Do not erase by Jessica Wynne, pp 252, £30.00 (hard), ISBN 978-0-69119-922-1, Princeton University Press (2021)

This is certainly an unusual idea. Jessica Wynne is a photographer whose interest in the work of mathematicians stems from a couple of friends who are based at the University of Chicago. Wynne's concept was to photograph the chalkboards of working mathematicians, and the book consists of 109 double-page spreads, in generous landscape format, together with an introduction by Wynne and an afterword by a writer for the *New Yorker*. Each spread consists of a handsome colour photograph of a chalkboard containing mathematics, faced by comments from the mathematician responsible. The mathematicians range from schoolteachers and lecturers in fashion design (with mathematical training) to Fields Medallists such as Terence Tao and Alain Connes; all are currently based in the U.S. or France, though their backgrounds vary widely.

Much of the mathematical work shown in the photographs will inevitably be at best only minimally comprehensible to most readers—indeed, without knowledge of the context it is hard to place even familiar ideas—and I think that the visual interest that has intrigued the photographer is superficial and extrinsic in a vaguely post-modern way. (Installation, anyone? The gulf between the world of mathematical rigour and the nebulous subjectivities of post-modernism is surely unbridgeable.) The mathematicians refer to the use of chalkboards in their work; most believe strongly that chalkboards are a perfect medium for sharing ideas, though they are generally thinking in terms of small groups rather than mass lectures. Several refer to the importance of being able to communicate at the speed of writing rather than that of digital slide display (though I would be surprised if several of the complicated diagrams in multi-coloured chalk, often very attractive, could not have been more efficiently pre-produced). Only one or two, such as Michael Harris, say that they don't particularly find chalkboards an aid to thinking. There is little reference to the skills needed to use boards well; most of the contributors are thinking of the spontaneous development of research ideas rather than of teaching. In view of the contributors' passionate preference for chalkboards rather than digital screens or whiteboards (several express their dislike of whiteboard pens), perhaps some of those who make decisions about equipment in schools and colleges should rethink their tendency to impose hi-tech boards. (A Matter for Discussion, maybe?)

I enjoyed the contributors' comments. The pictures produced a few moments of recognition, a few moments of "That's nice", and a good deal of "This is way beyond me". I enjoyed Moriarty's blackboard in *Sherlock Holmes: A Game of Shadows* [1], but I can't say that I see any strong reason to reread this book. A nice idea, no doubt.

Reference

1.   Discussed in Thomas Dence, 'Holmes + Moriarty = Mathematics', *Math. Gaz.* **98** (March 2014) pp. 51–57.

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