

Finding Aid to The HistoryMakers® Video Oral History with Stephen McGuire

Overview of the Collection

Repository:	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
Creator:	McGuire, Stephen Craig, 1948-
Title:	The HistoryMakers® Video Oral History Interview with Stephen McGuire,
Dates:	August 18, 2012
Bulk Dates:	2012
Physical Description:	7 uncompressed MOV digital video files (3:15:52).
Abstract:	Nuclear physicist Stephen McGuire (1948 -) led the establishment of the partnership in materials research and science education between the Laser Interferometer Gravitational-Wave Observatory and Southern University. He is a Fellow of the American Physical Society. McGuire was interviewed by The HistoryMakers® on August 18, 2012, in Baton Rouge, Louisiana. This collection is comprised of the original video footage of the interview.
Identification:	A2012_187
Language:	The interview and records are in English.

Biographical Note by The HistoryMakers®

Nuclear physicist and physics professor Stephen C. McGuire was born on September 17, 1948 in New Orleans, Louisiana. McGuire was the first generation of his family to attend high school and college. McGuire's parents were supportive of his education and inspired him to high achievements. By the time that McGuire graduated as valedictorian of his class at Joseph S. Clark Senior High in New Orleans, Louisiana, he knew that he wanted to pursue a career in physics. McGuire went on to attend Southern University and Agricultural and

Mechanical (A&M) College on a four-year academic scholarship. He received his B.S. degree in physics, magna cum laude, in 1970. McGuire then continued his education at the University of Rochester where he studied under Professor Harry W. Fulbright and graduated with his M.S. degree in nuclear physics in 1974. In 1979, McGuire obtained his Ph.D. degree from Cornell University in nuclear science with a focus on low energy neutron physics under the guidance of Professor David D. Clark.

Between 1979 and 1982, McGuire conducted research as a staff scientist at Oak Ridge National Laboratory. In 1982, McGuire joined the faculty at Alabama A&M University in the department of physics and applied physics, and he began research with the National Aeronautics and Space Administration (NASA). McGuire was honored by NASA in 1987 with its Office of Technology Utilization Research Citation Award. While at Alabama A&M, he also served as a consultant to the National Institutes of Health (NIH) and the U.S. Department of Energy, and spent time as a physics researcher at Lawrence Livermore National Laboratory (LLNL). In 1989, he became the first African American faculty member at the endowed College of Engineering at Cornell University. In 1992, he became a charter fellow of the National Society of Black Physicists (NSBP). With research focusing on experimental nuclear physics and nuclear radiation and microelectronics, McGuire was appointed to be a visiting scientist at the Center for Neutron Research at the National Institute of Standards and Technology in 1998.

Since 1999, McGuire has served as professor and chair of the department of physics at Southern University and A&M College in Baton Rouge, Louisiana. McGuire has pursued his interest in optical materials as part of the Laser Interferometer Gravitational-Wave Observatory (LIGO). During his tenure with the university, McGuire has led the establishment of the partnership between LIGO and Southern University and A&M College, and he served as the LIGO Scientific Collaboration Principal Investigator (PI). He considers this his greatest achievement. McGuire is a Fellow of the American Physical Society. He is married to the former Sandra E. Yancy. They have two adult daughters, Carla and Stephanie.

Stephen McGuire was interviewed by *The HistoryMakers* on August 18, 2012.

Scope and Content

This life oral history interview with Stephen McGuire was conducted by Larry

Crowe on August 18, 2012, in Baton Rouge, Louisiana, and was recorded on 7 uncompressed MOV digital video files. Nuclear physicist Stephen McGuire (1948 -) led the establishment of the partnership in materials research and science education between the Laser Interferometer Gravitational-Wave Observatory and Southern University. He is a Fellow of the American Physical 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:

McGuire, Stephen Craig, 1948-

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

Subjects:

African Americans--Interviews

McGuire, Stephen Craig, 1948---Interviews

Organizations:

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

Occupations:

Nuclear Physicist

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 Stephen McGuire, August 18, 2012. The HistoryMakers® African American Video Oral

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 Stephen McGuire, Section
A2012_187_001_001, TRT: 1:31:49 2012/08/18

Stephen McGuire describes his family background. McGuire's mother, Ruth Barsock McGuire, was born in 1920 in Waveland, Mississippi. Her family migrated to the Uptown region of New Orleans, Louisiana, where she spent most of her childhood. McGuire's paternal ancestry traces back to Little Texas sugarcane plantation in the Bayou Lafourche region of Louisiana. His father, Harry McGuire, Jr., was born in Napoleonville, Louisiana, in 1914. McGuire describes his father as the most hardworking man he has ever met, and talks about his employment as the head custodian at Andrew J. Bell Junior High School in New Orleans. McGuire's parents met and married in New Orleans, where they raised eight children. McGuire talks about his siblings, and his childhood home in New Orleans.

African American families--Louisiana.

Plantations--Louisiana.

Fathers--Employment--Louisiana--New Orleans.

Siblings--United States.

Dwellings--Louisiana--New Orleans.

Video Oral History Interview with Stephen McGuire, Section
A2012_187_001_002, TRT: 2:32:43 2012/08/18

Stephen McGuire grew up in New Orleans, Louisiana, and describes his childhood memories of growing up there. McGuire attended Phillis Wheatley Elementary School, McDonogh 41 Junior High School, and Joseph S. Clark Senior High School in the segregated Orleans Parish school system. He describes the excellent quality of instruction that he received from his African American teachers, who influenced him academically and also encouraged his athletic abilities. McGuire goes on to describe the African American cultural heritage in New Orleans and the complicated racial environment of Louisiana in the 1960s.

Childhood--Louisiana--New Orleans.

Segregation in education--Louisiana.

African American heritage--Louisiana--New Orleans.

Race relations--Louisiana--History--20th century.

Video Oral History Interview with Stephen McGuire, Section
A2012_187_001_003, TRT: 3:29:17 2012/08/18

Stephen McGuire attended Joseph S. Clark Senior High School in New Orleans, Louisiana, where he played as the all-city forward on the school's basketball team. McGuire's experience on a school field visit to NASA's newly established rocket construction plant in Michoud, Louisiana, in 1961, created in him a desire to pursue a career in the sciences. In high school, he also became interested in physics. After graduating in 1966 as the class valedictorian, McGuire went on to attend Southern University in Baton Rouge, Louisiana on an academic scholarship. He decided not to play college basketball, so that he could focus on his academics. McGuire describes his early interest in science, the influence of the U.S. space program in the 1960s, and Felton G. Clark, the president of Southern University during the 1960s.

African American high school students--Louisiana--New

Orleans.

School field trips--Louisiana.

United States. National Aeronautics and Space Administration.

Southern University (Baton Rouge, La.)

Clark, Felton Grandison, 1903-1970

Video Oral History Interview with Stephen McGuire, Section A2012_187_001_004, TRT: 4:29:58 2012/08/18

Stephen McGuire received his B.S. degree in physics from Southern University in 1970 where he met his wife. He went on to pursue his M.S. in nuclear physics at the University of Rochester, where he studied the structure of f-p shell nuclides under the guidance of Harry W. Fulbright. McGuire married Sandra Yancy in 1971. In 1974, he began his doctoral studies in nuclear science at Cornell University. Under the direction of David Delano Clark, McGuire focused on spin-forbidden isomers in Uranium-236. He received his Ph.D. degree in 1979, and began working at Oak Ridge National Laboratory, where he was involved in the production of heavy elements and the analysis behind the problems of transporting high-level nuclear waste. In 1982, McGuire accepted an assistant professorship at Alabama A&M University where he established a Ph.D. program in applied physics. He also conducted research on high energy cosmic ray interactions at NASA's Marshall Space Flight Center.

Physics--Study and teaching--United States.

Physicists' spouses.

Physicists--Intellectual life--20th century.

Oak Ridge National Laboratory--Employees.

George C. Marshall Space Flight Center.

Video Oral History Interview with Stephen McGuire, Section A2012_187_001_005, TRT: 5:31:33 2012/08/18

Stephen McGuire served as an associate professor of nuclear science and engineering at Cornell University for ten years, from 1989 to 1999. During this time, he was involved in expanding his research to include the study of nuclear properties of materials and their performance in different environments. McGuire was also engaged in

science education and minority education initiatives at Cornell University, and served as a visiting professor at Wayne State University in Detroit, Michigan. McGuire moved back to Southern University in Baton Rouge, Louisiana in 1999 as chairman of the department of physics. During his tenure at Southern University, McGuire facilitated the establishment of a research network with the Laser Interferometer Gravitational-Wave Observatory (LIGO) in Livingston, Louisiana. In the interview, he describes the principle of gravity and gravitational waves, and the goal of the LIGO project.

Cornell University. College of Engineering--Faculty.
Nuclear science--Study and teaching--United States.
Minorities in science--United States.
Universities and colleges--Faculty.
Laser Interferometer Gravitational Wave Observatory--
Congresses.

Video Oral History Interview with Stephen McGuire, Section
A2012_187_001_006, TRT: 6:29:32 2012/08/18

In 1999, Stephen McGuire returned to Southern University as the chair of the physics department, where he established a collaboration with the Laser Interferometer Gravitational-Wave Observatory (LIGO) in Livingston, Louisiana. McGuire describes the significance of the LIGO venture, and his own contributions towards the construction of the interferometer. He also describes the science education alliance between Southern University and LIGO, which provides research and educational opportunities for students from multiple disciplines. McGuire served as the president of the National Society of Black Physicists, and was elected as a fellow of the American Physical Society in 2008. He describes his goals for the future, and discusses the success of the master's program in physics at Southern University. McGuire goes on to reflect upon his legacy, shares his hopes and concerns for the African American community, and talks about his wife and his daughters.

Southern University (Baton Rouge, La.). Department of Physics.

Laser Interferometer Gravitational Wave Observatory--
Congresses.

National Society of Black Physicists.

American Physical Society.

African American families.

Video Oral History Interview with Stephen McGuire, Section
A2012_187_001_007, TRT: 7:11:00 2012/08/18

Stephen McGuire describes his photographs.

Photographs.