

# Finding Aid to The HistoryMakers® Video Oral History with Emmett Chappelle

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## Overview of the Collection

<b>Repository:</b>	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
<b>Creator:</b>	Chappelle, Emmett W. (Emmett William)
<b>Title:</b>	The HistoryMakers® Video Oral History Interview with Emmett Chappelle,
<b>Dates:</b>	August 30, 2012
<b>Bulk Dates:</b>	2012
<b>Physical Description:</b>	5 uncompressed MOV digital video files (2:31:03).
<b>Abstract:</b>	Environmental scientist and biochemist Emmett Chappelle (1925 - 2019) was honored as one of the top 100 African American scientist and engineers of the 20th century for the many impacts of his research in bioluminescence, light produced by living organisms. Chappelle was interviewed by The HistoryMakers® on August 30, 2012, in Baltimore, Maryland. This collection is comprised of the original video footage of the interview.
<b>Identification:</b>	A2012_234
<b>Language:</b>	The interview and records are in English.

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## Biographical Note by The HistoryMakers®

Environmental scientist and biochemist[?] Emmett W. Chappelle was born on October 24, 1925 in Phoenix, Arizona to Viola White Chappelle and Isom Chappelle. His family grew cotton and tended cows on a small farm at the edge of town. Chappelle was drafted into the U.S. Army, right after graduating from the Phoenix Union Colored High School in 1942. He was assigned to the Army Specialized Training Program, where he was able to take some engineering courses. Chappelle was later reassigned to the all-Black 92nd Infantry Division and served in Italy. After returning to the U.S., Chappelle went on to earn his A.A. degree from Phoenix College. With the help provided by the GI Bill of Rights, Chappelle was able to receive his B.S. degree in biology from the University of California at Berkeley in 1950.

Chappelle went on to serve as an instructor at the Meharry Medical College in Nashville, Tennessee from 1950 to 1953, where he was also able to conduct his own research. Chappelle's work was noticed by the scientific community, and he accepted an offer to study at the University of Washington, where he received his M.S. degree in biology in 1954. Chappelle continued his graduate studies at Stanford University, though he did not complete a Ph.D. degree. In 1958 Chappelle joined the Research Institute for Advanced Studies in Baltimore, where his research aided in the creation of a safe oxygen supply for astronauts. He went on to work for Hazelton Laboratories in 1963. In 1966, Chappelle joined the National Aeronautics and Space Administration (NASA) as a part of the Goddard Space Flight Center. Chappelle's research has focused in the area of luminescence, which is light without heat. He has been involved in a number of projects, including the Viking space craft. Chappelle used chemicals from fireflies as well as adenosine triphosphate (ATP) to develop a method of detecting life on Mars. He used this research in bioluminescence, light produced by living organisms, to detect bacteria in water, as well as in improving environmental management.

Chappelle retired from NASA in 2001. He received fourteen U.S. patents, produced more than thirty-five peer-reviewed scientific or technical publications, nearly fifty conference papers, and co-authored or edited numerous

publications. Chappelle has been honored as one of the top 100 African American scientist and engineers of the 20th century. He received an Exceptional Scientific Achievement Medal from NASA for his work. Chappelle was inducted into the National Inventors Hall of Fame in 2007. He lived with his daughter and son-in-law in Baltimore.

Chappelle passed away on October 14, 2019.

Emmett W. Chappelle was interviewed by *The HistoryMakers* on August 30, 2012.

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## Scope and Content

This life oral history interview with Emmett Chappelle was conducted by Larry Crowe on August 30, 2012, in Baltimore, Maryland, and was recorded on 5 uncompressed MOV digital video files. Environmental scientist and biochemist Emmett Chappelle (1925 - 2019) was honored as one of the top 100 African American scientist and engineers of the 20th century for the many impacts of his research in bioluminescence, light produced by living organisms.

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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:

Chappelle, Emmett W. (Emmett William)

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

### Subjects:

African Americans--Interviews  
Chappelle, Emmett W. (Emmett William)--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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United States. National Aeronautics and Space Administration; Goddard Space Flight Center

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## Occupations:

Environmental Scientist

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Biochemist

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## HistoryMakers® Category:

ScienceMakers

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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 Emmett Chappelle, August 30, 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 5/30/2023 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.

## Detailed Description of the Collection

### Series I: Original Interview Footage

Video Oral History Interview with Emmett Chappelle, Section A2012\_234\_001\_001, TRT: 1:29:09  
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Emmett Chappelle talks about his family background. His mother, Viola White, was born in around 1900 in Montgomery, Alabama. She grew up in a highly segregated town in Alabama called Hope Hull. She attended Alabama State Normal University for two years. Chappelle's father, Isom Chappelle, was also born around 1900. He was educated up until the fourth grade. After encountering some trouble with a white man in Alabama, Isom moved his family to Phoenix, Arizona. Emmett Chappelle has two older brothers, named Willie and LeRoi, and one younger sister, named Helen. He talks about some of his childhood memories.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

Video Oral History Interview with Emmett Chappelle, Section A2012\_234\_001\_002, TRT: 2:30:09  
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Emmett Chappelle recalls his earliest memories of growing up in Phoenix, Arizona. Chappelle describes his neighborhood and schools, as well as the sight, sounds, and smells of his childhood. He enjoyed taking walks in the desert and visiting a fish hatchery. Chappelle remembers that he started liking school when he reached the seventh grade.

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Video Oral History Interview with Emmett Chappelle, Section A2012\_234\_001\_003, TRT: 3:31:41  
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Emmett Chappelle remembers living in the desert as a child. Chappelle attended Phoenix Colored High School in 1938. During high school, Chappelle was a long distance runner and became his class valedictorian. He graduated in 1942 and went on to Howard University before joining the Army. Chappelle discusses his experience serving in the army from 1943 to 1946. He married his wife, Rosemary Phillips, in 1947. Later, Chappelle attended Phoenix College on the GI Bill and earned an associate's degree in electrical engineering. He later transferred to the University of California in Berkeley, where he earned his BS degree in biochemistry.

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Video Oral History Interview with Emmett Chappelle, Section A2012\_234\_001\_004, TRT: 4:30:37  
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Emmett Chappelle taught biochemistry at the Meharry Medical College after graduating from the University of California in Berkeley. Chappelle attended the University of Washington and obtained a master's degree in biochemistry. Chappelle's thesis was entitled "Enzymatic Interconversion of Serine and Glycine." He was a research associate at Stanford University for two years until 1958, when he joined the Research Institute for Advanced Studies [RIAS] in Baltimore, Maryland. His research at RIAS focused on the development of a safe oxygen supply for astronauts. In 1963, he went on to work for Hazelton Laboratories to develop a system that would assist in the detection of life on other planets. Chappelle discusses his discovery of the chemical composition of bioluminescence, which is the ability of a living organism to produce and emit light.

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Video Oral History Interview with Emmett Chappelle, Section A2012\_234\_001\_005, TRT: 5:29:27  
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Emmett Chappelle's research and discoveries in bioluminescence led to the development of a method of detecting bacteria in water. He developed this method with Grace Picciolo, which has been used to help in the process of diagnosing urinary tract infections. In 1966, Chappelle joined NASA's Goddard Space Flight Center as a remote sensing scientist. Chappelle has been honored as one of the top 100 African American scientists and engineers. He has a wife, Debra, and four children: Emmett William Jr., Carlotta, Deborah, and Mark. Alan.

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