The Best Writing on Mathematics 2015 edited by Mircea Pitici, 2015, Princeton University Press, 392 pp, ISBN: 978-0691169651, £16.95.

A Princeton University Press blog entry announced this sixth edition of Pitici's 'Best of' series, as though it were some prestigious award, under the heading "PUP congratulates writers chosen for The Best Writing on Mathematics 2015." Accordingly, there followed much back-slapping on social media (not in itself very significant since all backs are slapped on social media except when they are stabbed) and, I dare say, updating, in all modesty, of curricula vitae.

While laurels may well equate with being anthologised, Pitici's 'best of' theme cannot be found to bestow garlands equally. The articles which I would read again *for the skill of the writing* were very few. Mark Balaguer's on philosophy of mathematics I thought was beautifully written; Marianne Freiberger on chaos; Scott Aaronson on randomness; Steven Strogatz on writing popular mathematical articles; these I admired as literature. At the other extreme were several articles which I found to be jargon-laden or silly or just plain gobbledygook.

Many of the articles in between are decent accounts of elementary mathematical topics, aimed at a popular audience. Strogatz gives a classification of this readership which I found helpful: a potential reader may be (A) traumatised by hostile teaching, (B) perplexed by indifferent teaching, or (C) left hungry by insufficient teaching. He rightly points out that the great majority of popular writing in mathematics is aimed at C ('the naturals', in Strogatz's words). Pitici has selected a good deal of this.

Arthur Benjamin and Ethan Brown on magic squares is an example. C will immediately get the point, will try out the constructions and might even think of some embellishments. They will congratulate Pitici on his choice. B will read for a couple of pages and then think 'All very clever but I'm never going to remember any of this nor use it if I did.' A will just think 'Uh-oh! Geek alert!' Colm Mulcahy and Dana Richards on Martin Gardner's legacy also falls into this category. Vi Hart and Henry Segerman on group actions and Conway and Ryba on Steiner–Lehmus are so very C-oriented as to fall within the interests of this newsletter's readership.

Ironically, a different choice of medium shows these uniquely gifted individuals reaching all three of Strogatz classes: online videos and, better still, live performances have a charisma and stagecraft that carries the day. For some audiences, writing, best or not, is second best.

But C-centric writing by no means predominates. There are articles relating to education, history, art, psychology and the physical sciences. Pitici's is an impressively broad-spectrum editorship. And in my opinion, his 'best' means 'most of interest to the general educated reader of today'. One might say western, or even American, reader: of just over fifty authors selected, nearly forty are based in North America. Still, Guili Zhang is partly based in China and her article with Miguel Padilla on Chinese vs. US mathematics education is an example of Pitici's editorial skill: he has found exactly the right authoritative article to exactly address one of the concerns of today's general educated (western) reader.

In this respect, Gelman and Loken on abuse of p-values deserves mention: published in 2014 ('2015' is the collection, not the contents) it is the early rumblings of a storm which has continued to brew, so strongly as to prompt a

weather alert from classy AMS blogger Evelyn J. Lamb (blogs.ams.org/blogonmathblogs, March 21st, 2016). She features Gelman prominantly: Pitici has selected presciently and well.

With one exception (Freiberger, from two plus.math.org postings, bolted together into a slightly disjointed whole), the articles in the book are reproduced from print but there has been some adaptation. For example, the colour images in Burkard Polster's article on constant-width curves from *Mathematical Intelligencer* are reproduced in greyscale, and unfortunately the text annotates the shading incorrectly. The decision has been made to collect a number of colour images within a dozen or so pages in the middle of the book. I think this is a mistake: it presumably adds to the price of the book and mostly you do not derive enough benefit from the coloured versions for it to be worth hunting for them. A webpage accompanying the book lists internet sources (not clickable, strangely) and many of the colour images could be accessed in this way. In fact Polster's article itself directs the reader to a website where they can see *animated* images.

The relationship of books such as this with the internet deserves editorial attention. Another little example: a chapter on the history of the pigeonhole principle lists David Singmaster's superb *Sources in Recreational Mathematics* as 'unpublished'; the next chapter, on Nim, gives a web link for *Sources*, but it is broken (it currently resides at www.puzzlemuseum.com).

Decidedly, Princeton University Press is doing the mathematical community a great service in producing 'Best Writing' and it is hard to imagine that anyone could edit the series better than does Pitici. I was disappointed not to get more out of the book myself but then LMS members are not the intended audience. You can confidently recommend the book to your C students and you will find things in it to tempt your B and even your A students, if such you have.