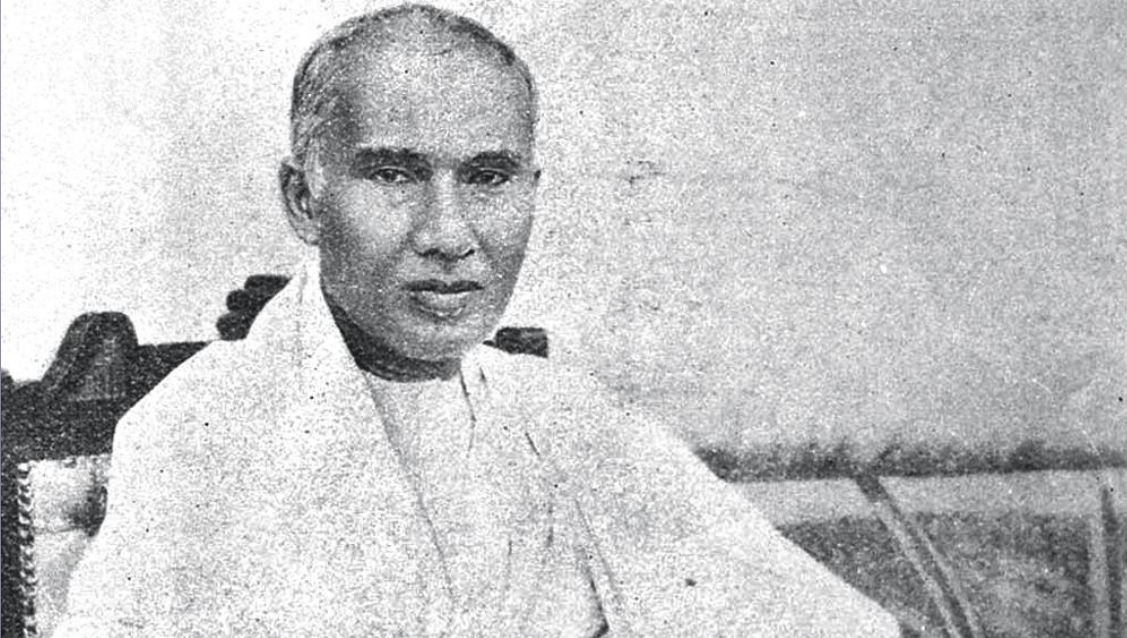
IMPERIAL SCIENCE

“...a science that was India-wide and not **merely provincial**, devoted to serving the needs of India and the empire, carried out by scientists of world renown...”

(Arnold, 138)



Racism and Imperial Science



‘Tropical Medicine’ (Cholera, Malaria): A New Field of Research

RESEARCH/PRACTICE

‘We IMS men are not meant for research . . . we are simply doctors,’ Ross was once told by a colleague.

(Arnold, 142)

IMS: Indian Medical Service

RONALD ROSS

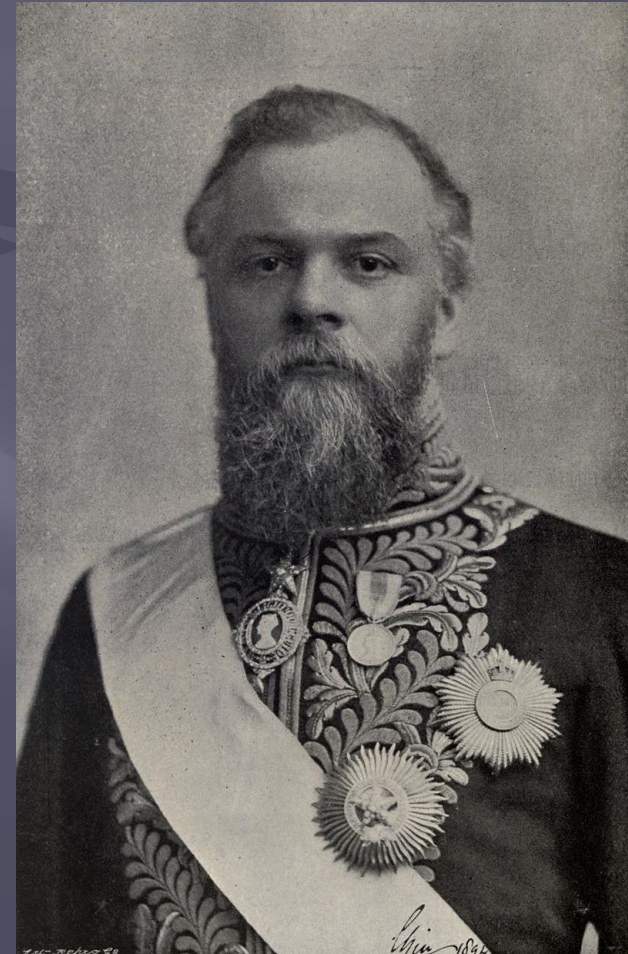


Waldemar Mordechai Haffkine

- **Ukrainian Jewish bacteriologist**
- **Trained in France; worked in Bombay**
- **Developed vaccines for cholera and the plague**



Scientific expertise: Answer to Political Problems



Political + Economic Problems; Legal Solutions

- February 1897: Sanitary Conference at Venice threatens ‘embargo...against shipping from Indian ports.’
- A threat to the British Government’s economic interests.
- Response: the **Epidemic Diseases Act**, ‘one of the most draconian pieces of sanitary legislation ever adopted in colonial India.’

(Arnold, 143)



The Epidemic Diseases Act

(1) When at any time the [State Government] is satisfied that [the State] or any part thereof is visited by, or threatened with, an outbreak of any dangerous epidemic disease, the [State Government], if [it] thinks that the ordinary provisions of the law for the time being in force are insufficient for the purpose, may take, or require or empower any person to take, such measures and, by public notice, prescribe such temporary regulations to be observed by the public or by any person or class of persons as [it] shall deem necessary to prevent the outbreak of such disease or the spread thereof, and may determine in what manner and by whom any expenses incurred (including compensation if any) shall be defrayed.



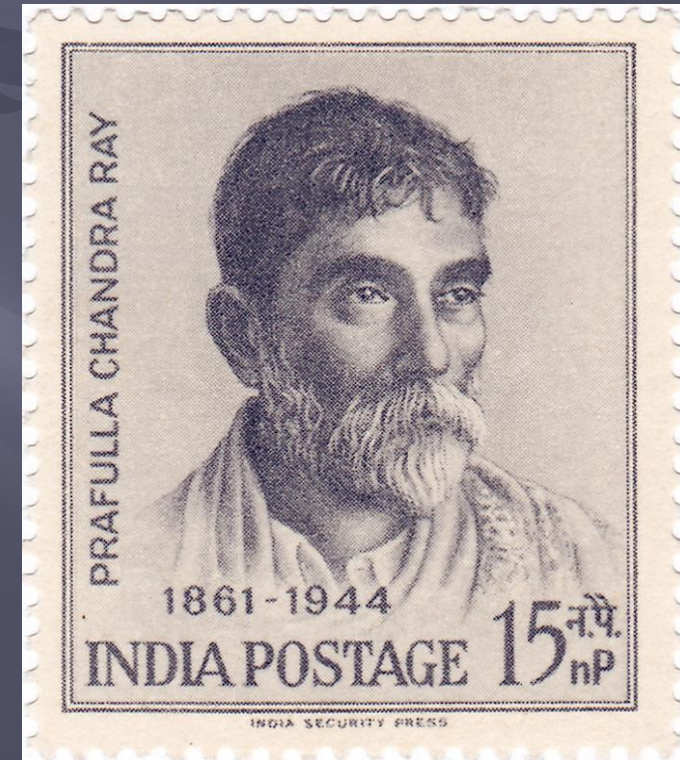
‘Science for India’: The First Generation

- **Dr. Mahendralal Sarkar (d.1904)**
- **Allopathic doctor, went on to practice homeopathy**
- **Committed to building a scientific community of Indians, for Indians:**
 - **Indian Association for the Cultivation of Science (1873)**
 - *Calcutta Journal of Medicine*



PROFESSIONAL SCIENTISTS: WHO WERE THEY?

- Western Education
- Influence of Reform Movements:
eg. the Brahmo Samaj
- Elite Indian backgrounds: Caste +
Class privilege (not to mention
gender)



Science in Indian Languages and Communities



THE INDIAN SCIENTIFIC COMMUNITY IN THE 20TH CENTURY

- Problems of Research and Funding
- Resolved partly by private funds + new state initiatives to set up research in universities (after 1900)
- The founding of the Indian Science Congress in 1914 was an important step for 'nationalist science.'
- Questions that remained: 'Pure' science or 'Applied'?

