

BOOK REVIEWS

***Astronom in zwei Welten*, by Dieter B. Herrmann (Halle, Mitteldeutscher Verlag, 2008), pp. 255, index, many b&w illustrations, ISBN 978-3-89812-557-4 (hardcover), €19.90, 205 x 140 mm.**

An Astronomer in Two Worlds is the translated title of the autobiography by Dieter B. Herrmann (Figure 1). The author has been long-time Director of Archenhold Observatory, a popular observatory in Berlin-Treptow, that was founded by Simon Archenhold in 1896, and run by him until 1931. The Observatory houses the longest existing refracting telescope ($f = 21$ m, $d = 0.68$ m). Archenhold's son, the second Director, had to emigrate when the Nazis came to power, and the Observatory was taken over by the Berlin school administration. After WW II, in 1948, Diedrich Wattenberg was appointed Director. Our author succeeded him in 1976, and retired in 2005. During his career, German re-unification took place, and he is one of the few prominent East Germans (an 'Ossie') in an executive position who survived in his job, i.e. was not replaced by a so-called 'Wessie'. Thus, he is certainly qualified to write about his experiences in these "two worlds".

The author unfolds his life in the broad panorama of post-war-time (Eastern) Germany, when there was—at least in the beginning—a spirit of optimism and progress. He describes his interest in music (with his later acquaintance of the composer Hanns Eisler), in acting (he was a member of a student cabaret and theatre), and in physics and astronomy (from his early lecture of the popular astronomy writer B.H. Bürgel to his activities at Archenhold Observatory, from his physics studies at the Berlin Humboldt University, via newspaper articles on science, to his job at a state authority of radiation protection). In the early 1960s, he got an offer to work towards a Ph.D. in the history of science, which in 1969 resulted in a thesis on "The Emergence of Astronomical Professional Journals in Germany". When he became Head of the History of Astronomy Section at the Archenhold Observatory with a chance to become the new Director in a few years, he decided to join the ruling party (the Socialist Unity Party of Germany). A 'party group' had been installed in the Observatory, and instead of interfering with its decisions (and as a non-party member being always on the weaker side), he found it more efficient for the Observatory to take its lead.

In this way, his years at the Observatory were successful: an increase in visitor numbers, the publication of books, trips to conferences, research visits abroad and appearances on the television programme *Aha*. Finally, he became founding Director of the major Zeiss Planetarium in East Berlin which opened in 1987.

After German reunification, a major readjustment of public life in Eastern Germany took place, when an evaluation of institutions and persons took place, where not only the competence, but also the 'proximity to the former ruling system' played a decisive role in re-employment. In addition, in the formerly divided city of Berlin, cultural institutions existed both in the East and the West, and if something had to be closed, it was of course the Eastern one ... It

is a splendid testimony to the qualifications, ability, openness, and flexibility of Dieter B. Herrmann that the two institutions entrusted to him survived and are now part of the German Technikmuseum Berlin.

This elegantly-written book is not only a valuable autobiography of an important popularizer and historian of astronomy, but also an extraordinary document of public life in post-war Germany before and after re-unification.

Hilmar W. Duerbeck, Brussels

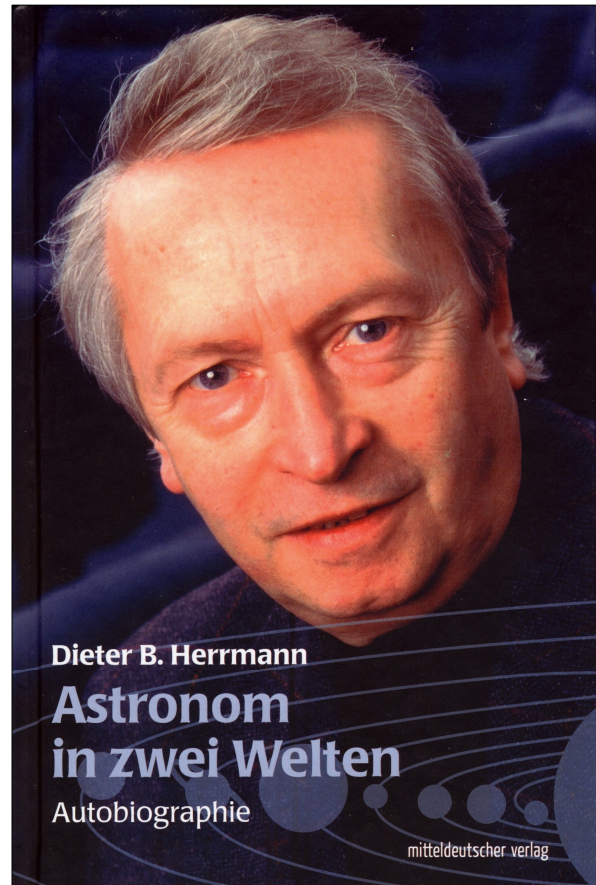


Figure 1: The cover of Dieter B. Herrmann's autobiography.

***Der Wissenschaftsmacher: Reimar Lüst im Gespräch mit Paul Nolte*, by Reimar Lüst (Munich, C.H. Beck, 2008), pp. 288, index, 23 illustrations, ISBN 978-3-406-56892-3 (hardcover), €24.90, 220 x 150 mm.**

This book (Figure 2) is sort of an autobiography of Reimar Lüst, a one-time astronomer who was born in 1923. His early research on magnetic fields led to rocket experiments with Barium clouds ('artificial cometary tails'), and he then became an accomplished science manager (or 'science maker', as the title implies).

Instead of providing an autobiography, this book presents a series of discussions (or interviews) between Lüst and Paul Nolte. Born in 1963, Nolte is a Professor of Modern and Contemporary History at the Freie Universität Berlin.

Before giving a brief summary of the contents of

this book, I would like to state that this series of questions and answers, through which Reimar Lüst's life unfolds, makes for quite enjoyable reading. Sometimes I have the impression that during the editing of the interviews, part of the answer was moved into the question—I simply cannot believe that the interviewer was so well informed about the life of the interviewee that he could ask such specific questions. While some personal, scientific and science management facts are discussed in great detail, other personal matters remain deliberately vague (e.g. when Lüst's first wife, the astronomer-physicist Rhea Lüst, was replaced by his second wife, the science journalist Nina Grunenberg).

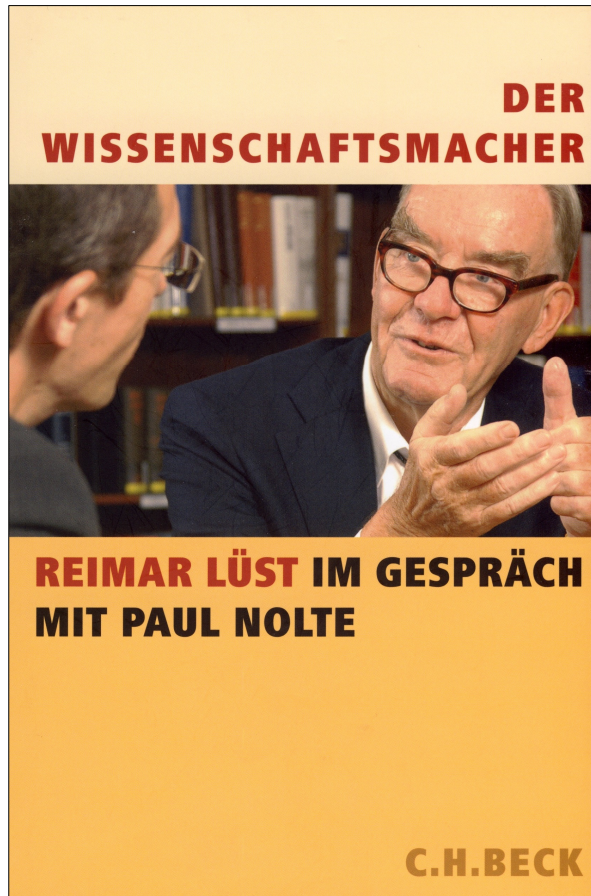


Figure 2: The cover of Reimar Lüst's pseudo-autobiography.

Lüst begins by describing his youth, his interest in engineering that led to his activity (and sinking) as chief engineer on a German U-boat in WW II and subsequent P.O.W. times in the USA, where he started his studies in physics and mathematics. After the war, he continued these studies in Frankfurt and Göttingen, where in 1951 he wrote a Ph.D. thesis on "The evolution of a gaseous mass rotating around a central body" at the Max Planck Institute for Physics under the supervision of C.F. von Weizsäcker. Lüst then became a member of the Max Planck Institute for Physics and Astrophysics after its move to Garching near Munich, and he carried out rocket experiments on the magnetic field of the Earth ('artificial comets'). From 1963 to 1972 he was Director of the Max Planck Institute for Extraterrestrial Physics. Afterwards, he was President of the Max Planck Society for the Advancement of Sciences (also social sciences and humanities), and from 1984 to 1990 Director General of the European Space Agency. Finally, from 1989 to

1999 he was President of the Alexander von Humboldt Foundation, which arranges exchange visits of scientists from abroad at German universities. In recent years, Lüst has been active in establishing the privately-endowed International University Bremen (now Jacobs University). For most readers of *JAH*² I suspect that those parts of Lüst's autobiography that relate to his involvement in astronomy and space flight will be of most interest.

Besides Lüst's personal reminiscences of important scientists like Werner Heisenberg and Carl-Friedrich von Weizsäcker, this book offers interesting insights into science organizations in Germany and Europe.

Hilmar W. Duerbeck, Brussels

***Sternwarten: 95 astronomische Observatorien in aller Welt*, by Stefan Binnewies, Wolfgang Steinicke, and Jens Moser (Erlangen, Oculum Verlag, 2008), pp. 280, glossary, index, about 230 color illustrations. ISBN 978-3-938469-20-0 (hardcover), €49,90, 325 x 250 mm.**

95 astronomical observatories around the world is, first of all, a profusely illustrated book. Many of the very appealing colour photographs—showing the outside appearance of observatories and also many new and old telescopes—were taken by two of the authors, S. Binnewies and J. Moser, while historian of astronomy, W. Steinicke, added detailed notes on the history, present state and activities of these observatories.

The distribution of the optical and radio observatories described in this book was certainly dictated by their 'accessibility': famous US and Chilean observatories, as well as most of the (central) European ones are covered, among them also are two historical ones (Greenwich and Birr Castle) and four popular or private ones. South America is reduced to the string of large observatories in Chile, although there are also remarkable ones in Venezuela, Brazil, and Argentina. Africa is only represented by the South African stations at the Cape and Sutherland, as well as the recently-inaugurated HESS Gamma-ray detector in Namibia. As for Asia, the three Russian stations, Zelentschuk, RATAN600 and Pik Terskol are presented, as well as Xingling in China and Nobeyama in Japan. Observatories in Armenia, Georgia, India, Indonesia, Iran and Israel are lacking. Of course, this book is mainly a 'travel document' to major astronomical places, not a systematic overview. For a complementary study of observatories built before 1950 (with especial emphasis on their architecture), Peter Müller's *Sternwarten in Bildern* (Berlin, Springer, 1992) is recommended.

The informative, detailed, and well-written text contains a number of inaccuracies that each visitor/user of the respective observatory/telescope will quickly discover (e.g. the Hoher List 0.75m reflector was not built by Zeiss Jena—only its mounting was, and the ESO La Silla 1.52m reflector has a closed tube, not an open one). Someone writing from a distance unavoidably is prone to such minor errors, but these do not interfere with the general usefulness of this book (although they will hopefully be remedied in a planned English edition). But as it stands, *Sternwarten* is an attractive, up-to-date guide to major observatories across the world.

Hilmar W. Duerbeck, Brussels

***Universe in a Mirror: The Saga of the Hubble Space Telescope and the Visionaries Who Built It*, by Robert Zimmerman (Princeton, Princeton University Press, 2008), pp. 320, index, 251 color and b&w illustrations. ISBN 978-0-369-113297-6 87-71668-8 (hardcover), US\$29.95, 234 x 157 mm.**

Robert Zimmerman, a science writer, whose books focus on space flight, presents here a very readable and up-to-date account of the planning and performance of the Hubble Space Telescope (henceforth HST). The book (Figure 3) starts with the post-WW II ideas of space astronomy, put forward by Lyman Spitzer, up to the (still pending) HST fifth servicing mission (SM4) now scheduled for 2009.

Robert W. Smith's book on *The Space Telescope* (1989) presented a more official view of the same history, from the beginning up to launch (and, in its 1993 edition, the first critical years), while Eric Chaisson's *The Hubble Wars* (1994) describes these critical years as viewed through the eyes of a somewhat partial participant. Zimmerman succeeds in presenting a more balanced, but also very personal, view of the planning, construction and operation of the HST and of the work of many of the 'dramatis personae' whose fate during long periods of time was intimately connected with it. Besides accessible published material, Zimmerman has used a plethora of archival material, has interviewed people involved in the HST, and has evaluated interviews from the Space Astronomy/Space Telescope/NASA and AIP History Projects (about a hundred in total).

I find the author's tales of the activities at the various NASA centers and manufacturing companies, the actions of the scientific proponents and opponents of the HST (one out of the latter group even became the Director of the Space Telescope Science Institute), the activities of the politicians and NASA bureaucrats very interesting. Cursory readers might find themselves lost at a first reading, when confronted with the plethora of persons involved in this enterprise. Nevertheless, I think that the author manages to tell this fascinating story in such a way that no one will drop the book before finishing it.

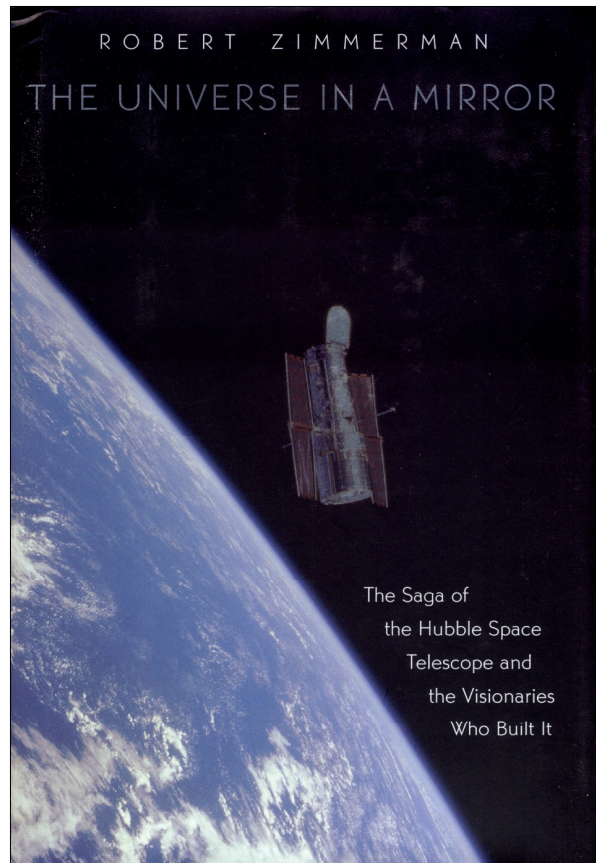


Figure 3: Cover of Zimmerman's *The Universe in a Mirror*.

Concerning the scientific achievements of the HST, the author chooses, as a continuous leitmotif of the book, observations of the star Eta Carinae from the early photographic attempts of the mid-1940s via SIT-Vidicon observations from Chile to the fascinating HST frames. Other projects are more superficially described and hardly rise above the public outreach descriptions of NASA. But this is not the main task of the book. The author presents us with an informative and very readable case study of modern 'big science', which traces the lives and works of many people between the poles of science, politics, funding, bureaucracy and (military) industry.

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