



## **PSSC Birthday Remembrance**

*by Carl Berger<sup>i</sup>*

Around 1980, a colleague at NSF asked me: "If all the PSSC teachers you trained were so committed, why aren't they out there teaching?" He was lamenting that with all the summer institutes after all those years we still needed more physics teachers. At Michigan I looked at this problem and found... We're still here, just pushing physics with much of the PSSC philosophy at a different time and at different places -- some at colleges and universities, others at foundations and projects, and still others in vocations that may seem far a field of physics. But aren't you glad we're here when we get web pictures of the Moon, Venus, and Mars in conjunction with the Moon about 10 times its apparent size!

I started teaching PSSC when we first opened a rural high school in northern California around 1962, just after the pilot years. While we didn't have to build our own wave tables, much of the equipment needed 'adjustment.' After a year, I took a summer institute and filled in the rough spots. By the time I left Rio Linda High School in 1966 to start a doctorate at Berkeley, we had half the senior class of 300 students taking PSSC. Science nights to finish lab work, recommending reading the book only before the tests, and guaranteeing no failure if work was completed contributed to the large class sizes. You can do the math: one year I taught '6 straight,' with 25 kids per class. I always appreciated the national PSSC tests so our kids could see that they could compete well with the rest of the nation.

The second year of the school we applied for and got an NSF grant to completely rebuild the science rooms in the new school to include loooong narrow tables (built by prisoners in Folsom Prison) for dynamics carts and ticker timers. We installed a glass partition between the biology room and the physics room so kids in the biology classes could see the physics kids doing experiments. That and the motorcycle runs for acceleration along the outside hallways of the school probably helped the physics enrollment as much as the joys of wave theory

My best recollection was watching kids faces light up when they realized the wave-particle duality was just that. Sounds hokey and erudite but seeing kids excited by pure scientific reasoning was spectacular!

I left PSSC teaching for an elementary science project being developed at Berkeley, SCIS, under Robert Karplus a true physics and pedagogy genius. I continued to teach PSSC summers at Princeton and then St. Lawrence University with Alfred Romer, another great physics professor who wrote the PSSC mini-book, *The Restless Atom*.

We're losing an era, as you can see by my white hair. But hey, what an era -- physics by doing rather than reading: the Bat Signal using optics on the gym wall during a basketball game. In my mind it was even more enlightening than the 'free speech' movement I



**PSSC**  
50 Years Later

found at Berkeley.

Cheers to you all and may your wave fronts always pass clearly...

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