

of four that included the Halley's Comet drawings (more than "sketches") shown in the PHYSICS TODAY piece, which had been credited to Caroline Herschel, were instead by John Herschel, her nephew. Previously we had corresponded with the Harry Ransom Center at the University of Texas at Austin about these mis-attributions and those of several similar drawings. We were pleased to see, during the January 2012 meeting of the historical astronomy division of the American Astronomical Society when we had the pleasure of visiting the archives, that personnel there had already made the changes and now list the drawings as being by John Herschel.

Caroline Herschel, born on 16 March 1750, was at least 85 years old when Halley's Comet visited in 1835–36, and she was 95 when similar drawings of a comet from 1845 were made.² Although she lived to nearly 98 years of age, in her later years she was no longer drawing astronomical phenomena. John, age 43 in 1845, was flourishing and using complex media to draw in his atmospheric style. The drawing in PHYSICS TODAY matches the style of the engravings he published in his 1847 book *Results of Astronomical Observations Made During the Years 1834, 5, 6, 7, 8, at the Cape of Good Hope*.

References

1. R. J. M. Olson, J. M. Pasachoff, *Fire in the Sky: Comets and Meteors, the Decisive Centuries*, in *British Art and Science*, Cambridge U. Press, New York (1998).
2. R. J. M. Olson, J. M. Pasachoff, <http://arxiv.org/abs/1212.0809>.

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Notes on the hippies who saved physics

During some heavy cleaning, I happened to notice Sam Schweber's review of David Kaiser's book *How the Hippies Saved Physics: Science, Counterculture, and the Quantum Revival* (PHYSICS TODAY, September 2011, page 59).

I was a graduate student at Brandeis University in 1960–62, but I quit to work in the defense industry. I did so mainly because Schweber and others discouraged my claim that the Einstein-Podolsky-Rosen effect implied a faster-than-light information transfer. That was years before Bell's theorem. I had gotten the idea from reading David Bohm's *Quantum Theory* (Prentice-Hall, 1951) in

my senior year at Cornell University and David Inglis's 1961 paper in *Reviews of Modern Physics* about the tau-theta puzzle. Schweber and the others basically told me to "shut up and calculate." I finished my PhD at the University of California, Riverside, in August 1969 after a master's at UC San Diego in 1967.

Schweber's review gives the false impression in the first paragraph that Elizabeth Rauscher's Fundamental Fysiks Group was merely "a small group of graduate students." That is a gross misrepresentation of Kaiser's clear text to the contrary. Most of the members, including department head Geoffrey Chew, Henry Stapp, John Clauser, Nick Herbert, and me, already had PhDs. In addition, Herbert was not a "peripheral member" of the group but a core member from the beginning. And finally, Schweber's claim that Bell's theorem was not obscure prior to 1975 is falsified by the statistics that Kaiser presents very clearly in his book.

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Data's sound debut

The article "Shhhh. Listen to the data" in the May 2012 issue of PHYSICS TODAY (page 20) was very enjoyable. I was disappointed, however, that no mention was made of the original work of Fiorella Terenzi in sonification of data, which she refers to as "acoustic astronomy." In 1987 Terenzi, now here at Florida International University, converted radio observations from radio galaxy UGC 6697 into sound for her PhD thesis at the Computer Audio Research Laboratory at the University of California, San Diego.

Her reasons for doing the conversions were the same as mentioned in the PHYSICS TODAY story, but Terenzi did it in a sound studio where no one had ever before used the equipment for that purpose. She went on to describe the B-flat intonation of such audification and how sound could reflect the chemical, physical, and dynamical properties of the celestial object being studied. In addition to her PhD, Terenzi obtained a record contract with Island Records and produced an internationally successful CD entitled *Music from the Galaxies*.

Terenzi's groundbreaking work should not be forgotten among the new generation of scientists who now buy audio processing software and sonify any data stream with ease.

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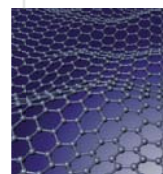
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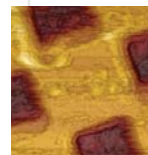
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