

Some will say that this is simply hoping for too much, and I suspect that E. C. Titchmarsh might have agreed, because he wrote, in his *Mathematics for the Common Reader* (1959):

'I met a man once who told me that, far from believing in the square root of minus one, he didn't even believe in minus one.'

If that is what we are up against, then we do indeed have problems, but I am much more optimistic.

The nearest I have actually come to the scene above is in so-called family or community lectures in schools, usually held in the evening. The age range can be enormous, from grandparents to very young children indeed. And all you can really assume is that each family group has at least one person who is 'quite good at sums'.

On one of these occasions, at a school in North London, I was mid-way through proof by pizza (or something similar) when I happened to notice a particular little boy, aged about 10, in the audience. And a split-second after delivering the punch-line of my proof, when a deep idea suddenly becomes almost obvious, I actually saw the 'light-bulb' go on in his head, and he got so excited that he fell off his chair.

And, in a sense, that fleeting moment says it all.

For mathematics at its best lifts the human spirit, by showing us that the world – whether the world of the mind or the actual physical world in which we live – is an even more weird and wonderful place than we thought.

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Editorial

It is now almost ten years to the day since I accepted the post of Editor of *The Mathematical Gazette*, although my first issue did not appear until March 2002. I think that means that I have been responsible for 29½ issues, and I will leave you to sort out that Felliniesque conundrum! Another reason why this might be a good time to take stock is that I have now fully retired from school-teaching, so at last the *Gazette* will become a day job and not just something I try to fit in when I find the time.

The biggest change has, I think, been technological. I still keep a physical ledger with all the submissions recorded in it, so that I can check what stage we are at with every proposed article. There is a rather decrepit card index system, which is so out-of-date that I cannot even find a new tray to house it, and all submitted articles still reside in either in a filing cabinet or in various box-files. However, all of this administration is duplicated on spreadsheets, I acknowledge receipt of articles by email rather than postcards and more and more referee reports arrive electronically. I was

very grateful for the dual system when, two years ago, my hard disc decided give up the ghost, although now I create regular back-ups on an external disc.

I have, however, remained adamant about only accepting new submissions as hard copy. One reason for that is that it does require a certain amount of commitment from authors, who might otherwise send their pieces to many journals at the same time by a click of a button. It also means that I do not have to print out two copies of lengthy articles on my inkjet printer, and many of the referees prefer to be sent hard copy to read, even if they produce their report electronically. Of course, I have been very grateful that my school has not only put up with my having a second job, but has also provided me with a very handy mail address which will accept any number of large envelopes and packages. That will no longer be possible, of course.

So now it is time to review that policy. In future, I will be using my home address, and, to save wear and tear on my rather flimsy letter-box, I will welcome communication by email. It will, of course, require some expansion of my home office, but it will also bring me into line with similar journals in this country and around the world. As a result, you will see changes on the back page of this and future issues of the *Gazette*.

What is much more interesting is to look back at copies of the *Gazette* from ten and twenty years ago and compare them with what you have in your hands today. December 1991 was in fact the last time that the journal appeared four times a year, with a plain pastel cover and an annual total of 500 pages. In the very next issue the editor, Nick Mackinnon, explained the reasons for moving to three issues with a coloured cover. This format remains in place today, and, as each of the three issues contains 192 pages, the readership has actually done rather well out of the change. The 1991 issue contained six Articles totalling 28 pages and 14 Notes over 30 pages. There was a Problem Corner, but no separate problems for students, and a substantial reviews section covering nearly 40 pages. Interestingly one of the Notes was a 'demolition' of a previously published submission, anticipating the present Feedback section. But the main difference is that of the 21 authors, only two hailed from outside the UK.

In November 2001 the editor was Steve Abbott, who was at the time also President of the MA. The count for Articles was now five, over 72 pages, that for Notes was thirty in 38 pages, and there were still 40 pages of reviews. The journal had become markedly more international with contributors from Poland, India, Japan and the US. It is also clear that there had been a 'toughening' of content, with more articles on university-level mathematics and a less evident link to school teaching. The Student Problem Corner was now well established, and spare space at the foot of pages was filled with 'gleanings' of mathematical interest in the media.

You can see for yourself what November 2011 looks like. Now the authorship comes from all four corners of the globe and there are some fairly technical articles on number theory, analysis and combinatorics. Our review section is now shorter. This is a pity, but it does seem that publishers

are now feeling the economic pinch and we are not sent as many books as we were. However, I am pleased that we are maintaining a high standard of reviewing, are not afraid to criticise where criticism is due, and are still taken seriously and quoted extensively on websites. Having less of a backlog also means that the reviews appear sooner after the book in question is published. Both Problem Corners remain active and there is now a popular Feedback section where readers can react to what has appeared in previous issues. Gleanings are now, I am afraid, much thinner on the ground (or maybe people don't send in as many as they did). There is a regular quiz to identify mathematical themes in literature and poetry.

It must be recognised, however, that much of the subject matter in today's issue would be unrecognisable to a reader from 1991. Looking over the intervening years, it is clear that this change in emphasis has been a gradual process. It might well be that part of this tendency is due to the fact that our sister journal, *Mathematics in School*, is now covering the A level syllabus as well as GCSE mathematics. However *MiS* has been with us since 1970, and the significant change is over the last twenty years. I suspect that a major reason for this trend has been the internationalisation of the author base, most of which is based in universities rather than schools. As an editor, I am only able to publish what I receive; if this is good mathematics and the referees are enthusiastic about it, it is very difficult to ignore it. Nevertheless, I have been concerned over the years by the fact that we are in danger of losing our connection with day-to-day school teaching. I still think that a really good contribution is one which both intrigues the readers and provides ideas for use in the classroom. To that end, I am always very sympathetic to submissions which strike me as satisfying both these criteria. One of the initiatives I have introduced (or rather re-introduced) is the Teaching Notes section of the journal. These are meant to be focused strongly on everyday teaching and to stimulate and inform classroom practice – but with the emphasis very much on subject-content rather than class management or lesson organisation. Hence, one of my stated aims over the next year or so is to develop this aspect of the journal.

This Editorial, therefore, is an appeal to teachers, ex-teachers and would-be teachers to make an effort to contribute material to the *Gazette* which are particularly suitable in this respect. Such submissions are much easier, on the whole, to process than more specialised ones which need very careful refereeing, revision and editing. The *Gazette* has always appealed to a wide audience which encompasses keen sixth-formers, enthusiastic 'amateurs', professional mathematicians and school-teachers who are eager to convey the joy of mathematics to their pupils. I would like us to ensure that we continue to serve the whole of this catholic community.

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