

ownership matters. He was appointed a senator by the statesman J.C. Smuts, an amateur scientist himself, to be one of four who were intended to represent the interests of the non-white races. He was regarded as having their interests at heart in a sober and level-headed (i.e. politically-acceptable) way. Not unexpectedly, he tended to become more conservative as he aged although even then he sometimes stood on the toes of those who had championed his appointment.

Snedegar's study is a *tour de force* of research into the political and scientific background of the South Africa in which Roberts lived and made his mark. Snedegar tells us that his interest in Roberts started in the late 1980s. He has made exhaustive use of material from archives and other sources scattered worldwide. His understanding of the convolutions of South African racial politics is by itself impressive. For my own part I found it hard to put the book down, opening as it did for me so many aspects of the scientific and political life that prevailed a century ago.

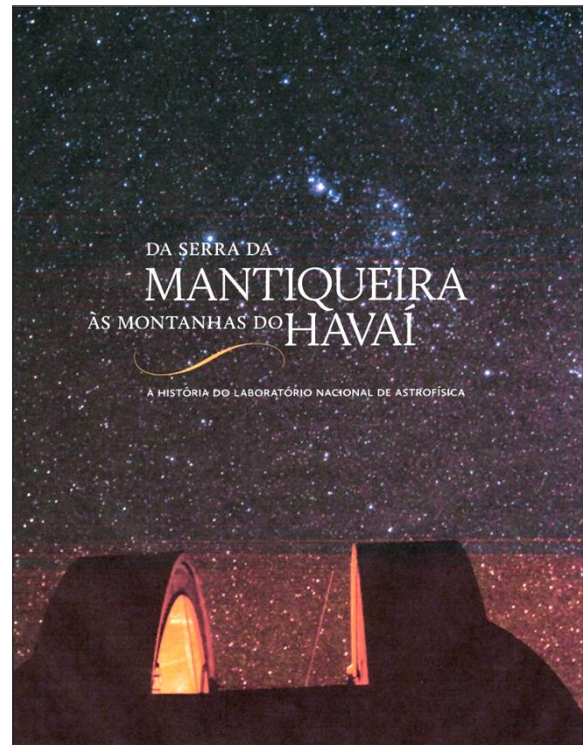
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***Da Serra da Mantiqueira às Montanhas do Havaí – A História do Laboratório Nacional de Astrofísica*, by Christina Helena da Motta Barboza, Sérgio Tadeu de Niemeyer Lamas, and Cristina de Amorim Machado. (Itajubá, LNA/MCTI, 2015), pp. 212. ISBN 978-85-98138-08-4 (paperback), 203 × 280mm. No set price.**

The plans to write this book about the history of the Laboratório Nacional de Astrofísica (National Astrophysics Laboratory, LNA) in Brazil began casually at a lunch in Brasília during the 4th National Science and Technology Conference in 2010, when the then Director of the LNA, Albert Burth, asked me whether I knew anyone who could take on the task of researching and retelling the institution's history. The name of Cristina de Amorim Machado came to mind. Meanwhile, I myself would be a kind of project supervisor, since the budget did not stretch to paying more than one person. For bureaucratic reasons, an agreement had to be set up between the LNA and the Museu de Astronomia e Ciências Afins (Museum of Astronomy and Related Sciences, MAST) for Cristina to receive a research grant and have access to the MAST archives. Even before this was cemented, she started perusing the literature I had put her way. Still in 2010, we began having periodic meetings to discuss this pioneering project to recount the history of the LNA and the primary and second-

ary literature on astronomy in Brazil. I remained the official coordinator until the agreement was signed and the MAST took over the research and the writing of the book, designed to mark the 30th anniversary of the LNA.

The involvement of the MAST cast the project in a new light, changing substantially the nature of the resulting publication. After all, two institutions, both run by the Ministry of Science, Technology & Innovation, were now supposed to work together to produce a coherent version of the trajectory of the LNA from its beginnings until the present day. The end result, it must be said, is consistent with the new direction adopted when I stepped down as project supervisor. Cristina Machado carried on the work for some time, but she was not involved in writing the final draft of the book, since she had taken up a post as a Professor of Philosophy of Science and Research Methodology at the State University of Maringá.



As explained earlier, this book should be read as one version of the history of the LNA. As is common in the domain of history, other different versions could also be told. The story told here counted on the active participation of at least two of the institution's researchers: its former Director, Albert Bruch, and its current Director, Bruno Castilho. Both were involved in researching photographs, as credited on the title page. It is also important to stress that even before the MAST was involved, the project received wholehearted acceptance and support not only from the LNA's Directors, but especially from its employees, some of whom were interviewed and provided access to their personal

archives. Without their involvement, this book could not have been written; indeed, nor could any other, since the LNA is still quite a young institution.

Something else that confirms the nature of this book is its Foreword by the former Minister of Science, Technology & Innovation, Aldo Rebelo. Similar projects have been pursued by other institutions from the same ministry. For instance, the Observatório Nacional (the National Observatory) and the Centro Brasileiro de Pesquisas Físicas (a Physics Research Institute) have both engaged in activities that resulted in the production of books, booklets and exhibitions. A major objective of many historical enterprises of this ilk is the opportunity to showcase past achievements in order to garner continued Government support for science in the future.

The book under discussion here is richly illustrated. There are five chapters, plus an Introduction and a Conclusion. The trajectory it describes is long, reaching as far back as the mid-1800s, when the Imperial Observatory of Rio de Janeiro began looking for a suitable site to install equipment for astrophysical research. The story then shifts to the 1930s, when a similar, also abortive, effort was made to equip the country with an astrophysical observatory. It was only in the 1960s, with the joint efforts of Luiz Muniz Barreto and Abrahão de Moraes, that things started to change. This phase, essentially the pre-history of the LNA, lasted some 20 years. Finally, in 1980, the first telescope for modern astrophysical research was installed on Brazilian soil. After these two initial chapters, the rest of the book presents a more strictly institutional perspective. The scientists themselves take supporting roles as the LNA is put center stage, and thus it continues to the end of the book.

In a bid to appeal to a wider audience, the book provides a glossary of technical and scientific terms, which helps readers understand many of the LNA's scientific projects and goals. The text itself makes pleasant reading, even if the tone becomes more official from the middle onwards, reflecting the work's institutional nature. The spotlight turns more to the LNA's achievements than those of its researchers, and the facts are more narrated than discussed. Some delicate periods from the institution's history are described, but some of the details are missing, even though many, if not most, of the people who lived through those times of tension—such as when the Brazilian Astrophysics Observatory (the original name of the LNA) split from the National Observatory—are still alive and active in their respective fields. In other words, this is not a book that will stir up any

controversy. Rather, its aim is to show how much Brazilian astronomy has grown and matured through the work of the LNA.

Written by Barboza, Lamarão, and Machado, this book constitutes an important contribution to the history of astronomy in Brazil, but not just this. At least since the 1990s, the LNA has taken part in international projects like ESO and SOAR, in line with its institutional mission to coordinate the international work of Brazilian astronomers. The LNA effectively oversees Brazilian astronomy in other observatories in Chile, the United States and other sites where conditions for observing the sky are more favorable.

I do not know how this book can be acquired. I have only seen it in pdf format, even though it has already been printed. As it is institutional in nature, it will likely be distributed free of charge, but it can be accessed online on the LNA website (see http://lnapadiao.lna.br/aceso-a-informacao/institucional/livro_lna.pdf). The fact that it is written in Portuguese may prevent this important contribution to the history of Brazilian astronomy gaining wider attention. Until such a time as it is translated into English—which I hope will happen soon—readers may be interested in a research paper that was published in English in this very journal last year (Amorim Machado and Videira, 2015), which recounts some of the key events culminating in the creation of the LNA.

References

Amorim Machado, C. de, and Videira, A., 2015. A mountain observatory and the Brazilian Astrophysics Project. *Journal of Astronomical History and Heritage*, 18, 223–240.

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