

CORRESPONDENCE

*To the Editors of 'The Observatory'**Astronomers Against the Tide*

I received a review copy, from another journal, of *Against the Tide*, edited by M. Lopez Corredoira and G. Castro Pichelman, and would like to add some thoughts to those provided in Elizabeth Griffin's firm but balanced review which appeared in the February issue (129, 32), particularly concerning the astronomers represented. These are (in order through the volume) Wolfgang Kundt, H. C. (Chip) Arp, Tom van Flinders, and editor Lopez Corredoira himself. All are at least acquaintances, of 5 to 45 years' standing. What has each worked on that has resulted in near-exclusion from the mainstream astronomical community?

Arp: More than 40 years of imaging of peculiar galaxies (many from his own *Midas*) showing QSOs, *etc.*, nearby in the sky, often on opposite sides, which he has interpreted as indicating that the QSOs were ejected from the galaxies and so are not at the distances indicated by their redshifts. Yes, I tried to talk him out of focussing on this in 1965, when we shared time at Palomar in bad weather. I failed.

Van Flinders: For many years a staff member at the US Naval Observatory, where he concluded that his observations of Solar System kinematics implied a significant change in the value of G , which was not accepted or confirmed by others. More recently, he has put forward an 'exploding planet' hypothesis to interpret the dynamical evolution of the Solar System, which has fed into a charming Isaac Asimov story concerning Prof. Moriaray's treatise *On the Dynamics of an Asteroid*. But this is not van Flinders's fault!

Lopez Corredoira: First, he was in a priority dispute on reasonably conventional observations and interpretations of the central-bar structure in the Milky Way, but also he was involved in quasar/QSO-like objects that he has imaged in the vicinity of nearby galaxies.

Kundt: Unlike the others, primarily a theorist with a background in high-energy physics, but if there is a non-standard way of looking at anything — neutron stars, X-ray binaries, GRBs, AGNs, cosmic-ray acceleration, plate tectonics, Tunguska, evolution of the Earth's atmosphere — Wolfgang has probably thought and written about it.

What are they complaining about? Lack of access to astro-ph, not being allowed to make conference presentations, rude rejection letters from editors, insufficient or no observing time to make progress on their interpretations of various phenomena.

What are my credentials for thinking about these issues? I am not an 'authorized author' allowed to post things on astro-ph. (Admittedly I have never asked.) Perhaps more important, I was married for more than 28 years to Joe Weber, the pioneer of gravitational-radiation-detection technology, who was 'voted off the island' of generally accepted physics somewhere around our 5th anniversary.

In truth I disagree about the scientific issues (which Arp of the four explains most completely) on most or all of the topics addressed by the four astronomer-authors, but (as Voltaire did not say), I will defend their right to present their ideas, in posters if not in contributed talks, if not to the death, at least to the level of resigning from

the SOC. So far, it must be said, where this sort of thing has come up other members of the SOCs agreed with me sufficiently that none of us resigned.

Yours faithfully,

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†Deceased 2009 January 9.

REVIEWS

Surviving 1,000 Centuries: Can We Do It?, by R.-M. Bonnet & L. Wolter (Springer, Heidelberg), 2008. Pp. 462, 24.5 × 17.5 cm. Price £26.50/\$39.95/€34.95 (hardbound; ISBN 978 1 387 74633 3).

Models of the evolution of the Sun predict fairly convincingly that the ultimate fate of our Earth is to become a molten ball with no remaining atmosphere, in about a billion years time, and then, in about 7.6 billion years, to be swallowed by the Sun. So unless the human race can find a way of spreading through the Galaxy, and hopping from one star to another as their host star evolves to become a red giant, we certainly can't survive for a billion years. But then we have only been around as a species for less than 100 000 years, so perhaps a billion years is a bit ambitious. Can we even double our present tenancy, and survive another 100 000 years?

That is the question asked by the authors of this wide-ranging (and heavy, at about 1 kg) book, authors whom readers will recognize as two well-known astronomers with international reputations as scientists and also a great deal of management experience within European organizations. They are thus well-equipped to understand the enormous organizational problems that are inherent in getting from our current exponentially growing population, which expects an equal growth in living standards for everyone, to a stable population of around 11 billion (which they regard as the maximum possible) living satisfactory lives in a zero-growth economy. They believe that this is technically possible but to get there, to quote their last pages, "... is a narrow path in time that all nations must successfully go through collectively and not individually." And there's the rub: can we indeed achieve the degree of international co-operation that is essential?