

That is, in the post-New Order/*reformasi* era, the two organisations have had their legitimacy questioned through their affiliations with the political parties of Partai Kebangkitan Bangsa (PKB, National Awakening Party) and Partai Amanat Nasional (PAN, National Mandate Party) respectively. Moreover, in the case of NU, there has been a divide of allegiances towards those who were endorsed by the late Abdurrahman Wahid. Both organisations are similarly wracked by divisions along relatively liberal/radical divides. Their political party wings seem to have lost significant ground to the moralistic and righteous Partai Keadilan (PK, Justice Party) – a party that in itself struggles for both Islamic legitimacy as well being inclusive and open. The divide of modernist/traditionalist so long seen in the NU/Muhammadiyah divide is increasingly subject to questioning, as both are ‘tempted’ by radicalism, even if through different avenues.

The text, translated by Wong Wee, generally reads smoothly, although some stylistic matters could have been ironed out for greater fluency. At times, greater clarity could have been achieved through shorter sentences. Feillard and Madinier’s book is written with an eye for detail and draws widely from French, English and Indonesian language sources over numerous decades: from recently published reports and popular magazines to academic writings written current to the era and events they analyse. The authors use few quotations and passages produced by the radicals themselves. The avoidance of such a possible temptation helps to create a text that remains easily readable through succinct summaries and overviews. This book, nonetheless, is vital for its argument against a simplistic and generalised view of ‘radical Islam’ as being something homogenous and unchanging. The narrative provides both breadth and depth and serves as a source book on radical Indonesian Islam.

Andrew Goss, *The floracrats: State-sponsored science and the failure of Enlightenment in Indonesia*. Madison: University of Wisconsin Press, 2011, xiv + 256 pp. [New perspectives in Southeast Asian Studies.] ISBN 9780299248642. Price: USD 26.95 (paperback).

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In his monograph *The floracrats*, Andrew Goss addresses an understudied field: the history of science in colonial and post-colonial Indonesia, from the late eighteenth century until the middle of the twentieth. Goss’s argument ranges widely. He claims that owing to continuous state intervention and the

lack of popular support, the seeds of enlightened science never fell on fertile ground in the area. In order to support this controversial argument which is based on a normative notion of how modern science has emerged, spread or failed, Goss divides his analysis in seven chapters which are all based on thorough archival research carried out in various Dutch and Indonesian archives and interviews with several Indonesian biologists. Every chapter revolves around key figures such as W.R. van Hoëvell, F.W. Junghuhn, P. Bleeker, K.W. van Gorkom, M. Treub, Tjipto Mangoenkoesomo, G.S.S.J. Ratoe Langie and O. Soemarwoto. According to Goss, all of them shared the strong belief that enlightened knowledge about the region's nature and societies was pivotal to the advancement of society, but their idealistic claims were never realized. Science remained an elite endeavor and their attempts to develop an independent scientific infrastructure failed. Only those who were willing to adapt their scientific agenda to the narrow needs of the state were able to pursue a moderate career in both colonial and post-colonial Indonesia. Goss dubs them the floracrats, state experts of nature.

Goss's monograph, which is partly based on his PhD research at the University of Michigan, sheds fresh light on the relationship between various experts of nature and the colonial and post-colonial state. However, while some chapters seem to confirm his history of the failure of enlightened science in Indonesia, others reveal the variety of actors and events which were involved in shaping science and its institutions at a certain moment in the area's history. In his opening chapter, Goss zooms into Batavia in the 1840s and 1850s when naturalists such as Van Hoëvell, Bleeker and Junghuhn promoted themselves as experts with a clear vision on the future of the colony. According to Goss, without an active civil society, only a few received a chance to partly realize their ideals within the narrow boundaries of the growing colonial state. In their new functions as floracrats they were made responsible for the improvement of the public health care system or the acclimatization of useful natural products such as cinchona trees. The latter issue is the core topic of Goss' second chapter which illustrates that state intervention was never the exclusive reason for the failure or success of a concrete scientific project. The chapter rather shows how tensions between various actors and pure coincidence, and international exchange of specimens and knowledge, led to the successful cultivation of the species *cinchona ledgeriana* in plantations in the mountainous hinterland of Java.

By focussing on Melchior Treub in Chapters 3 and 4, Goss explains the complex process which led to the transformation of the botanical garden in Bogor into an 'icon of Dutch colonialism' (p. 60) in the decades around 1900. Instead of reviewing Treub's agricultural science as an exclusive tool of the colonial state, Goss gives a fascinating insight how Treub refashioned the garden as local and international centre for plant expertise. Core elements of

this process were the enlargement of the herbarium, the launch of new scientific journals, the foundation of a botanical laboratory, the invitation of guest researchers from all parts of the world, and eventually the establishment of the Department for Agriculture which became the central platform for agricultural and other research and education in the Netherlands Indies. In the sixth and seventh chapter Goss focuses on the implications of all the aforesaid for the new Indonesian state. While all other colonial officials were replaced by Indonesians, Dutch scientists were allowed to remain in the country. In the years after the transfer of sovereignty in 1949, however, their institutions and projects were gradually tailored to the needs of the new administration. In these two chapters, Goss unravels how science and its institutions shaped and were shaped by a complex and quickly changing set of actors in the years before and after decolonization.

Goss' monograph is a valuable contribution to the field, but it has some flaws. In all of the seven chapters, Goss succeeds in reconstructing the local political, social and economic context which shaped and was shaped by various experts of nature and their institutions. But focusing on the local is not enough to explain the shift from more descriptive natural history towards specialized, institutionalized and rationalized biological disciplines as it occurred in the Malay Archipelago and elsewhere in the course of the long nineteenth century. The specific outcome of this shift on Java is not only influenced by continuous state intervention but is also the result of polycentric and global processes of negotiation and exchange where political, scientific, economic, and many other interests were continuously reconfigured.¹ There is another perspective missing: none of the mentioned projects and institutions could have been achieved or failed without the support of a mass of local helpers which usually remain anonymous in the polished accounts of scientists. The botanical garden in Bogor, or Junghuhn's survey of Java's volcanoes, Treub's Agricultural Department, or Steenis' *Flora Malesiana*, to name just a few examples, were also fed by intensive local collaboration and fieldwork which spanned the entire Malay Archipelago. Paying more attention to these hidden but crucial pillars of the modern science might have given this monograph more depth.

¹ For a recent attempt to flesh out a framework for a global history of science see Roberts 2009.

Reference

- Roberts, L.
2009 'Situating science in global history: Local exchanges and networks of circulation', *Itinerario* 33-1: 9-30.
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