# Finding Aid to The HistoryMakers ® Video Oral History with Calvin Howell

## Overview of the Collection

**Repository:** The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616

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Creator: Howell, Calvin R. (Calvin Rudolph), 1955-

Title: The HistoryMakers® Video Oral History Interview with Calvin Howell,

**Dates:** February 21, 2012

Bulk Dates: 2012

**Physical Description:** 6 uncompressed MOV digital video files (3:00:22).

**Abstract:** Physicist Calvin Howell (1955 - ) is the director of the Triangle Universities Nuclear

Laboratory (TUNL) and has served as the nuclear physics program director at the National Science Foundation (NSF). Howell was interviewed by The HistoryMakers® on February 21, 2012, in Durham, North Carolina. This collection is comprised of the

original video footage of the interview.

**Identification:** A2012 039

**Language:** The interview and records are in English.

## Biographical Note by The HistoryMakers®

Professor Calvin Howell was born on December 7, 1955 in Warrenton, North Carolina. After graduating from high school, Howell earned his B.S. degree in physics from Davidson College in 1978. He then attended Duke University where he received his Ph.D. degree in 1984 with a specialty in experimental nuclear physics. Then, Howell conducted postdoctoral research at the Triangle Universities Nuclear Laboratory (TUNL) for one year, serving as an instructor and research associate.

In 1985, he joined the faculty at Duke University as an assistant professor of physics. Howell was promoted to associate professor in 1992 and full professor in 2001. Also in 2001, Howell was hired as deputy director of the TUNL, a position he held until 2006 when he was promoted to director of TUNL. In addition to his positions at Duke University and TUNL, Howell held many visiting positions including visiting scientist at the Stanford Linear Accelerator Center (SLAC), the Thomas Jefferson National Accelerator Facility and the Los Alamos National Laboratory. He has served as a nuclear physics program director at the National Science Foundation (NSF) and a member Department of Energy (DOE)/ NSF Nuclear Science Advisory Committee. Howell's research interests in experimental nuclear physics include the study of the strong interaction in few-nucleon systems, nuclear astrophysics, plant physiology using radioisotopes and national security. In 2011, he and his colleagues from Duke were involved in measurements important for developing technologies for scanning cargo ships for harmful materials using nuclear 'fingerprints'. Howell has co-authored more than 110 scientific articles.

Howell has worked extensively with the American Physical Society including serving as a chair of the executive committee of the southeastern section, chair of the committee on minorities in physics and member of the executive committee on the Division of Nuclear Physics. Howell became an American Physical Society Fellow in 2006. He also participates in activities to promote academic opportunities for minority students including serving as academic coordinator for the Minority Medical Education Program at Duke University and a member of the Duke's Presidential Council on Black Affairs. In 2008, Howell received the Samuel DuBois Cook Award for

Service at Duke University. He lives in Durham, North Carolina.

Calvin Howell was interviewed by *The HistoryMakers* on February 21, 2012.

## **Scope and Content**

This life oral history interview with Calvin Howell was conducted by Larry Crowe on February 21, 2012, in Durham, North Carolina, and was recorded on 6 uncompressed MOV digital video files. Physicist Calvin Howell (1955 - ) is the director of the Triangle Universities Nuclear Laboratory (TUNL) and has served as the nuclear physics program director at the National Science Foundation (NSF).

#### 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®.

## 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.

### Controlled Access Terms

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

#### Persons:

Howell, Calvin R. (Calvin Rudolph), 1955-

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

## Subjects:

African Americans--Interviews Howell, Calvin R. (Calvin Rudolph), 1955- --Interviews

# **Organizations:**

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

## Occupations:

**Physicist** 

## **HistoryMakers® Category:**

ScienceMakers

## **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 Calvin Howell, February 21, 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).

# 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 Calvin Howell, Section A2012\_039\_001\_001, TRT: 1:29:40?

Calvin Howell describes his family background. Howell was born in 1955 in Warrenton, North Carolina. His mother, Virginia Talley, was born in 1927 in Palmer Springs, Virginia. She was raised on a farm owned by her father. Her

family stressed the importance of education. She attended St. Paul's College in Lawrenceville, Virginia. Howell's father, William Howell, was born in 1927 in Palmer Springs, Virginia. He had only a seventh grade education, but was able to build a successful career as a cement finisher. He also had a natural talent for fixing things. William Howell married Virginia Talley secretly, while she was attending college. The two had six children together.

African American families--Virginia.

Farms--Virginia.

African Americans--Education--Virginia.

Husband and wife--Virginia.

Video Oral History Interview with Calvin Howell, Section A2012 039 001 002, TRT: 2:31:46?

Calvin Howell was raised in Palmer Springs, Virginia. He attended a field school called Roanoke Elementary School. This school had two rooms, but Howell recalls that the teachers were excellent. Two teachers, Ms. Jones and Ms. Beckley, made a strong impression on him. From an early age, Howell demonstrated an aptitude for math. He earned extra money by running errands for those in his neighborhood, which helped him to develop organizational skills and honed his math skills. Howell had many interests as a child, and enjoyed playing football, basketball, and baseball. He attended Park View High School in South Hill, Virginia. Several of his high school teachers made positive impact on his life, including Mr. Best, Mr. Hicks, and Mrs. Hicks. Like his father, Howell had a talent for tinkering and fixing things.

Mathematical ability in children.

Elementary school teachers--Virginia.

Sports & outdoor recreation.

Mentoring in education--Social aspects--United States.

African American fathers.

Video Oral History Interview with Calvin Howell, Section A2012 039 001 003, TRT: 3:28:41?

Calvin Howell became interested in Davidson College as a result of recruitment materials sent to him by the college during his sophomore and junior years of high school. After an initial culture shock, attending Davidson College provided Howell with a positive experience because Howell met friends and excelled in his studies. Alan Wolf, who taught calculus, made a very strong impression on Howell. Howell was also able to spend his junior year at Howard University through a student exchange program. He completed his B.S. degree in 1978 and then went on to attend Duke University.

Davidson College--Alumni and alumnae.

Calculus--Study and teaching (Higher)--United States.

Student exchange programs.

Howard University.

Video Oral History Interview with Calvin Howell, Section A2012 039 001 004, TRT: 4:29:20?

Calvin Howell completed his graduate and doctoral studies at Duke University. During this time, he also taught general physics. Howell's doctoral research focused on interactions between silicon particles. He then went to work at the Triangle University Nuclear Laboratory. In 1985, Howell joined the faculty at Duke University, where he taught introductory physics courses. Through his teaching experiences, Howell described his teaching philosophy that employs repeated exposure and application. In 1987, Howell went to Los Alamos National Laboratory as a visiting scientist. He then went to the Stanford Linear

Accelerator Center (SLAC) in 1989, where he studied the substructure of nucleons using high energy electron beams. In 1993, Howell became an adjunct faculty member at North Carolina Central University.

Duke University. Graduate School.

Doctoral students--Durham, N.C.

Silicon.

Universities and colleges--Faculty.

Nuclear physics--Laboratories.

Video Oral History Interview with Calvin Howell, Section A2012 039 001 005, TRT: 5:29:02?

Calvin Howell talks about his appointment to the National Science Foundation's Nuclear Science Advisory Committee in 1994. In this role, he engaged nuclear physicists from different communities. In 1998, Howell joined the Nuclear Physics Program Director for the National Science Foundation. In 1999, Howell returned to Jefferson Laboratories to resume his research focused on the internal structure of nucleons. Howell works with students to explore questions about the future of research and research funding. He has also worked to prepare students for careers in the medical professions in the Minority Medical Education Program. Finally, Howell discusses Duke University's contribution to research focused on gamma rays.

DOE/NSF Nuclear Science Advisory Committee.

Nuclear physics--Research.

Physicists--Intellectual life--20th century.

Thomas Jefferson National Accelerator Facility (U.S.).

Minorities in medicine--Scholarships, fellowships, etc.--United States.

Video Oral History Interview with Calvin Howell, Section A2012 039 001 006, TRT: 6:31:53?

Calvin Howell served as the Chair of the Physics Department and professor of medical physics at Duke University. Howell describes his current research focused on using gamma rays for medical imaging as well as homeland security. He describes his desire to see more minorities enter the physical sciences. Howell talks about his hopes and concerns for the African American community and how he wanted to be remembered.

Duke University. Department of Physics.

Gamma rays--Industrial applications.

Diagnostic Imaging--methods.

Minorities in science--United States.