



Finding Aid to The HistoryMakers® Video Oral History with Robert Bragg

Overview of the Collection

Repository:	The HistoryMakers® 1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
Creator:	Robert Bragg
Title:	The HistoryMakers® Video Oral History Interview with Robert Bragg
Dates:	March 11, 2011
Bulk Dates:	2011
Physical Description:	11 Betacam SP videocassettes (5:19:20).
Abstract:	Physicist and physics professor Robert Bragg (1919 -) was a leader in the techniques of x-ray diffraction and the study of carbon-based materials. He served as a professor at the University of California, Berkeley, from 1969 to 1987. Bragg was interviewed by The HistoryMakers® on March 11, 2011, in Emeryville, California. This collection is comprised of the original video footage of the interview.
Identification:	A2011_003
Language:	The interview and records are in English.

Biographical Note by The HistoryMakers®

Physicist and engineer Robert Henry “Pete” Bragg, Jr. was born on August 11, 1919 in Jacksonville, Florida to Robert Henry Bragg and Lily Camille MacFarland. He had one older sister, Alberta, a younger sister, Nadine, and a younger brother, Johnny. After his parents separated, Bragg lived with his mother and grandmother in Memphis, Tennessee, but he was encouraged by his family to move to Chicago, Illinois, to live with his Aunt Edna and Uncle Teddy where he attended Tilden Technical High School. Bragg pursued higher education at Woodrow Wilson Junior College, a community college in Chicago, Illinois, for a couple of years before enlisting in the military during World War II. Using the money allotted to him from the G.I. Bill to attend Illinois Institute of Technology (IIT), Bragg pursued a career in physics following the war. He received his B.S. degree in physics in 1949 and continued his graduate studies under the tutelage of Frances L. Yost, graduating from IIT in 1951 with his M.S. degree and his thesis on quantum mechanical scattering theories.

Following his graduation, Bragg was hired at the Dover Electroplating Company on the North Side of Chicago, and then the Portland Cement Association Research Laboratory. While working with the latter of these companies, Bragg became an expert in x-ray crystallography and x-ray diffraction. He was then hired by the Armour Research Foundation at IIT, where he worked for another five years while continuing his graduate studies working under his mentor, Dr. Leonid V. Azaroff. Bragg completed his studies at IIT in 1960 and earned his Ph.D. degree in physics.

Bragg was then hired by Lockheed Martin Missile and Space, where he worked for nine years before joining the faculty of the materials science and engineering department at the University of California, Berkeley in June of 1969. Bragg served as chair of the materials science and engineering department from 1978 to 1981, the only African American to do so at that time. Bragg’s research interests included x-ray diffraction and its application to

such topics as the structure and electronic properties of carbon materials. These materials are used in aircraft and aerospace vehicles as well as in everyday items such as golf clubs and tennis rackets. He taught at the university and conducted research at Lawrence Berkeley National Laboratory (LBNL) until 1986. After his retirement, Bragg was awarded a Fulbright Fellowship in 1992 to conduct research for one year at the University of Ife in Nigeria. He also performed research at the Advanced Photon Source at the Argonne National Laboratory in 1999.

Bragg's investigations in chemistry and physics have earned him numerous honors and awards throughout his career. He was named a fellow of the National Society of Black Physicists (NSBP) in 1995 and a professor emeritus of the University of California, Berkeley upon his retirement in 1987.

Robert Bragg was interviewed by The HistoryMakers® on March 10, 2011.

Scope and Content

This life oral history interview with Robert Bragg was conducted by Larry Crowe on March 11, 2011, in Emeryville, California, and was recorded on 11 Betacam SP videocassettes. Physicist and physics professor Robert Bragg (1919 -) was a leader in the techniques of x-ray diffraction and the study of carbon-based materials. He served as a professor at the University of California, Berkeley, from 1969 to 1987.

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:

Bragg, R. H. (Robert H.)

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

Subjects:

African Americans--Interviews
Bragg, R. H. (Robert H.) --Interviews

African American physicists--Interviews.

African American engineers--Interviews.

Organizations:

HistoryMakers (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

Portland Cement Association. Research Laboratory.

Armour Research Foundation (U.S.).

Lockheed Martin Missiles & Space--Huntsville.

University of California, Berkeley.

Lawrence Berkeley National Laboratory.

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 Robert Bragg, March 11, 2011. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

Processing Information

This interview collection was processed and encoded on 8/22/2011 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, March 11, 2011

Video Oral History Interview with Robert Bragg, Section A2011_003_001_001, TRT: 0:27:44
2011/03/11

Robert Bragg discusses his family background. His mother, Lilly Camille McFarland, who was born in 1897 to William Peter McFarland and Sally Wilson. Bragg's father, Robert Henry Bragg, Sr., who was born in Collierville, Tennessee near Memphis. His exact date of birth is unknown, but Bragg believes his father is seven or eight years older than his mother. Bragg's paternal grandparents, Henry Isaac Bragg and Mary Foster [Waters], married in 1891. Henry was born into slavery near the northern border of Alabama. Henry worked as a carpenter and provided many of his children with a formal education, sending them to Lane College in Jackson, Tennessee and LeMoyne-Owen College in Memphis, Tennessee. Bragg's paternal grandmother's marriage is her second marriage; she had one son in her previous marriage. Together, Bragg's paternal grandparents had four children: Jordan, Robert, Minnie, and a fourth unnamed child.

African American families--Alabama--History.

African American universities and colleges--Tennessee.

Lane College.

LeMoyne-Owen College.

Slavery--Alabama.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_002, TRT: 0:30:12
2011/03/11

Robert Bragg discusses his mother's life in New York City, how his parents met, and their life together. His parents were married around 1915 and shortly afterwards moved to Jacksonville, Florida, where his father worked as a chandler in the shipyards. The couple tried running a restaurant for a while, but due to personal reasons, they decided to close the business. They also tried homesteading, but were unsuccessful. The last venture of Bragg's parents as a couple was working at a lumber camp in Green Cove Springs. His mother was very unhappy and in 1925, under the pretext of taking her children to see her family, she and the four children permanently moved to Memphis, Tennessee. The next time that Bragg saw his father was upon his death in 1939. Lily

McFarland later married Alex Hunt, a musician and World War I bandmaster. Bragg then talks about which side of the family he resembles, and describes life with his maternal grandparents in Memphis.

African American families--Florida--Jacksonville.

African American business enterprises.

Family-owned business enterprises--Tennessee--Memphis.

African American single mothers.

African American life--Social conditions.

African American grandparents.

African Americans--Marriages.

African Americans--Small business--Florida--Jacksonville.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_003, TRT: 0:30:53
2011/03/11

Robert Bragg describes his childhood, his elementary school education and moving to Chicago. His home in Memphis, Tennessee, was on Mosby Street near the Straight-Home Valley Housing Project. He and his siblings were forbidden to go to the project because his family regarded it as unsafe. Bragg lived near the Palace and Daisy Theaters and the One Minute, which sold hamburgers for a nickel. Bragg attended elementary school, first at Carnes, then St. Anthony's. Later, he attended Woodstock Training School, a boarding school near Lucy, Tennessee, where he remained until 1933. His mother did not make enough money to support Bragg and his siblings, so she sent them to live with different relatives. Bragg was sent to Chicago to live with his Uncle Teddy and Aunt Edna. While in Chicago, Bragg was exposed to African American organizations such as NAACP and UNIA.

African Americans--Childhood.

African American children--Education (Elementary)--Tennessee--Memphis.

African American extended families.

Universal Negro Improvement Association--Chicago, Illinois.

National Association for the Advancement of Colored People. Chicago Branch.

Chicago, (Ill.)--Social life and customs.

Public housing--Tennessee--Memphis.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_004, TRT: 0:30:47
2011/03/11

Robert Bragg talks about living in Chicago with his uncle. He attended Tilden Technical High School and then studied pre-engineering at Wilson Junior College for two years. After that, Bragg served in the U.S. Army Air Corps, where he completed basic training and was sent to Seymour Fields, North Carolina. He later applied and was accepted to the Army Specialized Training Program (ASTP), where he continued his studies at Rhode Island State College. After the army shut down the ASTP, Bragg was sent to Fort Lee, Virginia.

United States. Army Air Forces. African Americans.

Army Specialized Training Program (U.S.).

Rhode Island State College.

Fort Lee (Va.).

Video Oral History Interview with Robert Bragg, Section A2011_003_001_005, TRT: 0:29:52
2011/03/11

Robert Bragg talks about his service in WWII and using funds from the G.I.

Bill to attend the Illinois Institute of Technology. Bragg was assigned to Camp Lee, Virginia, where he became a technical sergeant and taught in the school for the laundry master. Upon his deployment, Bragg was consistently assigned to field hospitals and general hospitals where he supervised the laundry unit. After a panel review, Bragg was promoted to lieutenant, and his unit was sent to the Philippines and Japan. After his discharge, Bragg used funding from the G.I. Bill to attend Illinois Institute of Technology. There, he took evening classes and changed his major to physics. He earned his B.A. degree in physics with a minor in mathematics from IIT in 1949.

United States. Servicemen's Readjustment Act of 1944.

African American veterans.

World War, 1939-1945--African American involvement.

Fort Lee (Va.)

Illinois Institute of Technology.

World War, 1939-1945--Campaigns--Phillipines.

World War, 1939-1945--Campaigns--Japan.

World War, 1939-1945--Personal narratives, American.

African Americans--Education (Higher)--Illinois--Chicago.

Physics--Study and teaching--United States.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_006, TRT: 0:33:18
2011/03/11

Robert Bragg talks about his continued studies at Illinois Institute of Technology [IIT]. Upon earning his B.S. degree, Bragg returned to IIT to work with Professor Francis Yost in quantum mechanical scattering theories. He graduated with a M.S. degree in 1951, and worked as a laborer at Dover Electroplating Company before starting a job at Portland Cement Association Research Laboratory. His first project was a study of desiccant materials, which had been put to use in untested laboratory procedures. Bragg also discovered two hydrates of magnesium perchlorate. In 1952, Bragg attended a summer session at Brooklyn Polytechnic Institute and then continued his education with courses at IIT. His professor encouraged him to pursue his Ph.D. degree. In 1956, following a confrontation at work, Bragg decided to leave Portland Cement Association and began to search for another position elsewhere, with the hopes of earning his Ph.D. degree.

African Americans--Education (Higher)--Science.

Physics--Study and teaching--United States.

Illinois Institute of Technology.

Polytechnic University of NYU.

Portland Cement Association.

Quantum scattering--Study and teaching--United States.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_007, TRT: 0:31:02
2011/03/11

Robert Bragg discusses his career at Armour Research Foundation (ARF) and the process of completing his Ph.D. Bragg went to work in the solid state physics department of the Armour Research Foundation (ARF), at the Illinois Institute of Technology. Bragg later became a group leader and was able to attend classes at IIT to complete his Ph.D. degree with funding from ARF. Bragg earned his Ph.D. degree in 1960 and went to work for Lockheed Missiles and Space Company. Bragg became the manager of the metallurgy department

and worked with graduate students from Stanford University. Bragg remained at Lockheed for five years, during which time he worked with the Re-Entry Materials Program and carbon materials and traveled to the Tokai Chemical Company in Japan. While living in Palo Alto, California, Bragg became the president of the Palo Alto chapter of the NAACP.

African American physicists.

Universities and colleges--United States--Graduate work.

National Association for the Advancement of Colored People. Palo Alto Branch.

IIT Research Institute.

Lockheed Martin Missiles & Space (Firm).

Video Oral History Interview with Robert Bragg, Section A2011_003_001_008, TRT: 0:30:56
2011/03/11

Robert Bragg talks about his employment at the University of California, Berkeley and his travels to Argentina. While working for Lockheed, Bragg visited a military friend living in Argentina. While there, Bragg was given the opportunity to speak on Argentinean radio about race relations in the United States. Upon his return, Bragg was offered a full professorship and joint appointment in the Lawrence Berkeley Laboratory at the University of California Berkeley. Bragg served on the Berkeley faculty from 1969 to 1987, and during that time was the only African American in the department. He served as department chair from 1978 to 1981, and his two major areas of research during his tenure were carbon materials as semiconductors, and eutectic solidification.

African Americans--Travel--Argentina.

African American college teachers--California

University of California, Berkeley--Faculty.

Lawrence Berkeley National Laboratory.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_009, TRT: 0:30:23
2011/03/11

Robert Bragg describes his significant scientific achievements and research work related to carbon. While at University of California Berkeley, he concurrently worked for a year as a detailee for the Department of Energy, where he surveyed HBCUs to see which were qualified for research funding. In addition, he was also the first sponsor of BESSA (Black Engineering and Science Students Association) at University of California, Berkeley. He also served on the Northern California Council of Black Professional Engineers. While on faculty at the University of California, Berkeley, Bragg served on the policy advisory board of the Black Studies program.

African American engineers.

African American universities and colleges--Evaluation.

Career development--achievements.

University of California, Berkeley. Dept. of African American Studies.

African American teachers--University of California, Berkeley.

Science--Study and teaching (Higher)--United States.

African American students.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_010, TRT: 0:29:13
2011/03/11

Robert Bragg talks about his time as a busboy at the Palmer House Hotel in

Chicago, Illinois, and his work on the Materials Research Advisory Committee of the National Science Foundation. He also explains his job as the faculty assistant to the chancellor at the University of California, Berkeley. As the faculty assistant, Bragg had to fight against departments that were reluctant to hire minorities during the late 1980s. He credits the creation of the many programs he oversaw to Bill Shack and Olly Wilson. One of these programs was the Chancellor Minority Fellowship, which allowed minority faculty to gain experience in academia. Bragg concludes by talking about scientific legacies and his hopes and concerns for the African American community.

Minorities--Scholarships--United States.

Discrimination in higher education--United States.

Education, Higher--Administration.

Minority college teachers--Employment--United States.

Palmer House (Chicago,IL).

National Science Foundation (U.S.). Materials Research Advisory Committee.

Video Oral History Interview with Robert Bragg, Section A2011_003_001_011, TRT: 0:15:00
2011/03/11

Robert Bragg talks about his immediate family members, including his son and daughter, his former wife Violet, his brother Johnny McFarland Bragg, and his late mother, Lily Camille McFarland. Bragg's son died in 2008 after opting to do self-dialysis after his kidney transplant surgery. His son worked in electronics with Hewlett-Packard and went on the road as a rock musician and worked the last few years as a media specialist at Skyline College in the Bay Area, California. Bragg's daughter lives with her mother, who was a supervisor with Santa Clara County. Bragg's brother, Johnny McFarland Bragg, lived in Phoenix with his wife after retiring from his position as an inspector with the Chicago Water Department. Bragg states that he wants to be remembered as a nice guy who tried to be helpful.

African American families--California.

Children--Death.