

Graphics Update

My employer, the University of Oklahoma, is home to a remarkable collection of original editions of science books. Founded by an eminent oilman and book lover, Everette L. DeGolyer, who in 1947 proposed “to give [the university] a blank check to buy all of the important books in printed editions, from Aristotle forward, significant in the history of science,” the university’s History of Science Collections contains some remarkable treasures. For example, it has a first edition of Galileo, with notes by the author for a second edition. Mathematical rarities in the collection include the first printed Euclid and the first Euclid in English. The latter has the following interesting feature: there are little fold-out paper models in the margins of the solid geometry sections.¹ According to the collection’s curator from the 1950s through the 1990s, Duane Roller, who first showed me this Euclid volume thirty years ago, these figures were there because the English translation was done before perspective drawing had made its way to the British Isles. This is such a nice story that I have never checked to see if Roller’s theory was correct. (Nor have I ever seen a modern pop-up Euclid.)

Those fold-out figures in the antique Euclid volume are notable as state-of-the-art (for their time and place) mathematical graphics. Like all good mathematical graphics, they show the reader things which are much easier to see than to visualize, in this case literally adding a dimension.

As attentive readers of the masthead will have noted, with this issue Associate Editor Bill Casselman is now the *Notices* graphics editor. Bill will continue with his previous responsibility as covers editor and in addition will work with authors of features and communications to generate images for those articles. Bill will also contribute occasional graphics articles, like the one in this issue (pages 392-393). As Bill writes in the preface to his book *Mathematical Illustrations*:² “To explain mathematics well often

requires good illustrations and computers in our age have...made it possible for amateurs to produce their own illustrations of professional quality. Possible, but not easy, and certainly not as easy as it is to produce their own mathematical writing with... \TeXAll you can hope for is that the amount of work involved in producing an illustration is in proportion to the intrinsic difficulty of what you want to do. And the intrinsic difficulty of producing a good mathematical illustration inevitably means that you

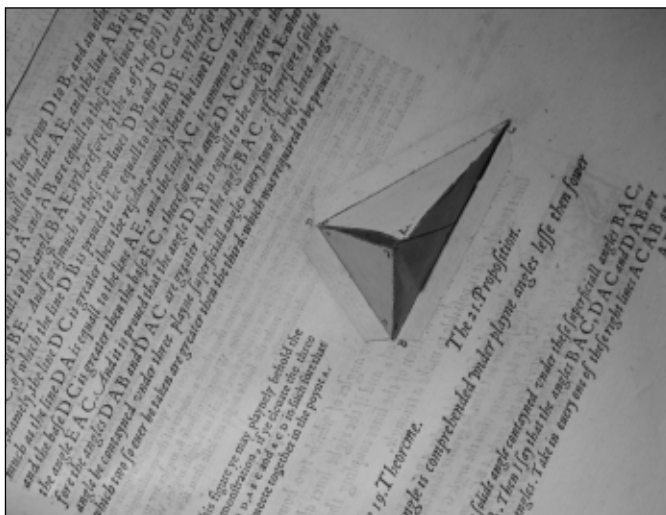
should expect to do some interesting mathematics as well as solve interesting computational problems along the way. Mathematical illustrations are a special breed—good mathematical illustration almost always requires mathematics in the process of making it.” (For more introductory material from Casselman on mathematical illustration, see “Pictures and Proofs”, *Notices*, November 2000, pp. 1257-66.)

We hope that having a graphics editor is one way to ease the production of

mathematical illustrations for *Notices* articles, and we invite *Notices* authors and potential authors to explore graphical possibilities with the graphics editor.

As readers will also note, this issue contains color graphics. Beginning with this issue, color graphics will be a periodic (roughly quarterly) feature of the *Notices*. That the use of color adds a dimension to mathematical graphics seems to be widely recognized, although the conventions and practical economics of journal publishing often preclude the use of color in much of the archival literature. We hope that the opportunity to publish color graphics in the *Notices* will not only add to the value of the *Notices* to our readers but also inspire *Notices* authors to use the color dimension when appropriate.

—Andy Magid



¹ A modern reproduction can be found on page 16 of Edward R. Tufte, *Envisioning Information*, Graphics Press, Cheshire, CT, 1990. The photo with this article is from a slightly later English Euclid, now in the Thomas L. Fisher Rare Book Library, University of Toronto.

² Cambridge University Press, to appear, and online at <http://www.math.ubc.ca/~cass/graphics/manual/>.

Letters to the Editor

Remembering Max Shiffman

Don Spencer was a close friend and sometime collaborator of Max Shiffman. I would like to add some of his words to Peter Lax's obituary ["Max Shiffman (1914–2000)," December 2003, page 1401]. Shiffman's friends and colleagues, according to Spencer, contributed financially to keep him at Chestnut Lodge when all other sources of funding had dried up. He was transferred back to a California public institution only after the burden became too great. When Shiffman then convinced a jury that he was mentally competent, they found him an apartment and a job (on a grant). Shiffman recovered and was appointed to a professorship at California State at Hayward, but according to Spencer some quirks remained. One was that Shiffman thought he should get royalties for his theorems. Another was that in the heat of argument Shiffman might pull a crumpled document from his pocket saying, "Here's a paper that proves I'm sane. Show me yours."

In some ways, perhaps, Shiffman was no more mad than most of us. At one of Spencer's gatherings in Princeton, the conversation turned to his continuing collaboration with Shiffman while Shiffman was institutionalized. Spencer said that he could work with him in his lucid times but had to recognize when he was "deepening", because "then you couldn't trust his theorems." When asked how he could tell, Spencer's list of symptoms ended with "Talking with him was like dropping a stone in a bottomless pool—you would ask him a question at nine and get an answer at noon." Silence, as every wife looked at her husband.

If anything mitigated the tragedy of a brilliant career devastated by mental illness, it is that the deep, affectionate bond between Shiffman and his colleagues was finally broken only by their deaths.

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The *Notices* invites readers to submit letters and opinion pieces on topics related to mathematics. Electronic submissions are preferred (notices-letters@ams.org); see the masthead for postal mail addresses. Opinion pieces are usually one printed page in length (about 800 words). Letters are normally less than one page long, and shorter letters are preferred.

Where do *Notices* Covers Come From?

Usually *Notices* covers come from the articles inside the *Notices*.

In practice, most covers are created specifically to relate to articles that have been accepted for publication. Sometimes the cover image will come straight from the article, but more often it takes off from an idea in the article, even sometimes a mere hint. But it is possible to go the other way—occasionally articles have been written to go with an idea for a cover.

If you have an image that you think would make a good cover, before submitting it you should write an article to go with the cover. The article should be of sufficient quality to be accepted on its own. But it need not be long; in principle, it would be reasonable for the article to simply explain the picture.

The simplest criterion to keep in mind is that the picture should try to explain something mathematical. If the picture is striking enough that it could stand on its own, then the accompanying article could explain the picture, rather than the picture illustrating the article.

—Bill Casselman
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