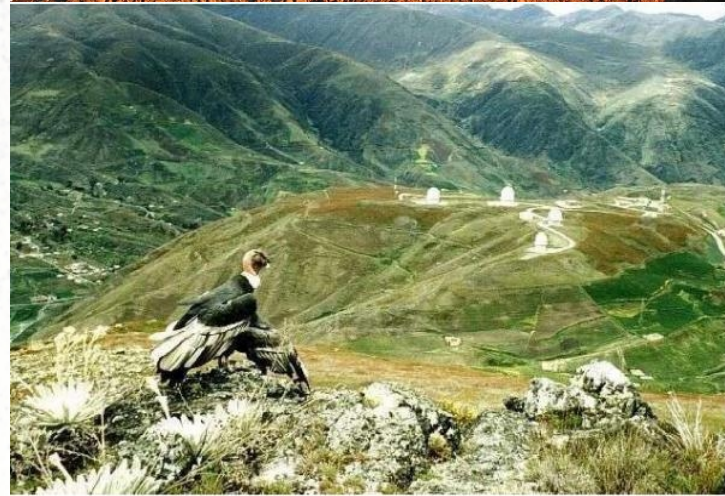


*Jürgen Stock:
from one end of the Andes to the other*



Kathy Vivas (CIDA, Venezuela) & Jeanette Stock (LUZ, Venezuela)

Jürgen Stock (1923 - 2004)



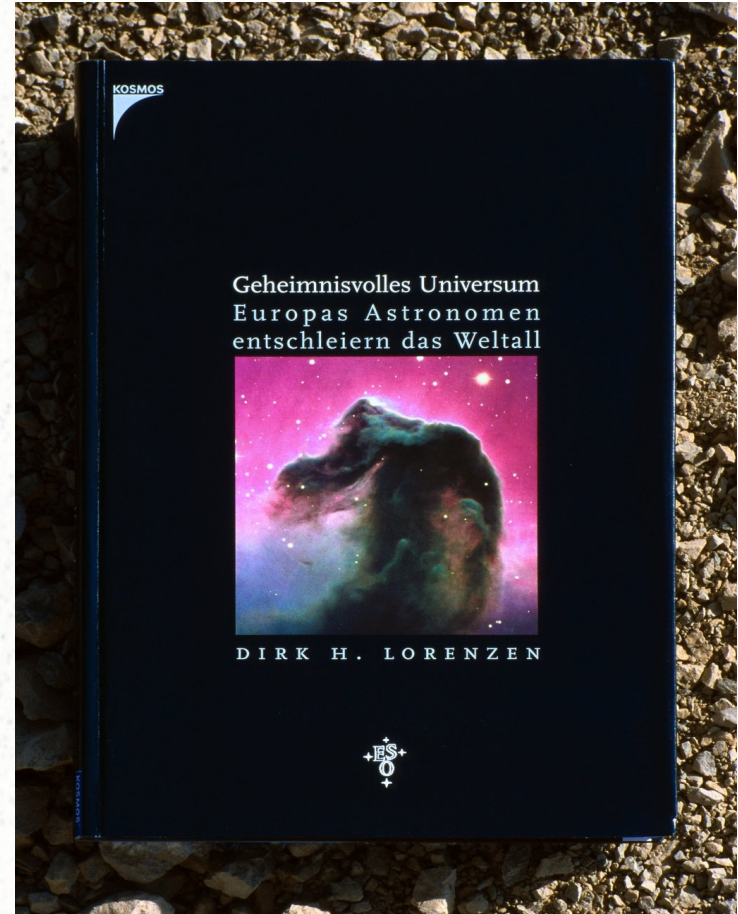
- Born in Germany
- PhD from University of Hamburg (1954)
- Worked in Germany, South Africa, USA, Chile and Venezuela
- First director of CTIO (1963-1966) and CIDA (1975-1982)
- Fields of research: astrometry, spectral classification, galactic structure, geodesic, meteorology

“As a result of this effort, the world’s largest collection of astronomical instruments is now in Chile” (Jürgen Stock)

Resources



Most photographs in this talk come from the archives of the Stock family and CIDA.



Mysterious Universe — European astronomers reveal the Universe, by Dirk Lorenzen (ESO 2002)

The Stock Reports



- Collection of >500 pages (originally handwritten)
- Describe with all details the exploration and site testing in Chile that ended in CTIO
- Cover the period 1960-1962
- Electronic version recently compiled and edited A. Upgren

The beginnings...



Picture: J. Stock (1959)

- In 1959, Gerard Kuiper (Yerkes Observatory) sends him to Chile to test some pre-selected sites around Santiago for installing a 1.5m telescope. This was for a joint project with the University of Chile.
- He soon realized that he had to go north.

Report 1, February 14, 1960

February 14: We, that is Hugo Moreno, Carlos Torres, Guillermo Romero, and me, left Santiago at noon for Vicuña. Our plans for Vicuña were that one party would observe on Guamayuca for three days, the other would inspect new sites in the area. After three days the two parties would interchange for another three-day session. Then we would return to Santiago. The equipment we were carrying consisted of one Danjon telescope, one Ridell refractor, one thermohygrograph, a psychrometer, an altimeter, compass, two tents, four sleeping bags etc. The Jeep was pretty well overloaded, its springs being bent upwards. The car, however, was moving all right. To our delight we discovered that the paving of the Pan Americana had progressed as far as Los Vilos that we passed at 6:30 p.m. There the old dirt road began and soon our troubles also. The car passed over a rock that was somewhat higher than its clearance from the ground. As a result of this the rock was shattered, and the emergency brake too. Parts of the brake were still partially attached to the car and were dragging on the ground. These had to be fastened to the bottom of the car with some wire that we did not have with us. After some surveying of the area we made the repair in the indicated manner, leaving a gap in somebody's fence.

In pictures...



Pictures: J. Stock (1959)



Picture: J. Stock (1959)

Mules



Picture: J. Stock (1959)

“We are thinking of four animals, \$75 apiece. So the Administration of the University of Chicago may soon find itself in the curious position to have some mules on the staff. I am glad this is a less than 1,000-dollar item. If we had to get approval of such a purchase I think we would have plenty of difficulties.”

(Report 2, February 27, 1960)

Beautiful skies



Picture: J. Stock (1959)

Don Fidel is willing to give us a written guarantee of more than 200 completely clear nights per year. (Personal comments: At least that much. The administrator of the hotel told us that they used to advertise that people would not have to pay on cloudy days. We had to pay for every day!)

Report 1, February 16, 1960

... on four wheels, four legs and two legs...



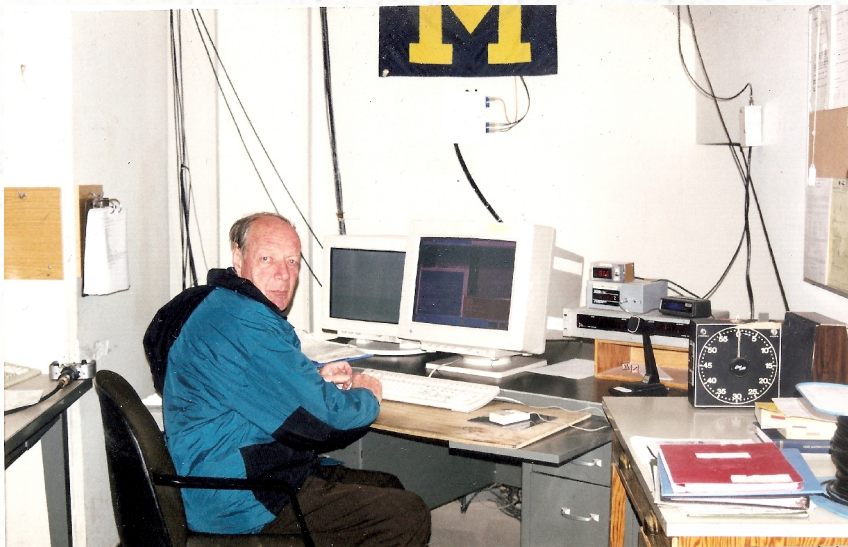
Picture: J. Stock (1959)



Picture: J. Stock (1959)

A distant mountain

“I saw that mountain, far away in the valley, far from the road, with the right topography, isolated and with a good height. Then, I said I had to go there to explore”



Dr. Stock observing at CTIO in 2001

Dr. Stock to his daughter Jeanette at Cerro Guamayuca describing how he decided to go to Cerro Tololo (2001)

Report 4, April 1960

We just returned from Vicuña and there is a lot to tell. I hope to be able to get a complete enough story on paper. I don't have much time on hand, because I have to go to Venezuela for a few days. I expect to be back in Santiago on the 29th.

In Vicuña we contacted immediately the carabineros in order to get in touch with Juan Leyton. He knows the mountains in the area better than anybody else.... We met Juan Leyton at his house, and explained to him, which mountains we were planning to visit. The names of the mountains were actually determined later, anyway they are: Cerro Blanco (2800 m) to the N of Vicuña, and "Tololo" (2,250 m) and "Morado" (21.50 m) to the SW of Vicuña. Cerro Blanco can be approached from a place called "El Sauce", and Tololo from "El Tambo". The latter is on the La Serena – Vicuña road, the first at the end of a Jeep trail. We made plans for the next days.

First time at Tololo



Dr. Stock at Cerro Tololo

Report 4, April 16, 1960

.... So this is a spectacular site, and as undisturbed by local effects as one can wish. The area on Morado seems to be of the order of 200 m x 500 m, the area on Tololo somewhat larger (however inclined by a few degrees). In spite of the fact that we felt more like a part of a horse than a human being we decided that this site was on our program.

A detour: first trip to Venezuela

As you may notice I was not able to complete this report before my trip to Venezuela. Now I am back in our business, with one more adventure on my record. I saw a lot of Venezuela and visited a number of mountains. They were not as high and as far as those in Chile, but even more difficult to get to. The vegetation is the main problem there. I have now plenty of experience with the means of transportation in a jungle, and I am very happy that Chile is not like it. I also had to live through two revolutions, and that was no fun either.

Report 4 (April 1960)



*Laguna de Mucubají, Venezuelan
Andes*

Project to modernize Observatorio Cajigal, Caracas, 1950's



Refractor de 650 mm en la sala de montaje de la fábrica de Zeiss.
Observador en el extremo del ocular y en el lugar para la lectura
fina de la rectascensión. Tubo oeste.
Vista desde el este.



***Refractor telescope (65cm) for the Venezuelan
observatory at the Zeiss factory (Germany, 1958)***

Back to Chile



- Explorations in different mountains continued during all 1960 and 1962
- Locations to the north, near Copiapó were included in the site testing programs

Picture: J. Stock (1959)

This may be an opportune time to point out to what extent we depend on the cooperation of the local people. Whenever we come down from Guamayuca, we are in a bad shape, either because of heat and dust, or because of bad weather. Whenever we are expected at La Totorita we get every possible help. Also when we want to go up, we just give word to Don Fidel, and he prepares everything. Without him things would be very difficult if not impossible. This time he knew that we had to leave the mountain. So he sent his men up in spite of the adverse weather. The situation is quite similar on all the other stations. We can rely 100% on the people in the area. They are always prepared to help when help is needed.



Report 5, May 18, 1960

Picture: J. Stock (1959)

Stock referred to this couple of years as “the most beautiful time in my life, even when I spent two years in the mountains. There was not a single day without spending many hours on a horse or hiking. After that, everything was technical and administrative. ”



Dr. Stock on his horse Hannibal

CTIO



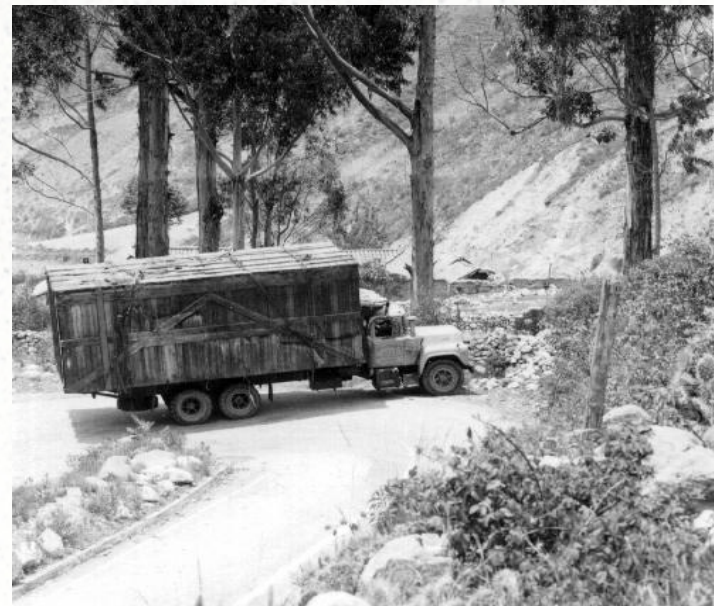
- Final decision on the site was made by AURA at the end of 1962, and CTIO got officially its name.
- Dr. Stock was director of CTIO from 1963 to 1966.

First Base Camp at Tololo

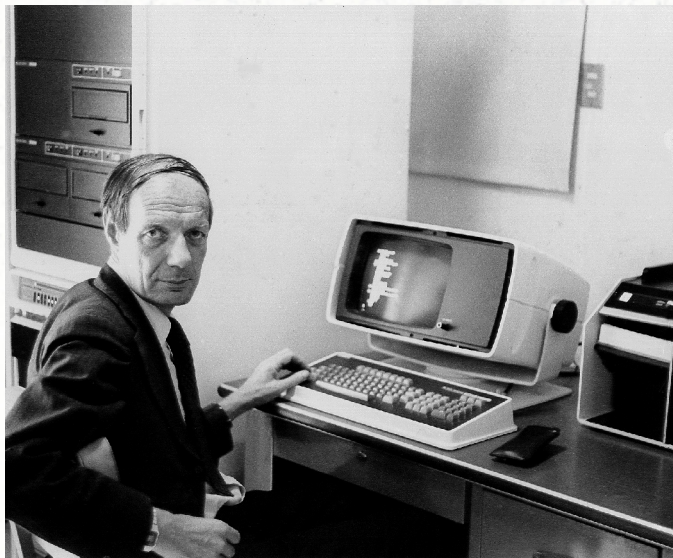
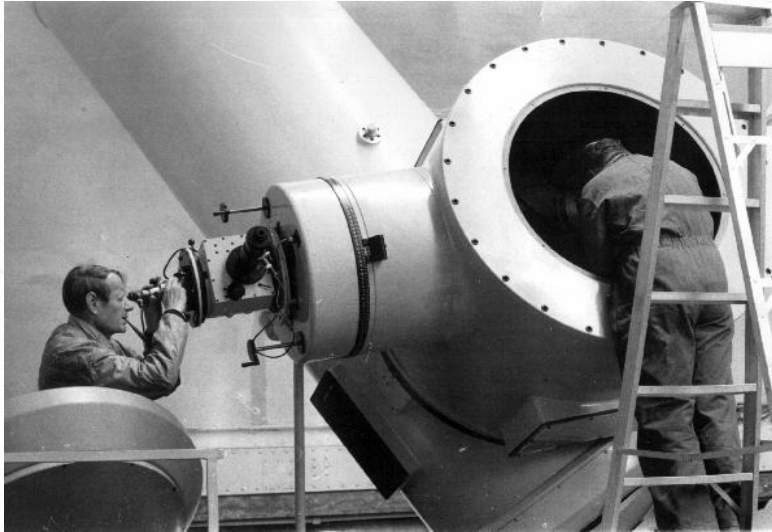


Moving to the other end of the Andes

- Stock moved to Venezuela in 1971
- He was in charge of the construction of the new observatory



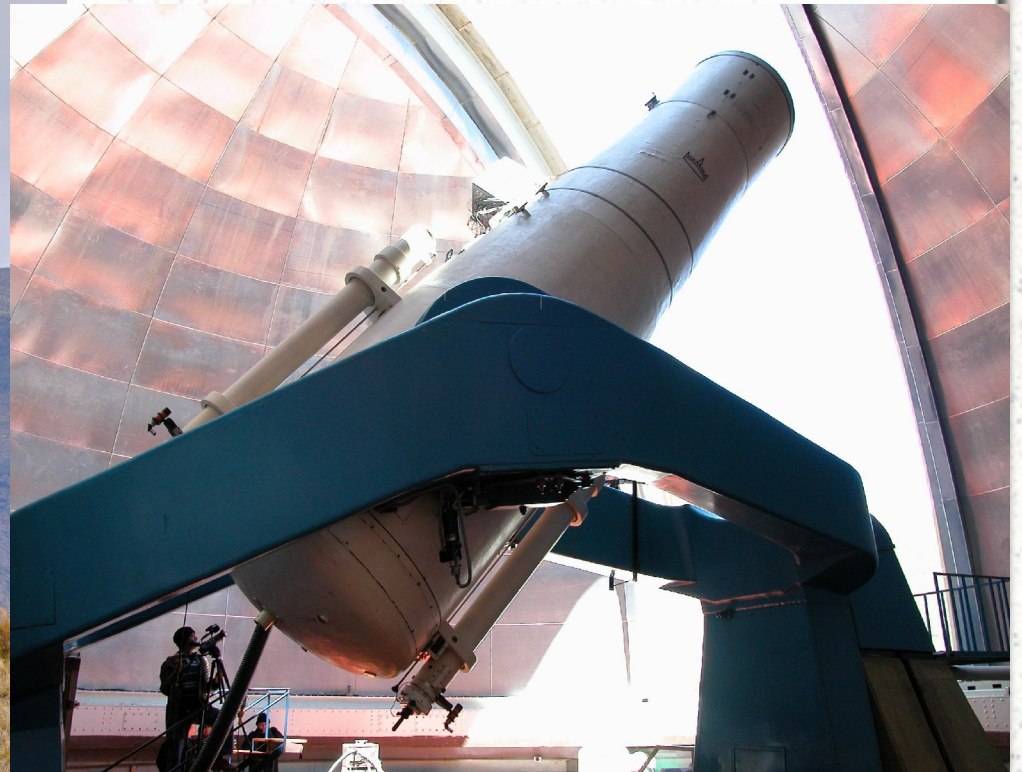
CIDA



- Centro de Investigaciones de Astronomía (CIDA) was created in 1975
- Dr. Stock was director for the period 1975-1982

The Stock Telescope

(1m Schmidt telescope at Llano del Hato National Observatory, dedicated in 2005)



Final Remarks

- Without doubt Dr. Stock had a major influence in the development of modern observatories in Chile
- His fundamental contribution for the development of astronomy in Latin America was huge and it is largely appreciated



Resources

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