



Remarks on the History of Science and Astronomy in Modern Indonesia

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Acer spp. (Maple species)



What do historians bring to the history of science

- Knowledge of the societies and cultures that contained science
 - Explain the reach, power, and influence of science
- ➔ Interest in the context of science

Historians' questions about context

- What, what, where, when, how, why?
- We ask these questions of
 - Scientific institutions, research programs, laboratories, funding, authority, credibility, networks, training, experiments
- By examining the lives and work of scientists



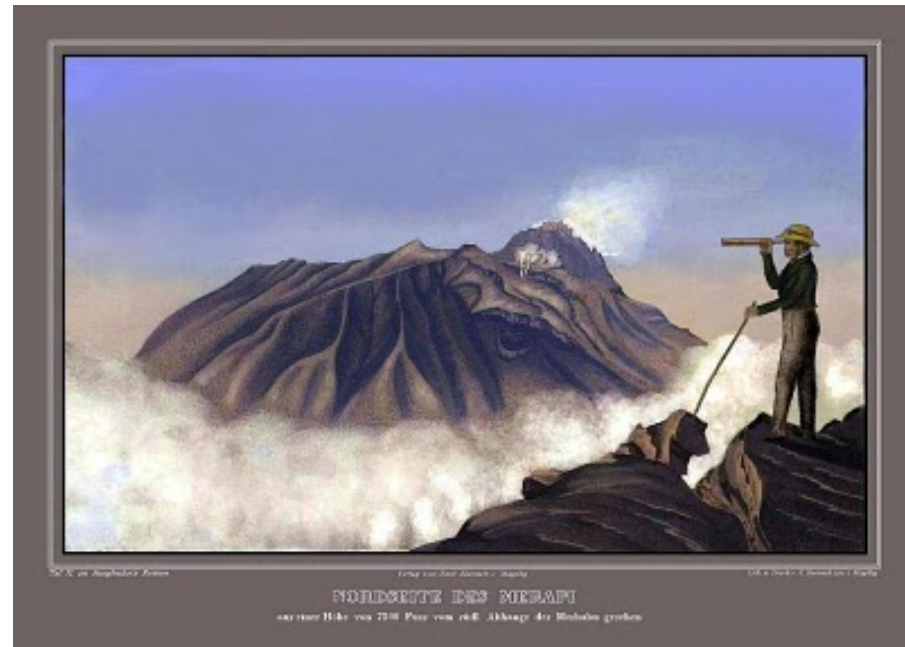
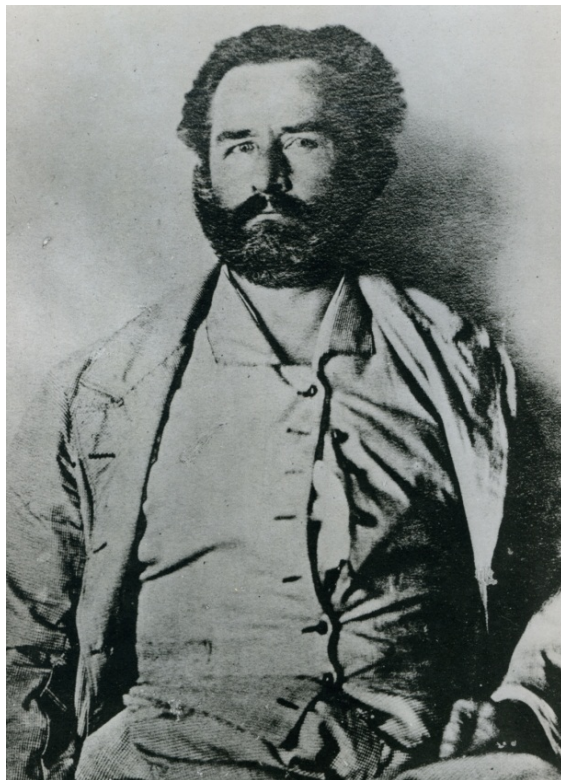
What is the context?

- On the periphery of European (and later American) science → Training done elsewhere
- Scientists unconnected to public, either European or indigenous → Science itself not meaningful to Indonesians
- Government was the chief sponsor and audience of colonial (and post-colonial) science → Science served the government
- Idealism of scientists co-opted by the state

Periodization of Indonesian science

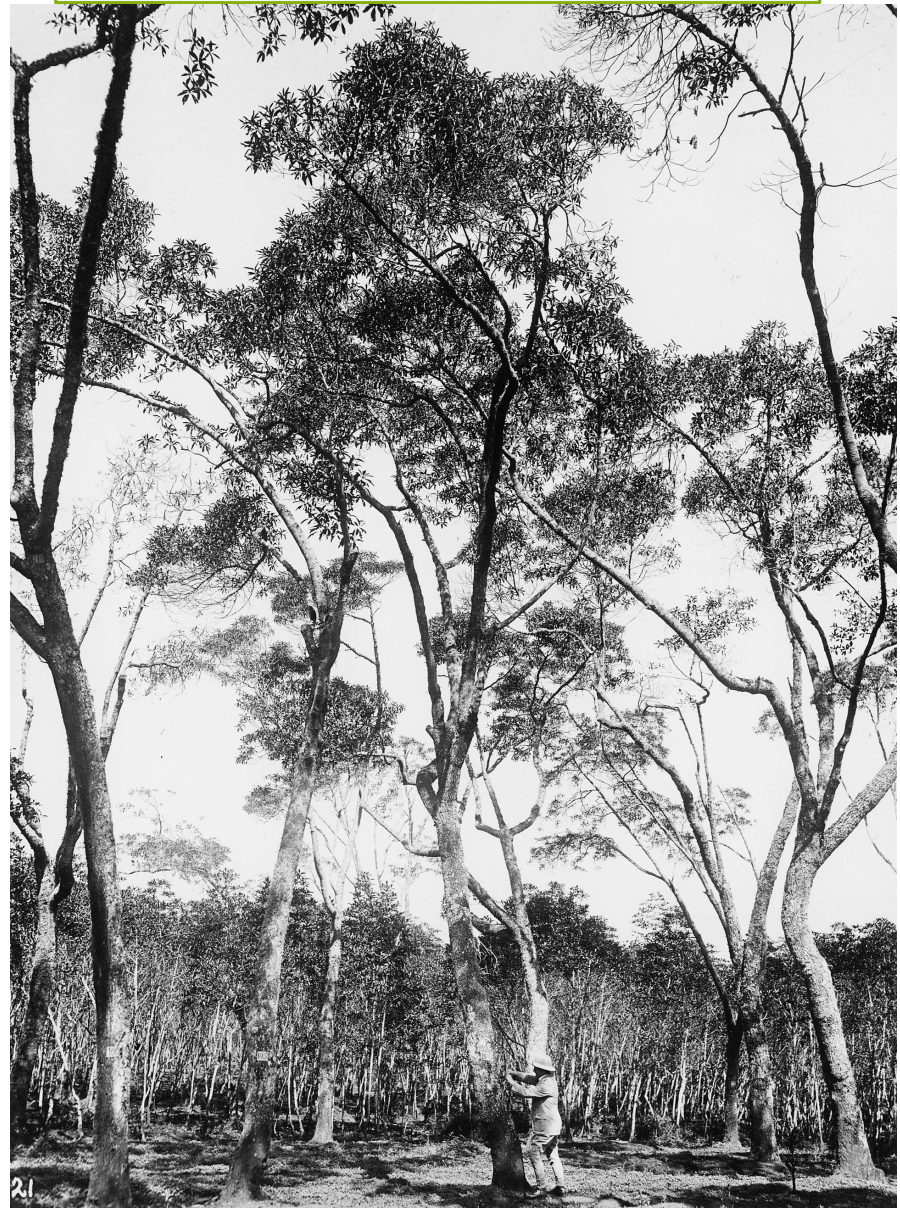
- 1840-1900: Ad hoc invention of scientific programs
- 1900-1930: Creation of scientific institutions, modeled on Europe
- 1930-1950: Crisis: Depression, Japanese occupation, Indonesian Revolution
- 1950-1980: Invention of Indonesian science
- 1980-now: Consolidation of Indonesian state science

F. Junghuhn, the Humboldt of Java



Quinine science

- Quinine critical to the success of 19th century European colonialism
 - Needed cheap & reliable source
- Acclimatization of *Cinchona* in West Java
- First “Floracrats”



Scientific laboratories



Bosscha observatory at Lembang



60-cm Zeiss refractor building, c. 1950



Financed by K.A.R.
Bosscha, private
tea planter

Training Indonesians for the Agricultural extension service



Desk science



No pictures of Indonesian science in crisis (1930-1950)

- But most of the institutions remained open
 - Japanese managed Bosscha observatory, but allowed Dutch astronomer to continue working on his observations of double-stars
 - Similar arrangement in biology, where about 100 Dutch scientists remained employed under Japanese bosses

Indonesian science



60-cm Zeiss refractor



Bambang Hidayat with the 28 inch Schmidt reflector

New opportunities?



Indonesian science today

