CHEMICAL HERITAGE FOUNDATION

GLORIA L. ANDERSON

Transcript of Interview
Conducted by

Jeannette E. Brown

at

Morris Brown College
Atlanta, Georgia

on

21 August 2009

(With Subsequent Corrections and Additions)

ACKNOWLEDGMENT

This oral history is one in a series initiated both by the Chemical Heritage Foundation and the Iowa State University Library. The series documents the personal perspectives of women in chemistry, and records the human dimensions of their involvement in academic, industrial, and governmental laboratories during the twentieth century.

This project is made possible through the generous support of the

Iowa State University Library and its Archives of Women in Science and Engineering

CHEMICAL HERITAGE FOUNDATION
Oral History Program
FINAL RELEASE FORM

This document contains my understanding and agreement with the Chemical Heritage Foundation with respect to my participation in the audio- and/or video-recorded interview conducted by Jeannette E. Brown on 21 August 2009. I have read the transcript supplied by the Chemical Heritage Foundation.

1. The recordings, transcripts, photographs, research materials, and memorabilia (collectively called the "Work") will be maintained by the Chemical Heritage Foundation and made available in accordance with general policies for research and other scholarly purposes.

2. I hereby grant, assign, and transfer to the Chemical Heritage Foundation all right, title, and interest in the Work, including the literary rights and the copyright, except that I shall retain the right to copy, use, and publish the Work in part or in full until my death.

3. The manuscript may be read and the recording(s) heard/viewed by scholars approved by the Chemical Heritage Foundation subject to the restrictions listed below. The scholar pledges not to quote from, cite, or reproduce by any means this material except with the written permission of the Chemical Heritage Foundation. Regardless of the restrictions placed on the transcript of the interview, the Chemical Heritage Foundation retains the rights to all materials generated about my oral history interview, including the title page, abstract, table of contents, chronology, index, et cetera (collectively called the "Front Matter and Index"), all of which will be made available on the Chemical Heritage Foundation's website. Should the Chemical Heritage Foundation wish to post to the internet the content of the oral history interview, that is, direct quotations, audio clips, video clips, or other material from the oral history recordings or the transcription of the recordings, the Chemical heritage Foundation will be bound by the restrictions for use placed on the Work as detailed below.

4. I wish to place the conditions that I have checked below upon the use of this interview. I understand that the Chemical Heritage Foundation will enforce my wishes until the time of my death, when any restrictions will be removed.

Please check one:

a. __X__ **No restrictions for access.**
NOTE: Users citing this interview for purposes of publication are obliged under the terms of the Chemical Heritage Foundation Oral History Program to obtain permission from Chemical Heritage Foundation, Philadelphia, Pennsylvania.

b. _____ **Semi-restricted access.** (May view the Work. My permission required to quote, cite, or reproduce.)

c. _____ **Restricted access.** (My permission required to view the Work, quote, cite, or reproduce.)

This constitutes my entire and complete understanding.

(Signature) Signed release form is on file at the Science History Institute
Dr. Gloria L. Anderson

(Date) 01/30/11

Revised 07/21/2009

PERMISSION TO POST COMPLETED ORAL HISTORY TRANSCRIPT AND/OR INTERVIEW RECORDINGS ON THE INTERNET

The original release agreement that you signed with the Science History Institute, which governs researchers' access to your oral history, either made no mention of posting your entire transcript and/or interview recordings on our website or stipulated that we would seek your permission before posting the full interview. It is our goal to broaden individuals' access to the Science History Institute's oral histories generally, and your oral history specifically, so we are contacting you to request permission to post your entire completed transcript and interview recordings on our website, located at http://www.sciencehistory.org and on the Science History Institute's Digital Collections website, located at https://digital.sciencehistory.org/. To be clear, if you requested that certain sections of your interview be restricted or sealed, they will not be included in the material posted to the Internet and will remain restricted/sealed as outlined in the original release agreement.

Should you choose to grant us permission to post your entire completed transcript and interview recordings, the Science History Institute will not be able to limit anyone's access to or use of your oral history in any way outside the bounds of U.S. Copyright Law under title 17 of the United States Code.

If you have any questions about this form, or if you would like to review your original release agreement, please contact the Director of the Center for Oral History at oralhistory@sciencehistory.org; (215) 925-2222; or Director, Center for Oral History, Science History Institute, 315 Chestnut Street, Philadelphia, PA 19106.

GLA
Initials

I, Gloria L. Anderson, GRANT exclusive permission to the Science History Institute to post my completed oral history transcript and interview recordings conducted on 21 August 2009 with Jeannette E. Brown at Morris Brown College, Atlanta, Georgia on the Science History Institute's website.

_____
Initials

I, Gloria L. Anderson, DO NOT GRANT permission to the Science History Institute to post my completed oral history transcript and interview recordings conducted on 21 August 2009 with Jeannette E. Brown at Morris Brown College, Atlanta, Georgia on the Internet during my lifetime.

Signature: Signed release form is on file at the Science History Institute
Interviewee's Name

June 22, 2022
Date

This oral history is designated **Free Access**.

***Please note*:** Users citing this interview for purposes of publication are obliged under the terms of the Chemical Heritage Foundation (CHF) Oral History Program to credit CHF using the format below:

> Gloria L Anderson, interview by Jeannette E. Brown at Morris Brown College, Atlanta, Georgia, 21 August 2009 (Philadelphia: Chemical Heritage Foundation, Oral History Transcript #0673).

Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
Philadelphia, Pennsylvania 19106

The Chemical Heritage Foundation (CHF) serves the community of the chemical and molecular sciences, and the wider public, by treasuring the past, educating the present, and inspiring the future. CHF maintains a world-class collection of materials that document the history and heritage of the chemical and molecular sciences, technologies, and industries; encourages research in CHF collections; and carries out a program of outreach and interpretation in order to advance an understanding of the role of the chemical and molecular sciences, technologies, and industries in shaping society.

GLORIA L. ANDERSON

1938 Born in Altheimer, Arkansas, on 5 November

Education

1958 B.S., Chemistry and Mathematics, Arkansas A.M. & N. College
1961 M.S., Organic Chemistry, Atlanta University
1968 Ph.D., Physical Organic Chemistry, University of Chicago

Professional Experience

South Carolina State College
1961-1962 Instructor

Morehouse College
1962-1964 Instructor

University of Chicago
1964-1968 Teaching and Research Assistant, Chemistry

Morris Brown College
1968-1973 Associate Professor and Chair, Chemistry
1973-1984 Fuller E. Callaway Professor of Chemistry and Chair
1984-1989 Dean of Academic Affairs
1990-1992 Fuller E. Callaway Professor of Chemistry
1992-1993 Interim President
1993 Fuller E. Callaway Professor of Chemistry
1995-1997 Dean of Science and Technology
1998 Interim President
1999-present Fuller E. Callaway Professor of Chemistry

Lockheed Georgia Corporation
1981 National Science Foundation Research Fellow
1982 Research Consultant

U.S. Air Force Rocket Propulsion Laboratory, Edwards Air Force Base
1984 SCEEE Faculty Research Fellow

IPECS Holland, The Hague
1990 Research Consultant

Board and Committee Leadership Positions

1970-1974	Liaison Officer, United Negro College Fund Pre-Medical Summer Program, Fisk University
1974-1976	Chair, Greater Atlanta Public Broadcasting Study Committee
1977-1979	Chair, Self Study Steering Committee, Morris Brown College
1980-1982	Vice President, Public Broadcasting Atlanta Board
2000	Chair, Promotion and Tenure Ad Hoc Appeals Committee, Morris Brown College
2003	Chair, Academic Planning Task Force, Morris Brown College
2003	Chair, Faculty Retention Task Force, Morris Brown College
2004	Chair, Academic Affairs Council, Morris Brown College

Honors

1956-1958	Rockefeller Scholarship
1970	Outstanding Service Award, Special Services Students, Morris Brown College
1973	Congratulatory Plaque, Arkansas A.M. & N. College Alumni Association
1973	Certificate of Appreciation, Student Government Association, Morris Brown College
1974	Testimonial of Appreciation, CPB Advisory Panel on Essentials for Minority Programming
1974	Atlanta Deltas "Breaking New Ground," Delta Sigma Theta Sorority, Inc.
1974	Appreciation Certificate, Senior Class, Morris Brown College
1975	Certificate of Appreciation, Atlanta Board of Education
1976	Scroll of Honor, National Association of Negro Business and Professional Women
1976	Outstanding Teacher Award, Senior Class, Morris Brown College
1977	Appreciation Plaque, Native American Public Broadcasting Consortium
1977	Outstanding Service Award, Student Assistance Program, Morris Brown College
1978	Sixth Edition Award, Atlanta Chapter, National Association of Media Women
1978	Chairlady's Award, Atlanta Chapter, National Association of Media Women
1978	Public Broadcasting Service Award, Atlanta Chapter, National Association of Media Women
1978	Resolution of Appreciation, Corporation for Public Broadcasting
1978	Appreciation Plaque, Task Force on Minorities in Public Broadcasting
1979	Resolution of Appreciation, Corporation for Public Broadcasting
1979	Outstanding Black Women, the Utopian Club
1981	Faculty Industrial Research Fellowship, National Science Foundation

1982	Certificate of Appreciation, State of Georgia
1983	Teacher of the Year, Senior Class, Morris Brown College
1983	Faculty/Staff Hall of Fame, Senior Class, Morris Brown College
1983	Special Service Award, Morris Brown College
1983	Appreciation Award, Upward Bound Program, Morris Brown College
1983	Honorary Member, Phi Eta Sigma Freshman Honor Society, Morris Brown College
1984	Faculty Research Fellowship, Southeastern Center for Electrical Engineering Education, Air Force Office of Scientific Research
1984	Appreciation Award, Air Force Rocket Propulsion Laboratory
1985	UNCF Distinguished Scholar Award, United Negro College Fund
1985	Certificate of Recognition, Southeastern Association of Educational Opportunity Programs Personnel
1985	Appreciation Plaque, Metro SYETP, DeKalb County SYETP, and Upward Bound
1985	Appreciation Plaque, PREP Class of 1985, Morris Brown College
1985	Service Above Self Award, TRIO Programs, Morris Brown College
1986	Appreciation Plaque, Martin/Altheimer School Reunion
1986	Certificate of Appreciation, U.S. Department of Education
1986	Presidential Citation in Recognition of Exemplary Experiences that Honor My Alma Mater, National Association for Equal Opportunity in Higher Education
1986	Appreciation Trophy, Morris Brown College Upward Bound/Metro SYETP
1987	Alumni All-Star Excellence Award in Education, University of Arkansas at Pine Bluff
1988	Appreciation Trophy, Morris Brown College TRIO Programs
1988	Honorary Member, Golden Key National Honor Society, Morris Brown College
1989	YWCA Salute to Women of Achievement
1989-1990	United Negro College Fund Distinguished Scholar
1989-1990	Appreciation Award, Scholars Restaurant, Morris Brown College
1990	Honorary Member, Beta Beta Beta Biological Honor Society, Morris Brown College
1991	"Women of Color in the Struggle," A Consortium of Doctors LTD
1991	Outstanding Black Educators in Atlanta, *SuccessGuide 1991: The Guide to Black Resources in Atlanta*
1991	Appreciation Trophy, Morris Brown College Upward Bound Program
1992	Resolution by the House of Representations, Commendations and Recognition, Georgia State Legislature
1992	"A Salute to Black Mothers: For Outstanding Contributions to the Black Community," Concerned Black Clergy of Metro Atlanta, Inc.
1993	Proclamation, "Gloria Long Anderson Day," City of Atlanta, Georgia
1993	Proclamation by the Governor of the State of Georgia
1993	Citation, Achievement, 120th Founder's Day Celebration, University of

	Arkansas at Pine Bluff
1993	Plaque, Achievement, 120th Founder's Day Celebration, University of Arkansas at Pine Bluff
1994	Appreciation Plaque, Morris Brown College Women's Week
1994-1995	Appreciation Plaque, "Be the Labor Great or Small; Do It Well or Not At all; Dr. Anderson: You Did It Well!" "Thank You and We Love You," Organic Chemistry class, Morris Brown College
1996	Appreciation Plaque, Morris Brown College TRIO Programs
1997	Appreciation Plaque, Morris Brown College TRIO Programs
1998	Certificate of Recognition, Druid Pointe Black History Month Committee
1998	Belle Ringer Image Award, Bennett College
1998	"A Salute to Black Mothers: For Outstanding Contributions in Education," Concerned Black Clergy of Metro Atlanta, Inc.
1998	Outstanding Georgia Citizen, State of Georgia
1998	Recognition Plaque, Morris Brown College
1998	Interim President Appreciation Plaque, "You Are the Heart and Soul of Morris Brown College," Morris Brown College Faculty and Staff
1999	Outstanding Education Award, West Georgia Chapter, Morris Brown College National Alumni Association
2001	Appreciation Plaque, "For Distinguished Service in Science," Going the Distance 3rd Annual commencement Gala, Morris Brown College
2002	Scroll of Honor Award, University of Arkansas at Pine Bluff
2004	Appreciation Plaque, "In Appreciation for Faculty Leadership," Morris Brown College Faculty

ABSTRACT

Gloria L. Anderson was born and raised in Altheimer, Arkansas, and had five brothers. Her father was a farmer and then a janitor; her mother a domestic worker and a creative seamstress. Anderson was always good in school, even skipping grades, yet she had to attend segregated schools, literally just down the road from the origin of *Brown v. Board of Education*. Her high school was called Altheimer Training School; the one for white students was called Altheimer High School.

Anderson attended Arkansas Agricultural, Mechanical, and Normal College (AM&N) on scholarship; she was valedictorian of her class (Dr. Martin Luther King, Jr. was her commencement speaker and stands beside her in a photo). Although she thought she did not want to teach, she took a job teaching the seventh grade in an Altheimer school, leaving after a year to accept a teaching assistantship at Atlanta University. There, with Kimuel Huggins and Henry McBay as mentors, she wrote a master's thesis in butadiene chemistry. During this time she also married. After a year of teaching at South Carolina State College and two at Morehouse College Anderson was accepted into the doctoral program at the University of Chicago. She studied fluorine, using nuclear magnetic resonance (NMR), in Leon Stock's lab. She had no study group and little help, teaching herself first the fluorine-19 NMR and then other types. She was friends with Thomas Cole, a fellow student who later became president of Clark Atlanta University.

Having obtained her PhD, Anderson became associate professor and chair of the department of chemistry at Morris Brown College. In that position she struggled with the National Science Foundation and other organizations to get equipment and funding for the school. She was offered the Fuller E. Callaway Chair, which she held until she became Dean of Academic Affairs, and which she resumed when she went back to teaching. She continued her research into fluorine-19, and began studying amantadines as potential antivirals; she often paid for her own research and patents. Twice she was interim president of Morris Brown; she laments the college's current unaccredited status, the loss due to a former president's fraud.

In addition to her work for the College, Anderson has been a board member and Vice Chair of the Corporation for Public Broadcasting; she served also on two task forces, one for minorities and one for women in public television. She worked on boards of Georgia and Atlanta Public Broadcasting, as well as many others, and she has been on an advisory committee for the U.S. Food and Drug Administration. Throughout her log career she has won and received numerous honors.

Throughout the interview Anderson discusses the politics of being a woman in a man's world and of being black in a white world. She found her inspiration in Dr. Martin Luther King, Jr. and has spent her professional life trying to make things better and easier for the less-advantaged. Anderson's advice to young women considering chemistry as a career is: you must love chemistry; you must be committed; and you must prove yourself over and over.

INTERVIEWER

Jeannette E. Brown has a research MS degree from the University of Minnesota and a BS degree in the Field of Chemistry from Hunter College. She started her industrial career at

CIBA Pharmaceutical Co. as a junior chemist, working there for eleven years, and she held the position of Research Chemist at Merck & Co. Inc. for twenty-five years. Brown is a former Faculty Associate in the department of Pre-College Programs at the New Jersey Institute of Technology, holding the title of New Jersey Statewide Systemic Initiative (NJSSI) Regional Director. She was appointed to the National Science Foundation Committee on Equal Opportunities for Women Minorities and Persons with Disabilities (CEOSE) and served on that committee for six years. She is the 2005 recipient of the American Chemical Society Dreyfus Award for mentoring minorities in science and she is currently working on a book about the history of African-American women chemists.

TABLE OF CONTENTS

Early Years 1

Raised in Altheimer, Arkansas. Parents' work. Siblings. Skipping grades in school. Segregated schools. No science classes. Valedictorian.

College Years 6

Attends Arkansas Agricultural, Mechanical, and Normal College. Scholarships. Choosing chemistry as major because it was hard. Valedictorian. Commencement picture with Dr. King. Taught in Altheimer schools until Sputnik caused National Science Foundation to establish programs to train science teachers. Kimmel Huggins offers teaching assistantship at Atlanta University. Henry McBay other mentor. Marries. Thesis on butadiene chemistry. Master of Science degree. Teaches at South Carolina State College for a year. Moves to Morehouse College to teach and do research.

Seeking a Doctorate 14

Accepted into University of Chicago's PhD program. Husband's music studies. Dissertation research on fluorine-19. Expert on nuclear magnetic resonance (NMR) spectroscopy. Leon Stock's lab. Taking prelims. Unrecognized racism. Types of NMR systems. Thomas Cole. Increasing importance of fluorine. Obtains PhD.

Morris Brown College 27

Dr. King's death inspires her to work in black college. Begins career as associate professor and chair of chemistry department at Morris Brown College in Atlanta, Georgia. Fuller E. Callaway Professorship. Dean of Academic Affairs. Resumes Callaway Professorship. Continuing research into fluorine-19 chemistry. Patents. Funding. Atlanta University Center Research Committee. Amatadine and other antivirals. Interim president of Morris Brown. Struggling to rebuild Morris Brown.

Other Undertakings 38

Board member of Corporation for Public Broadcasting. Task forces on minorities and women in public television and radio. National Science Foundation's Women in Science program. Many other boards. Advisory committee to Food and Drug Administration.

Advice to Women 40

Love chemistry. Be committed. Prove yourself.

Index 45

INTERVIEWEE: **Gloria L. Anderson**

INTERVIEWER: **Jeanette E. Brown**

LOCATION: **Morris Brown College**
Atlanta, Georgia

DATE: **21 August 2009**

BROWN: Okay. Gloria Long Anderson, this is 21 August 2009, Oral History. Tell me…you were born in Altheimer, Arkansas. Tell me about the town.

ANDERSON: Okay. It's really pronounced Altheimer. That's the way you pronounce it. It was a town that had nine hundred and eighty people when I went to college. [All the students] who came through there teased me about that. We didn't have a stop light. We didn't have anything. So, Altheimer, Arkansas.

BROWN: Who founded Altheimer? You were telling me about somebody was…

ANDERSON: I think it was named after the people whose name was Altheimer, so I don't know if they founded it or not. They may have.

BROWN: You know, for those of us who don't know anything about Arkansas, where is it in relationship to other towns?

ANDERSON: Pine Bluff [Arkansas], which is where the college is, the college that I went to, is about forty, forty-five miles from Little Rock [Arkansas]. My hometown is twelve miles, [fourteen] miles from Pine Bluff.

BROWN: Okay. Tell me about your parents. Your father is Charles Long?

ANDERSON: Yes.

BROWN: What'd he do?

ANDERSON: My father was a farmer most of his life and his…I don't know what year it was, but he became a janitor at the—they call it Jefferson. Oh, let me see. What is it called? It's the Pine Bluff Arsenal. He worked there. My father finished third grade. That's as high as he got in school.

BROWN: Tell me about your mother.

ANDERSON: Okay.

BROWN: What's her name?

ANDERSON: But I would, would…

BROWN: What did she do?

ANDERSON: …I would like to say about my father…

BROWN: Oh, okay. Sorry.

ANDERSON: …unlike today's students, who come out of high school and some of them can't read, my father could read. My mother was a domestic—what was it? She worked in people's houses. What do you call those people? Later on in life she worked at the Pine Bluff Arsenal also as a…she worked in the Armament Division. They were probably working on bombs and stuff like that.

BROWN: Well, what is her name, was it Elsie Lee?

ANDERSON: Elsie Lee Long.

BROWN: Okay…

ANDERSON: Elsie Lee Foggie. Foggie Long, yes.

BROWN: What kind of education did she have?

ANDERSON: She had a tenth grade education. She could also read. She also was a seamstress. She didn't have any training in seam…in whatever I'm trying to say, but she could look at a dress and do the pattern for the dress, because people would come to her and bring a picture of a dress, which maybe they had gotten out of the Sears [Roebuck & Co.] catalog, and she could do the pattern and make the dress. She was very, very…

BROWN: She was very creative.

ANDERSON: Yes. That's what happens with the stroke. Sometimes, occasionally, I can't get the words out there. I hear and I can't…

BROWN: Okay, that's fine. I'll supply the words.

ANDERSON: Okay.

BROWN: You had how many brothers and sisters?

ANDERSON: I had five brothers.

BROWN: Oh, what do they do?

ANDERSON: Okay. Let's see. Three of them were older than I was, and two of them were younger than I was. My oldest brother, he was a half-brother, and he went to Chicago [Illinois] to live with his father when I was very, very young. So, I really didn't know much about him. I know that he went to a trade school in Chicago and took up electricity. The next brother, he also went to Chicago. He was a half-brother as well. He really didn't…my mother wanted him to stay with us until he finished high school, but he decided he wanted to go, so he didn't finish high school. The next brother, older than I was, went to the Korean War, and when he came back, he went to the college, the same college that I went to, as a veteran. He took up brick masonry in a two-year program. My two younger brothers [and] I went to Arkansas AM&N College [Agricultural, Mechanical & Normal]. It is now called the University of Arkansas at Pine Bluff, but at that time, it was called Arkansas AM&N College.

BROWN: Okay. We're going to get to that.

ANDERSON: Okay.

BROWN: We're not in college yet. You haven't done elementary school.

ANDERSON: But I wanted to tell you because my other two younger brothers went there, went to that same college.

BROWN: How did you like being the only girl in the family? Did the brothers kid you?

ANDERSON: No. I guess I really didn't think too much about it, because I mostly played sports along with them, like basketball, softball, and that kind of stuff. I really didn't think too much about it. My youngest brother would play dolls with me and the rest of them would not, but, you know, I really didn't think too much about it.

BROWN: So, how about school. You said both parents could read. When did you learn to read?

ANDERSON: Oh, it was probably…I would say it was probably around—it was before I went to elementary school. I went to elementary school, I think, when I was five years old. So, I must have been, like, four years old when I learned to read.

BROWN: Four years old. Isn't that unusual?

ANDERSON: I guess it was. I didn't know. Then I went—skipped a lot of grades. I really didn't skip them, but what they did was they would give me the work that I was supposed to do, and I finished it so fast, they would put me in the next grade.

BROWN: What kind of schools…you were in the south, were the school segregated?

ANDERSON: Yes.

BROWN: Tell me about the schools in the south. This is before Brown [vs. Board of Education].[1]

ANDERSON: The high school, elementary and high school, that I went to was called Altheimer Training School, as opposed to Altheimer High School, because the high school, the one that was called the high school, was for white students. So, they called ours training school, whatever that meant.

BROWN: Okay. Then, what was it like? Did they have science, or did you study science in high school or what?

ANDERSON: No. We had the bare minimum, to tell you the truth. We had English and we had math. We had math up through, I would say, maybe the first semester of algebra. That's all the math that we had. We had some social science, maybe geography and those kinds of things. But we didn't have any science when I was there, any science at all.

BROWN: No science in high school. Okay.

ANDERSON: No.

BROWN: Tell me about your teachers. Who taught the schools?

ANDERSON: Most of the teachers there were people who had graduated from the college there in Pine Bluff, and most of them lived in Pine Bluff and came down every day to teach us. I guess they were pretty competent in their areas. But one thing that I can say about the teachers at that time was that they pushed us. They made us, you know, talk about going to college and those kinds of things. I don't think too much of that happens today.

BROWN: Yeah. They're good. You said they skipped you a lot, so did you graduate early?

ANDERSON: That was in elementary school. Well, I guess I did…

[1] *Brown v. Board of Education*, 347 U.S. 483 (1954).

BROWN: High school.

ANDERSON: …when I graduated, I was sixteen.

BROWN: Sixteen.

ANDERSON: Yes.

BROWN: Wow. But you were still in the segregated school, so you were before…

ANDERSON: Yes.

BROWN: This was 1954, right?

ANDERSON: Exactly.

BROWN: The year of Brown vs. Board of Education.

ANDERSON: That's right, exactly. I graduated valedictorian in my high school class.

BROWN: Wow. Tell me, you said…now we talked about Arkansas [AM&N], why did you go there? Couldn't you go anywhere? Couldn't you to go any college?

ANDERSON: I suppose I could have, but to tell you the truth, that was the only one that I knew about. See, the teachers were from that college, and that was the only one that they talked about. So, I didn't really have any information on all the colleges that were out there, some that are private; AM&N was a state school.

BROWN: How was college funded? I know state schools, so, you were in-state. How did you fund your college education with six kids […] in your family?

ANDERSON: The first year I had a small scholarship from my high school. That was all I had. And what I did the first year was I rode the bus over there, took my classes, and I rode the bus back. I think it was fourteen, whatever—I think I said fourteen miles, if I didn't, it was fourteen miles from there. Now, and also, my older brother, as I said, who came from the Army, he was an adult. He had a car, and sometimes I would ride over there with him. Now, at the end of my freshman year, I got a full scholarship, room and board—tuition, room and board—to the college, because of my average. I had a straight-A average.

BROWN: Didn't something happen in your sophomore year? You took chemistry.

ANDERSON: Yeah. I did.

BROWN: Why did you take chemistry?

ANDERSON: It's interesting. There were four of us who, sort of, I guess became friends in the freshman year. You know, even before class—before you register, you get students that you've been friends with. One of those persons was Lawrence, Jr. Well, he was…his father, Lawrence Sr., was the president of the college. I had gone to high school with Lawrence Jr. at the college high school for two years. Then they closed it down, so I went back to Altheimer and graduated.

So, I knew Lawrence Jr., and there were two other students. You know, the upperclassmen would tell you, "Don't take this person. Don't do this. Don't do that." And they kept telling us, "You don't want to take chemistry because Dean Wilson is really," you know, whatever. Basically, that's what led us to enroll in chemistry and to become chemistry majors. Now, I know that isn't a good thing to do. You're supposed to have goals and all that, but I didn't know what goals were at that time. So, when they said it was hard, we decided that was what we wanted to do.

BROWN: So, what grade did you get in chemistry?

ANDERSON: I think I may be been the only one in chemistry who had not had chemistry in high school. I made a B in chemistry.

BROWN: Isn't it amazing.

ANDERSON: Interestingly enough, B was the highest grade in that class. At mid-term, all of us had F's.

BROWN: Oh, wow.

ANDERSON: But mine was F-1. I never will forget that. But I made a B in that class, and that was the highest grade in that class.

BROWN: So, that made you decide to major in chemistry?

ANDERSON: Well, we had decided that we were going to major in chemistry when they told us it was hard. We decided when we were freshmen.

BROWN: Oh. That's interesting. […] So, what happened as you went on through graduation? What honors did you receive?

ANDERSON: Well, at the end of that first year, I also got something—it may have been the second year—I got a Rockefeller [Foundation College] Scholarship. That was, sort of, like a teaching scholarship now, teaching assistant scholarship, because my job was to help with the chemistry classes. During the rest of my time there, I made one other B. Believe it or not, it was in something called Negro History. I do not believe that I earned that B. The professor told me that I had not lived up to my capability or something like that. Since I've been a teacher, I have always tried to be fair to my students, to give them the grade that they earn, because I always think about that, because I really think I should have earned an A in that course.

BROWN: So, what happened when you…you only had two B's all through college ?

ANDERSON: Yes.

BROWN: So, what honor did you receive on graduation from college? What year?

ANDERSON: Valedictorian, 1968, in May. I was Valedictorian. I had a 2.96, I think, [grade point] average.

BROWN: Wow. Wasn't that 1958?

ANDERSON: 1958. Our commencement speaker was Dr. Martin Luther King, Jr. They wrote a piece about him. I think it was in the little magazine called *Crisis* magazine. My mother had a copy of it, and I don't know what happened to it, but I can never now…I cannot find a copy of it, because they had his picture and my picture in there.

BROWN: Oh, let me find it.

ANDERSON: I hope you can. I think it was called *Crisis*, but it was the NAACP [National Association for the Advancement of Colored People] magazine. They had his picture and my picture, side-by-side, because I was valedictorian.

BROWN: Okay. So, what happened to you after college? What did you do?

ANDERSON: Well, during college I had spent the summer—most of the summers—with my aunt in St. Louis, [Missouri]. The last summer, or the summer between my junior and senior year, I went to Chicago, because that's where I could get a job, and I worked in a candy factory that summer. So, when I finished college—let me back up. What I had told them was that I didn't want to teach. I really didn't understand that that was the only thing, basically, that black people could do. Somehow, what the racism—I didn't understand racism. So, I told them that I didn't want to teach. My professor had me fill out an application to go to Stanford University. I also had…I filled out an application for a job at Monsanto Chemical Company in St. Louis—I think, yeah, that's where it was. Well, when they got the application, they rushed by FedEx, I think it was, back. I sent a letter. And they rushed the application back and told me they had an opening and wanted me to fill it out and get it right back to them. I guess between the time that they sent it back to me and I got it back to them, evidently they found out that that was a black college, and I was black. So, they called me and told me that they had decided to fill the opening with somebody from inside. At Stanford, they simply wrote back and told me that they didn't have any money to offer me to go to school.

So, during the summer I stayed with my aunt. At the end of the summer, everybody in my class had a job except me, and I was the valedictorian. It must have been around November when I went back to Arkansas, Altheimer, because the principal told my mother that he had a job for me. You see, at that time, in Arkansas schools were in session during the summer months, when they were not chopping the cotton anymore, and the cotton wasn't ready to be picked. So, they went to school in the summer. Then, they didn't go back to school until, I think it was November. He told her that he had an opening for me. And so, I went back to Arkansas. It's interesting because the principal was teaching algebra and classes like that in math, and he was not a math person. He was a social science major, but he gave me courses. I

was a homeroom teacher for 7B. B was the worst part of the seventh grade, I taught. I tried to teach geography. I didn't even know any more about geography than the students did. I had reading, because they [had] seen reading on my transcript. But the reading that was on my transcript was not how to teach reading. It was reading in a special program for gifted students at college. So, I had to teach reading. I had to teach arithmetic and that kind of stuff. I said, "If I said I didn't want to teach, I know I don't want to teach now."

In the meantime, my professor, my chairman, at college told me about an opportunity to come to Atlanta University. He knew Dr. Huggins, who was chairman of that department. So, I got a scholarship to come to Atlanta University, and I came to Atlanta University.

BROWN: Yeah. Didn't Sputnik have something to do with this?

ANDERSON: Yes. What happened was the NSF [National Science Foundation]—well, the NSF put a program in place because of Sputnik, because, you know, Russians had sent the astronauts up there. So, somehow the NSF thought that they should get on the ball and train scientists, so they put in these programs. The one that I was in was [for] high school science teachers. I think they had one […] for biology teachers. I'm pretty sure they had for math teachers. At some point they had a program that was designed to help elementary school teachers, you know, so they could start teaching students in the elementary—teaching science to the students in the elementary schools. That's what it was. It was called NSF Chemistry Teachers Program.

To tell you the truth, I don't know, we won't publish this, but Dr. [Kimuel A.] Huggins told me much later on that he got in trouble, because the rules said that you should have been teaching for three years, and I had only been teaching less than one year. There were two of us in the program who were not eligible according to that rule. He said that they, kind of, bawled him out about that. Interestingly enough, we were the only two who came back the next year and finished our master's.

BROWN: Didn't something almost stop this, your going for the master's?

ANDERSON: No.

BROWN: Wasn't there something about money?

ANDERSON: Well, what happened was I went in on the NSF program. At the end of the year, I didn't have a scholarship. The NSF program was just for a year. So, I was about to leave and Dr. Huggins called me inside, and he really talked to me almost as if he were my father, because

I was supposed to be getting married, and I wasn't worried about a master's degree. He told me that he would make me, I think, a teaching assistant, that he had some money, you know, for me to continue my education. So, that's what happened.

BROWN: So, Dr. Huggins was like a mentor.

ANDERSON: Mm-hmm.

BROWN: Oh, okay.

ANDERSON: Dr. Huggins and Dr. [Henry C.] McBay.

BROWN: Okay. We're going to get to Dr. McBay. So, what did you do with—well, did you get married?

ANDERSON: I got married, but I came back to school.

BROWN: Oh, okay. So, when did you get your M.S. degree? What kind of research did you do? I think you did research, right?

ANDERSON: I got it that next year. That was 1961. I did my research under Dr. Huggins. It was basically in what we call butadiene chemistry, because that's all Dr. Huggins did. I really didn't want to do that kind of research, but he took me on as his student.

BROWN: Did you write a thesis for this?

ANDERSON: Yes, I did.[2]

BROWN: So, it's at Atlanta University.

[2] Gloria L. Anderson, "Studies in 1- (4-methylpyenyl) -1,3-Butadiene," Master's Thesis, Atlanta University, 1961.

ANDERSON: Uh-huh. Yes, it is.

BROWN: Okay. So, butadiene chemistry, so you became an organic chemist.

ANDERSON: Right.

BROWN: You like it?

ANDERSON: Oh, I love it. I love it. I didn't particularly like butadiene chemistry. In my vitae, I think I have the title of it. It was a 1,3-disubstituted something.

BROWN: Yeah. You want to break?

ANDERSON: Yeah.

BROWN: Okay. We can break.

ANDERSON: Okay.

[END OF AUDIO, FILE 1.1]

BROWN: Okay, continuing. You had your master's degree. What did you do after your master's degree?

ANDERSON: I went to South Carolina State University. I think it was called South Carolina State College at that time. I went there and taught general chemistry for a year. During that time, Dr. McBay told Dr. Benjamin E. Mays to—let me back up. Dr. Mays had a convocation at South Carolina State every year. When he came down there, Dr. McBay had told him that he wanted him to offer me a job at Morehouse [College]. So, he came over there and he told me, and I agreed. So, after the first year—at the end of the first year—I went back to Morehouse in the fall.

BROWN: Let's back up. Who was Benjamin E. Mays?

ANDERSON: Benjamin E. Mays was the then president of Morehouse College. I thought it was very interesting because when he came to speak at South Carolina State, I didn't go to whatever it was he was speaking at. But he got the president of South Carolina State to drive him over to my house. And he came in, Dr. Mays came in, and he told me what Dr. McBay had said. So, that's how I got an opportunity to come back to Morehouse.

BROWN: So, Henry McBay, how did he know about you?

ANDERSON: Oh, because when I was at Atlanta University, he was teaching classes. He taught the general chemistry for teachers. He taught some other classes, you know, for me to complete my master's. He was impressed with my record.

BROWN: What's Henry McBay…what's his name to fame?

ANDERSON: Okay. Dr. McBay mostly he spent most of his life as the chairman of the chemistry department at Morehouse. He got his degree from the University of Chicago, I think in 1945. So did Dr. Huggins. Dr. Huggins, I think, got his degree from the University of Chicago in 1937, I think. But Dr. McBay was a researcher. What he wanted me to do when he asked me to come back to Morehouse, he wanted me to teach one class, and that was organic chemistry, and to [do] research in his lab, and that's what I did. Unfortunately, Dr. McBay didn't have the opportunity that I had, if you can call [it] that, and meaning that he was not able to, you know, do publications as he wanted to. I really wasn't able to, especially when you work at a black college. You have so many other things to do, if you get a chance to do research, you may not have time to write it up and all of that. I've got a paper now that's ready to go—but it's not ready to go because I have to reformat it. Anyway, Dr. McBay was one of the best-known black chemists in the United States. He was mostly known for turning out Ph.D.s in chemistry.

BROWN: Did you like college teaching? I mean, let's back up to South Carolina State. Did you like it better than high school?

ANDERSON: Yes, I did. I told you before that when I was in the high school—actually I was in high school. They had a six-six program. So, the seventh grade that I was teaching was in the high school. I told you, I said, "Lord, if I ever get out of here," you know. Well, when I went to college it was different, because basically I said, "You teach what you have to teach and they should get it. You can try to help them and all of that, but if they don't get it, you give them an F and they have to repeat it." So, I began to like teaching at South Carolina State;

although at South Carolina State the course that I had was a general chemistry course, which included both majors and non-majors. I was unhappy about that, because you couldn't do what I thought I should do for majors, and whatever I did was too much for non-majors. I really complained about that. But to answer your question, I did begin to like teaching.

BROWN: South Carolina State was a […] black college or…?

ANDERSON: Yeah, it's a black college.

BROWN: Who was on the faculty there?

ANDERSON: You know, I really…I remember that there was a man named Mr. Green, and there was a man, an organic chemist named Dr. Chigbo. I don't even know how…

BROWN: Were they white or black?

ANDERSON: Black.

BROWN: They were all black, okay.

ANDERSON: There was one other fellow. I can't remember his name. He came there the same time I came there.

BROWN: Okay. So, you're at now back at the Atlanta U doing research, and you're happy as a clam?

ANDERSON: Oh, yes. I was teaching organic chemistry too. I had really loved that. I loved teaching organic chemistry, because, first of all, I learned a whole lot of organic chemistry while I was teaching it. But Dr. McBay had some interesting research going on, and I loved that too. I love research, so I was really happy. But what happened was, I said to myself, "If I'm going to stay in this teaching business, I've got to go back to school and get a doctorate." So, after two years I quit my job at Morehouse and, well, I had applied and gotten accepted to the University of Chicago and to Howard [University]. I quit my job at Morehouse.

There was an assistant to Dr. Mays there, and he had—I think he was from Arkansas, but he, sort of, knew me. He wanted me to get my resignation back and apply for a leave. I said, "No." I said, "If I'm going to get my degree, I have to have as much time as needed. I don't want y'all calling me, telling me my leave is over before I get it." So, I quit my job and went back to…went to school.

BROWN: Which school did you choose? You said…

ANDERSON: The University of Chicago.

BROWN: Why did you choose Chicago over Howard?

ANDERSON: Well, actually, I had a lot of applications, and I got the application from Howard, the application from University of Chicago, back more quickly than I got the others, but I had a lot of them. So, I filled those two out first. Then, you know how it is. I said, "Well, I'll work on some of the others later on." But as soon as I sent my applications in, I got a reply from both of those institutions. They both offered me a teaching assistantship. There were probably two things made me want to go to the University of Chicago. First of all, Dr. McBay and Mr. Huggins were graduates of there, the University of Chicago, and I heard so much about their program; and also because University of Chicago offered me so much more in assistantship than Howard University did.

BROWN: So, here you are, a woman from the South. How did you transition to Chicago life?

ANDERSON: Well…

BROWN: Let's start with life first, then the school.

ANDERSON: Well, I really didn't have too much life, because I was studying most of the time that I was there. So, I didn't have…see, I'd had one, two—I had four brothers who were in Chicago. I had been to Chicago before, so I knew a little bit about it. I really didn't have, as I said, I didn't have too much time for things outside of school. So, I didn't have any problem transitioning from the South to Chicago, at least in terms of, you know…

BROWN: Outside. What about, you were in an all-white school. How did you manage there?

ANDERSON: Yeah. I tell people this, and it's really true. I guess I was so naïve that I didn't know that I, as a black woman, I was not supposed to get a Ph.D. in chemistry. I really didn't know. When I went there, there was one other lady in the program. She was part-time. She worked at Roosevelt University, and she would come and take classes part-time. There was a fellow who was working in the Cancer Institute [University of Chicago Comprehensive Cancer Center], and he was taking classes part-time. I was full-time. I was the only black, full-time person in the area of organic chemistry. I'm trying to remember whether Billy Joe [Evans] came the second year. He may have come the first year. Billy Joe transferred from [University of California,] Berkeley to Chicago. He and I used to eat our lunch together. We'd bring our lunch and all of that. Billy Joe was a [Morehouse College] graduate, and I knew him when I was working at Morehouse.

BROWN: Well, how did you—oh, you said you got funding from Chicago?

ANDERSON: Yes.

BROWN: A teaching assistantship?

ANDERSON: Yes.

BROWN: Was this sufficient? And what about your husband at the time? Where is he?

ANDERSON: He was in school at the [Chicago] Conservatory of Music. He worked on his master's. He got his master's at the Chicago Conservatory of Music.

BROWN: Is he a musician?

ANDERSON: Actually, he taught music. He was teaching music. When he came out and he went back to teaching high school—he's a band director, that's what he really was.

BROWN: What about teaching people or mentors at the school, other students or…did you have any mentors at this school?

ANDERSON: No. I had to make it on my own. Interestingly enough, there were no mentors. There wasn't anything there. The first year that I was there, because I had taught organic chemistry for two years, and because when you teach courses, you really, really learn them, so, I knew a lot about mechanism, you know, a lot about organic chemistry; and I would always you know try to help other people out. The first course that I took there, I made a C in it. For the life of me, I cannot tell you why I made a C in it. The students who I helped, you know, made B's and whatever. That's an example, I think…I really think that at the University of Chicago, even though they had had black people in the department, I don't think they had had but one black female ahead of me. Her name was Reatha [Clark] King. You know Reatha, right? She got her degree before I did, and she was the first black female. So, but I don't know. I guess coming from a small town, where I came from, either I ignored racism…I don't know what it was, but I just didn't think about it, you know, about racism. But after the first year, I decided, no, I'm not going to help anybody, because I'm going to do my best. I'm going to do what I have to do and let them worry about it, because, you know, at most schools students get together. They get old tests and all of that. There was one lady there, a white lady, in the program who was married to a black man. I don't think they knew that. And whenever she got some information she would share it with me and the other two, the other lady and the man who were part-time.

BROWN: That was Sarah Woods and Loretta Smith Jones?

ANDERSON: You got those names. Loretta was a white lady. Sarah Woods was a black lady from Roosevelt. I don't remember the fellow's name who was at the Cancer Institute. He was part-time too.

BROWN: So, those were your study buddies.

ANDERSON: Well, actually, we really didn't study, because Sarah was part-time, so she only came to take this one class in organic chemistry. The fellow was only part-time, so he came to take this one course in organic chemistry. Loretta Jones, you know, she lived out somewhere, so she came to take the course. I didn't have anybody to study with, but that didn't bother me, because I basically had been doing that all my life. But what I'm trying to say is, Loretta, when Loretta was able to get past tests of the teacher and we're in a class and she was able to get past tests from her white friends, then she would make sure that we had access to them.

BROWN: Tell me about your research that you did for your Ph.D..

ANDERSON: Okay. It's really, kind of, interesting. What I did was…it was fluorine chemistry, but it was organic—let me back up. My project involved the synthesis of a lot of

fluorine compounds, and then we did a study on the F-19 NMR [nuclear magnetic resonance]. Basically, what we did was to—okay. The people who were doing substituent effect chemistry in organic chemistry had been basically using ester analysis, ester hydrolysis, I should say. So, my professor wanted to look at the effect of substituents on the F-19 NMR chemical shift. So, I had to make all these compounds and then I had to do an analysis.

BROWN: Who was your professor?

ANDERSON: Leon Stock, Leon M. Stock.

BROWN: What was his background?

ANDERSON: He finished Purdue [University] under H. [Herbert] C. Brown, you know, Brown who was the boron chemist. He had not really been at Chicago that long.

BROWN: So, who chose, when you were looking for a thesis advisor…how did you select…

ANDERSON: Actually, this is what happened, and it was really, kind of, ironic. The first year I was at Chicago, at the end of the year they made us take the prelims, what they called them. Now, I had decided that I didn't want to take the prelims, and […] I said to my advisor that I didn't want to take the prelims. What happened was somehow they decided that everybody had to take them. What I felt was that I wanted to learn chemistry the way the people who wrote the textbooks learned it. So, I wasn't in any hurry. So, I was taking a course called Synthetic Organic Chemistry, laboratory course. I was in there and I was working on the stuff. We had to do experiments from the literature. And most times I would go through the experiment, and I would work out the bugs, and the student would come in and I would [say], "Oh, you can't do this. You shouldn't do this. You shouldn't do that." I learned later that they were studying for the prelims while I was […] working out the bugs in the laboratory. To make a long story short, I had to take them, and I had not studied, and I failed it. But let me tell you what happened, really what happened. First of all, that was the first time I had ever failed anything in my life. I was so, so upset. I went to the man in the office. He was some kind of administrator. He just jumped all over me, "We let y'all come in here, and y'all don't do anything and y'all…" Yes, he did.

So, I left, and what I did was I went to my advisor. My advisor was a German professor. I told him. I said, "You know, I know that I didn't pass the exam, but I don't understand how I did so poorly, according to this man." I can't think of his name. My advisor said, "You didn't." He said, "You had the second highest score in the group." Now, let me just tell you something. I had never studied. Evidently, everything that I put on my paper was right, but I was slow and

so I didn't finish the test. He said, "No, you didn't. You had the second highest score." So, when I went home, I felt much better than the black guy who took the test [and] was really upset when he went home, because […] his wife called me. I told her, I said, "Well, he told me the same thing, but I went to my advisor, and my advisor said I didn't do too bad." But that was the kind of thing that happened. Now, there were three ways they could treat you after the test. If you passed the test, you could go on and get a research advisor. If he or she selected you, then you could do your research, starting [that] summer. If you failed the test, they could recommend that you take it over when it was offered again. Or, the third thing they could do, if you failed the test, they could recommend that you should not take it over. That's what they recommended for me. That's what they recommended for this black guy.

Now so, anyway, to make a long story short, I spent the whole summer in Chicago looking for a job because I just…you know, I was tired of that. I went to this one place—I'll tell you this first. There was a black guy who had just started working in this employment firm. He came out to my house and told me how they were discriminating against me, and all of that. But what he did was—and I won't go into any details—but I went to this one company and there was a lady who interviewed me, a white lady. She said to me, "Listen." I told her that I had failed the test. I mean, I was really upset. I had never failed a test in my life. She said, "Let me tell you something." She had gotten her degree from the University of Chicago. She told me, "When I got my degree, all I wanted was one job." She said it took her a long time to find it. She said, "And when you get your degree, it's going to be harder for *you* to find it." That's when I really began to realize that women weren't supposed to be in chemistry. She said, "I would love to give you this job. But I would be doing you a disservice." She said, "I want you to study and go back to the University and take that test over again." Also, she probably knew that almost everybody failed the test in the first place, because I found that out later.

So, I stopped looking for a job. In the meantime, while I was looking, this man told me that the University of Chicago had told them that I was—they had given me such a ringing endorsement for a job. Anyway, so I stopped. I went home, and I read a book that was by Jack Hine.[3] We called it the Bible of physical organic chemistry. I worked every problem at the end of every chapter, except the last chapter. Because what happened was, I got a call from the University of Chicago to come up there and see this same old man who had really told me off. He told me that he had a job offer. I think it was in Gary, Indiana and that Dr. Stock had needed somebody. He wanted to hire somebody. He wanted to hire somebody to work in his lab. So, he said I could do one or the other.

Anyway, I think I went to Gary, but I went to see Dr. Stock. Dr. Stock told me that…told me all about that if I worked for him that I had to—I have to tell you this, because you would be amazed at what happened. He'd tell me, he said, "If you work for me, I expect you to work eight hours a day" and he tells me all of this stuff. I'm standing there and I said, "Well, if I'm going to work for him, what does he think I intend to do?" What I learned later was that the students who got a chance to work that summer before they went to take the test

[3] Jack Hine, *Physical Organic Chemistry* (New York: McGraw-Hill, 1956).

over really didn't work. They were working on the test. But I didn't know that. I expect to work. What happened was he gave me a procedure that he wanted me to make this compound. The Lord is good, I'm going to tell you. The procedure was in a French paper. Now, I had had three years of German, but I had not had any French. I said to myself, "Okay." So, what I did was I went to the bookstore and got a French dictionary. I went home and I translated it. I translated it, and that was, like, on a Friday. So, when I went back that Monday, I was ready to do the experiment. I set it up under the hood. I had all kinds of… it was a diazotization, but you had to use nitric oxide, so you had to connect to a cylinder. I had all kinds of safety stuff. I had it all set up. A couple of guys in his lab came down and, "Oh, why you got all that stuff?" They were, you know, just making fun of me. I didn't say anything. Anyway, I put the stuff in there. I ran the experiment. The last part of it was to decompose the diazonium salt that would put the fluorine on the anthracene. That was one I was doing. The 9-fluoro-anthracene was the parent molecule. When I got it up and dried it and all that, Dr. Stock had told me that I could take it up on the second floor and use their setup. So, I went up there. Well, there were two white guys who worked in that lab. They were teasing me: "Oh, you want a…" Wait. I'm trying to think.

BROWN: An NMR?

ANDERSON: No, when you look at it…

BROWN: A microscope?

ANDERSON: Not a microscope. One of this little what you call them…anyway. I said, "No, why do I need that? I'm going to have so much stuff, you know, I don't have to look at it through that. I can see it." What I didn't know at the time that that man had put everybody in his group on that experiment. He had even hired people in the summer to work on it, and nobody had made that compound, and that was why they were saying, "Did I need a…" I don't know why I can't think of it. Anyway, I set it all up, and I went down there. I went down there again to talk to the administrator, because I had to fill out some papers. I wasn't in school, but technically, they had put me…I had to be a research assistant. So, all of a sudden, Dr. Stock came by the office down there. He was going down the hall. He came in and he said, "Oh, we got lots of 9-fluoro-anthracene, lots of 9-fluora-anthracene." I wasn't understanding why they were all so excited about it, because what happened was I had made a whole lot of the stuff on the first try. The people who had been doing it in the past had maybe made a little bit that they could barely see. Oh, he was so excited.

Anyway, that's how I got in to get to work for him, because when he come down there every day I would have two or three setups going. That's what we did at […] Atlanta University [AU]. I'd have two or three, and he said, "What you got going there?" I would tell him. Anyway, after a few weeks he told me, he said, "Well, you just go on somewhere and

study, because I can't keep up with you. I've run out of ideas," or whatever he said. Then, I went to study, but he had told me I wasn't supposed to be studying. So, I took the exam. I am pretty sure that I made the highest score on that exam. Nobody would ever tell me that, because there was only one problem, a part of a problem, that was the only one I couldn't figure out the structure. Nobody else in that group with me could figure it out, so I know we all missed that one. I didn't miss anything else. So, Dr. Stock told me that—well, first of all there was…what was this man's name? He went to school with Dr. McBay. I tried to get a job from him. See, they wouldn't give me a job. They wouldn't give this other black fellow a job, because they had said we were not supposed to take it over. If they had said we were supposed to take it over, that meant then that they would give us work to do while we waited for it. Anyway, so I can't think of this man's name. He passed me in the hallway, "That was a good job. That was a good job."

BROWN: That wasn't Tom [Thomas W.] Cole [Jr.]?

ANDERSON: No, no, no.

BROWN: Okay.

ANDERSON: This was a professor, because I had gone to him and asked him if he would let me work that summer. He didn't. I can't think of his name. Anyway, there was a written part of it; the written part was probably five hours. And then there was an oral part. Before we got to the oral part, Dr. Stock had told me—I went in there to see him about something—he said, "You know, I have appointed you to work with me." I said, "Okay." [I thought to myself] "Well, you don't know whether I want to work for you or not." But I took the oral part and all of that. To tell you the truth, I really didn't have any problems after that.

But there was a lady, there was an Italian lady, who worked in the chemistry library. [My lab] was down in the basement. The coffee was in the chemical stockroom [in the basement]. They would come down every day and get coffee. She would come [down and one day] she said, "You look so down, so depressed," and all this. She said, "Let me tell you one thing. You will not have to worry when you take this test and pass it." See, I understand, according to what I was told later on, that I didn't have anybody to speak up for me in the discussion that they had after the test. So, my score didn't mean too much. This white girl, Loretta, Loretta made almost nothing, and she passed it. She was furious. She was really furious. Anyway, so that's how I got to work with Dr. Stock, because the stuff that I had done that summer really put me […] on par with the other students who had passed the test and were doing their research. So, that's how, you know, I could have said, "No, I'm going to talk to some other people," but I enjoyed what I was doing, and so I continued. That was really a big break for me. Then, Dr. Stock had ordered a brand new Fluorine-19 NMR. It was really a H-1 [Hydrogen-1] and F-19 [NMR].

BROWN: Tell me about that.

ANDERSON: When it came in…

BROWN: You were a pioneer in that, aren't you?

ANDERSON: …didn't anybody know how to operate it but me. I shouldn't say this. Don't put this in your book, but sometimes, when I didn't want anybody to use it, I'd go in there, and I would leave it on Fluorine. Then, they would come in there and say, "Oh, Gloria, are you finished with this NMR? Can you switch it to H-1?" Because nobody could use it but me, and there were people from the Cancer Research Center sending stuff over there for me to look at the Fluorine NMR, some metabolites. I can't think of the man who was over. But I was the expert in Fluorine-19 NMR there.

BROWN: Yeah. Weren't you a pioneer in Fluorine NMR? I mean, who else was doing Fluorine-19? First, tell me what year this is.

ANDERSON: That was 19…see, I went there in 1964. I started my research in 1965. I got my degree in 1968, so it was that period. I can tell you who was doing it. There was [R. W. Taft], I believe was his name, out in Pennsylvania…

[…] It's probably in my dissertation, because [Michael J. S.] Dewar was the other one, and Dewar was in Texas. I had to convince my advisor that I was right in saying something wrong—saying something. I said in there that Dewar had said something, and basically I said he was wrong. He was wrong. My advisor didn't want to put that in there until I convinced him that I knew I was talking about.

BROWN: So, how did you learn to run this Fluorine-19 NMR, which is brand new?

ANDERSON: Well, in the course—I told you I was in the course, and I was doing all this synthetic stuff, and I studied for my tests. In that course, we had to learn instrumentation. One of them was the NMR. Tom Cole, actually, Tom Cole taught me. We were in smaller groups. I think there were four or five students in group. My group went to him. Tom Cole was the teaching assistant from my group. I looked at him. Here he was. He sat down to—this was the proton NMR. He was turning buttons. He was doing every kind of thing. I said, "Wow." It was so impressive. I mean, he'd do this. He would do that, and all that. He taught us how to

run the Proton NMR. So, when we got the Proton Fluorine NMR, it was a matter of learning how to change it from the proton to fluorine and learning the difference between fluorine and proton. I did that on my own.

BROWN: You did this on your own?

ANDERSON: I didn't have anybody else to teach me, sure did.

BROWN: Wow.

ANDERSON: I did the same thing at Lockheed [Martin Corporation] about FTIR [Fourier transform infrared spectroscopy].

BROWN: So, you didn't…was there something unusual about you doing your research before your thesis?

ANDERSON: Well, what happened was when I was working for Dr. Stock, I was working as an employee. But they had to put me down as a student, because—I know now, I didn't know then—he had a grant. So, you know, they had to put me down as a student. They enrolled me for whatever the maximum number of classes there was, but I really was not enrolled in school technically. That work that I did became the first part of my dissertation. When I went in to work for him, I was just an employee.

BROWN: Wasn't there a publication?

ANDERSON: Well, we had…

BROWN: Before your thesis?

ANDERSON: Oh, yeah, sure. One day…

BROWN: Is that usual?

ANDERSON: I don't think it's usual. This publication that we did, we did it over the weekend. He really wrote it, but I had to supply the data and the explanation. What happened was when I looked at the bridgehead, F-19 chemical shift…and when you look at that one, I think I had bicyclooctane. I had adamantane. I may have had bicycloheptane. If I didn't have it, I must have gotten the information from somewhere else. When we looked at them, what we found was they were…we believed that the order of the chemical shift was in the reverse of what we thought it would be. So, Dr. Stock said, "We should write a communications on that." We did, and basically what we said was that it confirmed the notion that carbon at the bridgehead and the fluorine basically had some double bond character in that bond. That was why that was that way. I don't know…I followed it for a while after I came here. I'm not sure anybody has ever refuted that, but I'm not sure because I didn't follow it all the way up to now. People were writing papers and quoting us.

BROWN: Oh, citations. Okay. So, you got your Ph.D. Who was on your committee? Did you have any problems?

ANDERSON: On the first committee, I don't remember who was on it, because that was the one that I failed. You know, I didn't know anybody. They didn't speak up for me or anything. That's why even though I made the second highest—if I didn't make the second highest score, the man had told me that I did. Now, on the second go-around, Dr. Stock was now on there, because he had already claimed me as his student, [Dr. Yang, and one other person]. Dr. [Yang] did not come, because he knew that they had done me wrong, somebody said. But they didn't give me any problem. In fact, I was really ready for them. One of the guys who worked upstairs in Tom—I think he had been in Tom Cole's group. He would come down there and ask me questions, and I was really ready. They didn't ask me anything. I was so disappointed when I left out of there. So, obviously, you know, I passed it with flying colors. The lady had told me that. […] She told me that I could have made zero on that test, and I would pass. Because, she said, "They didn't know you," and after I had gone and done that research, she said I didn't have to do anything after that.

[Dr. Stock, Dr. Phillip E. Eaton and one other person were on my dissertation committee.]

BROWN: So, that's why you got your Ph.D. with all your good research.

ANDERSON: Uh-huh.

BROWN: What happened in your early career? Or do you want a break?

ANDERSON: No. Well, just, I have to tell you about my dissertation because…[4]

BROWN: Oh, yeah, tell me some more.

ANDERSON: …when I was at Atlanta University—well, at Chicago, what the people would do is they would finish their research, and then they would come in every day, and they would write on it. They would read the paper first, get a cup of coffee and sit down and read the paper. All the time that I was doing research, I would have two or three things going at one time. I worked at night at least the first year. My colleagues in my group did not work at night, and most of the other students didn't work at night. But that was normal for AU, and I was coming out of AU. Anyway, when I had gotten…first of all, when I wrote the stuff in my lab book, I wrote the procedures exactly as it should be written in the thesis, because I knew that that was how you were supposed to do it. So, basically, when I finished doing my research in the laboratory, I had done my dissertation. When I brought my dissertation [in], there was one guy in there [who] almost had a fit because he thought he was the smartest person in the group—in the whole group of organic chemistry students.

[…] I worked on [my dissertation] at night at home, [when] I came to the lab. […] When I finished my lab work, I had finished my dissertation. [I did research and] I turned it in and my professor. […] I think there were probably two things wrong with it. […] When I write, you have to read it A, B, C, D, 1, 2, you know. You can't read A and then skip over to B or [to C or D]. Also, I was questioning some work which was done by [a noted authority]. He said basically that I couldn't say that and blah, blah, blah. So, what happened was…now, the rest of my dissertation was all right. It was the introduction that was the problem. […]

BROWN: Need for new work?

ANDERSON: No. [The discussion.]

BROWN: I got it. Wait a minute. Keep going.

ANDERSON: …I know we had the experimental. That was fine.

BROWN: Introduction. I don't know. Need for new research.

---

[4] Gloria L. Anderson, "^{19}F Chemical Shifts For Bicyclic and Aromatic Molecules," Ph.D. Dissertation, University of Chicago, 1968.

ANDERSON: No. There's a part in there, it's really the analysis, but that's not what you call it. You know, what I did was…

BROWN: Results?

ANDERSON: Yeah. That's the part. That's the part that I had trouble with. So, when he read it, he gave it back to me. The rest of it was okay, but he had questions about the results and discussion. You know what happened? I had to go into his office almost every day and teach him that stuff. So…

BROWN: Yeah, the results were about the F-19 chemical shifts.

ANDERSON: Yeah. See…

BROWN: It's new work.

ANDERSON: …I made the compound. Then, I ran the NMR. Then, I had to calculate the chemical shift. Whatever you see in there, that stuff that I put in there is, as far as I know, is still used today, SCS [substituent chemical shift]. […] We did not have that before. Yeah, I hadn't thought about this in a long time. […] This one. "Substituent chemical shift," that I coined.[5] As far as I know, they still use it today. Anyway, what happened was I put the chemical shift in there, and I had to explain […] what they were. He didn't understand it. So, I went in there every day. He would go to the board. He would ask a question. I had answers for everything that he [asked]. Then, one day he said, "You know, I think we finally got the hang of this." I'm saying to myself, "'We?' We hell. I've already had the hang of it." Then, he corrected himself. He said, "No." He said, "I guess it was me. I didn't understand." He really said that. I will never forget that. So, I taught him. After I started going in there and telling him, he sat right with his desk, he had my dissertation spread out. He wrote the papers, right out of there. I didn't write them. You know, I didn't physically write them. I had written it there. All he did was transfer it into the format. He published the paper. I said, "He must have said, 'maybe this nigger have something going on here.'"

Anyway, when I went to my oral—you have an oral after you finished your stuff. To tell you the truth, when I went to that oral, I was not scared at all, because I knew that I knew more

[5] Gloria L. Anderson and L. M. Stock, "19F Chemical Shifts for Bicyclic and Aromatic Molecules," *Journal of the American Chemical Society* 91 (1969): 6804.

about my work than anybody else in there. That included my professor, and he was the closest one. That's when Eaton was on that committee: Eaton, Stock, and I've forgotten who the other person was. […] Eaton was Tom Cole's advisor. Anyway, there was one question that Stock, who was my advisor, had asked me, and it was about the same kind of stuff that we talked about [in] the paper that we had published before. He had asked me, "How could you get evidence to support that?" I told him, "You would have to do […] FTIR [infrared spectroscopy] Fluorine…stretching." When we got to the oral, they asked questions, and they asked questions, and I'd go up there, and I would explain. [Then] I was talking about this same thing that we had published in that paper. I was explaining what we said about it. So, Stock said, "Well, how can we get evidence on this?" Now, Eaton was the instrumental person. Eaton said, "Infrared spectroscopy." I wanted to die, because I had already told him that. Anyway, Eaton said, at the end of my oral, he said that I had come to Chicago as a frightened young lady, and I was going out looking like—what'd he call me? Anyway, he was so pleased with how I had done this. Anyway, that's it.

BROWN: Yeah. You were not even thirty years old yet. Okay, I'm not supposed to do that. We've been talking about Tom Cole. Tell me about him and what he was doing for you, and subsequent…

ANDERSON: Tom was working for Eaton, Phil Eaton. Tom made…I don't know whether you've heard of Cubane, that's the molecule that looks just like a cube. Tom Cole made—he was the first person to make that compound for Eaton. Tom was there when I got there. We didn't really see too much of each other, because he was in his lab, and I was in my lab. You know, he was married, so he had—I was married too, so you know we left and went home. There was one thing, and I don't want you to write this in there, because I never want Tom to think I feel this way. But I always felt that if Tom Cole had told me about the prelims, I would have been much better off. First of all, everybody in my group—after I learned later on—everybody in the group that I was in had failed the prelim. Everybody in most of the groups had failed the prelims. But I think most of those people got the recommendation that you should take it over. I didn't get that. I don't know what Tom Cole got because I wasn't there. But if he had just kind of warned me about that, I wouldn't have been so down, you know, so depressed. Here I am, failing, even though the man told me that I had the second highest average. I mean, I had never failed anything. That's the only thing that I wish he had done.

Now, when he got ready to graduate, I begged him to come to the AU Center. And he did. He came, and then he became the chairman of the chemistry department. When I came here, he was the chairman of the chemistry department. We worked well together with the interdisciplinary institutional committees and all that, but then he became a vice president and the president, and then he went [into] administration. When I got my first NMR—no, it was when I got my FT [Fourier-transform] NMR, I was telling him, "You got to come over here and see this FT NMR." He said, "Gloria, you know, I don't remember any of that stuff anymore." [laughter] I said, "Golly, this is the man who was at Chicago [that] I was so impressed with."

BROWN: So, what happened to you after your Ph.D.? What were your job prospects? What did you do?

ANDERSON: Well, to tell you the truth, I didn't look for any jobs, and I'll tell you why. First of all, when I was finishing up my dissertation, Martin Luther King, [Jr.] got killed in Memphis [Tennessee] [4 April 1968]. It was at that point that I decided that I was going to come to a black college. It didn't make any difference which one. That was going to be my offer instead of marching. That would be my offer in the Civil Rights Movement.

Now, Dr. McBay came to Chicago, and I didn't know which black college I would be going to, but I wanted to go to a black college to allow the students to have the opportunity to get the kind of education that I had gotten; because I felt coming from where I came from that it was almost impossible for me to get the kind of training that I had gotten. Like I used to tell them, when I was [on] the CPB [Corporation for Public Broadcasting] Board, I used to tell them that I squeezed through the wire mesh fence. And so, I didn't know where I was going, but that spring the ACS had its meeting in Chicago. Dr. McBay came, and there was another fellow, who, at the time I was a student at AU, this man had just come out of Pennsylvania State [University] as an organic chemist, and he was teaching at AU. His name was Paul Groves. So, Dr. Groves and Dr. McBay came over to the University of Chicago to visit me. Dr. McBay told me that there was an opening at Morris Brown. […] You remember I told you I quit the job, so I didn't go on leave. He said, "We don't have an opening at Morehouse, but there is an opening at Morris Brown."

He was very concerned, because the students at Morehouse would run over here and take chemistry, watered down, and, you know, left. They didn't want to go to Clark because Dr. [Alfred] Spriggs was there, and they wouldn't get watered-down stuff. So, he wanted me to come here. […] I applied for it; came down here. […] The science building [was] new that fall—and that's how I got here.

BROWN: And you got the job.

ANDERSON: Mm-hmm.

BROWN: But not only did you get the job, what other job did you get?

ANDERSON: Well, I got the job here, and well…first of all, I had a lot of offers from other places. Some universities would call me up. One university called me—what was the name of that university? They wanted me to come there because I was a Fluorine-19 chemist. I said, "Well, you know, I'm happy where I am." I said, "Would you please tell me how you got my

name?" She said, "Well, we were reviewing your papers (in whatever journal it was in), and we called the University of Chicago to find out where you were." I think that college's name was Lehigh University. I think that was it. Anyway, I had lots of offers. I even had […] offers to go to schools in the Center, but I stayed at Morris Brown because—mainly because of the educational philosophy at Morris Brown, in that Morris Brown takes in some of the brightest students there are, but at the same time, Morris Brown allows students who are not in upper echelon to come in here. I firmly believe that it's not the input, but it is the output that determines how good a school is.

So, I have had lots and lots of students who graduated, who went on to medical school, dental school, graduate school, and all that. At one time, I don't know what years it was, but although we didn't have a lot of graduates, 100 percent of our graduates went to graduate school.

BROWN: Didn't you have another job at Morris Brown, other than being an organic professor?

ANDERSON: Well, in 1984, I let them talk me into becoming Dean of the College. I did that until 1989. So, I was Dean of the College for almost five years. I didn't like that at all.

BROWN: Weren't you also Chair of the Department?

ANDERSON: Oh, I came in as Chair. Yeah, I came in as Chair of the Chemistry Department.

BROWN: Is that not usual? Is that usual?

ANDERSON: Oh, I guess it's not. […] I came in and I started—even before I left Chicago, I asked Dr. Stock. I said, "I know this college where I'm going to, they need instruments and you know they need everything." He told me to write a letter to NSF [National Science Foundation] on University of Chicago stationery and tell them that. I did, but that didn't do any good, because, [in my opinion,] the NSF was one of the mostly highly racist organizations— agencies, I should say—in Washington [D.C.]. But, anyway, I came in. I started writing proposals and whatever. The second year, I had lots of stuff, lots of equipment. I had an NMR and all that stuff.

BROWN: You got that from other places other than NSF.

ANDERSON: Mm-hmm.

BROWN: Didn't you get an NSF grant though? Wasn't there something? Wasn't there something about NSF?

ANDERSON: Yes. I got a research grant from the NSF. But I need to tell you what happened, because when I wrote a proposal to NSF. This was a proposal that was to continue my research in F-19 NMR. Obviously, in order to do that kind of work you have to make the compound, you have to collect the data, and then you have to do the analysis. Well, I wrote it to NSF. Interestingly enough, the NSF called Stock at Chicago to ask him if I could do the work, because he called me and told me. He was laughing.

Anyway, but they didn't give me the money. They held it over for a year, and then the next year they had a minority grant. So, what they did—now, I wrote a grant in the mainstream. They didn't have the minority stuff. […] I guess they knew it was coming up. The next year they had a minority grant program, so they took the money out of the minority grant program and funded me in mainstream. That killed—I was never able to get any more grants, because they were always telling me I couldn't get any minority money then, because I had been funded in mainstream. They told me that. The first year, you know, I guess it was a three-year grant. So, in the second year, you should apply for another grant. I did. They did not give me the grant. They did not tell me anything about why. I called, I called, and I called. Finally, the program officer—I don't think he intended to answer the phone—but they didn't have caller waiting—not call waiting, what is it?

BROWN: Caller ID.

ANDERSON: They didn't have that. So, he answered the phone one day. I asked him. I said, "You know, I don't understand why I did not get a grant." He told me, he said, "You know what? I don't understand it either." He said, "Because what we do is, if we're not going to [continue to] fund the research […] we give a phase out grant." They didn't even do that. Tom Cole, I think Tom Cole, told me he met somebody in Florida one time, and they said that they didn't recommend that I get the grant because I had not published anything. Now, that was less than a year and a half into the grant. […] That's why I stopped doing F-19 NMR. […] I said, "Okay. I'm at a black college [and they would not accept my interpretation of my data]. If I can do anything, I can do synthetic work." So, I focused my attention on the synthetic work. I did some fluorine synthetic work, but I didn't do…and I used F-19 NMR to help identify compounds and all of that. But I got out of the business of trying to do the physical organic part of it, simply because I said, "Even if I get enough data and analyze it and it makes sense, if I

present a paper, I'm going to have a problem with it." So, I just gave it up. Right now, I have data related to the stuff that we did [in] that first paper that we wrote.[6]

BROWN: But you did do some postdoctoral research though.

ANDERSON: At Georgia Tech [Georgia Institute of Technology].

BROWN: Georgia Tech. Tell me about that.

ANDERSON: Well, I went on an NSF postdoctoral research grant in the summer. I [graduated] in December of [1968]. […] I came to Morris Brown in September, but I had finished all of my work. I just went back to graduate in December, because I didn't get my stuff in in time to march in the summer. Well, in the summer [1969], I went to Georgia Tech. I really didn't realize at the time that Georgia Tech really didn't like having too many females in the institution, really. I found out later—I always get in these situations, I always find out later—that they had had only be allowing women to come there a few years earlier.

Anyway, when I went over there and I met the person, Dr. [Charles L.] Liotta, and I told him who I was, and that I was there because I had an NSF grant. Now the NSF had really told him that I was coming and all that. So, he said, "Oh, you're *that* Anderson." I didn't know who he was talking about. What he was talking about was, I was that Anderson who had done [the] publications. So, he told me that he was trying to get into physical organic chemistry. Basically what he was doing was hydrolysis of esters. He wasn't trying to do any F-19 NMR. He had a project, which he told me about it. So, I said, "Okay." So, I went to work on the project. It involved gas chromatography. I worked on it and I worked on it. I finally came to the realization that it was not doing what he thought it would do; that instead of what he thought it would do, it was throwing off benzoic acid. So, I told him that. He had this person who was…he had this person who was a graduate student who was really about to graduate. He was standing there. You know, like, he didn't even pay me any attention. Okay.

I'm a great believer in doing library research. So, I went to the library. […] I stopped doing stuff in the lab. Lo and behold, way, way, way back in the German literature, I found two or three papers where these people—they weren't doing the same thing that I was doing, but what happened was they got benzoic acid. I was so happy. I went home and I wrote it up. We didn't have computers, you know, that kind of stuff. I wrote it all up. Then, I sat in the chemistry library at Georgia Tech, for a week waiting on him to come in, because […] his office was next door to the library. So, finally he came in. I didn't know that he had had the flu. I got up behind him. I went in his office. I said, "Dr. Liotta." I said, "The problem is solved." I

[6] Gloria L. Anderson and L.M. Stock, "^{19}F Chemical Shifts For Bicyclic Fluorides," *Journal of the American Chemical Society* 90 (1968): 212.

threw it on his desk, including the German papers. He looked at it. He said, "Well, could you explain it to me?" He said, "I don't read German." So, once again I went to the board. Now, when I was doing the dissertation, my professor went to the board. But I went to the board this time and explained what happened and what was happening with whatever he wanted done. And so, when I got finished he said, "You know what? That was a beautiful piece of library and literature research that you did." I really…I didn't say anything nasty to him. But I said to myself, "I've got a degree from the University of Chicago. I'm supposed to be able to do that kind of work." He had a degree from the University of Maryland.

Anyway, to make a long story short, I didn't really get too far with the project, because I had wasted all that time doing the wrong thing. But I did a seminar over there, and after the seminar, he was like—he was my dad. He was so proud of me. After the seminar, he told me, "If I had the money, I would hire you." I said to myself, "Yeah, right." I didn't want to go there anyway. [They hired] that same fellow, whom I would not have hired at Morris Brown. Anyway, so that's when I did my [post] doctoral work.

BROWN: You talked about Natural Science Foundation. Do you know their track record for research grants for HBCUs?

ANDERSON: No, I really don't know it in terms of real data. I used to know it. After they started that minority grant, it became, you know, better. Still they were just like most of the other granting agencies. There were schools that they decided were worth their money, you know, like Morehouse, Spelman [College], Tuskegee [University], [they] fund those schools. So, well, they told me I couldn't get a grant because I had been in mainstream, and I talked to everybody. I went to meetings. I did everything. But I could never get a grant. Then, what they did was they started a Women in Science program, and that was right around the time when I was coming out of Academic Affairs as a Dean. I said, "Okay. This is supposed to help women get back into science," right. I called them up and told them I had been a dean and blah, blah; I wanted to get back into science, am I qualified? They told me, "Yes." I put together a proposal and everything, and I sent it up there. They called and told me that I was not qualified for that program. The reason they said I wasn't qualified was that in 1984, I had gone out to the [United States] Air Force Rocket [Research] Lab in California and had done research. I said, "You mean to tell me that these people are penalizing me for, you know, I got the opportunity." Every opportunity that I had—it wasn't like I could plan anything. I got that opportunity. I was at Lockheed in 1981 or something. But that's why they couldn't give it to me, because I had already been out there in 1984. I think this was in 1990.

I know that I can't give you the data, but I used to read a lot of proposals for the NSF. One time I was there and we were just talking. I was talking to the program officer, who was over whatever program I was reading for. I told him, and this was a white program officer. I said to him, "The National Science Foundation is one of the most racist agencies there is." You know what? He agreed with me. But I used to keep up with the minor grants that were received

by black colleges, but I don't remember anymore. But I know it's much less than what it should be.

BROWN: But you did manage to get some research funding from what other…from corporations or what?

ANDERSON: Most of my research I paid for [on] my credit card.

BROWN: Yourself? Funding your own research?

ANDERSON: Most of it, yes. I got a grant from NIH [National Institutes of Health], when NIH started the Minority Institution Biomedical Science [Minority Biomedical Research Support Program] something proposal. That was when Geri [Geraldine Pittman] Woods—you remember Geri Woods? She was responsible for putting that program in place at NIH. Now, she was a biologist. She wasn't a chemist. […] All the schools in the Center went together and put in an AU Center proposal. They were begging almost everybody to put in a proposal. So, I got some money from that proposal, the first time. And then, as time went on, I couldn't get any more money. I think part of it was because…see, in that grant, the biologists—[…] for that matter, but there weren't too many chemists in there—the biologists could get people for a replacement and they got bigger and bigger and bigger; and for the most part, I think we ended up…all the physical science people got cut out of that. That was the most money that I got through a grant.

Then, I finally decided…I tried a few other times to write institution grants for Morris Brown. I won't even try to go into all the hassle that they put me through. But it became clear to me that if I was at Morris Brown College, a college which did not have any history of research in chemistry or biology like that, that nobody was going to give me any money for research. They would send me letters back saying that—basically saying that my credentials were nice, but they weren't going to give me any money. I don't believe it was because I couldn't write proposals, because when I came to Morris Brown, I studied. I learned how to write proposals. Whenever I wrote the TRIO program proposal, they got funded, but that was not science research.

So, I decided, well, I'm going to do research no matter what. So, I paid students to work for me, paid them in the summer, paid students to do melting points. I'd pay students to work as research assistants. I paid them out of my pocket, and I charged that on my credit card Even today, I don't know how much I owe the patent lawyers, but I have paid for all of those patents stuff, myself.

BROWN: You did some research on antiviral drugs?

ANDERSON: Yes. That's what I've been working on since I came here. I probably have three or four hundred compounds over there in the lab. Here and there, I could get them tested through the NIH, but, you know, I really didn't have a biology department who could test this stuff. So, I don't know whether they were good or bad. Here was the situation. Amantadine, which at one time was the only antiviral drug on the market, and I was really working on derivatives, analogs of amantadine, and some other compound that carried the adamantane ring. When I was doing that, and I did it up until I started doing the cancer research; up until that time I was following the literature very closely. What I found out was that at least 95 percent of the work that was being done was being done in Russia. I still believe that at some point it's going to all break out, because adamantine conveys special properties on molecules, but nobody would listen to me. I guess I'll be in heaven when they find out. But I was doing antiviral research.

BROWN: Amantadine. You have patents on those.

ANDERSON: Not on those.

BROWN: Patents on something else, okay.

ANDERSON: Well, what happened was…

BROWN: Oh, that's the cancer research.

ANDERSON: Well, by the time, I got to the point where—well, I had been talking about doing patents, blah, blah, up for years. Finally, I got one thing that I had lots of work on it and I decided, "Okay. I'm going to write this patent application myself," because the college would not hire me a lawyer, okay. So, I learned how to—here I go again—had to learn how to write a patent application. I paid my way up to an independent investigators patent conference. I learned some stuff up there. I wrote it, and I got it. Now, this one [is not really too involved]—it's a synthesis thing, and it really is a way of preparing amides, but what you use involves a fluorine compound. See, although I wasn't doing F-19 NMR looking for the physical data, I was using it in my synthetic work. So, I read fluorine books, and on this particular one, I discovered how you could do certain things with that compound. So, I wrote it and I got the patent, but the next one was the one on breast cancer drugs. It's really, they call it proliferative disorders, but it's really [cancer drugs]…

BROWN: It's breast cancer…

ANDERSON: …really only thing we tested it for was the breast cancer drug. The interesting thing about it though, and this is really what bothers me so much, is that thing […] called chalcone, that thing would do almost anything. They have a whole book out on it. We put adamantine on it. If you look in the U. S. Patent and Trademark, in their website, and you look under patents, and you put down adamantyl-chalcone, there are two of them.[7] They're the only two in that thing up there. I know that it would do much more than what we did. The only reason I got that one and got it finished was because I had hired a fellow who had his master's from Atlanta University—no, CAU. I'd hired him as an instrument technician, and a person who will teach my classes when I had to go to board meetings, because I was faculty representative to the board. So, I found out later that he had completed all his work for his doctorate, except his dissertation. […] They told me that the work that—the research that he was doing over here for me, he could use for his dissertation. So, that work came out of his dissertation.[8]

BROWN: Oh, so, it's in his dissertation, okay.

ANDERSON: Mm-hmm. That's the only dissertation that I have ever supervised. When I first came here […] the undergraduate chemistry departments had an arrangement with the Atlanta University. So, we got master's degree students. I had about…I think I managed to have about three or four master's candidates.

BROWN: Okay. You want to break?

ANDERSON: Yeah. We can take a break.

BROWN: Yeah, okay.

[END OF AUDIO, FILE 1.2]

---

[7] Gloria L. Anderson, "Method for preparing some 1-adamantancecarboxamides," U.S. Patent 6,348,625, filed 10 November 2000, and issued 19 February 2002; Gloria L. Anderson, "1-Adamantyl chalcones for the treatment of proliferative disorders," U.S. Patent 7,563,789, issued 21 July 2009; and Gloria L. Anderson, "1-Adamantyl Chalcones for the Treatment of Proliferative Disorder," U.S. Patent 6,864,264 B1, issued 8 March 2005.

[8] T.A. Kaimari, "The Design, Synthesis, Characterization and Biological Screening Evaluation of 1-Adamantyl Chalcones As Potential Breast Cancer Agents," Ph.D. Dissertation, Clark Atlanta University, 1999.

BROWN: Okay. Tell me about…let's see. We're resuming and trying to figure out where we were. You're an endowed professor, a Fuller E. Callaway Professor, at Morris Brown. Tell me about the Fuller E. Callaway Professorship.

ANDERSON: Okay. I was awarded that chair, actually it was very early in my career here. The Callaway Trust [Foundation] sets—the Callaway people have an endowment for bringing faculty members to every four-year college or university in Georgia. Some schools have more than one. But the idea is to enable the college to attract and maintain good faculty members. They're talking about teaching faculty, not research faculty.

BROWN: Okay. So, that doesn't…it's every college in Georgia and not just HBCUs.

ANDERSON: Every four-year college or university can have at least one. They may have more than one. What happens is the college or university must nominate a person and send in [his or her] vitae and I guess that's all. They have a committee who reviews the thing, who reviews […] the CV. Then, they decide whether or not to grant it. Some people think that just because your name is sent in or just because they're an institution that they would get it. I remember one time when I was sick—I guess people thought I was going to die, I don't know. But I understand that there was some discussion going on about who was going to get the Callaway Chair, but it's not that easy. That committee has to review your files and decide whether or not you get it. There have been some colleges who had Callaway Chairs that didn't have anybody in them, because as I understand it, they would not accept the people who were sent up there. The Callaway Chair is not a full Chair in the sense that it pays one's salary. What they do is, you have a base salary from the institution, and then the Callaway Trust will add 50 percent of your base salary on top of what the college gives you. They have rules like, you must be the highest paid faculty member in your department before you can even get it, and they have a few other rules.

BROWN: But you can't use that money for research.

ANDERSON: No. It is salary.

BROWN: Yes, okay. I remember once when you were talking about grant writing for the university, for undergraduate research. Tell me about that.

ANDERSON: Well, actually, I really haven't written a grant for undergraduate research, but I have written grants to the U.S. Department of Education for upgrading, you know, science, and

I think the last one I did was for chemistry. In the past, I've also written grants for upgrading science, which included biology and mathematics. In the last one that I did, I included undergraduate research in the grant, but it wasn't just for research. I have never sent a proposal in just for undergraduate research, although in our department we always had a requirement that students do undergraduate research.

BROWN: Oh. I've sort of put the cart before the horse. What's your current status at the university?

ANDERSON: That's kind of funny, because when I came back after my stroke, I came back as a Callaway Professor and Advisor to the President. Then, about the next semester, he decided he wanted to appoint me Vice President of Academic Affairs. You probably don't want to print this, but I explained to him that as far as I knew, the Callaway people, the Callaway Trust, did not allow you to be in an administrative position. He said that they told him that all the college had to do was offer one course. Because when I went out sick, the Callaway people didn't know I was sick. When they found out that I had been out sick, they told him that they thought I had retired. They told him that they would give me the Callaway Chair back if I came back.

Now, I'm not sure whether or not the president told them that he put me in this position or not. I don't know whether or not they said I could be in this position, to tell you the truth. Now, see, I have been Interim President twice at Morris Brown. I have been a Dean. The first administrative job beyond the department head, they don't care if you're department head. You can have it when you're the department head. When I became Dean, I gave it up, and the Board promised me that when I came out, they would give it back to me. Since that time, when I went into Interim President's position in 1992, I found out that all I had to do was request a leave of absence from the Callaway Chair, and that's what I did. So, when I got out of the Interim President's position, I got it back. That happened in 1998 as well.

So, you asked me what is my current title. My title current title is Fuller E. Callaway Professor of Chemistry and Vice President of Academic Affairs.

BROWN: You still do teach a course.

ANDERSON: Yes.

BROWN: Okay. What do you teach?

ANDERSON: I teach a liberal arts course. It's called Investigating Chemistry, a Forensic Science Perspective.

BROWN: Forensic science—CSI [crime scene investigation]?

ANDERSON: Yeah.

BROWN: Is there anything else you want to—oh. Morris Brown, I guess we should clarify the fact that Morris Brown is still active, even though it's lost its accreditation.

ANDERSON: Mm-hmm.

BROWN: Talk to me—tell us about that.

ANDERSON: Well, we lost our accreditation in December of 2002. When we notified SACS —SACS stands for the Southern Association of Colleges and Schools. When we notified them that we wanted to appeal, they reinstated our accreditation. What happened during that time, we had an accelerated semester and we graduated our students, three-hundred and sixty-something, I think, in March. We lost the appeal, and on 2 April we lost our accreditation. It was very clear that we did not lose our accreditation because of academics, neither the faculty nor the curriculum or anything like that was responsible for our losing our accreditation. It was based on a lack of finance and not using finances right. I'm not quite sure. The lady [Dolores Cross] who was the president at that time was tried and convicted of fraud. What happened was she was accused of—she was indicted, really, for thirty-four counts of fraud. Her financial aid person was also indicted for thirty-four counts of fraud. In the end, they pleaded guilty to one count of fraud, and so that's what they were found guilty of. They were sentenced to I think about a year of house arrest. The problem right now is, and has been since we lost our accreditation, is that out of the eleven criteria which a school must demonstrate that it can show that it can—I don't want to say this…

BROWN: Don't…

ANDERSON: There are eleven criteria. We believe we can demonstrate that we are ready and are able to show that we can handle ten of them, but we cannot do the eleventh one, because that one deals with financial stability. So, we've got to somehow raise enough money to pay off all these bills, including a 5.4 million dollar bill with the U.S. Department of Education, which is somehow related to whatever went down in that president's term.

BROWN: What a mess. Let's go to some of your other, non-chemical things you did in your life. You were on the Board of Directors of National Public Radio Broadcasting. Tell us about that.

ANDERSON: Yes, Public Broadcasting, CPB as we called it, Corporation for Public Broadcasting. Well, I was appointed by Richard [M.] Nixon in 1972 for a six-year tenure on the Board of Directors of the Corporation for Public Broadcasting. I served, I think it was seven years, because you're supposed to serve until your successor is appointed and confirmed by the Senate. So, they did not confirm the person who succeeded me until after the six-year term.

BROWN: What did…go ahead, sorry.

ANDERSON: Well, I was about to say, basically, the Corporation for Public Broadcasting was responsible for policy and procedures pertaining to public television and radio. I don't want to say educational television and radio, because it really wasn't that. The corporation was formed, I think, by an Act of Congress [Public Broadcasting Act of 1967], I think in 1967, to enhance the ability of public broadcasting, public radio and to find—well, to, as I said, develop policy and procedures and other things that would help public broadcasting.

BROWN: Weren't you Chair of the Task Force on Public Broadcasting?

ANDERSON: Yes. In fact, I was chair of three separate task forces. Interestingly enough, that was…I think I was the first board member to chair any kind of task forces. The first task force which I chaired was one on minority programming. I thought the best way to deal with the issues was to have me as Chair and bring in some people from outside, minorities and, in fact, even majority people, to explore that particular issue at that time. We basically were supposed to define minority programming, and basically that's what we did.

The second task force that…I must say, the task forces represented people from all throughout the country. The second task force which I chaired was the Minority Public Broadcasting Committee Task Force. That Task Force, unlike the first one, which was restricted to minority programming, the Minority Task Force on Public Broadcasting examined every aspect of public broadcasting in terms of hiring, firing, programming, you name it. It was all in that [one]. That was really, I think, a very good study. We had members of minority groups, of Hispanics, Latinos, Native Americans, and all kinds of minorities, as well as we had some white people in the group. That, I think, was the largest task force that I had, and we took a long time to do it and to write the report. We had lots of recommendations on what we thought the Corporation for Public Broadcasting should do in order to make public broadcasting accessible to minorities.

The other one, the final one, that I chaired was the Women in Public Broadcasting [task force]. It essentially did the same thing that the Minorities in Public Broadcasting did. It examined—and when I say we examined it, we really did studies. We had some really good data. But this one was on women, and we examined the women in public broadcasting from the board level all the way down to the station level, and that was in employment. We examined the programming and all those kinds of things.

BROWN: Weren't you on another committee, a state committee for something similar to that?

ANDERSON: Yeah. It was actually […] two of them. One was for the state and one was for city of Atlanta [Georgia]. In the state one, the Governor appointed me to be a member of that task force. The purpose of the task force—I don't even remember what it was called—the purpose of that task force was to look at public broadcasting in the state of Georgia and to come up with some recommendations as to how the state could handle that. We did that, and we had lots of recommendations which went to the General Assembly and ended up in a bill for public broadcasting. And that report helped to establish what is called GPTV, which is Georgia Public TV. For the one in the city, that one was for the Atlanta Public School Licensee. That license belonged to the city of Atlanta Board of Education. They were only doing education programming for the schools. The purpose of that task force was to examine ways in which the community could become involved, to study ways in which the programming could be done for the community, and whether or not we could establish a public board. Of course, we did. We did the study. We did the recommendations, and we took it to the Board of Education, and they accepted them. Out of that report, they formed something called PBA, Public Broadcasting Atlanta. Before that task force and before that report, the city of Atlanta did not have a public station.

BROWN: You were on a board for the Food and Drug Administration. Tell us about that.

ANDERSON: Yeah. In, I think it was 2001, I believe, I was appointed to the Pharmaceutical Sciences [And Clinical Pharmacology] Advisory Committee of the Food and Drug Administration [FDA]. Basically, the Pharmaceutical Sciences Advisory Committee looks at policies and—mostly policies and procedures governing the FDA. […] On that Committee, we looked at a lot of issues relative to some drugs, which had already been approved, or whether or not they should be taken off the market. We looked at some other things. One of the things we looked at was using…I can't think of it now. I hadn't thought about that in a long time. But that was basically what we did. We met almost every month. We had lots and lots of papers to read.

BROWN: Okay. Do you want to tell me about any other organizations that you were on, boards or whatever, that you were on?

ANDERSON: Well, actually those were the major boards that I've been on. I've been on a few lesser boards while I've been in Center. The Corporation for Public Broadcasting Board, I should say, that was…you know, I was still employed by Morris Brown College. That was a board in which I served on in—I could say in my spare time, but it wasn't really spare because of all the writing and reading and travel that I had to do. […] The rest of the boards, as I recall, are much, much lesser boards.

BROWN: Okay. I think we're almost finished. Since some students who might be studying chemistry will be listening to this […] what is your advice for young women, now, entering the field of chemistry?

ANDERSON: Well, to tell you the truth, I think they should go for it. They really should. It's quite different now, although when you look at the *C&E [Chemical and Engineering] News*, you see that women faculty at the major colleges and universities still have some problems; problems like the gaps in salaries, the lack of promotion and tenure comparable to that of their male colleagues and that kind of thing. But there are lots of women in corporate—I guess I should say not so much in corporate America, but in the chemical industry. That was not the case when I came out, although I chose to come to a black college, because it was my aim to contribute to the Civil Rights movement in that respect. But even if I had not selected—if I had not chosen to come to a black college, I probably would have gotten hired in another college or university, but I don't think my chances in the chemical industry would have been too bright.

BROWN: So, what would your recommendation be now? Should women go into industry?

ANDERSON: Well, I think we need as many […] women in industry as possible; but at the same time, I think we probably need more women in colleges and universities. That is not only in black colleges, but in all colleges and universities, because there aren't too many out there. And they certainly lag behind men in their ranks, say professorship, associate professorship. There aren't many women in those positions. I would say to any women out there ,whether they are white, black, or any kind of minorities, I think they should study chemistry if they like it. You have to love chemistry in order to put up with all the stuff you have to do. You really have to love it, and I love chemistry. So, I went through school, graduate school, all of that. When I was in graduate school, that's the University of Chicago, almost every week I would ask myself, "Why am I doing this? Oh, man, I could be somewhere else in a job." But you have to decide you want to do it and you want to be the best you can be in whatever field you choose; but in chemistry, it's hard work.

When I came to Morris Brown, the Vice President of Academic Affairs told me that this is a teaching institution, and if you want to do research, you do that on your own time. I did it

on my own time. I worked in the evenings and on Saturdays and Sundays. I should have been going to church, I guess, but on Saturdays and Sundays, I came up here and worked all day and into the evening. The rest of the week, I worked into the evening. I was determined that I should…I could do research. I had finished the University of Chicago with straight A's in research and that said that I should be able to do research. I was determined to do it. But more importantly, I love research, and I still love research. But you really have to be committed to it, you know, to do what it takes.

BROWN: Some of the women have problems with family life. I know you were married. Tell me about how you managed family life with your career.

ANDERSON: Well, I was divorced in 1977, so that was, like, way back when. When I was married though, I cooked, I cleaned, I did everything you're supposed to do. But I must say my ex-husband, my husband at that time, he would help along in the house. He would iron and, you know, do things like that. So, I don't really think that my not being able to do what I was supposed to do at home had anything to do with my divorce. Because, at that time, you know, we had not been liberated, so we didn't know we weren't supposed to be cooking and cleaning and all that. I did all that, as well as I went through graduate school. I was married. I came home. I cooked and I cleaned and ironed and all of that when I was married.

BROWN: Tell me about your son. What is he doing now?

ANDERSON: My son works…he is a computer science analyst. He graduated from Southwest High School. I think it was in 1981. He went to the University of Georgia. He got his degree in computer science. Currently he is working as a computer science analyst for, I think it's the Citigroup [Inc.].

BROWN: Well, is there anything more you want to say or can we—or shall I say thank you, Dr. Anderson?

ANDERSON: I don't think I have anything else to say.

BROWN: Okay.

ANDERSON: I would like to tell you one other thing. This relates to the fact of being a woman. I think it relates to being a woman in chemistry or perhaps being in science, period. I have always had to prove myself wherever I went. I had to prove myself at Chicago. When I

proved myself, I didn't have any more trouble. When I went to Georgia Tech as a post-doc, I had to prove myself. After I proved myself, I didn't have any problem. In fact, the person that I was working for told me, whenever I would come up to him after I had proved myself, he would say—he would tell me something: "I think I'm going to do such and such a thing." Then, he would listen to my opinion. […] I would say, "You can't do that because," and I would explain why. Then, he would say, "Oh, you just spoiled my day." But he listened to me after I had proved myself. Before that time, I would tell him something, and he would ignore it and keep on talking.

When I went out to the Rocket Lab at Edwards Air Force Base in California, I was put on a particular research project. It was very similar to the one which some people had been describing in the literature. But I tried to explain to my advisor that we could not do the same thing. Basically, it was because what he wanted to do involved a solvent in the product and they didn't have the solvent. I tried to explain to him that we needed a different kind solvent and all of that. Somehow, they didn't pay me any attention. They just had me doing the same thing people had in the literature. Actually, one time, one of the fellows said—I had asked him to do some NMR work for me, and he told me about two weeks later, he said he didn't understand why I had asked him to do it. It was really tracking a reaction, but he didn't understand that you could do that. […] We were giving presentations every, I don't know, every week or two weeks. We just gave—not really give a seminar, but we would get up and talk about where we were. Anyway, I did a seminar at the end of the summer. I started from the beginning and I talked about what I was supposed to be doing. I explained why we shouldn't use the solvent that those other people used, and I went on. There was one person in there who knew what I was talking about. He was a civilian employee. He started asking questions. And he agreed with me, but by that time, it's time for me to come home. The point is they didn't pay me any attention, because they didn't know I knew anything. They didn't think I knew what I was talking about. It has always been that way whenever I present myself in chemistry.

BROWN: This was in the summer of 1984.

ANDERSON: Uh-huh. Yes.

BROWN: You were here then, right.

ANDERSON: Right. I went out there on a grant, an Air Force grant, a fellowship.

BROWN: All right. Anything more?

ANDERSON: No. That's it.

BROWN: Well, thank you, Dr. Anderson.

ANDERSON: Okay.

[END OF AUDIO, FILE 1.3]

[END OF INTERVIEW]

INDEX

A

ACS. *See* American Chemical Society
adamantane, 24, 34
adamantyl-chalcone, 35
Agricultural, Mechanical, and Normal College, 3, 6
Altheimer High School, 5
Altheimer Training School, 5
Altheimer, Arkansas, 1, 7, 9
AM&N. *See* Agricultural, Mechanical, and Normal College
amantadine, 34
American Chemical Society, 28
anthracene, 20
  9-fluoro-anthracene, 20
Arkansas, 15
Atlanta Board of Education, 40
Atlanta University, 10, 11, 13, 20, 25, 27, 28, 35
Atlanta University Center, 33
Atlanta, Georgia, 40

B

benzoic acid, 31
bicycloheptane, 24
bicyclooctane, 24
boron, 18
Brown v. Board of Education, 5, 6
Brown, Herbert C., 18
butadiene chemistry, 11, 12

C

California, 32, 43
chalcone, 35
Chemical and Engineering News, 41
Chicago Conservatory of Music, 16
Chicago, Illinois, 3, 9, 15, 19, 25, 27, 28, 29
Chigbo, Dr., 14
Citigroup Inc., 42
Civil Rights movement, 28, 41
Clark Atlanta University, 35
Clark College, 17, 28, 35
Cole, Thomas W., Jr., 21, 22, 24, 27, 30
Corporation for Public Broadcasting, 28, 39, 41
Cross, Dolores, 38
Cubane, 27

D

Dewar, Michael J.S., 22
diazonium, 20

E

Eaton, Phillip E., 24, 27
Edwards Air Force Base, 43
ester hydrolysis, 18
Evans, Billy Joe, 16

F

Florida, 30
fluorine, 17, 20, 23, 24, 30, 34
  fluorine-19, 22, 28
Fourier transform infrared spectroscopy, 23
Fuller E. Callaway Chair, 36, 37
Fuller E. Callaway Foundation, 36, 37
Fuller E. Callaway Professorship, 36

G

Gary, Indiana, 19
Georgia, 36
Georgia Institute of Technology, 31, 43
Georgia Public TV, 40
Georgia Tech. *See* Georgia Institute of Technology
grants/funding, 16, 23, 30, 31, 32, 33, 36, 37, 43
  TRIO, 33
Green, Mr., 14
Groves, Paul, 28

H

Hine, Jack, 19
Howard University, 14, 15
Huggins, Kimuel A., 10, 11, 13, 15

I

Investigating Chemistry, a Forensic Science Perspective, 37

J

Jones, Loretta Smith, 17, 21

K

King, Martin Luther, Jr., 9, 28
King, Reatha C., 17
Korean Conflict, 3

L

Lehigh University, 29
Liotta, Charles L., 31
Little Rock, Arkansas, 1
Lockheed Martin Corporation, 23, 32
Long, Charles (father), 1
Long, Elsie Lee (mother), 2

M

Mays, Benjamin E., 12, 13, 15
McBay, Henry C., 11, 12, 13, 14, 15, 21, 28
Memphis, Tennessee, 28
minorities, 30, 32, 39, 41
  Hispanics, 39
  Latinos, 39
  Native Americans, 39
Minority Biomedical Research Support Program, 33
Minority Task Force on Public Broadcasting, 39
Monsanto Chemical Company, 9
Morehouse College, 12, 13, 14, 16, 28, 32
Morris Brown College, 28, 29, 31, 32, 33, 36, 37, 38, 41

N

NAACP. *See* National Association for the Advancement of Colored People
National Association for the Advancement of Colored People, 9
National Institutes of Health, 33, 34
National Science Foundation, 10, 29, 30, 31, 32
  Chemistry Teachers Program, 10
Negro History, 8
NIH. *See* National Institutes of Health
nitric oxide, 20
Nixon, President Richard M., 39
NMR. *See* nuclear magnetic resonance
NSF. *See* National Science Foundation
nuclear magnetic resonance, 18, 20, 21, 22, 23, 26, 27, 29, 30, 31, 34, 43
  F-19, 18, 21, 24, 26, 30, 31, 34
  Fourier-transform, 27
  H-1, 21, 22
  proton, 22, 23

P

patent, 33, 34, 35
Pennsylvania, 22
Pennsylvania State University, 28
Pine Bluff Arsenal, 2
Pine Bluff, Arkansas, 1, 5
Public Broadcasting Act of 1967, 39
Public Broadcasting Atlanta, 40
publish/publication, 13, 23, 24, 31
Purdue University, 18

R

racism, 9, 17, 29, 32
Rockefeller Foundation College Scholarship, 8
Roosevelt University, 16, 17
Russia, 34

S

Sears Roebuck & Co., 3
South Carolina State University (formerly College), 12, 13, 14

South, the, 4, 5
segregation, 4, 6
Southern Association of Colleges and Schools, 38
Southwest High School, 42
Spriggs, Alfred, 28
Sputnik, 10
St. Louis, Missouri, 9
Stanford University, 9
Stock, Leon M., 18, 19, 20, 21, 23, 24, 26, 27, 29, 30, 31
substituent chemical shift, 26

T

Taft, Robert W., 22
Task Force on Public Broadcasting, 39
tenure, 39, 41
Texas, 22
Tuskegee University, 32

U

U.S. Air Force, 43
U.S. Army, 7
U.S. Department of Education, 36, 38
U.S. Food and Drug Administration, 40
Pharmaceutical Sciences and Clinical Pharmacology Advisory Committee, 40
U.S. Senate, 39
United States Air Force Rocket Research Laboratory, 32, 43
University of Arkansas at Pine Bluff, 3
University of California, Berkeley, 16
University of Chicago, 13, 14, 15, 16, 17, 25, 27, 28, 29, 32, 41
University of Chicago Comprehensive Cancer Center, 16, 22
University of Georgia, 42
University of Maryland, 32

W

Washington, D.C., 29
Wilson, Dean, 7
Women in Public Broadcasting Task Force, 40
Woods, Geraldine Pittman, 33
Woods, Sarah, 17

Y

Yang, Dr., 24