

## VICTOR L. RANSOM

b. 1924, SB 1948 (electrical engineering) MIT, MS 1952 (electrical engineering) Case Institute of Technology; graduate study in mathematics and statistics, New York University, 1956-1959; joined Bell Laboratories in 1953 as member of technical staff (MTS); supervisor, 1965-1975; department head, Operator Services Department, 1975-1982, and Switching Systems Studies, 1983-1984; division manager, Network Switching Technology, Bellcore, 1984-1988; owner, Systems for Special Needs, 1988- ; adjunct faculty, Newark College of Engineering and New Jersey Institute of Technology; president, Telephone Pioneers of America Council, Bellcore and Bell Laboratories; holder of two US patents.

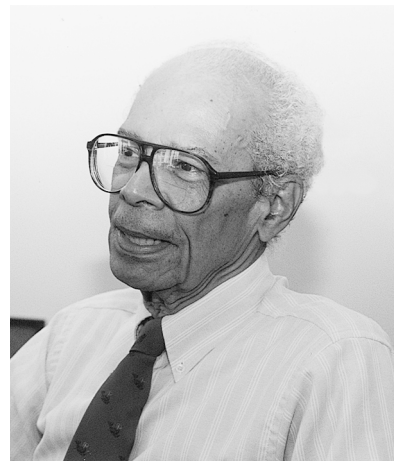


Based on your letter asking about things that might be of interest to the archives that you're generating, I gathered up for you several articles that I had written for Bell Laboratories publications. Bell produced two periodicals, one was the *BSTJ*, a technical journal, and the other was the *Record*, which was directed more to a popular technical audience. Among the material that I have brought is a copy of the *Record* in which my picture was used on the cover. In the issue, I was writing about the system I had worked on. It was a system that at the time was considered to be "new art" and so was of considerable general interest to people in the company. The transistor had recently been invented at the Lab and the management was making a big effort to use transistors in all their systems. Ours was a system built around transistors and digital products.

In the late '60s, an effort was made by the company to show blacks in their various roles in the laboratory. One of the pictures which I have given you was used repeatedly. In fact, it was used in the annual report for AT&T and was also placed on the wall at 195 Broadway, AT&T headquarters. I used to amuse myself, since I went there often for meetings, by checking to see if the picture was still on the wall. I said, "Well, if it's still there, I must still have a job. As soon as they take it down, I know they're going to get rid of me." As I said, the picture appeared in a number of places. The copy that came up when I reached for materials was a booklet that talked about educational opportunities at Bell Laboratories. In it, there is a full-page picture of me. I'm explaining

how a piece of measuring equipment that we use would function.

Among the articles I have given you also is the most recent that I've written, which was published in an encyclopedia. About the time I retired, I became interested, as a result of volunteer work with the Telephone Pioneers, in technology for people who have various types of disabilities. In fact, in the last year, when I knew I would be retiring, I gave up my management job and began working on applications that might be of interest to the operating companies on the use of technology for people who are disabled. I used that as an opportunity to teach myself a lot about what was happening in that field. A friend of mine who was writing this encyclopedia on telecommunications asked if I could produce an article that he might use in this general area. I wrote this article entitled



Edited and excerpted from an oral history interview conducted by Clarence G. Williams with Victor L. Ransom in New York City, 24 July 1996.

“Communication Aids for People with Special Needs,” for the encyclopedia. The piece with written with an associate of mine who had been working with me in this area, Laura Redmann. The paper surveys applications of computers to communication for people who are disabled in one way or another. I’ve been involved in that field since I’ve been retired. I also teach a course at New Jersey Institute of Technology (NJIT) on the application of computers to people who are disabled.

There’s a story that goes along with that. The shorter version of it is that the program was started more or less as a pilot program at NJIT to teach students in the technician area about “rehabilitation engineering.” The government funded it in such a way that it was popular. I believe it paid tuition and bought books for students in the program. I was brought into the program to develop and teach this course on computer applications. I taught once under the program. Sadly, there was an implosion in the number of students who entered the program and funding for the program ended. I went on to teach other courses and we are now offering the course again this fall to see if there’s enough remaining interest.

The field of rehabilitation technology has been a source of continuing interest for me. Besides the training program I just mentioned, the federal government also developed a program to make people more aware of assistive technology. The term “assistive” is generally used instead of “rehabilitation.” The name applies to a whole range of technology, from wheelchairs to aids for persons who are visually impaired to types of specially adapted environmental controls. Under the federal government program, on the order of five hundred million dollars over five years was allocated to the states to come up with programs to increase public awareness of assistive technology and to help people obtain the technology.

I was active with a group to try to bring the program to New Jersey. We have had the program now for a number of years. It’s called TARP (Technology Assisted Resource Program). I am on the State Council for the program. What they try to do is to provide resource centers where people who have the need for equipment can come see it and try it out, and also to work across a broad range of problems that people have with getting and using equipment. Usually, the major problem is that people who need the technology can’t get

funded. Medicaid has never heard of the equipment or doesn’t think they can fund it. So TARP works with a group of legal people to help to resolve these kinds of problems, and I’m still active in that effort.

I think I explained how I got involved in this work. It was when I was with Bell Laboratories, toward the end of that career—or was it the middle somewhere? I know at the time I was a department head. The management at that time very actively supported a community service group called the Telephone Pioneers, a volunteer group that existed throughout the Bell system. We were encouraged in the management to play a leadership role. Your boss might say, “It would be nice if you would run for vice president or president in our location’s Pioneers Council.”

I came into the Pioneers in that way. I was intrigued by the fact that one of the more interesting things that Pioneers at Bell Labs did was to develop communication aids. I was always surprised, though, that there wasn’t a greater involvement within the Lab in that aspect of the Pioneers’ work. I particularly wanted to become involved in that aspect of their work because it tied into my engineering, and I was anxious to do something that would help people who are disabled. This interest came about in large part because my son has schizophrenia. That’s a mental illness that’s not well understood. The people who work in that area are largely psychiatrists and psychologists, and I’m not that. But the encounter with a disability increases your sensitivity to the special needs of people with disabilities, and I thought this was an area in which I could be relevant.

So I began working in this area with other volunteers at Bell Laboratories, and later at Bellcore, when I was transferred there. One thing I noticed as I worked with this group was that we had a “not-invented-here” approach. That was characteristic of the Laboratories people at that time. If it wasn’t in the Bell Systems, then it didn’t exist. So when we were told about someone who had a particular need, we went out and designed and built our own equipment. But over time I became aware of the fact there was a very substantial field already existing of people building equipment. A lot of them would be businesses that would start and then fail because there wasn’t a general awareness of the availability of this technology. So when I knew I would be retiring, I

thought, “That’s a fun area to work in and I ought to learn more about the field.”

That’s when I took off the year and, among other things, I joined the RESNA—which used to stand for the Rehabilitation Engineering Society of North America, but the group no longer appeals only to engineers but to a broad range of persons working in the field. In addition to joining this group and attending their conferences and workshops, I took a course—at the TRACE Center at the University of Wisconsin—concerned with the application of computers and controls for disabled persons. I then changed my job at Bellcore to work on identifying an area that Bell operating companies could change to offer better service to disabled persons.

After I retired, I formed a small company called Systems for Special Needs. Under the company name, I have designed environmental control equipment which is used to a limited degree at one of the hospitals in New York. I still remain in touch with the hospital’s staff and continue to do some occasional design work for them. The company has provided me, along with my teaching, with a considerable source of satisfaction and entertainment. I have found that it is more useful to deal as a company rather than an individual, so the company still exists even though my profits are small. I pay my occasional taxes and make occasional earnings.

In the company and teaching, my other effort in the assistive technology field is a bit of voluntary work with a resource center in my community, the Tech Connection, whose principal focus is providing opportunities for disabled persons and their families to learn and use various types of assistive technology. So that’s largely where I have been since I retired.

*One of the things that I think would be very helpful is to talk a little bit about your family and your early pre-college experience. Some of the highlights of that period I think would be good.*

I was born in New York City. My mother was a teacher in the New York City school system. She was an intellectual and aware of what was going on in the world. My father was primarily a writer. He wrote in newspapers and at one time became a photographer. He went to Fordham College and Fordham Law School and completed both programs, earning an LL.B. degree, but he never prac-

ticed law. It was a very difficult time in the early years of the Depression, but because my mother was a teacher we were moderately comfortable. She went to Howard University and knew all the people down there. Her family, the Flagg family, came from Washington, DC. Her sister was one of the founders of AKA, the Alpha Kappa Alpha sorority at Howard. My parents were part of an interesting and wide-awake group called the Harlem Renaissance.

I don’t think that I did terribly well in elementary school. I just remember it as a grim, uninteresting experience, with my mother desperately trying to teach me to spell. But toward the end of junior high school, I began to be a little more scholarly and became interested in school. As a result of my mother’s drawing it to my attention, I took the examination to go to Stuyvesant High School, a special school in New York City emphasizing science. I passed the examination.

Attending Stuyvesant was an exciting and interesting experience. I lived at home and commuted. At the time I applied, I was living in New York City. We had the unusual experience of moving from Brooklyn to New York repeatedly during that period. I like to kid about the fact that my mother moved sixteen times before I was sixteen years old. If she thought the schools were better in another community that was “opening up” to blacks, or if the landlord complained about anything we kids did, we would move! I don’t remember it as being a particularly unpleasant experience. We often moved back and forth between communities that we knew.

We lived in Washington Heights. Last night, my wife said, “Why don’t you say Harlem?” We were very much aware of the fact that Washington Heights was not part of Harlem, but I guess today it’s considered Harlem. At any rate, we lived in the same house several times and even in the same apartment. I moved so much that going to a high school outside our neighborhood didn’t seem to be unreasonable. I had to commute to Stuyvesant, on the subway from Manhattan or Brooklyn. All the moving meant that I wasn’t really as involved in the social life of the community. This is something I missed.

During the Depression years, one of the significant factors that influenced me greatly was my summers at Camp Atwater, a black camp in East Brookfield, Massachusetts. I attended for about ten

years. I recall with considerable affection a nature study program conducted by Frank Johnson, who later became a pathologist. I never saw him after the camp experience, but he greatly influenced me toward a career in science. He was very much the “SCIENTIST” for me. I was uncertain as to what area of science I was interested in. In fact, when I had to choose a high school, my uncertainty was a factor in selecting Stuyvesant over Brooklyn Tech. I wasn’t sure what I wanted, science or engineering. Brooklyn Technical High School sounded too much like engineering, and since I had never met an engineer nor read what they did exactly, I had no role model.

I think my decision to apply to MIT was as a result of my mother’s awareness. She was an active member of the Teacher’s Union in New York City. By the end of high school, I was fairly sure I wanted engineering, and MIT offered science and engineering. I wasn’t particularly conscious of the very high tuition. My parents always acted as though college was just something you did! I remember having an interview with someone who was part of the Educational Council Program, at one of the offices downtown. The interviewer asked me, “How will you handle tuition?” I had no idea. I just assumed my mother would pay. He later asked my mother and she simply said, “We will pay.” I didn’t get scholarship aid at that time. In fact, I was not initially admitted, but was placed on the waiting list and then subsequently admitted. I had done quite well in high school, but Stuyvesant had some brilliant students and several had applied to MIT.

At any rate, I got in. I don’t recall a great deal about it, but there are a few things I do remember. One of them was that, as I had never seen the school before I arrived, I thought it looked like my idea of the War Department. It was my idea of just the massive, very unsympathetic buildings. But what MIT did at the time that I thought was marvelous was to have a freshman camp. Freshmen were invited to come to a camp experience. It was held outside in Massachusetts somewhere and it ran for several days. We sat around the fire and people talked. I recall swimming in a lake at the camp, which had water as cold as I can ever remember in my life. I still can remember the ringing in my body, the sitting around the camp fire in the evening, and a group leader saying, “Look at the fellow to the left and the one to the right—only one of you is going to be there at the end.”

There was much more emphasis on the severity of the MIT experience at that time. There was school on Saturday, which was a new experience for me. I don’t think they kept that up too long. I lived off-campus, and I suspect it was related to a cost issue, I don’t know. I very much remember living with a black family on Dana Street, 55 Dana. I still occasionally go by to see if the house is still there. I only lived off-campus for about the first six months or so. I knew more people at Harvard than I did at MIT. I had a friend—a close friend—who was entering Harvard at the same time, so whatever social life I had, which was minimal, was with black students in that program at Harvard. I remember going into Walker Memorial at MIT, where they served dinner, and thinking that it was so fancy. I remember saying to myself, “My goodness, I’m not sure I can handle all this.” But eating in Central Square was so depressing to me that I finally decided to move on-campus.

I had entered in 1941, and on December 7 Japan dropped the bombs on Pearl Harbor. This event led to stark change at MIT. There was an immediate appearance of military people and guards and a shuffling of the living arrangements. I can’t recall the circumstances that led to my decision to move, but I moved initially into that complex of dormitories called Westgate, I believe.

#### *On the west side of campus?*

Yes, right. I was in there for a little bit of time. I lived with a student who was black. He invited me to move in with him, but we had very little in common. He was extremely religious, which was not my background. My mother was very interested in all kinds of new-age religions and Christian Science and all that sort of thing, so he would be praying on his knees in the room in the evening and I would be wondering what he was doing and what I was supposed to do. It really troubled me. We got along so poorly that neither of us would ever let anything be out of place. The room was immaculate. We didn’t live together long because the Navy, or some part of the military group, took over that complex.

I then moved into the Senior House. It may be that in the Senior House we lived together as well, I can’t recall. But at any rate, that also was short-lived because subsequent to that I moved, in the second year, into the graduate house. There were four of us living together. They were white

and from various parts of New York, I recall. I don't actually remember any of their names, except that it was very pleasant. I enjoyed that experience.

Just after we entered the war, everyone was acutely aware that they might have to go into the armed forces. I made, under the influence of the school, a decision to apply to the ASTP, an Army program which assured us that we would be brought into the Army for basic training and we would be sent back to school. At some time at the end of the second year, when I finished the term, I was told that I would have to take basic training. I received a letter from the ROTC program, which I was involved in, that said something like, "This man has had training in engineering and ought to be considered for the Signal Corps." Well, the Army had no idea what to do with that note like this about a black soldier, so I stayed in the reception center for a couple of months while they tried to figure it out.

Finally, they sent me to Keesler Field, Mississippi, later to be sent to some communication program. It was during my stay there that I learned about the black Air Corps. I saw in the newspaper, maybe the *Amsterdam News*, a picture and a short article on graduates from a bombardier navigation program. To me this seemed more like something I could do rather than being a fighter pilot, which was really the only Air Force option I had known about. So doubting that I would ever be sent back to school, I decided to apply to the aviation cadet program. It turns out that getting into that program was a little like applying to MIT. You had to get letters of recommendation—my parents assisted me in that—and you were interviewed and took exams.

Finally, I was admitted into the program. But as I didn't immediately go into the program, I continued to do basic training over and over. I'm not sure of all the details, but I do know that they had lost my papers. I couldn't get off of the drill field to find out what had happened, because if you asked what happened to your record, they just thought you were trying to screw off. They'd say, "No! You have to go to training." Finally, in desperation, I went against orders to the office to see the sergeant. He listened to me, looked up my record, and then said something like, "But you're in 747 and you should be in 707." He then proceeded to take my paper from one envelope and

move it to another, and the next week I shipped out.

It was a typical military screwup of the time, but I entered a pre-flight training program at Tuskegee, Alabama, on the college campus. You spent, I don't know, maybe three months learning things pertaining to aviation. You were "braced," the military term for hazed. They tried to run the program as though it was West Point. They marched and they sang. There was a certain esprit de corps to it. I recall it with fascination, but it was at that point that I was able to elect to go into bombardier navigation, primarily bombardiering, and I went off to several schools in Florida and Texas.

At the end of the training, I was made a second lieutenant and sent to Godman Army Air Field, which was an airbase next to Fort Knox. There at that base was a black B25 bomb group being trained. This group, even though it was late in the war, had not yet gone overseas. The reason was interesting. They were still at Godman, even though it was inadequate to prepare a group to go overseas, for it had too limited runways, among other problems, and that was largely because of racial prejudice.

This bomb group, when it was initially formed in Michigan, had been formed from black officers, many of whom had been overseas in the 99th Fighter Group, and some white officers with bomber experience. After the group was formed, the black officers were not permitted to use the officers' club on the Michigan base. They had objected, so the Air Force, rather than let them use the officers' club, moved the whole training program to Godman Field. There they couldn't get trained, but the white officers in the group could be invited to the Fort Knox officers' club and the black officers could use the Godman officers' club.

So when I arrived as a lieutenant with training in bombing, I was surplus and was told, like many other officers who arrived during the same period, "We haven't got anything for you to do right now, but you should use these bombing trainers and feel free to do anything else you like." As a young man, I guess I was about nineteen, that was marvelous. I had wings, I was a second lieutenant, and I could go anywhere in the country. If I were stopped by military police, which was rare, and asked what I was doing, I'd say, "I'm following verbal orders of the commanding officers." And

that was it. Fellows like me just went all over the country. I worked on my problems of getting to know girls, and for a relatively short period had a fair amount of pleasure.

This period came to an end when the Air Force, no longer training great numbers of aviation cadets, decided their solution to getting the bomb group trained and keeping the officers' club separate. They decided to move the 477th to an abandoned cadet field in Freeman Field, Indiana. The plan was to call the black officers "trainees," offer them the cadet club, and reserve the officers' club for white officers. The trainee term was to apply to any black officer, even the black flight surgeon in the 477th.

This plan did not escape many of the members of the 477th. I think of Bill Coleman, who later became Secretary of Transportation and whom I knew from Camp Atwater and saw again in Cambridge while he was at the Harvard Law School. He saw through the plan as soon as the move was announced. He came to me, and to other officers like me who were not officially members of the bomb group but were members of the base waiting for positions to open up, and said, "Now listen, this thing about trainee officers using the cadet club does not apply to you, so when you arrive at the base you can use the regular officers' club." This is exactly what we did when we arrived at the new base. We just walked into the officers' club. They immediately said to us, "You shouldn't be here, you're under arrest."

*How many black officers were there?*

Well, it turned out by that time there were about a hundred who were involved in this whole uprising. The next day they prepared a written set of orders, saying essentially, "This is to inform you that you must use the trainee officers' club," and we were to be asked to read and sign the paper saying that we understood and would obey the order. So all the people who had been under arrest were asked to come to headquarters and one by one required to sign.

I always think of this because it was entertaining. I joined a line which had formed in this building at the offices where we thought we were to go in. I was well along the line at another door when suddenly they opened the door in front of me, so I was the first person into the interrogation room. I entered the room and there was a captain

or a colonel and a few enlisted men who looked like they had been dragged in to be witnesses. I was told, "You understand that there is an arrangement here where you are to use the trainees' club and not the officers' club." I said I understood that. They said, "Do you agree that you'll do it?" I said no, because that was what everybody agreed they would say and I refused to sign the paper. Then you were sent out another door so that you wouldn't see or communicate with the others waiting to come into the room. Most of the waiting officers did as I did, although some officers who were mature, had their families with them there, and felt they had an investment in a career did agree. But most didn't care and thought it an obscene racist joke.

They just took the entire squadron and moved them all back to Godman Field, Kentucky. It was so absurd, some of the fellows put signs on the moving trucks about going back to their "Old Kentucky Home." At this point it had hit the newspapers. My wife tells me how she saw "101 Black Officers Arrested" in some of the black newspapers at the time. Anyway, what happened was that the bomb group languished at Godman Field for a month or two. Finally, the whole thing was dropped. They relieved the very prejudiced colonel of training, fired all the people who were white, and brought in the black Colonel B. O. Davis, Jr., and some of his officers to reconstitute the group under his direction.

It turned out that they never could get the group finally trained enough to go overseas. In reading recently about General Davis's life, I learned that even he had a hard time. Even though he was colonel of the base, he still couldn't use the facilities with his family at Fort Knox.

*This is the General Davis, right?*

Both father and son were generals. The Davis I am talking about is the one who had been colonel over the 332nd Fighter Group in Italy.

What happened for me personally was that I was then allowed to go into pilot training, so I went back to Tuskegee. While I was there, Japan surrendered and I came back to school. So the whole thing faded for me. As a single man and young, it was just an interesting experience with the South. It had ended.

I returned to school in the middle of the year. I had known my wife before I had gone into col-

lege. We had known each other as kids. We married the year I returned from the Army.

*So she's from New York as well?*

Right, she's from Brooklyn. During my Brooklyn period, I got to know her and had quite a crush on her. When she graduated from Hunter College, we married and returned together to Cambridge. It made an immense difference in my life. I often kid her by saying I waited until she finished so that she could keep me in the style "to which I had grown accustomed." She had majored in psychology but was in a teaching program as well, so we both thought she would teach in the Boston or Cambridge school system. When we got up to Boston, we learned that at that time married women were not allowed to teach. So she worked in various places and finally ended up at the Charlestown Public Library. I had two more years to complete at MIT, which was an entirely different world, with returning veterans like myself on the GI Bill.

As far as relationships with faculty and students go, I don't have any strong feelings about the first two years. There were a couple of people, I assumed were from the South—one chap in particular I remember because he did so extraordinarily well but never spoke to me even though we were in classes together. But most of the people were just friendly. Having grown up in New York, I wasn't particularly surprised to be in class with white students. I have no recollection of any faculty in the early two years.

In the second two years, we shared relations with people who had similar kinds of experiences. Two families we got to know quite well, and still see one of them from time to time. We lived off campus in North Cambridge. Again, a lot of our friends were people in graduate school.

*At Harvard?*

At Harvard, yes. A friend there became president of Montclair State College. Dave Dickerson was a good friend of ours. I remember also Herb Reid at the law school. He became head of the Howard law school. One person I should have mentioned before when we talked about my first two years was Henry Hill.

*The chemist?*

Yes. He was a graduate student at the time I was a freshman. He was very much a factor in what lit-

tle social life I had. I think he lent me a tuxedo once so I could go to a dance. He was very sensitive to the inner workings of MIT, far more so than I. I would say he was embittered to some degree with MIT. Anyway, he went on to quite a career. For a while he was president of the American Chemical Society, I believe.

The two years were a pleasant, interesting experience in Cambridge. You asked about faculty people who had some impact on my life. One was a man named Lawrence Arguimbau, a professor at MIT in the electrical engineering department, who was very outgoing. He was concerned and liberal. I recall him actually saying, "You ought to consider the Bell system because they are very sensitive to the concerns of diversity and black people." And I also worked for Professor Campbell, who made major contributions to the field of servomechanisms. He wrote a book with Brown that was one of the first books on servomechanisms. As a result, I became interested in controls. I actually took the Power option in EE, but was more intrigued by servomechanisms, which was largely a graduate program. At any rate, I worked in the Servo Laboratory in my second year.

When it came to getting a job, things were tight. I finished in 1948. There weren't too many openings, but I received offers from the National Advisory Committee for Aeronautics (NACA), which later became NASA. My first job was with them in their Langley Field Lab in Virginia.

*This is after you graduated.*

Yes. During the spring that I graduated, as I said, I was offered a job with NACA. I moved to Hampton, Virginia, with my wife. It was a segregated community, but it was at Hampton. The Hampton University campus was there.

*Hampton Institute, at the time.*

Right. That was the social community that we were part of. I worked at NACA for almost a year in Virginia. While I was there, they had signs in the NACA facilities that said "white toilets," but we ignored them because most people there didn't really go along with this leftover from the old South. I had good relations with the people with whom I worked, but I wanted to go to graduate school, as NACA was paying for graduate work. I wasn't allowed to go to the University of Virginia because they didn't take black students. The University of Virginia was where most of the

NACA people were going. When I raised the issue, it was agreed that I could transfer to Cleveland to their Lewis Lab.

My wife and I moved to Cleveland, and we were delighted to leave. At the time, Dorothy was pregnant and Cleveland had a fine obstetrics center. I lived in Cleveland for about five years and completed my master's program at Case Institute of Technology, later to become Case Western. I changed my emphasis to "controls." At the time, analog computers were the rage. While I was with NACA in Cleveland, I transferred to the research department and we worked on engine controls. My colleagues and I wrote a paper on the use of hydraulic servos in the design of wind tunnels.

When I graduated from Case, I applied to a couple of companies. One was Minneapolis Honeywell and the other was Bell Laboratories. Both made offers. I remember going to Minneapolis and they were marvelous to me, but they didn't invite my wife. It was September and it was already snowing. When I got back, I couldn't describe the place very favorably. We had had enough snow and ice, and my wife was anxious to get back to the New York area. I didn't know a great deal about Bell Laboratories, but it was the preferred choice between these two.

We moved back to New York. Bell Laboratories had not hired any people during the long period of the Depression. They were just now bringing new people into the company. In royal fashion, they put you in school for three years. The first year you went two or three days a week in a program which was taught by the staff of the company's research department. Then in the subsequent years, we went to class once a week and rotated to different areas within the company. I worked in three departments. One of them was the transistor development department, not long after the transistor had been invented. There was a great deal of activity in this area. Aware of its importance, they wanted to use it in equipment and they wanted everyone to have experience with the device.

The people I worked with in my home department were great. I recall my first supervisor, John Shields, who in particular was just marvelous. He was a Quaker. He was very supportive of me and he had an encouraging and exciting mind. He put me, along with two younger engineers, on the most advanced work the switching area was doing.

It led to the writing of the article I showed you earlier. I also did further graduate work at NYU in mathematics. I guess I would have gotten another master's degree in math, but the Lab was moving to New Jersey. The company thought it was enough if you completed their Communications Development Training Program, the three-year program I have already mentioned. At our graduation from the program they had a big celebration that made you feel that you were slated for good things in the company. Indeed, I was made a supervisor and later a department head. I worked on the first nationwide long distance dialing system and the No. 1 ESS, the first electronic switching office.

One of the factors that affected the company in the late '60s was the civil rights revolution. There were riots and fires in Newark. There was this feeling in the management that the telephone company had huge investments in these communities and that they had to somehow respond to this outcry. They started a program called the Urban Minorities Workshops, where they brought in employees, initially the top management, to try to help them understand the feelings in the black community.

It was an interesting and extremely well-managed program. They tried hard to sensitize fellow workers, who were in another world. People who would invariably say, "I don't understand what this has to do with me, I never treated anybody badly"; they wanted them to have some sensitivity to the anger, frustration, isolation, and even envy that was felt in the black community. They wanted them to understand what is appropriately called "institutional racism" under which qualified people would be passed over because, as managers would say in confidence if asked, "We never thought of making the black employee the supervisor or department head because we never saw anybody that looked like that in that job." They were not aware of the unconscious thinking. The workshop stressed that these attitudes had to be changed from the top down. The management had to say things like, "Well, what are we doing with Ransom?" or "What are our plans for this person whom no one has ever seen in a management position?"

This was the kind of thing they tried to deal with in the seminars. I was asked to take part in scores of workshops. I became "workshop-hardened." It was a stimulating experience, but I was



uncomfortable with it after a time because I didn't enjoy the repetition and I didn't find easy the confrontations with people.

On the whole, I thought working for the company was great. When the Bell System was dismembered, they formed Bellcore and I went with the organization because I had been working on planning for telephone company systems. It was a logical transition. I retired from Bellcore five years later. I was at that time Division Manager of Network Technology.

One other thing that's very important to my MIT connection. Just after I was promoted into the management, in about 1965, I was asked to recruit for BTL. In Bell Laboratories, they assigned you to the school from which you came, and you went back year after year. So I started going back to MIT twice a year. I also joined the Educational Council at the time. I thought it was a good way to see the students coming in and to be involved with them when they graduated. As a result of these two connections, I saw a great deal of MIT.

At the beginning of my Educational Council connection, I was invited to come up for a conference they held for guidance counselors and new members of the Educational Council. We were put up at the Copley Plaza, brought over to the school, and given lectures on life at MIT. It was a mix of new educational councilors and guidance counselors. It was a terrific program. They tried to explain their programs, their attitudes. I felt that MIT had quite thoroughly changed. I mean, there was a real sensitivity to students. Their attitude to the student was, "Look you're mature, you're bright, we want you to finish. We'll go along with you if your proposals make sense." They even said, "If you don't want to go to school this year, fine. Do whatever it is you want to, if it's worthwhile, and we'll wait for you when you return." Perhaps I'm overstating it, but I thought that it was marvelous and my contacts with the school have been characterized by that kind of openness since I became reconnected.

About the same time, they began to admit black students in large numbers and they began having the conferences that were held by Mary Hope. We became friends. I used to come to all of them. I even gave talks at some of them. It was easy because I was there representing Bell Laboratories, the company that even helped finance the programs. At the time, Pamela was applying to college.

*Your daughter?*

Yes. She was a very impressive applicant. She was admitted to everywhere she applied, including the first class of women ever admitted to Yale. She turned Yale down for Harvard. She said that she didn't want to be in the first class after she thought about it.

*She did not want to be the first?*

I guess so. Anyway, Pamela ended up in Cambridge and, when I visited MIT, I used to see her too.

*You mean at Harvard?*

Yes—Radcliffe, to be more exact. When I would come up to visit MIT to do recruiting, which I did at least twice a year and sometimes even more often when Mary Hope was having a conference, I would use the occasions to take Pam to dinner. So I had a chance to see her throughout the four years of her Harvard experience. When she graduated, she decided to go to Africa to teach in a program under a special Harvard College program. As I understood it, the students raised the money for the program.

During this period, I had a funny additional experience. There's a certain amount of emotion connected to it, as I reflect on it. Pam said to me by letter from Africa, "I think I'd like to go to MIT, I'd like to study urban planning. But since I'm over here, I'll need your help with preparing the application." I, of course, agreed. However, I was surprised because I had not known that she had developed an interest in urban planning. Initially in college, she had started out in art. Somehow she decided that it wasn't relevant to today's problems and switched to philosophy. She's really very artistically creative. Sometimes I wonder if she made the right decision.

But to get to the point of this story, she asked me to help make her application out. So I had to get her transcript and go through all the courses she had taken. I was shocked at all these courses she had taken in art and philosophy. I guess to an engineer they seemed somewhat irrelevant. But I submitted the application. Actually, she had done quite well on the whole. She had graduated *cum laude* from Harvard.

*I had to pull that out of her, you know. She's so reserved about how bright and intelligent she really is.*

Well, she said that she had an interview with you. Later she told me, "I really enjoyed the interview, but I had a lot of reservations before we started." I

guess she felt like I do: I mean, you don't particularly enjoy talking about yourself, but you do occasionally have to let folks know how bright you are.

But I started out to tell you a different story. I was asked to do something by Bob Weatherall. Bob is just a marvelous person. He was head of Career Services and we became good friends. He came down to our area once to speak. We had an MIT open house for potential new students and he was the MIT guest speaker. I remember he stayed with us and we gave him Pam's room. Later he told us, "You know, I saw Pamela walking through the halls and said to her, 'I slept in your bed last week.'"

Anyway, as I said, I completed her application and a number of months passed. In the spring, I was asked by Bob Weatherall to come up and speak to a group of students he had invited to get acquainted with the placement office. They were mostly black. I was asked to talk about life in industry, and recruiting, and so forth. While I was up there, it was about the time they would be deciding for the graduate school. I decided to go to the urban studies and planning office, wherever that is, and see whether Pam had made it. After all, I had helped make up her application. I went over there to the office. They looked up her application and said, "She hasn't been admitted." So I left and thought, "Well, this is how all the parents and students feel when their application is rejected." I knew how much pressure there was on the school, but I was a little surprised.

Anyway, some time later I learned that I had been given the wrong information. She had been admitted. She returned from Africa and entered MIT, and we continued to see each other over the years that she was in the program. So now that Pamela was a student at MIT, I had one further connection to the school besides the Educational Council and the recruiting. I was a parent. Through all these different connections, I really developed a much stronger feeling for the school—stronger, in fact, than I had as an undergraduate.

*I also get the impression from what you're saying that it really was a pleasant experience throughout your undergraduate years at MIT.*

I guess I want to say it was a "hard" experience for the first two years. I didn't do nearly as well as I thought, coming from Stuyvesant. I had done well there and I was surprised at MIT. I had the feeling that everybody else was having a good time and I

was stuck in this machine. There was a social life among the students in the Ivy League schools. They would have parties and so forth, and I was really anxious to be part of that. I was hanging on the edges and worrying about the fact that I was so out of it. So again, I didn't have any strong feelings about the place.

*Were these black students?*

Primarily.

*Primarily in the Ivy League schools that you are talking about?*

Yes. Things did improve a great deal when I returned from the Army married. But again, the positive feelings came out of the later connections with the Educational Council, as a parent, and from recruiting. I brought into the company several blacks who have done extremely well. I can't remember their names offhand. That's one of my failings, but I know one is a vice president now. Another fellow is also involved with BAMIT. He is, I think, teaching at a college. These two were just so bright. They had done very well in the electrical engineering department. I was thrilled to bring them into the company, because by and large I was dealing with white graduates.

*Based on your own experience, is there any advice you might offer to other blacks who may be entering MIT or who may be entering the work force, particularly in places like Bell Labs?*

I think that some of the best advice I'd like to pass along I heard at a guidance counselors' workshop, about a student who had been asked to leave MIT for some emotional problem he had and then returned to make a new start. He said, "You know, there is a great deal of help here at MIT—help of all kinds, academic and psychiatric. But they can't force it on you. If you don't ask for it, it will do you no good."

I think that is the advice I would give to someone entering MIT or industry in a company like Bell Labs. If you are admitted to MIT, then MIT thinks you can do the job so they don't want to lose you. Similarly, if you're hired by Bell Labs or a company like the Labs, it's much the same. They think you can do the job and they don't want to have to find someone else. So if you find yourself having trouble or getting lost, *ask for help!* My experience is that people really like to help.

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# Technology and the Dream

## Reflections on the Black Experience at MIT, 1941–1999

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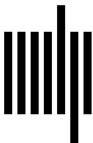
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