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JÜRGEN STOCK AND HIS IMPACT ON MODERN ASTRONOMY IN SOUTH AMERICA

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Without Jürgen Stock, the astronomical landscape on this planet would look completely different. Within one decade, Jurgen Stock made Chile the most important country for optical observatories.

In 1951, Stock obtained his PhD in Hamburg – his supervisor was Otto Heckmann, who later became the first Director General of the European Southern Observatory (ESO). After some years in Cleveland – and a one year interval at Boyden Observatory, South Africa – Stock was asked by Gerard Kuiper to do a site test in Chile. The University of Chicago looked for a mountain in the Santiago area to put up a 1.5-m telescope in the southern hemisphere. Stock accepted and took off for Chile within days. The trip, that was supposed to last a few weeks, lasted more than three years. "As a result, the world's largest collection of astronomical instruments is now in Chile", recalled Jürgen Stock this trip four decades later.

After his arrival in Chile, Stock realised immediately that the three pre-selected mountains close to Santiago were not really suited for an observatory. He decided to do site tests much further north, in the area of La Serena with its unique climate conditions between the cold Pacific Ocean and the high mountains. Stock travelled to Vicuña and climbed on foot a nearby mountain. At some distance he spotted a mountain with a perfect topography – quite isolated with an almost flat top. As the mountain was some 30 km off the close accessible road, he organised mules and horses and a few months later he made a trip to the top. He remembered it vividly:

"The first night was so impressive: a perfectly clear night, absolutely calm, with a comfortable temperature: It couldn't be better. On top of that, it was perfectly dark in all directions."

In those times there was an unknown mountain somewhere in Chile, now this mountain has a magnificent sound: Cerro Tololo.

Due to Stock's euphoric reports from Chile, the project was handed over from the University of Chicago to AURA, the Association of Universities for Research in Astronomy. Now, the astronomers thought of something much bigger than just a site for a 1.5-m telescope. With sufficient funds, Stock set up several teams for extensive site testing activities in that area. He checked almost a dozen of mountains – Stock spent nearly three years on horse back to climb many mountains. While he was on expedition, he made notes every day – including not only atmospheric conditions and astronomical observations but also everyday life: Stock mentioned problems with the mules, the progress in the construction of some shelter on the mountains, the need for a support team bringing food and water, the conduct of the local people, and so on. Each time he was back in Vicuña, he sent a letter with those notes to his boss Donald Shane at Lick Observatory. In a stroke of genius, Shane decided to type, copy and distribute the reports among the astronomers in the US. Due to that, the "Stock reports" survived until today. The reports should be read by everyone who wishes to get an idea of what it meant to conquer the Andes for astronomy.

In 1962, Tololo was finally chosen and Stock became the founding director of that observatory. In fact, he did almost everything: He was involved in the road construction, the blasting, the construction of the domes and support buildings, etc. Due to his personal contact to Otto Heckmann and Jan Oort, Stock kept the Europeans informed about the progress in Chile. ESO – at that time about to sign the contracts with South Africa – decided to join the Americans in Chile. Without this personal contact between Heckmann and Stock, ESO's first observatory would have been erected in South Africa. Although Jurgen Stock was never on the payroll of ESO, he had tremendous impact on the early years of this organisation.

At first, there was a plan to build the American and the European observatory on the same mountain. But ESO decided soon to keep its independence and to build an observatory on La Silla. It turned out to be a wise decision (today both mountains are "full"), but Jan Oort realised the problems

[1] Radio Nacional de Alemania.

connected with that. In a letter addressed to Heckmann in 1963, he wrote: "The worst thing is, that we need some extra time to check the quality of the mountain and to construct a road to the top – and we should always keep in mind, that we don't have a Dr. Stock."

In the 1960s, both Stock and Heckmann have been directors of major observatories. In 1970, Stock was forced to leave Chile. At that time, three world class observatories had been established in Chile: Cerro Tololo Interamerican Observatory on Tololo, European Southern Observatory on La Silla and Carnegie Southern Observatory on Las Campanas. The astronomical Chile looked considerably different compared to 1959, when Stock had arrived in Santiago.

After a short stopover in México, Stock went to Venezuela and founded the CIDA observatory in the Andes near Mérida. His merits for astronomy in Chile have almost been forgotten. Those of us, who had the privilege to know him, will remember his fine sense of humour, his brilliant mind and his great heart. Jurgen Stock was a man of great vision – modern astronomy has lost one of its last pioneers.