

Charles H. Townes Centennial Celebration Symposium

Banquet

Saturday, August 1, 2015

Bancroft Hotel, 2680 Bancroft Way, Berkeley, CA

Schedule:

7:00 pm – Meet and greet

7:30 pm – Dinner service begins

8:30 pm – Speakers intro by Reinhard Genzel

Tom Hausken, OSA: "The Laser Industry
At 50 Years: \$10 Billion Supporting
a Global Economy"

Paul Goldsmith

OSA video tribute to Prof. Townes

9:00 – Final wrap up by Reinhard Genzel

10:00 - Conclusion



Please consider donating to The Charles H. Townes Graduate Fellowship:

<https://give.berkeley.edu/fund/?f=FW6601000>

or to The Charles H. Townes Post-doctoral Fellowship in Experimental Astrophysics and Space Physics:

<http://townes.ssl.berkeley.edu/fellowship-at-ssl/>

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Charles Hard Townes: A Personal Life Story by his Daughters

“Charlie,” our dad, was one of 6 siblings born to Ellen Hard, a college graduate, and Henry Townes, a lawyer. They lived on a farm in Greenville, South Carolina, and dad grew up learning to work on the farm and exploring the nearby stream and woods. He credits these early explorations with his discovery of the natural world and interest in science. After graduating from the local college, Furman, a tradition in his family, he migrated to Duke and then to Cal Tech to complete his Ph.D. in physics. Throughout his life, he supported Furman as part of his interest in mentoring others and his gratitude for the wonderful faculty there.

After Cal Tech, dad took a job at Bell Labs and lived in New York City. He enjoyed discovering unique parts of the city by living in many neighborhoods. In one of these adventures, he met Frances Brown, social director at International House. They married in 1941 and moved to NJ. Their first child, Linda, was born a couple of years later and after that their second, Ellen.

During WWII, dad was stationed in Florida to work on radar for the war effort and also was thinking about microwaves. There, he learned to scuba dive, a skill being developed at that time by the navy. This hobby, along with birdwatching, became a staple of his love of travelling and part of the adventures of family vacations.

Dad went into academia as an associate professor at Columbia University and the family moved to NYC. Carla and Holly were born during this period. Those were days of many student parties with his graduate students and post docs beloved of us daughters. A trip to Washington D.C. led to dad’s revelation on the park bench and the theory for the maser. Collaboration with others at Columbia University and Bell Labs resulted in a classic text on microwave spectroscopy and the extension of dad’s work on the maser to light. Also, the family hosted some of the first interchanges between Russian and American scientists during the cold war. In addition, dad began to raise orchids in a greenhouse attached to the house and continued this hobby in all the subsequent houses where we lived.

Dad was a deacon at Riverside Church. As part of his desire to understand and to give meaning and purpose to life, as well as his lifelong deep faith, he began to think about the relationship between science and religion. He developed a paper on the topic, delivered at the church, and this led ultimately in 2005 to his receiving the Templeton prize for advances in spiritual realities. Dad used his characteristic moral compass, fairness, level headedness, and kindness which he combined with a sense of civic responsibility to country and humanity to work on nuclear disarmament. The family tradition of travelling began during this period, as well. A 15 month sabbatical trip took the whole family around the world, living in Paris and Tokyo, camping in Switzerland and Sweden, and stopping in all points in between while Dad met scientists everywhere in addition to working at the Sorbonne and Tokyo University.

Taking one of our wonderful au pairs with us, in 1960 the family next moved to Washington D.C. where dad worked at the Institute of Defense Analysis for a couple of years in order to help the government and then to Cambridge, MA where he became provost of MIT. He worked on expanding the university so that engineers would have a broad education in the other disciplines, which he thought essential for scientists and also helped establish a women’s dormitory.

At this time, combining his father’s interest in land ownership, his early love of farming, and his wish to preserve the environment, dad began buying land in southern New Hampshire and established a gentleman’s farm. This property developed into a family gathering place and vacation spot. In his “spare time,” he enjoyed overseeing the activities with his farm manager. Maple syrup, Christmas trees, hay, animals, and ponds materialized and the greater part of a large hill was preserved for posterity.

It was during these years that dad received the Nobel Prize for contributions which eventually resulted in the laser. In Sweden, there was an extravaganza of parties and the moving experience of meeting Martin Luther King and his family. He began the tradition, every few years, of travelling to exotic locations as a family, particularly at Christmas time. Many such trips continued into the Berkeley years and expanded to include spouses, grandchildren, great grandchildren and significant others as the family enlarged. Dad loved to travel and he took every excuse to do so, even into his 90’s.

In 1967, the family moved again to Berkeley CA, where dad became a professor of physics. There were more parties with colleagues, students, and post docs. He changed his field within physics to astrophysics. Using his boundless energy to stay up all night to make exciting observations, there followed discoveries of complex molecules in space, evidence for black holes, study of the size changes of stars, and ways to measure these phenomena through a new method of interferometry. Meanwhile, the family was growing up and moving out on its own. All four daughters married and dad ended up with 6 grandchildren and 2 great grandchildren. In the Berkeley years, dad advised our government and others, working to develop the Jason group, being a member of the President’s Scientific Advisory Committee, heading the scientific advisory committee for the Apollo space project, consulting with GM on energy efficient cars, and joining the Pontifical Academy of Science.

Towards the end of his life, dad expanded his interest in questions of science and religion. He continued to go to his lab until the last few months of his life.

In spite of his prodigious activities, the family knew him as a devoted, tender, supportive and loving father and husband. Until his death, he maintained his optimism, love of life, gentle sense of humor, curiosity about everything, generosity, respect for others and their views, kind and happy disposition, and his faith in a personal god.



For

60th Birthday Party, 1980



Group Party, 1980



Group Party, 1975



Group Party, 1985



Group Party, 1995



Group Party, 2010

identification, more pictures, and history, please go to: <http://townes.ssl.berkeley.edu/>.

For more history and a "Share Your Memories" page, please go to:

<http://physics.berkeley.edu/news-events/news/20150127/a-life-dedicated-to-science>.