

## Adriaan Blaauw, 1914–2010

In the last issue of *The Messenger* (142, p. 51) only a brief obituary of Adriaan Blaauw, the second Director General of ESO, could be included at the time of going to press.

There follow three tributes to Adriaan Blaauw: by Tim de Zeeuw, current ESO Director General; by his long-term colleague at the Kapteyn Institute, Stuart

Pottasch; and by Raymond Wilson, who led the Optics Group during his tenure as Director General.

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Professor Adriaan Blaauw, ESO's second Director General and one of the most influential astronomers of the twentieth century, passed away on 1 December 2010.

Adriaan Blaauw was born in Amsterdam, the Netherlands, on 12 April 1914. He studied astronomy at Leiden University, under de Sitter, Hertzsprung and Oort, and obtained his doctorate (cum laude) with van Rhijn at the Kapteyn Laboratory in Groningen in 1946. His PhD thesis was entitled "A study of the Scorpio–Centaurus Cluster". During his career, Blaauw became renowned for his ground-breaking studies of the properties of OB associations (groups of young, hot stars) which contain the fossil imprint of their star formation history. Perhaps his most famous work explained why some OB stars are found in isolation travelling at unusually high velocity: the so-called "run-away stars". Blaauw proposed in 1961 that these stars had originally been members of binary systems, and when one star in the binary experiences a supernova explosion, its companion suddenly ceases to feel the gravitational pull that keeps it in its orbit and hence it "runs away" at its orbital velocity.

In addition to his distinguished research career, Blaauw played a central role in the creation of ESO. In 1953, Baade and Oort proposed the idea of combining European resources to create an astronomical research organisation that could compete in the international arena. Blaauw had returned to Leiden in 1948,

but moved to Yerkes Observatory in 1953, becoming its associate director in 1956, and moved back to Groningen in 1957, where he was in a key position to contribute to transforming the idea of Baade and Oort into reality. He was Secretary of the ESO Committee (the proto-Council) from 1959 through 1963, a period which included the signing of the ESO Convention on 5 October 1962. Blaauw became ESO's Scientific Director in 1968. In this position he also provided the decisive push which led to the creation of *Astronomy and Astrophysics*, which successfully combined and replaced the various individual national journals for astronomy, and today is one of the leading astronomy research publications in the world. The article by Pottasch (1994) and the following tribute provide further details of Blaauw's creative leadership in the founding of the European astronomical journal.

Blaauw was Director General from 1970 through 1974. During this period several telescopes, including the ESO 0.5-metre and 1-metre Schmidt telescopes, began operating at ESO's first observatory site, La Silla, in Chile, and much work was done on the design and construction of the ESO 3.6-metre telescope, which had its first light in 1976. Blaauw decided that it was crucial for this project to move ESO's Headquarters and the Technical Department from Hamburg to Geneva, to benefit from the presence of the experienced CERN engineering group. He also oversaw the development of the Protocol for Privileges and Immunities that is critical for ESO's functioning. In May 1974 he launched *The Messenger* with the stated goal: "to promote the participation of ESO staff in what goes on in the organisation, especially at places of duty other than our own. Moreover,



Figure 1. Adriaan Blaauw in 1973 while Director General of ESO. From a photograph taken during a contract-signing ceremony for building works at La Silla.

*The Messenger* may serve to give the world outside some impression of what happens inside ESO." The continuing popularity of *The Messenger* is a testimony to Blaauw's foresight.

After stepping down as Director General of ESO, Blaauw returned to Leiden, where I had the privilege to be amongst his students. He continued to play a very important role in international astronomy. He was President of the International Astronomical Union from 1976 to 1979, during which period he used his considerable diplomatic skills to convince China to rejoin the IAU. From 1979 to 1982 he served on the ESO Council on behalf of the Netherlands. He retired from

his Leiden professorship in 1981 and moved back to Groningen, but stayed active in various areas. This included organising the historical archives of ESO and of the IAU — work which resulted in two books, *ESO's Early History* (Blaauw, 1991) and *History of the IAU* (Blaauw, 1994). He also served as Chairman of the Scientific Evaluation Committee for the European Space Agency satellite HIPPARCOS, advising on many aspects of its scientific programme. When the data became available in 1996, he was actively involved in the re-analysis of the young stellar groups that he had studied first during his PhD research.

Blaauw remained keenly interested in developments at ESO. After a discussion with him in late 2008, he drove himself to Garching and back in July 2009 in order to take another look at the historical documents in the library and to discuss

ESO's early history with some of us (see the photograph in *The Messenger*, 137, p. 6). During this visit he revealed his wish to visit Chile one more time if his health would allow this. It was a pleasure to organise this trip in February 2010. He met ESO "legends" Albert Bosker, Jan Doornenbal, Erich Schumann and Daniel Hofstadt and was driven to La Silla and Paranal by car to enjoy Chile's beautiful landscapes. He characteristically engaged young people at the telescopes and in Vitacura in interesting discussions and throughout the visit displayed a crystal-clear perspective on the development of ESO and on the exciting opportunities for the future programme (a photograph of this visit is shown in *The Messenger*, 139, p. 61). The characteristic sparkle in his eye was as bright as ever.

Blaauw won many academic distinctions, including membership of many academies

of science, honorary doctorates from the University of Besancon and from l'Observatoire de Paris and, like his predecessor as ESO Director General, Otto Heckman, the Bruce Medal of the Astronomical Society of the Pacific. He was well known for his warm personality, wisdom, humour, legendary patience, and the rare gift of being able to slow down when the pressure mounted. The personal account of his life, entitled "My Cruise Through the World of Astronomy", published in the 2004 *Annual Reviews of Astronomy and Astrophysics* (Blaauw, 2004), provides an accurate and inspiring picture of a truly remarkable person, who positively influenced the lives of many.

#### References

- Blaauw, A. 2004, *ARAA*, 42, 1  
Pottasch, S. R. 1994, *The Messenger*, 76, 62

#### Stuart Pottasch<sup>1</sup>

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Adriaan has contributed to many fields of astronomy. In the long years we have known and worked with each other there are two aspects that may be less well known and that I would like to highlight.

First of all is the deep interest he took in the formation of the European journal *Astronomy and Astrophysics*. Adriaan took part in the initial discussions, which first began to take real shape in 1967 and especially in 1968. The discussions in 1967 took place in several European countries. At first they were independent of each other and took place because of a general feeling in Europe that existing European astronomical journals were not being read to the same extent as the American journals. In December 1967 a meeting took place in France which was attended by almost all French as-

tronomers of PhD level or higher, with the result that 75 % of those present agreed that a new journal was desirable. Similar meetings took place at a somewhat higher level in other countries. At this point there was much enthusiasm to begin a new journal. This led to a meeting of European astronomers on 8 April 1968.

In spite of the enthusiasm for the European astronomical journal, there were rather difficult problems ahead. These problems were of a practical nature and arose because the new journal was to be a combination of journals published in various European countries. The individual journals all had a rather different status. Some were owned by private publishers, some by astronomical organisations. The French journals were owned by the ministry in France, which could not contribute financially to a European journal without an official treaty between various countries. The timescale for such a treaty, essentially the creation of an international organisation, was expected to be long, and the discussions complicated.

This is where Adriaan, who was at that time Scientific Director of ESO, came in. He suggested, organised and implemented a legal status for the new journal. The basic idea was that ESO would make use of the fact that it was an official European organisation. Its administrative and legal services were made available to the journal through a formal agreement between ESO and the Board of Directors of the journal. This agreement was confirmed at the December 1968 ESO Council meeting, just before the first issue of the new journal *Astronomy and Astrophysics* appeared in January 1969. Individual countries could now contribute financially to the journal, but ESO itself would carry no financial responsibility for the journal. At the same time the Board would be entirely independent of any influence from the ESO side on its scientific policy.

But this did not end Adriaan's connection with the new journal. He accepted an invitation to become a member of the Board of Directors and was in fact elected chairman of that body. The

importance of this can be seen in the fact that the journal at the time was more turbulent than it is at present. Not only were there more disputes between individual scientists, there were also disputes between different countries, especially about the refereeing. Some of these disputes were brought to the Board

where Adriaan was able to reconcile the differences. He was chairman of the A&A Board for about ten years.

A second aspect of Adriaan's career that is worth highlighting can be stated more simply. He remained an active scientist for his whole life, and was able

to combine his scientific curiosity with various administrative responsibilities without letting the one cloud out the other. I think that he was able to do this because he approached science in an unhurried and patient way. Astronomy interested him; there was always time for it.

## Raymond Wilson<sup>1</sup>

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It is an honour and a pleasure to write a tribute to Adriaan Blaauw, whom I consider to be an underrated Director General of ESO, above all through being in the long shadow thrown by his successor Lodewijk Woltjer.

I am unable to make any comments regarding his achievements in the astronomical field. I am only going to comment on my personal experience of his work as ESO Director General, above all at the time when I was engaged by him personally to create and head a new Optics Group on the technical side of ESO's activities. At this time, his office was still in Hamburg, where ESO was founded, above all, by Professor Otto Heckman, for the 3.6-metre telescope project. This project was intended to bring ESO up to the level of the American telescopes with, at that time, one of the larger telescopes built in the post-Palomar (5-metre) era.

I left the firm of Carl Zeiss to go to ESO in 1972, when Zeiss, at the time of a serious recession in German industry, started laying off staff, including those of my own Optical Design department, where I had conceived my idea of active optics. Professor Blaauw interviewed me over a good lunch in Geneva. He immediately offered me a senior position at ESO in Geneva, where, through his initiative, ESO had a small barrack-type

building on the CERN campus. The total staff in this fledgling technical division of ESO cannot have numbered more than ten or twelve.

A major contractual problem now emerged. I had clearly understood, from Blaauw's interview with me, that I would be the leader of a newly-founded Optics Group, dealing with all optical aspects of telescopes (at that time, mainly the 3.6-metre telescope) and instrumentation. However, in the technical group, led by Svend Laustsen, the responsibility for telescope optics was in the hands of a German astronomer, Alfred Behr, and for instrumentation optics in the hands of Anders Reiz, a Danish astronomer. My role in this existing structure appeared only to be that of a senior assistant to them, above all to Alfred Behr. This situation was unacceptable to me and not as I had understood the scope of the position I had accepted.

Blaauw normally only came to Geneva for one day a week. However, when I rang him up and explained the gravity of the situation and the inevitability of my leaving ESO immediately if he could not rectify it, he came at once and we discussed the matter over another good lunch. I emphasised my clear position on the matter and that I would try to return to Zeiss immediately, in spite of the bad situation there. Blaauw recognised that I was very serious and stated he would inform Laustsen at once that a new Optics Group would immediately be founded under my leadership. Without this bold and clear direction by Blaauw there

would have been no active optics at ESO and, consequently, no NTT, VLT or E-ELT project. The readers of this tribute will understand, I am sure, why I hold Adriaan Blaauw in such high esteem.

Finally, there was another aspect of his leadership which I greatly admired. Once settled in with my new Optics Group, things were going quite well for me and I was elected to be Staff Representative. In Blaauw's weekly one-day visits to Geneva, I was always the first person he visited. But he was not concerned about my technical function, which we had organised: he left that to Laustsen, who had, of course, accepted the new Optics Group, in which Behr's work was now integrated under my leadership. No, he visited me first as Staff Representative to ask if the staff were content or whether there were any problems where he should intervene. This proves again his absolutely fair and humane leadership!

Adriaan Blaauw was not only a great ESO Director General, he was also an admirable gentleman of impeccable integrity.