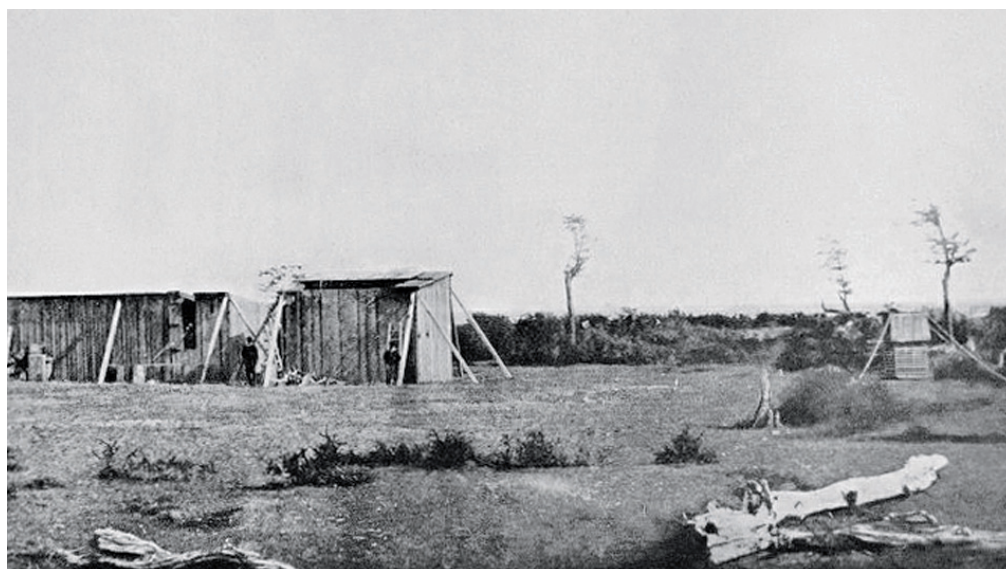


Star gazing

The request for funds to observe Venus gave rise to discussions about such support for research 125 years ago

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NATIONAL OBSERVATORY

Observatory set up in Punta Arenas, Chile: method developed by Edmund Halley

An episode that took place 125 years ago gave rise to the first debates regarding investment in science in Brazil. In common agreement with the emperor Dom Pedro II, the minister of the Navy, Bento de Paula Souza, asked Parliament for funds amounting to 30 *contos* to finance three scientific expeditions which would observe the passage of Venus over the solar disc. The observations, on December 6, 1882, would help to determine the distance between the Earth and the Sun.

One of the expeditions was to Olinda, Pernambuco. However, the main ones were concentrated on the Island of Saint Thomas in the Caribbean and in Punta Arenas, in southern Chile. “These two sites formed the base of a giant triangle with one of its vertexes touching the planet Venus”, explains Marcomede Rangel, physicist at the National Observatory, the institution that coordinated the expeditions on that occasion in the name of Imperial Observatory of Rio de Janeiro. “Because of the triangular similarity one arrived at the distance of the Earth to Venus and of Venus to the Sun.” Several other countries dispatched teams to conduct observations



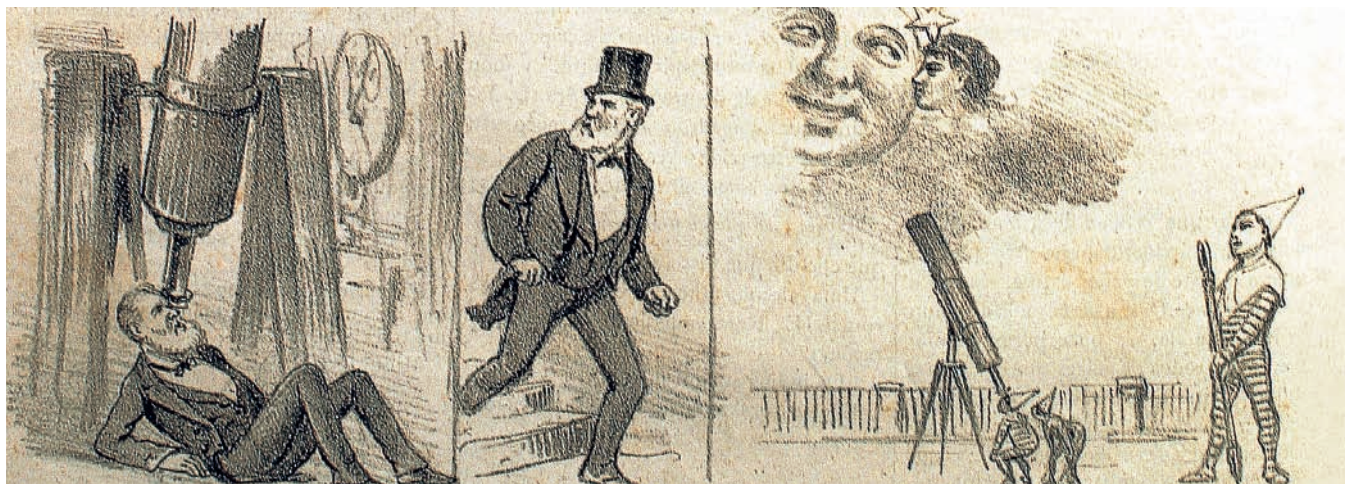


Illustration by Angelo Agostini in his *Revista Ilustrada*: poking fun at Dom Pedro II and at astronomic research

at several points around the globe.

The request of the emperor and of his minister gave rise to protests in the Chamber and in the Senate and to cartoons in the press, especially in the *Revista Ilustrada* (*Illustrated Magazine*), designed and edited by Angelo Agostini. “It became one of the liveliest debates on the use of elementary science”, states Ronaldo Rogério de Freitas Mourão, researcher at the Museum of Astronomy and Correlated Sciences (Mast) and a scholar on the subject.

In the Senate, Silveira da Mota, contrary to the concession of the funds, complained: “The population wants other things, it is not interested in astronomical observations (...) the population wants railways, plenty of coffee, tobacco, a lot of individual liberty, very thrifty and moral governments (...) the people want all this, and they are not eager to know what goes on in the stars ... that is a luxury”. In the Chamber, representative Ferreira Viana seconded

the senator. The politicians did not understand the benefits that the expeditions might bring to the population.

Result: Parliament did not grant the 30 *contos*. Nevertheless, to comply with the Emperor, counselor Leão Velloso managed to obtain the funds from

two rich farmers and the expeditions were carried out.

The controversy with regard to Venus represented an isolated fact for the times, according to Lilia Moritz Schwarcz an anthropologist at the University of São Paulo and author of the book “*As barbas do imperador*”

(*Under the nose of the Emperor*) (Companhia das Letras, 1998). In 1882, scientific activity was still in its early stages and the one most interested in practicing it, even as an amateur, was precisely Dom Pedro II.

Dom Pedro was a patron of the arts, literature and science. Apart from wanting to give independence to the local cultural elite, the emperor also wanted to distinguish himself from other sovereigns, including those from the past. “In those times, to be considered illustrious, kings and queens had to be scientists”, states Lilia. Another aspect that helped to avoid scientific controversy at that time was the fact that Dom Pedro practiced science privately – he was an amateur astronomer and owned an observatory at the São Cristóvão Palace. There was also the Emperor’s Museum, which housed the mummies given to him by Egypt, ethnographic material and Leopoldina’s gem collection. “Access there was granted only to scientists he invited.”

