



TALKING DRUMS, MICROPHONES AND AFRICAN-AMERICANS IN TECHNOLOGY

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My first major scientific recognition came after the electret microphone replaced the carbon microphone in telephones throughout the world. While recognition is always appreciated, I had major problems being labeled “the first Black . . .” because most early Black contributions to science and technology have either been purposely ignored or just plain lost. Attempts at retrieving our cultural history in technology in specific areas was more difficult than I could imagine. However, New York City’s Schomburg Center for Research in Black Culture provided me with the most concentrated collection of resources on these topics.

It did not take me long to find Granville T Woods (1865-1910). He was a prolific Black inventor with more than 35 patents (mostly on mechanical devices) and sold many of them to Alexander Graham Bell. Among the patents purchased by Bell was one for the carbon microphone, which was the microphone of choice by most telecommunications manufacturers until mid 1970s’ when the electret microphone replaced it. I also discovered that over 400 US patents were issued to African-Americans before 1900 covering everything from farming tools to medical devices. Communication technology was one of the leading sciences in early African continental development. Talking drums that mimic the human voice, shifted to lower frequencies, were able to transmit messages over distances greater than 20 miles and were utilized by West Africans to control vast empires. This appears to be the first reliable communications system with a range beyond that of the human voice.

Another set of histories relevant to African Americans in technology were a series of events that I had the privilege of being involved in during my 40 year career at Bell Laboratories. In the early 1970’s the Black employees of AT&T and Bell Laboratories formed the Association of Black Laboratories Employees (ABLE), aimed at improving diversity in the Bell System. Among its accomplishments was encouraging management to fund numerous programs including the Summer Research Program (SRP) and the Cooperate Research Fellowship Program (CRFP). Both programs were designed to enhance the process for producing the next generation of minority and women scientists, engineers and mathematicians. The SRP and CRFP programs combined have graduated over 500 minorities and women in these fields. One legacy of these 30-year old programs is that 80 of these 500 people are currently professors, deans, and administrators in science and technology at top universities throughout the country.