

# Finding Aid to The HistoryMakers® Video Oral History with Carlos Handy

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## Overview of the Collection

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| <b>Repository:</b>           | The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616<br>info@thehistorymakers.com www.thehistorymakers.com   |
| <b>Creator:</b>              | Handy, Carlos   |
| <b>Title:</b>                | The HistoryMakers® Video Oral History Interview with Carlos Handy,  |
| <b>Dates:</b>                | August 17, 2012   |
| <b>Bulk Dates:</b>           | 2012  |
| <b>Physical Description:</b> | 7 MOV HD video files (3:40:28).   |
| <b>Abstract:</b>             | Research physicist and physics professor Carlos Handy (1950 - ) established the Center for Theoretical Studies of Physical Systems at Clark Atlanta University and was appointed as the first chair of the physics department at Texas Southern University. Handy was interviewed by The HistoryMakers® on August 17, 2012, in Houston, Texas. This collection is comprised of the original video footage of the interview. |
| <b>Identification:</b>       | A2012_194   |
| <b>Language:</b>             | The interview and records are in English.   |

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## Biographical Note by The HistoryMakers®

Physics professor and mathematical physicist Carlos R. Handy was born in Havana, Cuba on October 18, 1950 to William C. Handy, Jr. and Lenore. He is the grandson of William Christopher Handy, known in early twentieth-century Americana as the “Father of the Blues.” Handy grew up in New York City and attended George Washington High School where he was a top math student. Since childhood Handy always wanted to be an astronomer, and was advised at an early age that a strong foundation in physics was an essential prerequisite to becoming an astrophysicist. After graduating from Columbia College in 1972 with his B.A. degree in physics, Handy enrolled at Columbia University and was awarded his M.A. degree in physics in 1975 and his Ph.D. degree in theoretical physics in 1978. For his doctoral thesis, Handy developed a new formulation for understanding how to relate different non abelian gauge field theories to one another. He did this on his own, challenging the methods previously suggested by his advisors.

Handy worked as a postdoctoral research associate at Los Alamos National Laboratory between 1978 and 1981, focusing on the use of moment representations to relate large scale to local scale features of strong coupling problems. A related approach to this led to Wavelet analysis, as developed by others. Handy was hired by Clark Atlanta University as an associate professor of physics in 1983. During his tenure, he received funding from the National Science Foundation, which led to his discovery of the Eigenvalue Moment Method (EMM) technique, a method for calculating the ground state energy through the generation of converging lower and upper bounds to the physical value. This combined the classic Moment Problem in pure mathematics, moment equation representations for the quantum Schrödinger equation, and linear programming analysis (techniques common to industrial engineering).

With a substantial grant from NSF in 1991 Handy established the Center for Theoretical Studies of Physical Systems at Clark Atlanta University, a research and student mentoring center. Throughout his career Handy has published numerous articles. The most recent was an extension of EMM to determining the symmetry breaking

regime of an important pseudo-hermitian system, and application to Regge pole scattering analysis in atomic and molecular physics. Handy left Clark Atlanta University in 2005, and became head of the physics department at Texas Southern University where he assumed full responsibility for the development of the physics program and the training of its graduate students. His concerns include the need for modern physics education facilities and students' early mastery of advanced calculus. Handy lives with his wife Maribel in Pearland, Texas.

Carlos Handy was interviewed by The HistoryMakers on 08/17/2012.

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## Scope and Content

This life oral history interview with Carlos Handy was conducted by Larry Crowe on August 17, 2012, in Houston, Texas, and was recorded on 7 MOV HD video files. Research physicist and physics professor Carlos Handy (1950 - ) established the Center for Theoretical Studies of Physical Systems at Clark Atlanta University and was appointed as the first chair of the physics department at Texas Southern University.

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## Restrictions

### Restrictions on Access

Restrictions may be applied on a case-by-case basis at the discretion of The HistoryMakers®.

### Restrictions on Use

All use of materials and use credits must be pre-approved by The HistoryMakers®. Appropriate credit must be given. Copyright is held by The HistoryMakers®.

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## Related Material

Information about the administrative functions involved in scheduling, researching, and producing the interview, as well as correspondence with the interview subject is stored electronically both on The HistoryMakers® server and in two databases maintained by The HistoryMakers®, though this information is not included in this finding aid.

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## Controlled Access Terms

This interview collection is indexed under the following controlled access subject terms.

### Persons:

Handy, Carlos

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

### Subjects:

African Americans--Interviews  
Handy, Carlos--Interviews

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## Organizations:

HistoryMakers® (Video oral history collection)

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The HistoryMakers® African American Video Oral History Collection

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## HistoryMakers® Category:

ScienceMakers

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EducationMakers

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## Administrative Information

### Custodial History

Interview footage was recorded by The HistoryMakers®. All rights to the interview have been transferred to The HistoryMakers® by the interview subject through a signed interview release form. Signed interview release forms have been deposited with Jenner & Block, LLP, Chicago.

### Preferred Citation

The HistoryMakers® Video Oral History Interview with Carlos Handy, August 17, 2012. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

### Processing Information

This interview collection was processed and encoded on 7/22/2013 by The HistoryMakers® staff. The finding aid was created adhering to the following standards: DACS, AACR2, and the Oral History Cataloging Manual (Matters 1995).

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## Other Finding Aid

A Microsoft Access contact database and a FileMaker Pro tracking database, both maintained by The HistoryMakers®, keep track of the administrative functions involved in scheduling, researching, and producing the interview.

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## Detailed Description of the Collection

### **Series I: Original Interview Footage, August 17, 2012**

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_001, TRT: 1:29:23  
2012/08/17

Carlos Handy describes his family background. Handy's mother, Leonor Maria Cartaya was born in Matanzas, Cuba, in 1916, and grew up in a large family. She pursued her doctoral studies in education, and became a teacher. Cartaya came to the United States in 1947, on a school excursion to Washington, D.C. Handy's father, William Christopher Handy, Jr., was born in Clarksdale, Mississippi, in 1904. He was the son of the famous blues musician, W.C. Handy, who is known as the "Father of the Blues." Handy's parents met in New York City, and married in the late 1940s. Handy describes spending his early childhood between the United States and Cuba, and recalls his experiences in Cuba. He also describes his paternal grandfather's life in Florence, Alabama, and his legacy as a blues musician.

Cuban American mothers.

Racially mixed people--United States.

Childhood--Cuba.

Handy, W. C. (William Christopher), 1873-1958

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_002, TRT: 2:31:48  
2012/08/17

Carlos Handy's paternal grandfather, William C. Handy, was a famous blues musician, who was known as the "Father of the Blues." Handy recounts the memories of his paternal grandfather, and talks about his father's musical talents. He also describes his parents' personalities and his father's career in the family's music business in New York City. Handy's parents met and married in New York City in the late 1940s, and his mother, who was born and raised in Cuba, relocated permanently to New York. Handy describes his early childhood experiences at his maternal grandparents' home in Cuba. He also talks about his twin sister and his half-siblings from his father's first marriage.

Handy, W. C. (William Christopher), 1873-1958

Grandfathers--Family relationships.

African American fathers--Employment--New York (State)--New York.

Family-owned business enterprises--New York (State)--New York.

Cuban American families--Travel--Cuba.

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_003, TRT: 3:29:27  
2012/08/17

Carlos Handy and his twin sister, Irene Handy, were raised in a multi-ethnic neighborhood in New York City. Handy attended Public School 165 until the sixth grade, and then went on to attend Booker T. Washington Junior High School until the tenth grade. Handy continued his education in the New York public school system at George Washington High School, where he gained a strong foundation in geometry and algebra, and also taught himself calculus. Handy began his undergraduate studies at Columbia University in 1968. Following his parents' separation that same year, Handy began to work at IBM's Thomas J. Watson Research Center, under the tutelage of physicist Martin Gutzwiller who was well known for his work on quantum chaos. Handy describes his keen interest in mathematics and his deep desire to become a scientist. He also talks about his childhood experience of being brought up by a Cuban mother.

Twins--New York (State)--New York.

Mathematical ability in children.

Thomas J. Watson IBM Research Center.

Gutzwiller, M. C. (Martin C.)

Cuban American mothers.

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_004, TRT: 4:34:58  
2012/08/17

Carlos Handy graduated from Columbia University with a B.A. degree in physics in 1972. Following his parents' separation, Handy decided to stay in New York City, and continue his graduate studies in physics at Columbia. He was one of the first recipients of the Bell Labs Cooperative Research Fellowship in 1972. Handy describes the challenges that he faced as an undergraduate student and as a doctoral student at Columbia University.

Columbia University. Department of Physics.

Children of divorced parents--United States.

AT & T Bell Laboratories.

Physics--Study and teaching (Higher).

Student adjustment.

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_005, TRT: 5:28:45  
2012/08/17

Carlos Handy received his Ph.D. degree in theoretical physics from Columbia University in 1978. Handy describes his challenging experience as a doctoral student in Columbia University's physics department, where he worked in the area of gauge theories. He also talks about his disappointment with the lack of mentoring he received there. Handy then went on to work in a research position at Los Alamos National Laboratory, where he focused on the moment problem in mathematics. He met his future wife while he was living in New Mexico, and they married in 1981. Around the same time, Handy accepted a position at a small research firm called AMAF, in Baltimore, Maryland. In 1983, he accepted an assistant professorship at Atlanta University, where he served for several years.

Columbia University. Department of Physics--Doctoral students.

Mentoring in science.

Los Alamos National Laboratory--Employees.

Physicists' spouses.

Atlanta University--Faculty.

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_006, TRT: 6:32:02  
2012/08/17

From 1983 to 2005, Carlos Handy served on the faculty of the physics department at Clark Atlanta University, where he performed groundbreaking research in quantum physics. Handy also established notable collaborations with physicist Daniel Bessis, and established and co-directed the Center for Theoretical Studies of Physical Systems. In 2005, Handy accepted the position of chair of the physics department at Texas Southern University, where he has worked to strengthen the faculty profile and increase student recruitment and graduation. During this section of the interview, Handy also talks about the lack of support for HBCUs in the state of Texas.

Clark Atlanta University. Department of Physics--Faculty.

Quantum physics--Research.

Clark Atlanta University. Center for Theoretical Studies of Physical Systems.

Texas Southern University. Department of Physics.

African American universities and colleges--Texas--Finance.

Video Oral History Interview with Carlos Handy, Section A2012\_194\_001\_007, TRT: 7:34:05

2012/08/17

Carlos Handy begins by describing the demographics of Texas Southern University (TSU) where he served as the chair of the physics department since 2005. There, he worked on increasing the enrollment and graduation rate of African American students receiving B.S. degrees in physics. Handy describes the challenges that were created when the Texas Higher Education Coordinating Board's implemented an annual review system for eliminating programs with low enrollment and its impact on TSU. He also discusses his hopes and concerns for the African American community today, reflects upon his life and legacy, and talks about his family.

African American universities and colleges--Administration.

African American college students--Texas.

Texas Southern University.

Texas Higher Education Coordinating Board.

Physics--Study and teaching (Higher).