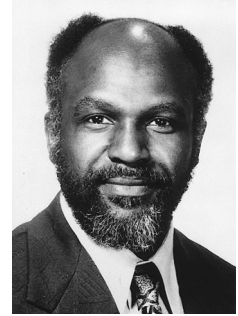


WESLEY L. HARRIS

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I tend to remember several things about growing up in Richmond, Virginia, in an all-black environment. The neighborhood, the schools, the immediate shops and stores, the Boys Club, all were African-American throughout the management structure and I was always very, very proud of that. I remember having continuous strong support from my family. Although none of my parents or grandparents ever finished high school, they were always very strong supporters of education. I remember going to the Baptist Church, and there as well the support was very firm and constant for education.

Certainly my high school career was a pivotal point in focusing on scholarship for the sake of scholarship, and not any other motive. We were never led to believe that working hard in terms of learning would lead to any great position or job, but my high school physics teacher Mrs. Washington would always say, “If you learn this material, it is something no one can ever take from you.” She was so strong about individual learning that she refused to allow us to tutor, or anyone to tutor us. She felt that physics was something that you had to get on your own.

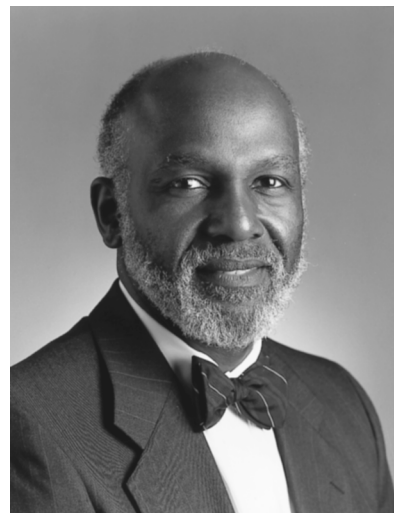
Those were some of the very, very strong points I remember about my growing up in Richmond. There were other people who also were important. One of my major math teachers was Mrs. Diamond. My football coach, Mr. Maxie Robinson, in his own unique, quaint kind of way certainly was a positive influence. His sense of discipline was extreme, but backing off of that made one very secure. It was a point which you could

always make an attempt to obtain his position on discipline.

So I had a very strong background, I think, of support that was constant, that was continuous, that didn't waver. The stakes were driven in the ground very early. I knew where the foundation was, what was important, and there was no backing off of that by anyone. The fact that it was constant and continuous I think was most important, most important.

Your experiences during your undergraduate days clearly suggest that you were a scholar. You finished with honors. Could you talk a little bit about those experiences during your undergraduate days that demonstrate or highlight or reflect on issues in the life of a black student?

My undergraduate education at the University of Virginia in 1960 to 1964 is a time I often reflect



Edited and excerpted from oral history interviews conducted by Clarence G. Williams with Wesley L. Harris in Cambridge, Massachusetts, 26 January 1996 and 2 December 1998.

upon. The scholarship itself was not that difficult, and I attribute that, as you've just indicated, to the wonderful training not only in terms of actual knowledge in the academics, but also in ethics and discipline which I got out of the experience in Richmond—K through 12, and obviously including home and church. But the difficult part of UVa in those days was, first of all, that it was very elitist and had few African-Americans, all of whom were in the School of Engineering. Black students were not allowed in the College of Arts and Sciences, nor Architecture, nor Planning, nor Commerce, nor Education. There were no black women undergraduate students on campus. There were about 12,000 students, about 32 fraternities. All the fraternities were white, so there was a lot of drinking and overt racism. I remember being spit upon; I remember having cigarette butts thrown at me as cars drove past; I remember being assigned to a dormitory room with a white student. The white student refused to room with me. The housing office then gave me the entire room at the rate of a shared room, so the University was willing to lose money in order to keep me segregated in their space.

It was a range of experiences of that sort that I had to overcome, that I had to put in perspective. Given those experiences, I am not sure one ever really outgrows them. These things, although they're not at the forefront of one's thinking in one's activities, they have a lasting impact on you. You question the motives of people if they are of a certain persuasion or if they come at you in a certain way, primarily because of those experiences. And it was perhaps sharper for me. It's the negative part that was sharper and more painful because I came from an all-black experience, not having had even a minimum introduction to integration. So I knew nothing of how to respond to white folks, or how they would react to me.

I would say Virginia at that time was on its straight course to actually hurt and injure young black folks. No matter how I look at it, that's what I conclude. In 1960 to 1964, Charlottesville, Virginia, I was spat upon and had cigarettes—lit cigarettes—thrown at me. I remember picketing the theater on the corner—which is a shopping mall, a shopping strip near the university—because the theater was still segregated. Black students had to go upstairs in the balcony and very rarely did black folks in town even come up to the theater.

And picketing the theater, a faculty member came by and placed a penny there for me to pick up. I remember those kinds of situations even today, some thirty-five or thirty-six years later.

How and why did you choose your field, and who was most influential in that choice? What events and other influences stand out as pivotal for you?

The person who had the strongest influence on my career selection was my physics teacher, Mrs. Eloise Washington. She encouraged me very strongly to do two things—one, to become a physicist, and number two, to go to the University of Virginia. Mind you, this is a black woman who earned her master's in physics at Penn State in the '30s, so she was an unusually gifted person. And she said to me that I had to go to the University of Virginia, because she said that I would not let the Negro race down. She made it very clear that that was something that I had to do, and that was expected of me. And she began with her own forceful way, making it very clear that there were no options, that I had to do this. And with the right kind of words and training, she made it very clear that she thought it was something that was doable, that it wasn't any kind of disaster or something impossible.

She's alive today, by the way, and I still visit with her. Up until two years ago, she was still driving her car, so she's doing quite well. She still has a clear mind and she knows who you are and she can take you on for an hour or so discussion, she doesn't nod out or anything. So Eloise Washington is a very powerful, strong black woman, who not only knew physics but knew what black folks had to be about in the '50s and '60s. And she made it very clear to us high school students that we had a duty and a responsibility to be not only black but talented, proud of ourselves, well prepared for any engagement we wished to undertake.

Now the engineering part of this thing. Mrs. Washington wanted me to be a physicist and I wanted to be one, but she also wanted me to go to the University of Virginia and a black person could not major in physics at the University of Virginia in 1960. That was against the law. I couldn't go into the College of Arts and Sciences. The only place a black could enroll at the University of Virginia in 1960 was the School of Engineering. Because you couldn't go into arts and sciences, you couldn't be an English major, you could not be a mathematics

major or a physics major, chemist, biologist. None of those were allowed, so I went into engineering. My interest in aeronautics started when I was very young, so within the School of Engineering, the aerospace department was a natural. That's a little twist of fate that got me into that. I do not regret it, by the way. I'm quite at ease with it.

Talk a little bit about how you happened to come to MIT and some of your early impressions coming to MIT.

The last year of my graduate training at Princeton, my Ph.D. advisor, George Bienkowski, and I co-authored a paper for the International Rarefied Gas Dynamics Conference, which was held here at MIT. This was mid-summer, 1968. I gave the paper, my first time being on the campus of MIT, and apparently it was well received. There were many important people in the audience, but one person in the audience who turned out to be very, very critical for my career—and also critical in my growth in a lot of dimensions—was Leon Trilling. Leon Trilling was in the audience, and Leon immediately asked my interest in becoming a faculty member at MIT. I told him that I had committed to going to UVa to teach, but Leon would not give up. He was relentless, and he did provide an opportunity.

In 1972, I became a visiting professor here. All that was smoothed out and made possible by Leon. The reason I'm here is that Leon Trilling made every opportunity that he could a reality, a possibility. He convinced the Department of Aeronautics and Astronautics that Wesley Harris could be and would be a contributor to the department, and he has never once wavered from that in the thirty-odd years that I've known Leon Trilling—well, let's say it's twenty-eight years that I've known Leon.

You skipped a little bit which I think is very important. Let's backtrack before we get too much into MIT. You mentioned Princeton. That had to be unusual, particularly at that time. Could you tell us a little bit about that experience, any role models, mentors, and things that happened during that period of time? That's a very important piece because that's where you got your Ph.D.

Princeton in those days was much like UVa was in those days. Princeton had not admitted women undergraduate students and, by the way, I never had a woman co-ed in any classes I took as an undergraduate nor as a graduate student. I've only had women as students when I became a faculty

member. But Princeton was a school for Southern gentlemen. That's the way it was described and perhaps still is. I think in the entire graduate school population at that time there were five African-Americans, and I was the only one in engineering at that time.

The most important person I met there, and this person is a strong positive influence on my life and my career, is George Bienkowski. George Bienkowski was Polish. He has passed, he has died. I was his first Ph.D. student at Princeton. He arrived at Princeton as a young faculty member one year ahead of me, so I was a first-year graduate student and he was a second-year faculty member. He taught me many things about engineering, about thinking, being critical, being analytical in one's thought, a lot about synthesis building—not only analyzing but building, reconstruction. If he was at all prejudiced, it never ever showed in his dealing with me one-on-one or when I was ever in the presence of any other students. He never ever once showed any signs of racism. He was born in Poland and educated in England. His Ph.D. was from MIT and his postdoc was Caltech. I don't know his religious background. I suspect he's Polish Catholic, but I can't be sure of that. He was a major influence.

I was a teaching assistant in a course in complex variables for undergraduate students in May of 1968, and the reason that is important is simply this. On the night that Martin Luther King was assassinated, I was teaching. I was in charge of a recitation section in complex variables, and it was that evening that George Bienkowski drove back to the campus to personally tell me of the event. He was the first person to tell me that Martin Luther King had been assassinated. I was involved with the course and did not know. So he was a very, very positive influence on my life.

By the way, this experience at Princeton was unusual in many dimensions. Bienkowski clearly was the highlight. The number of bright, gifted people who showed an interest went beyond Bienkowski, because Professor Wally Hayes was there as well as Professor Lam and Professor Jahn, who are both still there.

I need to bring UVa back into perspective here. There were two faculty members at UVa who are still faculty members down there who were major influences in terms of setting aside racism. I don't think I could say they were as strong as

Bienkowski was in terms of being able to look beyond racism, but these people set aside the race card while I was in the classroom. They challenged me and pushed me as hard as anyone, and those people are John Scott and George Matthews. John Scott is a Southern gentleman if there ever was one from a fairly upper, upper-middle class family in Norfolk in the finance community, banking community, a Princeton Ph.D. in his own right, undergraduate training at VPI in Blacksburg. George Matthews is from the Pittsburgh area in Pennsylvania and he also was a Princeton Ph.D. They both were students together at Princeton, earned their Ph.D's, and the main reason I was an honor student was because they made sure I had that opportunity and worked with it. They also made it very clear that if I were to graduate from UVA, the only way I was going to do that is go to Princeton as a graduate student.

That's a list of people who you're saying had a tremendous influence on your career.

Without question. Trilling, Bienkowski, Scott, Matthews, and then that broad base of solid support and the building of the granite-like foundation in Richmond with my family and my high school teachers and church.

Let me shift just a little bit. You're very unique here because you have a long history up to 1985 and then you have done a lot of other things, which I want you to talk a little bit about, after leaving here in '85. But more importantly, could you give some reflection on your overall experience at MIT during that period of time? Identify what you consider of special significance in your academic, professional, and social life here, collegiate relationships, and things like that.

The academic side, the excellence in scholarship certainly was always being looked after by my mentor, Leon Trilling. Leon would always make sure that I did not forget the importance of publishing and doing serious scholarly work and being able to articulate that. In the execution of that scholarly work, I need to just say how blessed I have been to have had the experience of working with so many bright, gifted African-American students—Woodrow Whitlow, Jim Hubbard, Kenneth Leighton, Karen Scott, Bernard Loyd. The list is, in my opinion, filled with very, very capable and gifted people. The things that we were able to obtain as a research team stand as an absolute. The research is simply good, and it is ref-

erenced. The young people have gone on and all have done well and continue to perform their research. They remained in the field, remained active. Some have produced patents and some have their own companies now.

So that was a very, very positive experience here. I'm just very fortunate to have had the opportunity to do work with these young people, and I would say we formed one hell of a good group that was as good as any in the Department of Aero and Astro. And the proof of that is simply the results that have been produced. I clearly would not have been elected to the National Academy if I had not had that experience of working with those students and making the scholarship simply first-rate.

Those kinds of achievements, those kinds of citations or recognition do in fact go to the heart of the relationship with those students. It's not a one-person operation, a one-person show. If the students were not there, we would not have done it. And not only were those students, the MIT students, the graduate students I worked with very bright, but they were also able to do the kind of things Mrs. Washington wanted me never to forget—that you just had to be prepared and that you were striking a blow for humanity, for your people, for our people when you're very good and when you are prepared. And everybody wins when that happens—not just black folks, but everybody wins. I think we're able to do that and do it successfully. And, by the way, we did it without ever being abrasive or disruptive to MIT. No one can ever claim that any of those students as individuals or the Harris research team did anything to embarrass MIT or to in any way degrade the reputation of MIT. We were simply able to move forward in a very handsome way, always with the focus on true scholarship.

The experiences in OME were very rewarding—the very first administrative job, first administrative duties and responsibilities that I ever had. That began to sharpen another whole set of skills—how to interact with people, how to read the language when it's not written, how to begin to survive in the politics of a very, very advanced and complex environment like MIT, how to begin to formulate what it means to be a student, an undergraduate at MIT, not only in the time that you were in OME, but to look out for that student as you would project his or her needs ten, fifteen,

or twenty years in the future. Being director of OME was also to be exposed to people who could put diversity at a level on par with any other cardinal principle within the Institute, and to be exposed at the same time to some very gifted people who simply would not budge from their racism and refused to put diversity at a level where human beings could deal with it. So that experience was very, very rewarding.

I must also say it was a time in which apparently I was fighting an awful lot of demons, and it's probably a collection of demons from the undergraduate days at UVa right through all of the politics of OME. You may know that in those days we were playing basketball at noon-hour over in the gym and a lot of my energy went into not only winning, but winning in a very forceful way. For a person my age—I'm sure I was in my thirties by then, if not forties—winning noon-hour basketball should have been secondary or tertiary or off-scale, it really should not have been important. So it was just getting out a lot of demons. It was a desire not only to win on a trivial game of noon-hour basketball, but in a sense to let out a lot of anger and to dominate, maybe even to maim, certainly to make a demonstrative point that this is it and you get over that. Now I can go over and play basketball for the sake of just staying in shape and if we win, we win. But in those days, hell, I thought I would run through a brick wall to win. I don't have to do that anymore.

Maybe about a year before you left in '85, I remember you made a comment. We were on a trip and you made a comment that you thought it was time to move on, and you did. Could you talk a little bit about what you saw at that point for yourself after being here that long? You moved on to the University of Connecticut. Talk about some of those experiences, because there aren't many blacks who have had them.

By 1985, I thought I had learned here at MIT what engineering really was about, certainly what engineering education was about. I had some ideas of how I wanted engineering education to move, in what directions. To exercise those ideas, to make those ideas a reality, I needed to be in a position of influence in engineering education, that is, to be a Dean of Engineering. It was clear to me that I was not going to *ever* be Dean of Engineering at MIT, for a whole host of reasons. Race is perhaps only a minor one, *perhaps* only a minor one, but it is a factor.

So I looked for an opportunity to put into practice, to put into reality, my ideas of what engineering education ought to be. That opportunity was provided at the largest school of engineering in the state of Connecticut, the University of Connecticut at Storrs. Not only was it the largest school of engineering in the state of Connecticut, but it was in Connecticut, and that still has a very, very important position regarding engineering and industry. For example, some people refer to the state of Connecticut as the cradle of defense, meaning you build nuclear submarines in Groton, you build jet engines in East Hartford, you build helicopters in Stratford. The ball-bearing industry which is so critical to high-performance machinery is very strong in Connecticut. Colt Firearms is in Connecticut, again a company that depends upon engineering but also is very critical to defense, to the defense industry. So you have a lot of heavy, heavy industry that depends upon engineering in Connecticut.

On the chemical side, you had combustion engineering, you had the pharmaceutical companies, biotech was beginning to emerge. We had some electronics. The thing that was broken most in that time period in which I was there, the thing which I was most interested in making a reality, was a bond between industry and engineering education. The state of Connecticut was just ripe to mold and shape that bond. It was the first time I was given an opportunity to work closely with CEOs, to work with state legislators, and to work with the leadership on the campus of a major university. So it was a unique experience, one in which I grew tremendously, one with which I feel extremely comfortable.

We established the first grinding research center at any university in the entire nation during my time at the University of Connecticut. Grinding is a multi-billion dollar business internationally, one which had been dominated by the Japanese and the Germans. We encouraged an outstanding researcher from the United Kingdom to come over to head up our center. We formed that center with several companies and it's still flourishing in Connecticut right now.

We had some major problems with black students at the University of Connecticut School of Engineering. We had one or two out of a class of seven or eight hundred freshmen a year. We had to turn that around, which we did. Unfortunately,

that has gone south in the last several years, a return to the old ways of one or two. We had numbers up in the fifties before I left.

So it was a wonderful opportunity, a good set of challenges, and our achievements were unique and useful and important. Today when I meet people at Pratt-Whitney and at General Dynamics, we still have good times and talk about how we turned the school around and worked together to form a lasting relationship. The School of Engineering did not have an advisory committee, an industrial advisory committee at Connecticut, so we established one. The chairman of that committee is still alive, a gentleman who developed the ATM—the automatic teller machines. When you get money out of the bank, out of these teller machines, this is the guy who did it. He also turned around the Singer Sewing Machine Company. He was very important. He was the Leon Trilling of Connecticut. He made sure that industry knew what we wanted to do, and he worked hard for that. He was relentless. He stepped down from being a vice president of technology at one of the major companies in Connecticut, due to a merger. It wasn't early retirement—he was already sixty-eight years old—but he then sort of just stayed right there with us in the School of Engineering and made the difference. His name is John Rydz.

Say a word or two about the other experiences you had before you came back here.

The move south to the University of Tennessee Space Institute in Tullahoma, Tennessee, was also an opportunity, at least I thought it was, and a set of challenges. I was attracted to that location by Lamar Alexander, who was two-time governor of Tennessee. The time when I met him he was president of the University of Tennessee system. Unfortunately, we worked together only for about six months. About six months into my being in the job, he went to Washington to become Secretary of Education in George Bush's administration.

I think that unbeknownst to Lamar Alexander and certainly unknown to me, the University of Tennessee Space Institute was morally bankrupt. Intellectually, it was certainly second- or third-class. I could understand that—for a whole host of reasons, Southern institutions are not MIT or Princeton or Caltech—but moral bankruptcy is something that I had never experienced before going to that place. They had faculty members

give degrees basically for contracts in their own companies while maintaining a full state salary. To have these people indicted and convicted on twenty-eight counts was something that I just thought was beyond any academic. So the moral bankruptcy of the University of Tennessee, and certainly the University of Tennessee Space Institute, was another dimension of this world that I never ever dreamed would cross my path. Now, what did I take out of that experience? A pinch of reality, that there's a spectrum of people and spectrum of behaviors, and everything is not tied so neatly as in the Northeast.

I also had to deal with racism in that community in different kinds of ways. Faculty were notoriously racist and, I think, terrified of me, I suspect, for a whole host of reasons. Certainly a large part of it was their own dirty laundry, that once they knew or learned who I was and what my standards were, they knew that that was not going to be tolerated. Did I grow intellectually in terms of the research dimension in Tennessee? The answer is no. In terms of what human beings are capable of—tremendous growth, tremendous growth. The kinds of personnel problems I had to deal with at that institution in the two and a half years I spent there were truly, truly extreme. I did not know educated people behaved in such a way, and you certainly could never convince me white folks behaved that way.

The next job was at the National Aeronautics and Space Administration in Washington, heading the nation's aeronautics program. That was a peach of a job in the sense that, again, I was given an opportunity to shape and mold and to do some things, to build some relationships between government, industry, and academia. And we were able to do that.

Could you say something about the magnitude of that job in terms of people whom you report to and the budget and so on? I think people need to understand that.

The office of aeronautics at NASA is responsible for all of NASA's aeronautics activities. That means the Ames Research Center in California, the Dryden Research Center in California, the Langley Research Center in Virginia, and the Lewis Research Center in Ohio all reported to me, to the associate administrator for aeronautics. The combined budget of those four centers and the staff in Washington, to manage aeronautics, was about two billion dollars a year. The total number

of personnel in that organization was about eight thousand, and I reported directly to the head of the agency, that is, the administrator. That person was Daniel Goldin, who is still there.

So essentially, eight thousand people reported to you?

Right. There were various supervisors and directors along the path to me, but the answer is yes. Now what's at stake? Aviation is the largest contributor to the U.S. balance of trade in the manufacturing sector. In fiscal year '93, which was a bad year for aviation, the aviation industry sold airplanes and jet engines in the amount that thirty billion dollars returned to the U.S. as a balance of trade. A net plus of thirty billion dollars returned to the U.S. Treasury. We sell our planes to nations in the Far East, to Europe, Africa, and South America, and when you collect all of that, the net—the positive net, not the gross, when you pay all your bills and everything else—that comes back to the U.S. is thirty billion dollars. So it's a very, very important part of our economy, more important than the space side in terms of balance of trade and constant generation of national wealth.

So Boeing Commercial Airplane Company, for example, Pratt-Whitney again, GE, McDonnell-Douglas, Rockwell—one had to work with all of these companies in order to make sure that that industry remained strong. And that's what I mean by saying it was a peach of a job. It was in the area that I knew, at least I was trained in and should know a lot about, and it was an opportunity to work at a level where you could really be effective in building long-range relationships and long-range, useful programs. There are quite a few of those that I'm quite proud of.

The nation's first national rotorcraft technology center was established while I was there in that office, and that's a unique relationship between the U.S. rotorcraft companies, NASA, and universities. We were able to work with OMB, the Office of Management and Budget, to build useful metrics that defined the program, leading to an increased budget. We wrote a national strategic plan for aeronautics which the President adopted as his own. We worked for Vice-President Gore and with Prime Minister Chernomyrdin of Russia to establish a U.S.-Russian relationship in aeronautics. It was an opportunity that was unique and one, again, in which I learned even more about CEOs and what's important in this country, and being up

close and personal with the rumblings of politics of Washington, which is clearly a world that is different from Connecticut or MIT or any other place I've been.

There aren't too many folks I know of who have seen the world as you have, but I want you to come back and talk a little bit about your broad range of experiences. Is there any advice you might offer to other blacks, whether they be students or faculty members, who will be coming to MIT in the future?

I still say my foundation is one that is made of granite. The things I learned in Richmond, Virginia, in a segregated community have served me extremely well. Although they were introduced to me and drilled into me in a segregated environment, I have come to appreciate that what was offered is in fact an absolute—a strong sense of scholarship, love and appreciation for scholarship and the desire to produce it without compromise, a strong sense of ethics, of what's right and what's wrong, and being able to stand firm on those beliefs, personal integrity, honesty, fairness to all, fairness and firmness. If you recall, Mrs. Washington was not only fair but a firm lady. I mean, there was no bullshit, no wishy-washiness, no equivocation—just firmness, never abrasive, but firmness. I would think that young people, middle-aged, whatever, who want to engage MIT had better come with a foundation of granite.

Second, you must have a mentor. I don't think MIT will yield to an individual, no matter how good or how strong that foundation is, without a mentor to help navigate through these icebergs waiting to knock a hole in your ship and sink you, man. They're cold, man, and monstrous underneath. You need a mentor at MIT. I don't think it's going to work without it. You probably need a mentor throughout life as well.

And then I think you need some good luck, some good fortune. Somehow my presence at MIT coincides with Woodrow Whitlow, with Jim Hubbard, with Patrick Hanley, with Karen Scott, with you, with Jim Young. And all of that, when combined together, produced whatever it is that I've been lucky enough to work with and been a part of. So that's important. Some of the stuff, you just have to be in the right place at the right time, meeting the right people. And hopefully it's not all one way, namely that Wes Harris took away and didn't give anything, but all of the people—not

just Leon Trilling, but you and Jim Young and Jim Williams, the whole nine yards to all. So many of the people who have come and gone I can't remember them all—Willard Johnson, Shirley McBay, John Turner.

The year I was visiting here, there was another visiting professor quite senior to us in mechanical engineering who went back to Howard. I was talking to him about earning tenure at MIT and he says, "Wes, why are you worried about tenure? You can't fail. Even if you don't earn tenure here, you can't fail. So just go ahead and do it right and don't worry about it." And there was a sense of balance. Because he was here at this time, because I was fortunate enough to have a conversation with him—luck, chance, whatever you want to call it—things were put into perspective that made it much easier for me to engage MIT. So a lot of this depends on just pure luck. Some folks will come through here and nobody's talking to them, or there's nobody to talk to, and that can be a very, very negative experience.

So a strong foundation, that's got to be there. Mine I attribute to Richmond, and I've also indicated the positive part of UVA and Princeton. Secondly, a mentor and people to talk to in addition to the mentor. And then that other piece, sheer luck—the fact that somehow Whitlow and Harris were here at the same time. Whitlow could have been at the University of Michigan while I was here, but it just didn't work that way.

Your being the first director of the Office of Minority Education gave you a chance also to mold something that you thought the students needed, the black students needed, based on your assessment. What you have put in place there basically has stayed that way. There has been very little innovation since then. If you had any advice to give to MIT in terms of suggestions or ways to improve or enhance the experience of black students, what kinds of things would you tell the institution? What things would you think about in terms of improving and enhancing their experience here?

I think that what I've learned, what I've observed over the years—and this includes MIT, where I guess I've spent most of my time, but it also includes the small amount of time I've spent on other campuses including HBCU's—is that what's really required is an atmosphere where scholarship generated by black people, in this case black students, is simply expected. It's such a part of the cul-

ture, being with Mrs. Washington, my high school physics teacher, such a part of what we do that we all come to expect black folks to produce scholarship. And the problem of MIT—it certainly was between '75 and '79 when I was in OME, and I suspect that it's still the same—is that the biggest problem and the biggest challenge that African-Americans have here is that white folks come to the table believing that scholarship is not expected from blacks. Most of the faculty and students, white faculty and white students I have met and dealt with, expect black folks to blurt out something that's dumb and ignorant and do not expect any substance or scholarship. And they're totally miffed when black folks continuously explain, innovate, create beyond their—white folks'—imagination.

Now for us at our age, who have been bumped and bruised and come at this with a different foundation, we can endure this. But for a young African-American with an integrated experience and never being forced to differentiate between what's expected or to understand what it really means when people expect you to be dumb, it's a hell of a burden to carry. And I think that atmosphere, that environment, did more to hurt African-American undergraduates than anything else. In fact, in OME I think the data which we examined indicated the performance of the African-American student was independent of his or her SAT scores. You score 1600 and your chance of failure was as high at MIT as someone who scored 1200. Those kinds of results, I think, point more to the environmental impact and negativity on the part of the faculty and the administrators than to the capabilities of students.

So MIT has to change its climate, its environment. It has to look at African-Americans as people and has to expect of African-Americans what they expect of any and every other student who comes in here. Everybody expects MIT students to be gifted, except when it comes to black students. I think that is the issue, that is the issue.

Is there any other topic you want to raise?

I think the major ones I've mentioned. We haven't said anything about Hartley Rogers or a half-dozen other folks. I think they have been here and are here, but they're rather minor. We haven't said anything about Jerry Wiesner or Paul Gray, but I've known these people and I've worked with them

only at a great distance, whereas Leon Trilling was up close. I think we've touched upon the main events and the main personalities that helped mold and shape those events.

Talk about your experiences in regard to your current position as a full professor here in the aero and astro department. [Interviewer's note: In the material that follows, Professor Harris provided copies of archival material and requested that they, with their archival references, be inserted in the text of his interview.]

Thanks for the opportunity to share with the larger community some of my experiences. Most recently, as a result of having the privilege of serving on the search committee for the Dean of Engineering, a search committee chaired by Professor David Marks in the Department of Civil Engineering, I was exposed—like each member of the search committee—to the report of the search committee of 1995, which identified a Dean of Engineering, that person being Bob Brown. That report was a brief summary of the activities and the process involved in the search in 1995. That report, which was forwarded to the provost at that time, Joel Moses, also contained an appendix identifying the affirmative action activities of that committee. Appendix D identified Professor Widnall as a woman who was asked to be interviewed. She denied her interest in being dean. That same Appendix D identified me as a person they interviewed, with a description of me as a person without citizenship, using words such as “black african”—lower case “b” and lower case “a”: “The chairman contacted Prof. Harris, as a prominent black african engineering academician, to ascertain his possible interest in the position of Dean of Engineering, and any thoughts he might have about the future of engineering at MIT” (“Report of Search and Recommended Candidates for Dean of Engineering,” 17 Nov. 1995).

Africa is a continent. Even in the most common use of the word, such as “an African violet,” the word African would start with a capital “A.” Such reference on the part of the chair of that committee, Professor Kerrebrock, was to me an indication of a deep-rooted disrespect for black people—African-Americans as well as people who are citizens of a country on the continent of Africa.

This concern that I had was shared with other faculty, including non-minority—that is,

white—faculty on campus. All agreed that such a reference was at best in poor taste and, probably more accurately, directly racist. I prepared a letter and sent it, along with a copy of the report, to our president, Mr. Vest. I wrote as follows: “Although I understand, and support, the motivation to include members from minority groups at MIT in such deliberations, I find the characterization of my ethnic heritage as documented in the report to be offensive. As I have been a member of the Department of Aeronautics and Astronautics for approximately fourteen years, during which time Professor Kerrebrock was one of the department Heads, I had hoped that my colleagues knew my attributes included being a professional and a citizen of the United States. As the report was written, I was documented as being a ‘black african.’ The correct reference to my ethnic heritage is African American (an American of African descent)” (Wesley L. Harris to Charles M. Vest, 28 September 1998).

Mr. Vest received the letter and responded (Charles M. Vest to Wesley Harris, 6 October 1998) in what I thought was an appropriate manner, indicating that he thought the reference was bizarre:

I was sorry to receive your letter of September 28, but also appreciative that you shared your frustration with me. I can only imagine how tiresome such things become, especially after a lifetime of distinguished service and accomplishment. The characterization of you as a “black african” is, in my view, not only offensive, it is bizarre.

The committee membership includes many I personally know to be caring members of our community, so I have no idea how this came about. I will discuss the matter with Jack Kerrebrock and circulate and file your letter in some appropriate manner. I am confident that the members, like me, will feel very bad about this matter, but you are absolutely right to ask us to see and think on it.

Following that, I did have an interaction with the chair of that committee, Professor Kerrebrock, who came to my office with a smirk on his face, wanted to know what the problem was, offered an apology, and left with no handshake. He then wrote the president (Jack L. Kerrebrock to Charles M. Vest, 9 October 1998):

I have spoken to Wes Harris about the reference to him as a “black african. . . .” I certainly agree that it is

both offensive and bizarre. At this point I am at a loss to explain it. Certainly it does not represent my attitude toward Wes. I can only rationalize it as a careless error, but I must take responsibility for it as Chairman of the Committee.

I offered Wes my apology for this offense, which I think he has accepted. I also wish to apologize to you for the embarrassment it has caused you and the Institute. Perhaps this letter should be filed with Wes' letter, hopefully to close out this unfortunate incident.

The president acknowledged receipt of Kerrebrock's letter, wrote me, and, as far as I'm concerned, the matter is closed in terms of what I expect this institution to do. But clearly, this is but one indication of the basic disrespect that exists within the Institute, and certainly within my department, with regard to black faculty and black people in general. My concerns have only been reconfirmed as a result of this incident. It's not that I expected anything different, but to have a former department head—a department head while I was working in the department—not understand my citizenship is incredible.

You've been in and out of this department since 1972, is that correct?

That's correct. During my tenure here from '72 to '85, for four of those years Professor Kerrebrock was the department head. So Professor Kerrebrock knew full well, having been able as department head to read my personnel record, that I was an American citizen. Plus, there's no person on this earth with citizenship that equates with "black african." There's no such thing. And there's no excuse for that. Ignorance is not allowed in this case. That was done by design, not error. And those five documents—the report itself and the four letters—I offer as a matter of record.

You ask about what it meant to be a full professor upon my return to MIT. I have grown tremendously—at least I hope I have—in the ten years that I was away, from '85 to '95, having had experiences in the deep South and having had experiences internationally. MIT still remains the dominant technology-based institution in the world. When it comes to engineering, it is certainly number one and it is certainly very close to number one, if not number one, in science and mathematics. It remains a place where excellence is expected and that cannot be taken away from MIT.

The unfortunate part of my assessment of MIT is that it is not balanced. If you ask for respect for human beings—in particular, for black Americans, citizens of this country—MIT falls very, very low on the mark. It is simply not where it should be. I don't think my experiences are significantly different from that of my colleagues who are black. On too many occasions, our—and certainly my—recommendations have been totally ignored. A white person can make the same statement in the same meeting and he is identified as the person who had made the contribution. This has happened time and time again since I returned here in 1995.

So the disparity between excellence and respect simply grows at MIT. The gap is not being closed as we move forward in time. The disparity between excellence in math, science, and engineering and respect for human beings—in particular, for black Americans—is growing. The gap is not closing.

You have had some remarkable experiences away from MIT. You have held some very distinguished positions at the University of Tennessee, where you were a vice president and chief researcher. I may have the titles a little wrong, but essentially you were a senior officer at that university. Then, of course, you moved to NASA to be a very high-ranking official, probably it would be fair to say the second-highest ranking person at NASA. That's a tremendous amount of experience at the highest levels of university life as well as governmental service. You were also dean of the School of Engineering at the University of Connecticut. Those are all very high-level positions. To come back to MIT after those kinds of experiences, what struck you the most about the Institute relative to black folks, remembering the way it was when you left?

I think I've had some time to reflect on that and I have an answer that consists of two parts—one, what are the changes within the black community itself that I've been able to discern since returning, and second, what have been the changes generally within the Institute as it views blacks? I thought when we were together in the early '70s and even throughout the early '80s that there was on this campus a group of six to ten African-American faculty and staff members who had an idea—a very healthy idea—for the place of black folks in this institution, how we could contribute to science, to mathematics, to engineering, to the humanities, to the governance of this institution,

and to the day-to-day management and administration of this institution. I thought we were able to articulate that to the administrations of President Wiesner and President Gray. I thought we were able to articulate it in a non-combative way that was received directly by those presidents and not by any intermediary. I thought we were beginning to lay a foundation that would lead to our place—our very healthy place—of making contributions throughout the life of MIT.

Upon returning, as I understand the black community now, that group—or a similar group that may have replaced it, of six to ten to twelve people—in my opinion simply does not exist. The energy that that group had, the coherence, and the glue that kept it together simply doesn't exist anymore. A lot of the people are not here. Some of our senior faculty members like Professor Young and Professor Johnson and some of our administrators like John Turner are no longer here. A lot of the energy has gone to other places and in my opinion has not been replaced. That is a black problem. That's a problem in our community. How can we reenergize ourselves to articulate once again the rightful place where we are able to contribute to the advancement of this institution? That's why we're here—not just for the buck, but because we want to advance humanity as well.

So I need to put that out, that we have lost on our side. Then I go back to my previous statement, that the respect that any human being should receive in this institution is not offered to black Americans. It simply is not offered. That gap between the excellence of MIT in science, mathematics, and engineering on the one side, and on the other side the respect for humanity—especially for black folks—is widening, and that is MIT's problem, not our problem. I see those as major differences over the last ten years—a loss of energy and cohesiveness on our part, certainly among the senior members of this community, and a widening of the gap of respect or disrespect for us on the part of MIT.

A number of people whom I have interviewed—graduates of MIT over the past twenty-something years, particularly in the '70s and mid-'80s before you left—have spoken about you as a person who gave them a sense of purpose and many other kinds of very positive things. There are a number of people who have come through this place and left and really, when they think about MIT, you happen to be one of those persons they

think a lot of. That brings me to the question of mentoring. You have done a lot in terms of teaching a number of students and doing research with a number of students, or helping them to do research with you. Could you talk a little bit about some of those experiences and what they have done for you?

During that time we referred to earlier, from '72 to '85, there are two points that I think are very memorable and that had a significant impact on me as a person. One was this group of senior black administrators and faculty, this group of six to ten people who had this energy and this cohesiveness and this ability to articulate a rightful place for African-Americans in the environment of MIT. The other bright spot, the other memorable sequence of events, was the gift of working with so many challenging, bright, assertive, articulate African-American students. They formed a stronger research team than I think existed anywhere in aeronautics. I would put that team up against any team that exists here at MIT, no matter what color or what gender. They simply made a decision to work hard, to be their very best, and given that they came here with great intellect, once they decided to be their very best they in fact turned out to be the very best. I played a very small part. I simply provided the space, the security of scholarships and fellowships and working with you and John Turner, in particular, to make sure the financial part was there, and maybe by example trying to be there on time and asking the right questions to move forward.

But it was the gift of having that experience, of knowing those young people, that certainly is the second bright spot. Although by the measure of MIT, it was the quality of their performance, it was their degrees, it was the impact of their research on industry that we looked for as a metric, for me the other metric is how has each of these young people moved forward as human beings? Do they understand who they are, do they understand what humanity is about, do they give a damn? And I'm pleased to say that every single one of them has turned out to be a very, very solid citizen. That pleases me as much as the fact that they have won various awards, moved to senior positions in their own organizations, and started their own companies. They have their own families and communities and are doing quite well. They are not distortions at all. They are very, very solid human beings and great citizens.

I can attest to that in talking with them in this project. They have made it very clear. I think they give you more credit than you want to claim.

I was a small part. It was them, man.

You sound like Jim Young.

I learned from Jim Young. Jim was a part of that group, you know. With Jim, we had to get it right.

There is one other point that I think is important to make. People like yourself tend to want to downplay some of the things that I think are very important for the next generation of blacks to know about a distinguished faculty member like yourself. If I remember correctly, although you have indicated what you think are some things that we need to deal with, sometimes people begin to look at you and say, "Well, who are you?" But the point is that you have talked the talk and also walked the walk. Academically, if I'm not mistaken, you just recently were appointed to a society of outstanding scholars that only the very best are selected for. Could you just say a little bit about that?

I believe you are referring to the National Academy of Engineering. This was clearly a very impressive moment, when I was informed that I had been selected. I was at that time the associate administrator for aeronautics at NASA in Washington. Since that time, I've learned that the process was led by industry—in particular, by one of the foremost designers of airplanes in the twentieth century, Mr. Ben Rich, who worked for Lockheed Skunkworks out in California. He was my champion and led my nomination and final election to membership in the National Academy of Engineering. It was not at the grace and help of anyone at MIT. I think that's very, very important—it was Ben Rich and not anyone at MIT.

To have that kind of respect from the outside community certainly was something that I took note of, and I should not forget that. The Academy itself clearly is changing and I think many more deserving African-Americans will be elected for membership within the Academy. I cannot wait and am just overly anxious for the election of one of my former students to membership. That would be the crowning piece on my career, for one of these young people to be elected to membership in the National Academy. It's an organization of the very best from industry, government, and academe. MIT, I think, has more members than any other academic institution in the country—in the

world, in fact, since it is a U.S. organization. So in that sense it clearly is an honor.

But I think in the aero/astro department right now nobody pays any attention to the fact that I'm a member of the National Academy. I don't think it makes any difference. To them, I'm still Wes Harris "the nigger." I don't think it makes any difference, I just don't. I don't think Kerrebrock gives a shit whether I'm in the Academy or not. He would have written that statement the very same way if I had been standing on my head or spinning on the moon—"black african," lower case "b" and lower case "a," NAE membership notwithstanding. That's clear. He is a member of the National Academy and he must have known I was a member. He's a member of the department and he must have known I'm an African-American, but it made no difference. He doesn't see the problem. Kerrebrock feels he can call me anything he wants to whenever he wants to, except a U.S. citizen.

How many blacks would you say there are in the National Academy of Engineering?

I would say a dozen, but not more than that, out of about two thousand total membership. I would say eight to twelve blacks are members, but not more than twelve. There aren't twenty. It's less than one percent, much less than one percent.

That alone will tell you how significant your membership is. You don't get there not dotting the "i's" and crossing the "t's."

No matter what, you have to do something right somewhere, at least one thing correctly in your life to be elected to membership in the NAE. Somebody of importance in the engineering profession must have taken note, "This guy is doing something right—he can at least tie his shoes up and walk straight." I don't think the NAE would ever disgrace itself. It does not have to elect anyone for membership.

Actually, the first time I was notified I thought it was MIT that did it. Ben Rich was near death, by the way. He died of cancer very shortly after that. I know his son and some others at Lockheed, and that's how I was informed as to who was my champion and how it was done.

I never would have thought that. I would have thought it was MIT.

Yes, I would too. I would have sworn it was Kerrebrock.

Until you mentioned it just now, I thought it was somebody at MIT who played a role in that.

It was Ben Rich from Lockheed. Before he died, we traveled to Germany together. We spent time in Germany, spent time in Tennessee, and in Washington as well. I remember the last time I saw him in Washington, he was clearly very near death but he was able to walk up to the podium to accept what's called "honorary fellow" status within AIAA. Shortly after that, he died.

He sounds like quite a person. Is there any other comment you'd like to make?

There is. The challenge you've taken on is one that I respect greatly and one that is clearly needed. It's needed for us black folks. I think the white folks who will understand it are already behind us. I'm not sure how many disbelievers it will convert, but maybe there is some opportunity there as well. But the horror—the utter horror—of being a black American in the twentieth century I think will come through in your book. The presentations that you will offer the reader will, I think, present the real horror of what it means to be a black American in the twentieth century.

We are at MIT. This is the pinnacle of technology in this nation. The kind of disparity, the kind of harshness, the kind of disregard for our humanity as a people is enough to drive one to insanity. I hope the readers, both black and white, do not interpret our experiences as some bizarre construction on our part. It is not a bizarre construction; it is, in fact, a presentation of events as they occurred. There is no illness, there is no psychosis, there is no neurotic behavior on our part. We are simply trying to navigate our way through this maze of racism. And the book should not be looked at in any other way, in my opinion, other than a clear, accurate description of what has happened. Unfortunately, it is not all pretty. There are some very, very realistic but at the same time horrifying stories, and the reader simply has to understand that.

We are not sick. We as a people are not ill. There is no psychosis, there is no neurotic behavior on our part. I think, in fact, we are damn tight and stable to put up with some of this bullshit without kicking somebody's ass. It's a very, very well contained community.