

Unfortunately there are about 35 presentations not present in the proceedings and no detailed report on the public session with UN Delegates & Observers held on the last day. Also, unlike the IAUS 90 proceedings, there is no inclusion of any Q&A discussion following each presentation though I certainly recall many such discussions. As such, these proceedings are not a complete representation of the symposium; perhaps there should have been more incentive for symposium contributors to submit papers for publication in the proceedings?

I agree with Helbig²: I find the paper used to be too thin with some text and dark/shaded diagrams showing through the paper.

There is a list of symposium participants but it doesn't distinguish between those who attended in-person and those who were on-line. Perhaps either an additional column for that list denoting in-person/on-line attendance or simply italicizing the names of those who were on-line would have made it clear. Also, it would have been a useful courtesy to include a key to the faces shown in the group photographs as was done for IAUS 90¹.

There is no use of colour in the book at all, maintaining a grey-scale for all of the figures. However, the on-line version uses colour for all submitted papers that included colour (including the symposium group photographs). Both Helbig² and Phillipps³ mentioned the lack of colour in their respective reviews of IAU symposium proceedings (both published by CUP) with Helbig commenting that the printed version is more likely to be purchased by libraries and Phillipps suggesting that the lack of colour may be unimportant since the on-line version is likely to be more accessible to researchers (depending on the type of access).

That may also be true for other submitted papers but, comparing the source material of my own submission to these proceedings (p. 113) with what has been published, I noticed that the pie-chart figures have been significantly re-organized to optimize the use of space. Unfortunately, the associated pie-chart legends, kept with the relevant text, often became overly separated from their pie charts, necessitating a lot of page-flipping to match the legends to the pie slices.

In summary: for the price I would have expected a more complete record of the symposium, better-quality paper, and more use of colour. This is, however, a fair collection of papers covering a reasonably wide range of topics but, sadly, with about half of the presentations not appearing as papers and no post-presentation Q&A discussions included. For a topic of such importance to astronomy and its practitioners, the delay between the symposium and the publication is unhelpful. — PAUL A. DANIELS.

References

- (1) I. Halliday & B. A. McIntosh (eds.), *Solid Particles in the Solar System (IAUS 90)* (D. Riedel Publishing Company), 1980.
- (2) P. Helbig, *The Observatory*, **146**, 96, 2026.
- (3) S. Phillipps, *The Observatory*, **146**, 97, 2026.

Grubb Dublin and Grubb Parsons, by Ian S. Glass (Centre for Astronomical Heritage), 2026. Pp. 340, 29.7 × 21 cm. Price £0 (open access) (on-line PDF file; ISBN 0 7503 0454 5 (previous edition)).

[This book is an expanded and updated edition of *Victorian Telescope Makers: The Lives and Letters of Thomas and Howard Grubb* (Institute of Physics Publishing Ltd), 1997, original ISBN 0 7503 0454 5. The copyright was ceded to the author in 2008. With many photos, traditional paper publication would be prohibitively expensive. It is freely available as a PDF file (formatted like a traditional book, and with both a fancy on-screen-reading interface and a link to the plain PDF file) at <https://cfah.org.za/resources/grubb-glass> and, with the permission of the author and in the interest of long-term

availability, also at https://www.obsmag.org/issues/published/2026/08/grubb_dublin_and_grubb_parsons.pdf (plain PDF file) — Ed.]

This account by Dr. Glass of the successful evolution of the telescopes that formed and defined astronomy's own capabilities illustrates how parallel developments in industry, matched with home-made inventions and refinements, enabled the construction of large machinery that could be harnessed to achieve pointings on the sky of delicate precision and images of sub-arcsecond purity. To be sure, timing was everything; the founder (Thomas Grubb) was an exceptionally skilled engineer in many of the facets which telescope making required, and sufficiently supplied with the tools, facilities, money, and time that he could devote as long as it took to test, refine, and perfect instruments that all worked to spec. Glass has presented us with a masterful account of the achievements of this adventurous, industrious, and successful team, introducing numerous correspondence with like-minded astronomers and technicians in Europe and beyond, and sprinkling it with touches of family life and enough humour to render the book eminently readable from beginning to end. The result is a product of commendable scholarship, and deserves a place in every library that caters to general science, engineering, and the history of science, as well as astronomy.

The successes which the Grubb team could chalk up seemed to be due to the ability to stay ahead of the game. All the various stages of building, whether in driving heavy machinery yet maintaining delicate positional accuracy, annealing glass blanks to form acceptable bases for large mirrors, fabricating achromatic lenses, or grinding and (particularly) figuring and polishing the mirrors themselves, their techniques and materials could benefit from the abundant R&D which their processes engaged. As Glass relates, their heyday was the mid-to-late Victorian decades, and if their later merging with the (also Irish) Parsons Company could be regarded as an inevitable product of the rigours of two world wars, a number of the Grubb or Grubb–Parsons instruments are still in active service today. This book is well illustrated by images of both people and equipment, and concludes with lists of products from the original Dublin and the later Newcastle (UK) companies, furnishing a fine sense of the substantial and significant output which owes its roots to the foresight and persistence of Thomas Grubb's efforts on his first creations.

Scotland (through James Watt) gave us the steam engine, Wales (in the person of Philip Vaughan) the ball bearing, England (by one John Harrison) the chronometer, and Ireland (through the Grubbb family) the telescope. As Glass shows, it wasn't a question of being academic, but of knowing one's materials, the best tools to work on them, and (also) of achieving therewith a near monopoly for several decades in this specific field of observational astronomy. — ELIZABETH GRIFFIN.

The Impossible Man: Roger Penrose and the Cost of Genius, by Patchen Barss (Atlantic Books), 2024. Pp. 247, 24 × 16 cm. Price £33.35 (hardbound; ISBN 978 1 83895 932 6).

Roger Penrose needs no introduction. Patchen Barss does, at least to me. He is a Toronto-based science journalist with the usual credentials but also author of *The Erotic Engine: How Pornography Has Powered Mass Communication, from Gutenberg to Google*. At first glance, that might seem rather removed from Penrose, but a (to me) surprisingly large part of the book being reviewed is concerned with Penrose's (real and hoped-for) sex lives. As the author notes, Penrose cooperated intensively and extensively with the author, but the book is not an authorized biography in that Penrose didn't approve (or reject) any of the contents.

The prologue introduces us to the current Penrose, before a capsule history of the Universe brings us up to his birth and a very brief description of his life. The next few chapters are what one might expect: parents, siblings, childhood, undergraduate studies, his interest in Dutch artist M. C. Escher, doctorate, marriage. Those chapters give an idea of some of the influences which shaped Penrose, but to me they don't seem as special as the author makes them out to be. We then follow Penrose (on a NATO fellowship) to the United States (where