

Finding Aid to The HistoryMakers® Video Oral History with Keith Jackson

Overview of the Collection

Repository:	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
Creator:	Jackson, Keith H., 1953-
Title:	The HistoryMakers® Video Oral History Interview with Keith Jackson,
Dates:	July 16, 2012 and September 10, 2012
Bulk Dates:	2012
Physical Description:	15 uncompressed MOV digital video files (7:07:22).
Abstract:	Physicist and physics professor Keith Jackson (1953 -) served as president of the National Society of Black Physicists, vice president of research at Florida A&M University and chair of the Department of Physics at Morgan State University. Jackson was interviewed by The HistoryMakers® on July 16, 2012 and September 10, 2012, in Washington, District of Columbia. This collection is comprised of the original video footage of the interview.
Identification:	A2012_140
Language:	The interview and records are in English.

Biographical Note by The HistoryMakers®

Physicist Keith Hunter Jackson was born on September 24, 1953 in Columbus, Ohio to Gloria and Russell Jackson. He earned two B.S. degrees, one in physics from Morehouse College and one in electrical engineering from the Georgia Institute of Technology. Jackson then moved to California where he obtained his M.S. and Ph.D. degrees from Stanford University in 1979 and 1982, respectively.

After obtaining his graduate degrees, Jackson began working for Hewlett Packard

Laboratories. He became a member of the Gate Dielectric group and developed techniques to create thin nitride films on silicon layers. In 1983, he served as a professor at Howard University, working in the Solid State Electronics group. Beginning in 1988, Jackson worked for Rockwell International (now Boeing) in the Rocketdyne division where under the Strategic Defense Initiative (SDI) program he performed research on diamond thin films, high powered chemical and Free Electron Lasers (FEL) and water-cooled optics. In 1992, Jackson began working for the Lawrence Berkeley National Laboratory as associate director of the Center for X-Ray Optics (CXRO). His research interests were in the Extreme Ultra-Violet (EUV) lithography, x-ray lithography, electroplating and injection molding. EUV lithography is the technology, which is used to build billions of nano-sized devices for use in computers and cell phones. X-ray lithography and molding is used to build micro-sized mechanical devices like micropumps, and tiny mirrors for large screen projection TV's. In 2005, Jackson became Vice President of Research and Professor of Physics at Florida Agricultural and Mechanical University (FAMU). On January 4th 2010, Jackson moved to Baltimore, Maryland and joined the faculty of Morgan State University as Chair of the Department of Physics.

Jackson served as president of the National Society of Black Physicists (NSBP) from 2001 to 2006. He is also a fellow of the National Society of Black Physicists and the African Scientific Institute. In 2004, Jackson was selected as one of the 50 Most Important African Americans in Technology by U.S. Black Engineer and Information Technology. In addition to his published papers, Jackson has written pieces on minority physicists including "Utilization of African American Physicists in the Science & Engineering Workforce" and "The Status of the African American Physicist in the Department of Energy National Laboratories."

Scope and Content

This life oral history interview with Keith Jackson was conducted by Larry Crowe on July 16, 2012 and September 10, 2012, in Washington, District of Columbia, and was recorded on 15 uncompressed MOV digital video files. Physicist and physics professor Keith Jackson (1953 -) served as president of the National Society of Black Physicists, vice president of research at Florida A&M University and chair of the Department of Physics at Morgan State University.

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:

Jackson, Keith H., 1953-

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

Subjects:

African Americans--Interviews

Jackson, Keith H., 1953---Interviews

Organizations:

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

Occupations:

Physicist

Physics Professor

HistoryMakers® Category:

ScienceMakers|EducationMakers

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 Keith Jackson, July 16, 2012 and September 10, 2012. 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 Keith Jackson, Section
A2012_140_001_001, TRT: 1:31:31 2012/07/16

Keith Jackson describes his family background. His mother, Gloria Ann Stewart, was born in Columbus, Ohio, in 1923, and traced her paternal ancestry to the island of Madagascar. Following the death of her father, Stewart was raised by her maternal side of the family, in the segregated section of Columbus. She attended Central High School, and went on to graduate from Ohio State University, where she majored in social work. Jackson's father, Russell Hunter Jackson, was also born in Columbus around 1920, and lived only a block away from Jackson's mother. Known for his intelligence in school, Russell Jackson graduated from Central High School, and enrolled at Ohio State University at the age of fifteen. He then attended Harvard Law School, and returned to Ohio to establish a private practice. Jackson describes the challenges that his father faced as a young African American lawyer in the 1950s.

African American families--Ohio

Madagascar.

Segregation--Ohio--Columbus.

Gifted children--Education.

African American lawyers--Ohio.

Video Oral History Interview with Keith Jackson, Section
A2012_140_001_002, TRT: 2:31:05 2012/07/16

Keith Jackson and his brother, David Jackson, grew up in

Columbus, Ohio. His father, Russell Hunter Jackson, was a practicing lawyer in Columbus, and also ran for the state legislature in the 1950s. Following his father's untimely death in 1957, when Jackson was four years old, his mother, Gloria Ann Jackson, began to work at the Franklin County Welfare Department to support her family. Jackson describes his childhood in Columbus, and talks about the segregated neighborhoods in the city. He also describes his experience in elementary school and middle school as the time that when he developed an interest in chemistry sets and model rockets. Jackson describes the Estes brand model rocket, and his interest in comic books.

Political candidates--Ohio

Widows--Employment.

Childhood and youth--Ohio.

Segregation--Ohio--Columbus.

Rockets (Aeronautics)--Models.

Video Oral History Interview with Keith Jackson, Section
A2012_140_001_003, TRT: 3:29:10 2012/07/16

After his father's untimely death in 1957, Keith Jackson and his brother were primarily raised by their mother, Gloria Ann Jackson. Jackson attended Champion Junior High School and Bishop Hartley Catholic School in Columbus, Ohio, where he was a mediocre student. He describes his childhood interest in Estes model rockets, and later, in racing electrical slot cars, which sparked his early exposure to studying the principles of electricity. Jackson's approach to problem-solving led him to learn, observe, and teach himself useful technical skills that he used to fix electrical and plumbing problems around his house. He also talks about his secular upbringing, and his interest in the space race.

Fathers--Death.

Brothers--Ohio--Columbus.

Childhood and youth--Ohio.

Electric apparatus and appliances--Maintenance and repair.

Space race--United States.

Video Oral History Interview with Keith Jackson, Section

A2012_140_001_004, TRT: 4:27:51 2012/07/16

Keith Jackson attended Champion Junior High School in Columbus, Ohio, until his mother, Gloria Ann Jackson, sent him to Bishop Hartley Catholic School so that he could receive a better education. Jackson graduated from Bishop Hartley in the late 1960s, and went on to attend the newly-integrated Eastmoor High School, where he experienced a racially tense environment. At Eastmoor, Jackson was exposed to individualized science coursework in physics, chemistry and biology. He graduated in the top 25 percent of his class in 1971. By this time, he had decided to pursue a degree in physics in college. Jackson describes his experience at Bishop Hartley Catholic School and Eastmoor High School, and talks about his association with Charles O. Ross at Ohio State University.

African Americans--Education.

Academic achievement--United States.

School integration--Ohio--Columbus--History--20th century.

Physics--Study and teaching (Higher).

Ohio State University. Department of Black Studies.

Video Oral History Interview with Keith Jackson, Section

A2012_140_001_005, TRT: 5:29:47 2012/07/16

After graduating from Eastmoor High School in Columbus, Ohio, in 1971, Keith Jackson received a full scholarship to attend Morehouse College in Atlanta, where he chose to major in physics. He also enrolled in the electrical engineering dual degree program at Georgia Institute of Technology, in 1973. Jackson describes the overhauling of the Morehouse physics department under the able chairmanship of HistoryMaker, Carl Spight. He also describes the quality of his physics education, and the advancement of science education under the administration of Morehouse president, Hugh Gloster.

African American college students--Scholarships, fellowships, etc.

Morehouse College (Atlanta, Ga.).

Morehouse College (Atlanta, Ga.). Department of Physics.

African American universities and colleges--Georgia--Atlanta--Curricula.

Morehouse College (Atlanta, Ga.)--Presidents.

Video Oral History Interview with Keith Jackson, Section
A2012_140_001_006, TRT: 6:29:20 2012/07/16

Keith Jackson describes the foundations of his physics education at Morehouse College, under the tutelage of Dr. Carl Spight and Dr. James Turner. Jackson also talks about the founding and early years of the National Society of Black Engineers and the National Society of Black Physicists. He goes on to discuss the state of science education at historically black colleges and universities in the United States.

Physics--Study and teaching--United States.

African American universities and colleges--Georgia--Atlanta--Faculty.

National Society of Black Engineers (U.S.)

African American universities and colleges--Science--Education--United States.

Video Oral History Interview with Keith Jackson, Section
A2012_140_001_007, TRT: 7:29:27 2012/07/16

Keith Jackson graduated from Morehouse University and Georgia Institute of Technology in 1976, with dual degrees in physics and electrical engineering. Jackson then went on to Stanford University to pursue a doctoral degree in physics, focusing on the field of atomic molecular physics. While at Stanford, Jackson was exposed to an elite group of physicists and Nobel Prize laureates. Jackson discusses the deficiencies in the educational foundation at engineering schools at HBCUs. He also talks about the implications of the discovery of the Higgs boson, and discusses emerging trends in the technology industry.

Joint academic degree programs.

Nobel Prize winners.

African American universities and colleges--Curricula.

Engineering schools--United States.

Higgs bosons.

Video Oral History Interview with Keith Jackson, Section
A2012_140_001_008, TRT: 8:29:18 2012/07/16

In 1976, Keith Jackson began his doctoral degree at Stanford University, in the field of atomic molecular physics. Under the direction of his thesis advisor, Dr. Richard Zare, Jackson worked in the Synchrotron Radiation Laboratory, where he focused on measuring the distribution of internal energy in carbon-monoxide and nitrogen gas. Jackson got married while he was in graduate school, motivating him to complete his dissertation research within a structured timeframe. He describes his decision to work at the Synchrotron Radiation Laboratory, and his experience as an experimental physicist. He also talks about his fascination with the cutting-edge laser technology that was available to him in Dr. Zare's laboratory.

Atomic and molecular physics.

Zare, Richard N.

Stanford Synchrotron Radiation Laboratory.

Married students.

Lasers in physics.

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_009, TRT: 9:31:53 2012/09/10

After completing his Ph.D. degree in physics at Stanford University, Keith Jackson accepted a faculty position in the department of physics at Howard University, in 1983. A year later, he transitioned to the department of electrical engineering, where he was able to work on building semiconductor lasers, in addition to his teaching responsibilities. Jackson left Howard in 1988, and accepted a position at Rocketdyne, a rocket engine design and production company that builds the space shuttle's main engine. Jackson describes the details of his work on the free electron laser, diamond thin films, and the application of water-cooler mirrors in the synchrotron radiation community.

Howard University--Faculty.

Howard University. Department of Physics.

Electrical engineering--Study and teaching--United States.

Lasers--Design and construction.

Rockwell International. Rocketdyne Division

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_010, TRT: 10:29:17 2012/09/10

Keith Jackson worked at Rockwell International's Rocketdyne division from 1988 to 1992, when he accepted a position as associate director of the Center for X-Ray Optics at Lawrence Berkeley National Laboratory. While at Berkeley, Jackson was involved in a project funded by the U.S. Defense Advanced Research Projects Agency (DARPA). The project was aimed at developing a technique known as extreme ultraviolet [EUV] lithography, which has applications in the semiconductor manufacturing industry. Jackson explains the concept of EUV lithography and describes the details of his research at Lawrence Berkeley National Lab.

Center for X-ray Optics (Lawrence Berkeley National Laboratory).

United States. Defense Advanced Research Projects Agency.

Extreme ultraviolet lithography.

Semiconductor industry.

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_011, TRT: 11:30:23 2012/09/10

Keith Jackson served as the president of the National Society of Black Physicists (NSBP) from 2001 to 2006. During this time, he was also involved with increasing the visibility and funding for NSBP. Jackson describes his contributions towards NSBP, and discusses his disappointment at the significant shortage of African American scientists at national laboratories across the United States. Jackson also discusses the futuristic projects of Rockwell International's Advance Programs division, his former employer, and talks about what it takes to become a successful physicist.

National Society of Black Physicists.

Minorities in science--United States.

Rockwell International. Rocketdyne Division.

Physics--Vocational guidance.

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_012, TRT: 12:29:45 2012/09/10

Keith Jackson discusses the lack of African American scientists employed at national laboratories which are funded by the U.S. Department of Energy [DOE]. He also contrasts this trend with the success of African American scientists at Thomas Jefferson Laboratory in Virginia. Jackson describes his involvement with the National Association for Equal Opportunity in Higher Education (NAEOHE). He worked at NAEOHE while he worked at Lawrence Berkeley National Laboratory. Jackson left Berkeley Labs in 2005 to accept a physics professorship at Florida Agricultural and Mechanical University (FAMU) in Tallahassee, Florida.

African American scientists.

United States. Department of Energy.

Thomas Jefferson National Accelerator Facility (U.S.).

National Association for Equal Opportunity in Higher Education (U.S.)

Florida Agricultural and Mechanical University.
Department of Physics.

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_013, TRT: 13:29:13 2012/09/10

From 2005 to 2010, Keith Jackson served as vice president of research and professor of physics at Florida Agricultural and Mechanical University (FAMU), where he worked with the administration to solicit federal research funding for the university. Jackson describes the financial mismanagement of research funds at FAMU prior to his arrival there, and describes his efforts at securing research funding in light of this. He also discusses the process of federal grant funding for universities, and the state of grant acquisition and management at HBCUs in the United States.

Florida Agricultural and Mechanical University.

African American universities and colleges--Florida--Tallahassee--Finance.

Federal aid to colleges--Florida--Tallahassee.

Grants-in-aid--Florida--Tallahassee.

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_014, TRT: 14:28:44 2012/09/10

From 2005 to 2010, Keith Jackson served as vice president of research and a professor of physics at Florida Agricultural and Mechanical University (FAMU), during which time he established a laser program at the university. Jackson describes his experience at FAMU, and the administrative challenges that he faced there. Since 2010, Jackson has served as professor and chair of physics at Morgan State University, and talks about his experience there. He discusses the challenges to science education and research at HBCUs, and describes his hopes and concerns for the African American community. Jackson also reflects upon his career's legacy.

African American universities and colleges.

Florida Agricultural and Mechanical University.

Morgan State University. Department of Physics & Engineering Physics.

African American universities and colleges--Science--Education--United States.

Video Oral History Interview with Keith Jackson, Section
A2012_140_002_015, TRT: 15:10:38 2012/09/10

Keith Jackson reflects upon his career choices. He wants to be remembered as an African American physicist who has made fundamental contributions to science and technology, and as an advocate for science in the African American community. Jackson goes on to talk about his family, and his two children.

African American physicists.

African Americans in the professions--United States.

Minorities in science--United States.

African American families.