



Smithsonian Institution Archives

Margaret J. Geller Videohistory  
Interviews, 1989-1990

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## Collection Overview

<b>Repository:</b>	Smithsonian Institution Archives, Washington, D.C., <a href="mailto:osiaref@si.edu">osiaref@si.edu</a>
<b>Title:</b>	Margaret J. Geller Videohistory Interviews
<b>Identifier:</b>	Record Unit 9546
<b>Date:</b>	1989-1990
<b>Extent:</b>	4 videotapes. 7 digital .wmv files and .rm files (Reference copies).
<b>Creator::</b>	Geller, Margaret J., interviewee
<b>Language:</b>	English

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## Administrative Information

### Preferred Citation

Smithsonian Institution Archives, Record Unit 9546, Margaret J. Geller Videohistory Interviews

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## Historical Note

Margaret J. Geller, professor of astrophysics, Harvard University, and astrophysicist, Smithsonian-Harvard Center for Astrophysics, was universally regarded for her revolutionary work on the large-scale structure of the universe. The discovery by Geller, John Huchra and Valerie de Lapparent of the bubble structure of galaxies was arguably among the most important work in late twentieth century astronomy.

Geller received her A.B. from the University of California, Berkeley in 1970. In 1972 she completed her M.A., followed by a Ph.D in physics in 1975, both from Princeton University. Her professional experience included a research fellowship in theoretical astrophysics at the Center for Astrophysics, 1974-1976. She was a senior visiting fellow at the Institute for Astronomy in Cambridge, England, 1978-1980, and a research associate at the Harvard Observatory (HCO), 1978-1980. She has taught astrophysics and astronomy at Harvard University since 1980, and reached the rank of full professor in 1988. In July 1990, she was awarded a MacArthur Foundation Fellowship. She conducted research at the Smithsonian Astrophysical Observatory (SAO) on the nature and history of galaxy distribution, the origin and evolution of galaxies, and x-ray astronomy. She has published prolifically in these areas. Her long-range research goals include the development of a coherent picture of the formation and evolution of clusters of galaxies, and the relationship between individual clusters and the cluster environment.

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## Introduction

The Smithsonian Videohistory Program, funded by the Alfred P. Sloan Foundation from 1986 until 1992, used video in historical research. Additional collections have been added since the grant project ended. Videohistory uses the video camera as a historical research tool to record moving visual information. Video works best in historical research when recording people at work in environments, explaining

artifacts, demonstrating process, or in group discussion. The experimental program recorded projects that reflected the Institution's concern with the conduct of contemporary science and technology.

Smithsonian historians participated in the program to document visual aspects of their on-going historical research. Projects covered topics in the physical and biological sciences as well as in technological design and manufacture. To capture site, process, and interaction most effectively, projects were taped in offices, factories, quarries, laboratories, observatories, and museums. Resulting footage was duplicated, transcribed, and deposited in the Smithsonian Institution Archives for scholarship, education, and exhibition. The collection is open to qualified researchers.

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## Descriptive Entry

In Session One, Matthew H. Schneps, co-director of the Wolbach Image Processing Laboratory at the Smithsonian Astrophysical Observatory, interviewed Geller about her personal and family history and the early influences on her life and work as a student and scientist. Schneps also touched on Geller's research on the structure of the universe. The interview took place on February 5, 1989, at Margaret Geller's home in Cambridge, Massachusetts. Schneps's intention was to examine the personal, social, political and psychological forces that determined the direction of Geller's scientific research. In Session Two, David H. DeVorkin, curator at the Smithsonian's National Air and Space Museum (NASM), focused on Geller's scientific interests and activities, including publications, major collaborations and specific research projects. DeVorkin's goal was to gain a greater sense of Geller's extensive contributions to the field of astronomy. The second session was conducted at the Smithsonian Astrophysical Observatory, Cambridge, Massachusetts, first in Margaret Geller's office and later in the image processing laboratory, where DeVorkin and Geller were joined by visiting professors Emilio Falco and Massimo Ramella. The interview took place on July 16, 1990, shortly after Geller was notified about winning the MacArthur Foundation Fellowship.

This collection consists of two interview sessions, totaling approximately 7:00 hours of recordings and 199 pages of transcript.

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## Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Astronomy
- Astrophysics
- Interviews
- Oral history
- Science -- History
- Technology -- History
- Women -- History
- Women scientists

Types of Materials:

- Transcripts
- Videotapes

Names:

DeVorkin, David H., 1944- , interviewer  
Geller, Margaret J.  
Harvard College Observatory  
Harvard University  
Harvard-Smithsonian Center for Astrophysics  
Huchra, John P.  
Princeton University  
Schneps, Matthew H., interviewer  
Smithsonian Astrophysical Observatory  
University of California, Berkeley  
University of Cambridge. Institute of Astronomy  
de Lapparant, Valerie

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## Container Listing

### Interviews

Interviews

#### **Session 1: February 5, 1989**

Interviews

At the home of Margaret J. Geller, Cambridge, Massachusetts, Matthew H. Schneps recorded a personal perspective on the career of Margaret Geller, with emphasis on her formative years, early influences and interest in science, and her personal struggles and development, c. 1948-1990, including: Reminiscences of her education at the University of California, Berkeley, and Princeton University; post-doctoral work at the Center for Astrophysics; discussion of the issues faced by women in the sciences; the development of a personal style and methodology for scientific research; and present research in the redshift survey, galaxy distribution, and the structure of the universe.

Interviews

Transcript, 1-74 pages, of videotape recording, 3 hours.

Interviews

Video Recordings of Interview: Total Recording Time: 3 hours

Note:

- Original Masters: 9 Beta videotapes
- Preservation Masters: 9 Motion jpeg 2000 and 9 mpeg digital files
- Dubbing Masters: 3 U-matic videotapes
- Reference Copies: 2 VHS videotapes, 3 Windows Media Video and 3 Real Media digital files

Interviews

#### **Session 2: July 16, 1990**

Interviews

Consisted of interviews with Margaret Geller by David H. DeVorkin in two locations at the Smithsonian Astrophysical Observatory, Geller's office and the image processing laboratory. Emilio Falco and Massimo Ramella are featured in the interview at the laboratory. The session documented Geller's scientific and professional activities, c. 1970-1990, including: Announcement of the MacArthur Foundation Fellowship and plans for using the award; telephone interviews with reporters from local radio stations and newspapers; decision to concentrate in astrophysics; Statistical Virial Theorem project; collaborations with James Peebles and John Huchra; major publications; research on first rank galaxies, luminosity function, and standard candles; decision to join Harvard University faculty; redshift surveys of galaxies and the bubble theory of galaxy distribution; Geller's unique scientific style and approach to research; observations about national and international trends and issues in astronomy and membership on various committees; and efforts to make scientific concepts accessible to the general public. Visual documentation included: Map of a slice of the universe, including the Coma Cluster; computer images of clusters of galaxies in image processing room.

Interviews

Transcript, 1-125 pages, of videotape recording, 4 hours.

Interviews

Video Recordings of Interview: Total Recording Time: 4 hours

Note:

- Original Masters: 12 Beta videotapes
- Preservation Masters: 12 Motion jpeg 2000 and 12 mpeg digital files
- Dubbing Masters: 4 U-matic videotapes
- Reference Copies: 2 VHS videotapes, 4 Windows Media Video and 4 Real Media digital files