

THE DIRECTOR'S CORNER

THE FIRST AMERICAN PHYSICIST?

Benjamin Franklin, who else? You might think that it overstates the case to call him a physicist, but what else to call someone who wrote *Experiments and Observations on Electricity* in 1751? According to former presidential science advisor Neal Lane (*Physics Today*, October 2003), "Franklin has received seriously short shrift as a scientist." For example, on which of the following topics do you think Franklin worked? (See answer in green box.)

- 1) Seawater luminescence
- 2) Magic squares
- 3) Dangers of lead poisoning
- 4) Ocean temperatures

This issue is packed with lots of good science and good fun—from Franklin's physics to Tomas Bunk's *Quantoons* to Einstein's development of the most famous and iconic equation of all time. Each transcends their science in quite different ways, and we can all learn something about communicating science to the public from their examples.

As you might suspect by now, he worked on all of these questions, and hypothesized about continental drift and the wave nature of light as well. I've included one of his more celebrated magic squares below left for your perusal...it sums to 260 in a myriad of ways.

52 61 4 13 20 29 36 45
 14 3 62 51 46 35 30 19
 53 60 5 12 21 28 37 44
 11 6 59 54 43 38 27 22
 55 58 7 10 23 26 39 42
 9 8 57 56 41 40 25 24
 50 63 2 15 18 31 34 47
 16 1 64 49 48 33 32 17

"I then confessed to him that in my younger days, having once some leisure which I still think I might have employed more usefully, I had amused myself in making these kind of magic squares..."
 —Ben Franklin, from his autobiography

2006 is the 300th birthday of Benjamin Franklin; to learn more about Franklin and various events around the country see <http://www.franklin300.com>.



I have been trying my own hand at communicating physics in the classroom this semester for the first time in several years. It has been exhilarating, challenging, humbling, exhausting and quite enjoyable. I am using another great science communicator's text, Gamow's incomparable series about the adventures of *Mr. Tompkins* as updated by Russell Stannard. Because of Gamow's connection to Sigma Pi Sigma (he was a seminal member of the George Washington University chapter), it was especially gratifying to explore this book with my class.

Finally, if you want to convey some science of your own, check out this new web site about low-temperature physics, <http://www.absolutezerocampaign.org/>. It is associated with an upcoming television special, "Absolute Zero and the Conquest of Cold," and Sigma Pi Sigma is partnering with their educational effort. Enjoy!

— Gary White

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