

Review of Kevin Krisciunas' *A Guide to Wider Horizons* by Virginia Trimble

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A semi-mythical professor supposedly once told a class that the next exam would cover all of human knowledge through Chapter II. It is not quite the case that Kevin Krisciunas has covered all of human knowledge up to 2013, but he has made a brave attempt at quite a lot of it. Written language, from single words and eponyms to whole books (lost, moral, fictional, and informative) fills the largest number of chapters. Astronomy comes next, but the author is particularly badly served by the images in "Improvements of Astronomical Imaging." They are positives rather than the negatives astronomers usually look at (for good reasons) and so smeary that progressing from drawings to photographs to digital imaging hardly seems worth the effort involved. The longest single piece is mathematical, and written at just the right level for a chelonian of very little brain who had her last formal math class a bit more than 50 years ago. That chapter, however, contains a self-inconsistency. Krisciunas says of Ramanujan "but maybe it [work he might have done past age 33] would not have been proportionately more original work. Most mathematicians do their best work by the time they are 30-something". But the third hero is Gauss (1777-1855), some of whose notable contributions came around his 60th birthday. Euler comes in between, both in the book and in longevity.

How long do astronomers live? The median has been 72, but some of the people date from long before modern medicine. An interesting comparison might be, "how long do black Oscar winners live?" Three of the first seven died before 50. But seven of the total 14 (including 2014) are still alive, many at considerable ages, which will push the median well above 80. The author's list of murdered and suicidal astronomers and physicists is an interesting one, omitting Majorana, who in my parallel universe is still sipping chianti in some Italian monastery at the age of 108 (by the time you read this). This is not impossible. The last survivor of Theresienstadt was 110.

The volume bursts with connections and suggestions. There are 88 constellations, and 88 keys on a standard piano; also (not mentioned) 88 symbols on a standard typewriter keyboard. Recommended books include *Freakonomics*, *Tipping Point*, and *Guns, Germs, and Steel* (and others by the same authors), though not *Black Szevan*, which has some of the same flavour. A short chapter on marvellous first sentences ("It was the best of times; it was the worst of times") and such omits my favourite: "It was a dark and stormy night on the west coast of Scotland. But this need not concern us, as our story does not take place on the west coast of Scotland. As a matter of fact, the weather was just as bad on the east coast of Ireland." Kevin's favourite phrase from a how-to-speak Zulu book for tourists - "my hovercraft is full of eels" - is a worthy successor to "one of our postilions has been wounded" from a much earlier compilation "des autres phrases utiles". But no more favourites, since I want you to buy and read the whole book!

Conflict of interest? A mild one; I don't make the index, but the list of eponyms includes the officially obscure Merton-Trimble-Krisciunas conjecture, which, in turn, explains why Jeffreys tends to get left off the WKB--J (WentzelKramers- Brillouin-Jeffreys) method. But the most useful thing I am carrying away is why the late scientometrician and physicist Jan Vlachy (former editor of the *Czech Journal of Physics*) called papers with very long, very high citation histories "genial". Not friendly, but the German (and

perhaps Czech) word for genius! The author's other languages include Spanish and Lithuanian, and a few examples creep in.

Is living well the best revenge? Perhaps, and Krisciunas recommends a good many moral, educational, and well-written books that could help you do this. But I am inclined to prefer "dropping raccoons full of diphtheria virus down her chimney".