

Finding Aid to The HistoryMakers® Video Oral History with William Lester, Jr.

Overview of the Collection

Repository:	The HistoryMakers® 1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
Creator:	Lester, W.A.
Title:	The HistoryMakers® Video Oral History Interview with William Lester, Jr.,
Dates:	April 7, 2004, November 7, 2012 and October 13, 2005
Bulk Dates:	2004, 2005 and 2012
Physical Description:	11 Betacame SP videocassettes uncompressed MOV digital video files (5:18:16).
Abstract:	Chemistry professor and chemist William Lester, Jr. (1937 -) was the former director of the National Resource for Computation in Chemistry. He later joined the faculty of the University of California at Berkeley as Professor of Chemistry, and published over 200 papers in his field. Lester was interviewed by The HistoryMakers® on April 7, 2004, November 7, 2012 and October 13, 2005, in Berkeley, California and San Francisco, California. This collection is comprised of the original video footage of the interview.
Identification:	A2004_043
Language:	The interview and records are in English.

Biographical Note by The HistoryMakers®

Distinguished theoretical chemist William Lester, Jr., was born on April 24, 1937, in Chicago, Illinois, where he attended all-black elementary schools due to racial segregation. After World War II, Lester's family moved and he attended a formerly all-white high school; he went on to receive his B.S. degree in 1958, and his master's degree in chemistry in 1959 from the University of Chicago. Lester obtained his Ph.D. in chemistry from the Catholic University of America in

Washington, D.C., in 1964.

Lester developed his interest in science at an early age; during his senior year in high school, he used his typing skills to obtain a part-time job in the physics department of the University of Chicago, which gave him a chance to explore the potential of a future career in the sciences. Entering the University of Chicago on a history scholarship, Lester set scoring records in basketball, two of which were still standing after forty-eight years. While at Catholic University, Lester worked at the National Bureau of Standards as a member of the scientific staff; his work at the Bureau helped him to meet the requirements for his doctoral dissertation on the calculation of molecular properties. Lester obtained a postdoctoral appointment at the University of Wisconsin in Madison where he worked on the molecular collision theory. The IBM Corporation then hired Lester to work at its research laboratory in San Jose, California. Later, as the director of the National Resource for Computation in Chemistry, Lester organized and led the first unified effort in computational chemistry in the United States.

Lester later joined the faculty of the University of California at Berkeley as a professor of chemistry, where his research focused on the theoretical studies of the electronic structure of molecules. Lester's efforts at Berkeley extended the powerful quantum Monte Carlo method to a wider range of chemical problems. In 2002, Lester became the president of the Pac-10 Conference.

Throughout his career, Lester published over 200 papers in his field, and was awarded numerous honors for his research and teaching. Lester held memberships in several professional organizations including the American Physical and Chemical Societies, and the American Association for the Advancement of Science. He was also elected a fellow of the APS, ACS, and AAAS. In addition to his professional activities, Lester remained committed to science education and sparking an interest in pursuing science careers in minority students.

Lester and his wife, Rochelle (deceased), raised two children: son, William A. Lester, III, and daughter, Allison L. Ramsey.

Scope and Content

This life oral history interview with William Lester, Jr. was conducted by Larry Crowe and Loretta Henry on April 7, 2004, November 7, 2012 and October 13, 2005, in Berkeley, California and San Francisco, California, and was recorded on 11 Betacame SP videocassettes uncompressed MOV digital video files. Chemistry professor and chemist William Lester, Jr. (1937 -) was the former director of the

National Resource for Computation in Chemistry. He later joined the faculty of the University of California at Berkeley as Professor of Chemistry, and published over 200 papers in his field.

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:

Lester, W.A.

Crowe, Larry (Interviewer)

Henry, Loretta (Interviewer)

Hickey, Matthew (Videographer)

Stearns, Scott (Videographer)

Subjects:

African Americans--Interviews

Lester, W.A.--Interviews

Organizations:

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

Occupations:

Chemistry Professor

Chemist

HistoryMakers® Category:

EducationMakers|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 William Lester, Jr., April 7, 2004, November 7, 2012 and October 13, 2005. 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 William Lester, Jr., Section A2004_043_001_001, TRT: 0:30:30 2004/04/07

William A. Lester, Jr. slates the interview and shares his favorites. Lester was born on April 24, 1937, in Chicago, Illinois. His mother, Elizabeth Francis Lester, was born in Chicago and worked as a seamstress and a doctor's assistant. His father, William Alexander Lester, was born in Atlanta, Georgia, but moved to Chicago with his family when he was a child. He worked as a carrier for the United States Postal Service. Lester's maternal grandparents are Willie Belle and Oliver Alphonso Clark. Oliver Alphonso was a lawyer, practicing law in Chicago for fifty years. Lester's paternal grandparents are Debora and [William Mason] Lester. Lester describes his relationship with his

sisters: Florence, Judith Belle and Karen. Lester grew up in different all-black neighborhood on the South Side of Chicago. He went to James McCosh Elementary School and attended church services with his parents, who were of different denominations.

African American families--Illinois--Chicago.

Family history.

South Side (Chicago, Ill.)

Chicago--Churches.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_001_002, TRT: 0:29:30 2004/04/07

William Lester recalls his family's history in the city of Chicago. Lester's father remembered the Chicago Race Riots of 1919. Lester's maternal grandmother, Willie Belle Clark, bought properties and rented them out as apartments. Lester then discusses his high school years, attending Calumet High School and graduating at the age of sixteen in 1953. During high school, Lester became skilled in basketball and worked as a typist in the laboratory of Robert Mulliken, winner of the Nobel Prize in Chemistry in 1966. To attend college, Lester earned a scholarship to attend the University of Chicago. Lester describes his first year of college and his participation on the basketball team, where he would break a number of school records. He continued to work in laboratories and earned his B.S. degree in 1958 and his M.S. degree in 1959.

Race riots Illinois.

African American high school students.

Mulliken, Robert Sanderson.

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

University of Chicago--Basketball.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_001_003, TRT: 0:29:40 2004/04/07

William Lester continues to discuss his college years at the University of Chicago. He became interested in physical chemistry during his undergraduate studies and eventually worked with Stuart Rice studying argon. After

a mishap with his acceptance letters to graduate schools, Lester decided to pursue graduate studies at Washington University in St. Louis, Missouri, but switched to The Catholic University of America after one year. He moved to Washington, D.C. with his wife [Rochelle Lester] in 1960, and completed his Ph.D. thesis on correlated molecular orbitals in 1964. While in Washington, D.C., Lester worked with the National Bureau of Standards and worked under Morris Krauss. He recalls events of the Civil Rights Movement, including the March on Washington and the Million Man March. In 1964, Lester was offered a position at the University of Wisconsin--Madison, where he was offered an administrative position because of the push for affirmative action.

Degrees, Academic.

Physical chemistry.

Argon.

Civil rights movement.

Affirmative action programs--Wisconsin--Madison.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_001_004, TRT: 0:30:00 2004/04/07

Lester explains the photographs. They are of William Mason Lester (paternal grandfather); Elizabeth Francis Lester (his mother); his family including his father, his sister, him, and his youngest sister as a baby; his grandmother Mary Lester; him in elementary school from about 1945; the Boys Club called the Muskateers he participated in; a picture of his family on a boat including his son, his daughter Alison, his wife, and him; a family picture taken last year with his wife and his grandchildren; a recent photo of him (taken that year); his son-in-law, his grandson, and Derrick Jeter at the U of Michigan; a family reunion photo from 1986; Lester at the Formula 1 Raceway holding his ears; an article done as part of a periodical from the University of Michigan with photos of Lester playing basketball; Alpha Phi Alpha fraternity photo; a picture of Bill Lester (his son) on the cover of Black Enterprise; Lester with Dr. Norbert Honcanu and CEO of the University of Benin; The first U.S. delegation of AA physicists invited to the Soviet Union; Armory

Assessment Board, a national research council-created Board; an article from 1978 in IBM magazine when he became director of NRCC; Fall/Winter edition of LBL publication in 1978; a picture of Lester doing a class as part of SEED; a photo of Lester after starting a community for African American students in Chemistry; Lester and an interaction potential (energy plotted as a function of coordinates of nuclei in molecular system) - in this case the reactive region of a Li approaching a HF molecule; a football program showing Lester's role as faculty athletics representative; AAAS board he served on ('93-'97); article from San Francisco Chronicle; speakers at 2002 Welch Foundation symposium on advances in computational chemistry; 2002 national medal of science committee; Lester and Prof. Carlton A. Taft in Rio de Janiero; wedding of Lester and his wife in 1959; Lester's daughter and her husband Charles Ramsey; wedding of Lester's son to Cheryl Sullivan; wedding of Lester's daughter in 1998; Photographs.

African American families.

Alpha Phi Alpha Fraternity.

Jeter, Derek, 1974-

Science—Awards.

Video Oral History Interview with William Lester, Jr., Section A2004_043_002_005, TRT: 0:28:10 2005/10/13

William Lester discusses his research at the University of Wisconsin--Madison, where Lester worked in the laboratory of Richard Bernstein. He explains his research in understanding the close-coupling problem in quantum mechanics. Although Madison is a fairly liberal area, Lester recalls an incident in which racial epithets were painted on their home one Thanksgiving. In 1968, Lester visited International Business Machines (IBM) in San Jose, California, and he was offered a position by Enrico Clementi to do computational work. Lester describes San Jose, California, and recalls his decision to stay in research rather than rise through management positions at IBM. [In 1978], Lester was selected to direct the National Resource for Computation in Chemistry. Although the group had to close three years later due to pressure from other

chemistry departments who wanted the funding, Lester was hired at the University of California, Berkeley as an assistant professor of chemistry.

University of Wisconsin--Madison.

Quantum mechanics

Hate crimes--Wisconsin-Madison.

International Business Machines Corporation

University of California, Berkeley. Department of Chemistry.

Video Oral History Interview with William Lester, Jr., Section A2004_043_002_006, TRT: 0:29:30 2005/10/13

William Lester remembers an incident while he was serving as director of the National Resource for Computation in Chemistry when David Ceperley presented him with data to correlate energy for the electron gas. Lester hired Peter Reynolds, a research professor at Boston University, to work with the NRCC. At this time, Lester decided to shift his focus to Quantum Monte Carlo molecules, which he explains in their connection to fermions. After describing the operations of his research group, Lester discusses his affiliations with the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), and the PAC-10 Conference, amongst other professional associations. He closes by discussing the opportunities he has had to travel to the University of Trento in Italy; the World Association of Theoretically Oriented Chemists meeting in South Africa; and the Max Planck Institute for Wave Motion in Germany.

Lawrence Berkeley Laboratory. National Resource for Computation in Chemistry.

National Organization for the Professional Advancement of Black Chemists and Chemical Engineers.

Quantum chemistry.

International travel.

Video Oral History Interview with William Lester, Jr., Section A2004_043_002_007, TRT: 0:29:10 2005/10/13

William Lester discusses the application of his work to as diverse topics as spectroscopy of the inter-stellar medium

and the understanding the energy transfer and energy-level separations of molecules involved in photosynthesis in plants. He notes that access to high speed computers and knowledge of computer programming languages has helped advance the field. In his spare time, Lester enjoys watching movies, playing golf, and body-building. Lester then talks about his family. He and his wife, Rochelle, married [in 1959], and had two children, William A. Lester III and Alison Lester [Ramsey]. Lester's son took a job at Hewlett Packard Company after graduating from the University of California, Berkeley, and later became a skilled racecar driver. His daughter, Alison is a former stockbroker. Lester is the cousin of Joseph Davis, a dentist in Phoenix, Arizona, and the first black captain of a submarine in the United States Navy.

Spectrum analysis

Photosynthesis

High performance computing.

Hobbies.

African American families.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_002_008, TRT: 0:28:50 2005/10/13

William Lester provides a brief summary of his family history. He then recalls meeting Price Cobbs while working at International Business Machines (IBM) in San Jose, California. They, along with Nettie Goddard, member of the San Jose school system, formed the Black Liaison Committee. Lester is also a member of the fraternity, Alpha Phi Alpha, and he is a member of Sigma Pi Phi Boule. With regards to his concerns for education in the African American community, Lester has worked with various groups, including Upward Bound and the Museum of African American Technology (MAAT), a small museum in Oakland, California that highlights the contributions of Africans and African Americans to the fields of science and technology. He notes that [Robert] "Pete" Bragg served on MAAT's advisory board with him. Lester concludes the interview by discussing the generation of pseudo-random numbers in Monte Carlo computations.

Family history.

African American fraternal organizations.

Upward bound math-science program.

Museum of African American Technology

Minorities in science--United States.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_003_009, TRT: 9:28:46 2012/11/07

William Lester describes the history and development of the quantum Monte Carlo method, which has been the primary focus of his research since 1981. Lester served as a professor of chemistry at the University of California, Berkeley, from 1981 to 2010. He retired from his professorship after the passing of his wife in 2010, but continues to serve as a professor of the graduate school in the department of chemistry. Over the course of his career in theoretical chemistry, Lester has been the recipient of numerous honors, awards and research grants. His most recent focus is on graphene, which is at the cutting edge of research in the physical sciences.

Monte Carlo method.

University of California, Berkeley. Department of Chemistry.

Wives--Death.

Retirement--Decision making.

Graphene--Research.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_003_010, TRT: 10:29:52 2012/11/07

William Lester graduated from Calumet High School in Chicago, Illinois in 1953, as one of three students and the only African American in his class to receive a Victoria Adams Scholarship toward college. Lester attended the University of Chicago, where he continued to play basketball and held the record for being the highest scorer. While working in the physics department, he interacted with scientists such as Robert Mulliken and Henry Taube, who later won Nobel Prizes. Lester earned his B.S. and master's degrees in theoretical chemistry in 1958 and 1959, respectively. After briefly attending Washington University in St. Louis, Missouri, he went on to attend

Catholic University in Washington D.C. for his doctoral studies. Lester also interned at the National Bureau of Standards. He received his Ph.D. degree in theoretical chemistry in 1964, and went on to a postdoctoral position at the University of Wisconsin, Madison.

African American high school students--Illinois--Chicago.

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

African American college athletes--Illinois--Chicago.

Nobel Prize-winning scientists.

Scientists--United States--Intellectual life--20th century.

Video Oral History Interview with William Lester, Jr., Section
A2004_043_003_011, TRT: 11:24:18 2012/11/07

William Lester reflects upon his career and legacy. He has contributed significantly to the field of theoretical chemistry, and is the recipient of numerous awards, honors and grants. He also talks about his family, and his mentoring and service initiatives. He would like to be remembered for his hard work and for his service toward others.

Chemistry, Physical and theoretical.

Education--Awards--California.

Science--Awards--United States.

African American families.

Mentoring in science--United States.