

Finding Aid to The HistoryMakers® Video Oral History with Peter Delfyett

Overview of the Collection

Repository:	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
Creator:	Delfyett, Peter John, 1959-
Title:	The HistoryMakers® Video Oral History Interview with Peter Delfyett,
Dates:	June 4, 2013
Bulk Dates:	2013
Physical Description:	6 uncompressed MOV digital video files (3:00:20).
Abstract:	Electrical engineer Peter Delfyett (1959 -) University Trustee Chair Professor in the College of Optics and Photonics and the Center for Research and Education in Optics and Lasers at the University of Central Florida, is an elected Fellow of the American Physical Society, the Optical Society of America, and the IEEE Photonics Society. Delfyett was interviewed by The HistoryMakers® on June 4, 2013, in Orlando, Florida. This collection is comprised of the original video footage of the interview.
Identification:	A2013_126
Language:	The interview and records are in English.

Biographical Note by The HistoryMakers®

Research scientist Peter J. Delfyett was born on March 8, 1959 in Queens, New York. He received his B.E. (E.E.) degree from the City College of New York in 1981 and his M.S. degree in electrical engineering from the University of Rochester in 1983. Delfyett then returned to the City University of New York and went on to graduate from there with his M. Phil. and Ph.D. degrees in 1987 and 1988, respectively.

In 1988, Delfyett joined Bell Communication Research (Bellcore) as a member of the technical staff where he focused on generating ultrafast high power optical pulses from semiconductor diode lasers. His research findings resulted in a number of important developments, including the world's fastest, most powerful modelocked semiconductor laser diode, the demonstration of an optically distributed clocking network for high-speed, digital switches and supercomputer applications, and the first observation of the optical nonlinearity induced by the cooling of highly excited electron-hole pairs in semiconductor optical amplifiers. Delfyett has published over six-hundred articles in refereed journals and conference proceedings; been awarded thirty five United States Patents; and, is the sole proprietor of a license agreement which transferred modelocked semiconductor laser technology into a commercial product.

In 1993, Delfyett received a dual-appointment as a professor in the School College of Optics and Photonics and the Center for Research and Education in Optics and Lasers (CREOL) at the University of Central Florida. From 1995 to 2006, he served as the Associate Editor of *IEEE Photonics Technology Letters*; was Executive Editor of *IEEE LEOS Newsletter*; and, served as the Editor-in-Chief of the *IEEE Journal of Selected Topics in Quantum Electronics*. In 2008, Delfyett was elected to serve two terms as president of the National Society of Black Physicists.

Delfyett has been awarded the National Science Foundation's Presidential Faculty Fellow Early Career Award for Scientists and Engineers, which is awarded to the nation's top twenty young scientists. *U.S. Black Engineer and Information Technology* magazine recognized him in 1993 as "Most Promising Engineer;" and, in 2000 with the "Outstanding Alumnus Achievement." In 2010, he received the Edward Bouchet Award from the American Physical Society. Delfyett is an elected Fellow of the American Physical Society, the Optical Society of America, and the IEEE Photonics Society.

Peter J. Delfyett was interviewed by *The HistoryMakers* on June 4, 2013.

Scope and Content

This life oral history interview with Peter Delfyett was conducted by Larry Crowe on June 4, 2013, in Orlando, Florida, and was recorded on 6 uncompressed MOV digital video files. Electrical engineer Peter Delfyett (1959 -) University Trustee Chair Professor in the College of Optics and Photonics and the Center for Research and Education in Optics and Lasers at the University of Central Florida,

is an elected Fellow of the American Physical Society, the Optical Society of America, and the IEEE Photonics Society.

Restrictions

Restrictions on Access

Restrictions may be applied on a case-by-case basis at the discretion of The HistoryMakers®.

Restrictions on Use

All use of materials and use credits must be pre-approved by The HistoryMakers®. Appropriate credit must be given. Copyright is held by The HistoryMakers®.

Related Material

Information about the administrative functions involved in scheduling, researching, and producing the interview, as well as correspondence with the interview subject is stored electronically both on The HistoryMakers® server and in two databases maintained by The HistoryMakers®, though this information is not included in this finding aid.

Controlled Access Terms

This interview collection is indexed under the following controlled access subject terms.

Persons:

Delfyett, Peter John, 1959-

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

Subjects:

African Americans--Interviews
Delfyett, Peter John, 1959---Interviews

Organizations:

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

Occupations:

Electrical Engineer

HistoryMakers® Category:

ScienceMakers

Administrative Information

Custodial History

Interview footage was recorded by The HistoryMakers®. All rights to the interview have been transferred to The HistoryMakers® by the interview subject through a signed interview release form. Signed interview release forms have been deposited with Jenner & Block, LLP, Chicago.

Preferred Citation

The HistoryMakers® Video Oral History Interview with Peter Delfyett, June 4, 2013. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

Processing Information

This interview collection was processed and encoded on 2/5/2020 by The HistoryMakers® staff. The finding aid was created adhering to the following standards: DACS, AACR2, and the Oral History Cataloging Manual (Matters 1995).

Other Finding Aid

A Microsoft Access contact database and a FileMaker Pro tracking database, both maintained by The HistoryMakers®, keep track of the administrative functions involved in scheduling, researching, and producing the interview.

Detailed Description of the Collection

Series I: Original Interview Footage

Video Oral History Interview with Peter Delfyett, Section
A2013_126_001_001, TRT: 1:28:08 2013/06/04

Peter Delfyett talks about his family history. Delfyett's mother's ancestry is Sicilian and includes an Italian baron. His father's side, the Delfyetts, came to Queens from the Dominican Republic and have lived in the same section of Queens since the mid-1800s. His parents met in high school and had children while his father was in college, which he dropped out of to raise the family. Delfyett's parents separated when he was young and he did not reconnect with his mother, Barbara Scianna, until he was eighteen. He discusses how his mother's race was influential in her being unable to raise him and his sisters. He was raised by his father in an extended family household that included his grandparents and uncles. His father was a firefighter and his uncles were a policeman and teacher. Delfyett describes the positive influence of growing up with multiple role models.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

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Affirmative action programs.

Video Oral History Interview with Peter Delfyett, Section
A2013_126_001_002, TRT: 2:29:42 2013/06/04

Peter Delfyett remembers his earliest childhood memories, which include being in diapers and the music his uncles, William and Michael Delfyett, would listen to. Delfyett recalls his childhood neighborhoods and the sights, sounds and smells of his childhood, including the 1964-1965 World Fair in New York City, New York. He also talks about his churches growing up. Delfyett became interested in dinosaurs when he was young, which led to questions about religion. As a child he loved school and achieved high grades in Science. Delfyett wanted to go to college for music but due to the difficulty of a musician's career he switched to studio engineering and then to electrical engineering. In his sophomore year, 1977-1978, at the City University of New York, New York, New York Delfyett decided to study lasers due to a class in the course catalog.

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Video Oral History Interview with Peter Delfyett, Section
A2013_126_001_003, TRT: 3:29:16 2013/06/04

Peter Delfyett continues to talk about his mentors in elementary and middle school. He lived near people who were engineers or studying to be engineers, which let him know it was a viable career option. In both middle and high school Delfyett was in an advanced academic program. He began drumming in high school and was a part of several bands but did not pursue professional music. In 1976 Delfyett graduated from high school and chose to attend the City University of New York, New York, New York because it was free and offered courses in engineering. He talks about his time there and seeing the formation of rap music on the campus. During his sophomore year he chose an elective class in optics and decided to pursue a Ph.D. degree in electrical engineering.

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Video Oral History Interview with Peter Delfyett, Section
A2013_126_001_004, TRT: 4:30:29 2013/06/04

Peter Delfyett describes the undergraduate optics class that convinced him to obtain his Ph.D. in electrical engineering. Delfyett graduated from the City College of New York, New York, New York in 1981 and was accepted into the electrical engineering graduate program at University of Rochester, Rochester, New York. He wanted to study optics but that was a separate program at the University of Rochester, and so he obtained his M.S. degree in 1984 and went to the City University of New York for his doctoral studies. Delfyett discusses his doctoral dissertation, which was the development of a one shot spectroscopy technique that gives all possible vibrational modes of a molecule. After receiving his Ph.D. in electrical engineering in 1988, Delfyett was recruited by Bell Communications Research in Red Bank, New Jersey. Within eighteen months Delfyett had broken the world record on the shortest and brightest light pulse ever created.

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Video Oral History Interview with Peter Delfyett, Section
A2013_126_001_005, TRT: 5:32:10 2013/06/04

Peter Delfyett continues to talk about his invention of an ultra-short light pulse and describes its applications. In 1991 Delfyett used the technology of short light pulse to create an optical clock that can be accurate at high clock speeds. Delfyett talks about the length of time it takes inventions to be implemented, using his 1992 invention of an optical disk with greater storage capacity as an

example. In 1993 Delfyett left Bell Communications Research, Red Bank, New Jersey to become a professor in the Center for Research and Education in Optics and Lasers (CREOL) Laboratory at the University of Central Florida in Orlando, Florida. Delfyett discusses his teaching responsibilities and research at the University of Central Florida as well as the future of technology.

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Video Oral History Interview with Peter Delfyett, Section
A2013_126_001_006, TRT: 6:30:35 2013/06/04

Peter Delfyett discusses the future of holographic and three-dimensional technology and its applications. Since becoming a professor at the University of Central Florida in Orlando, Florida in 1993 Delfyett has brought approximately \$20 million in grants and was made the University Trustee Chair Professor of Optics, Electrical Engineering, and Physics, an endowed position. Delfyett is a fellow of the Institute of Electrical and Electronics Engineers, the Optical Society, and the American Physical Society, and served as the president of the National Society of Black Physicists from 2007 to 2013. Delfyett talks about his nieces and nephews and his involvement in a semiprofessional salsa team and drumming. He reflects on his life, his legacy, and shares how he would like to be remembered.

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