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London, 1974–1989; chief of the Library of Congress, Motion Picture, Broadcasting, and Recorded Sound Division, 1991–2001; a member of the IAF Executive Committee from 1977.

34. Pordenone, Italy, the site of an annual festival of silent film, Il Giornate del Cinema Muto, founded in 1982 and currently held in Sacile, Italy.

35. Domitor, International Association to Promote the Study of Early Cinema, founded by Stephen Bottomore, Paolo Cherchi Usai, André Gaudreault, Tom Gunning, and Emmanuelle Toulet, held its first international conference in Quebec in 1990.

36. Eileen Bowser, *The Transformation of Cinema, 1907–1915*, vol. 2 of *History of the American Cinema* (New York: Scribner, 1990).

37. Peter Williamson has been with the Department of Film since 1979 as lab coordinator, technical lab coordinator, and film conservation manager. His current title is film conservator.

38. Staatliches Filmarchiv der DDR, Berlin, established in 1955.

39. The Museum of Modern Art Film Library hosted two large government-funded projects during the Second World War: one, supervised by Iris Barry, to analyze German propaganda films, and the other, supervised by John Abbott, to produce U.S. propaganda films for distribution in Latin America.

40. Alfred H. Barr Jr., 1902–1981, founding director of the Museum of Modern Art, 1929–1943; advisory director, director of research in painting and sculpture, and director of museum collections, 1943–1967. In his "Notes on Departmental Expansion of the Museum," June 24, 1932, Barr described those departments that had yet to be established: "During the summer of 1929, while the Museum of Modern Art was in formation, it was suggested that the Museum be planned to include activities in architecture, movies, theatre, decorative arts, industrial design, photography and a library."

41. Museum of Modern Art exhibition, *Art of the Twenties*, November 14, 1979, to January 22, 1980, including *Art of the Twenties: Films from the Archives*, December 3, 1979 to January 27, 1980.

42. Arthur Drexler, 1925–1987, Museum of Modern Art curator, 1951–1955; director of the Department of Architecture and Design, 1955–1986.

Developing Preservation Appraisal Criteria for a Public Broadcasting Station

MARY IDE AND LEAH WEISSE

The WGBH Educational Foundation is a noncommercial viewer- and listener-supported public radio and television station in Boston. It holds licenses for six broadcast operations and pro-

duces nearly a third of all PBS prime-time television and on-line programming including *Nova*, *Frontline*, *American Experience*, *ExxonMobil Masterpiece Theatre*, *Mystery!* and *Victory Garden*.

The WGBH Media Archives and Preservation Center acquires, manages, and preserves the editorial assets and administrative records produced and created by WGBH program series and stand-alone productions, interactive and multimedia projects, and business departments. The challenge the WGBH Archives faces is to effectively manage the acquisition and preservation of a legacy collection, the myriad of new production formats, and new editorial content created for broadcast and new distribution avenues.

This article is an overview of the policies and procedures for the acquisition of television production assets developed by the WGBH Archives and the preservation appraisal criteria that are being developed. The WGBH preservation appraisal criteria project is a work in progress and supports the concept that while selection criteria may be codified, their application will be unique according to each institution's specific needs.

THE SIGNIFICANCE OF BROADCAST PROGRAMMING

Historian Thomas Cripps has said, "movies and television provide us with a mirror to hold up to society."¹ Broadcasting has heightened citizen awareness of our global community and its diversity. The broadcast industry's recordings and related production materials are primary source material for the study of the century's history and culture.

As a source of our cultural and social history, television is increasingly seen as both a primary and a secondary resource for the study and analysis of our society. William Murphy, author of the *Report on the State of American Television and Video Preservation*, has said that "as the most pervasive communications medium of the modern era, television has documented an extensive legacy of historical and cultural evolution over the last forty years. . . . Understanding the medium is imperative if we are to be a critical and informed democratic citizenry."² However, there are two major problems associated with assuring the preserva-

tion of these resources: first, most television programming resides on videotape, a fragile medium with a relatively short life expectancy; second, the acquisition and preservation of television programming is costly and requires a high level of technical management expertise. Its migration into the future is not always assured. Librarian of Congress James Billington warns that "at present, chance determines what television programs survive. Future scholars will have to [rely] on incomplete evidence when they assess the achievements and failures of our culture."³

The proliferation of broadcast content presents a staggering preservation problem for the institutions charged with this task. While numerous guidelines for acquisition have been published, producing stations, government agencies, and public and private archives are developing their own rational approaches to the preservation of these resources.

EARLY TELEVISION AND BROADCAST FORMATS

The first American commercial television broadcast was of the opening of the New York World's Fair on April 20, 1939. By 1941, regularly scheduled television was being broadcast by commercial stations, and by the late 1940s, two networks, NBC and CBS, were dominating the broadcast marketplace. Through the 1950s, television broadcasts were transmitted live. In that pre-videotape era, if a copy of a live broadcast was made, it was shot on 16mm film directly off the television screen. These copies, called kinescopes, often had poor picture quality.

In 1956, Ampex produced the first professional videotape in a two-inch open-reel format. Due to the high costs, it was accepted professional practice well into the 1980s to erase and reuse videotape. This, coupled with the fact that videotape is not a stable preservation medium, accounts for the situation that most of the first thirty years of American television have been lost.⁴

BRIEF PROFILE OF THE WGBH EDUCATIONAL FOUNDATION

The WGBH Educational Foundation traces its origins back to John Lowell Jr., a member of the

family instrumental in establishing New England's textile manufacturing industry. In 1836, when Lowell died, he left a bequest to create the Lowell Institute, whose mandate was to promote a free public lecture series for the benefit of the citizens of Boston. Throughout the nineteenth and into the twentieth centuries, the lectures were well attended, but by the 1940s, attendance had declined due to competition from radio and cinema. To revive and promote the lecture series, Ralph Lowell, descendent of John Jr., and a Lowell Institute trustee, embarked on the idea of broadcasting the lecture series over the radio.

On September 1, 1946, Ralph Lowell established the Lowell Institute Cooperative Broadcasting Council (LICBC), whose mission was to foster educational broadcasting. The LICBC was created in collaboration with Harvard University, Boston University, Boston College, Massachusetts Institute of Technology, Northeastern University, and Tufts College. Within a few years, it was producing thirty-minute educational programs, which aired over a local commercial radio station. In 1950, the LICBC sought a broadcast license from the Federal Communications Commission (FCC) and, in 1951, established the WGBH Educational Foundation, a nonprofit corporation with cultural, informational, and educational aims. On October 5, 1951, WGBH/89.7 FM made its broadcast debut with a live, full-length concert by the Boston Symphony Orchestra. In 1952, the FCC allocated television channels for educational purposes, and on May 2, 1955, WGBH/Channel 2 educational television made its broadcast debut with *Come and See*, a children's program from Tufts College.⁵

The Public Broadcasting Act, legislation intended to "extend and strengthen" educational television, was signed into law in 1967 by President Lyndon B. Johnson. This same legislation led to the creation of the Public Broadcasting Service (PBS), which serves to connect 346 public broadcasting stations around the country. PBS distributes programs and provides services to support the public broadcasting mission.

WGBH was an early member of PBS and has been a major producer of news, public affairs, instructional, music, performance, history, science, and drama programs, as well as

college-credit courses and primary and secondary classroom programming. Today WGBH supplies nearly one-third of all prime-time programs seen on PBS including *American Experience*, *Antiques Roadshow*, *Arthur*, *Between the Lions*, *Evening at Pops*, *Frontline*, *ExxonMobil Masterpiece Theatre*, *The New Yankee Workshop*, *Nova*, *Victory Garden*, and *ZOOM*. In addition to producing broadcast programming, WGBH creates Web sites, teaching tools, media access for people with disabilities, outreach initiatives, and films for IMAX theaters. WGBH, which employs a staff of 1,200, is Boston's only locally owned television and radio station.

THE WGBH MEDIA ARCHIVES AND PRESERVATION CENTER

The WGBH Media Archives and Preservation Center (the Archives) was established in 1978 as part of the Film Operations Department, which scheduled film crews and maintained film production and editing equipment. The new department's charge was to acquire and store film and two-inch master videotapes, and to develop a computer database inventory list of the master tapes. The Archives employed one full-time staff member who had an extensive background in film production.

Today, the mission of the WGBH Archives is to acquire, preserve, and create access to the editorial assets generated by WGBH television and radio program series, stand-alone productions, and interactive and multimedia projects. The Archives also manages a records management program for all administrative departments and provides access to processed collections for external research scholars and students. A staff of eleven manages the acquisition, circulation, records management, and preservation programs; three are professional archivists while the others have backgrounds in film and television production or business management.

Most of the WGBH collection is production media with an estimated 160,000 hours of television programming, 20,000 hours of film, and more than 40,000 hours of radio master programming. There are approximately 20,000 boxes of production elements, file documents, and computer tapes and discs. The collection is inventoried to the item level in a FileMaker

Pro 4.1 database. The master program tapes are kept in a secure, climate-controlled, Haylon-protected vault. Other materials are maintained in four separate local storage locations.

In fiscal year 2002, the Archives circulated over 26,000 editorial assets and administrative files. As a point of comparison, when the Archives started tracking circulation in 1994, 1,600 items were circulated. The steady increase in circulation is directly related to improved internal network access to the Archives database and to the training of production staff on the use of this database. During the 2002 fiscal year, the Archives acquired 38,400 new editorial assets; for the past five years acquisitions have ranged between 20,000 and 42,000 assets annually.

The growth and increasing importance of the Archives since 1978 can be traced to many developments: changes in production, including the introduction of nonlinear editing machines and digital cameras; the arrival of new broadcast distribution methods including the World Wide Web; and emerging business market trends. By the mid-1990s, the WGBH Archives, under the leadership of Vice President of Technology David Liroff, had transformed its image; once regarded as a collection of "old stuff," it is now recognized as a collection of "editorial assets." During this same period, WGBH was facing growing competition from cable television, increasing production costs, and decreasing support from federal sources for public broadcasting. This convergence of new technologies and changing market conditions continues to have important implications for WGBH archivists, who must grapple with all aspects of production while keeping current with, and anticipating, rapidly changing technology.

Two departments were created with the intent of mining the Archives' collection to take advantage of new market opportunities. The Media Library was established in 1990 to facilitate reuse of and access to WGBH's production materials. It standardized the methods by which productions organized, cataloged, and tracked their materials. The Media Library standardized rights clearance procedures to assure consistency in the way rights were acquired and to document the costs associated with those clearances. As the cataloged information from production materials grew, it became obvious



Say Brother, a public affairs program by, for and about African Americans, was produced by WGBH/Boston between 1968 and 1998. Shown here are the *Say Brother* production staff circa 1969. Standing left to right: Bob Wilson, Cameraman; Andrew Ferguson, Associate Producer; Stan Lathan, Director. Sitting left to right: Ray Richardson, Producer; Sara Ann Shaw, Interviewer; Jewel Gomez, Production Assistant; Hazel Bright, Production Assistant. Kneeling left to right: Stewart Thomas, Interviewer; Tony Lark, Cameraman. ©WGBH Educational Foundation.

that a central library database system was necessary for efficient access to shot logs and materials-used information.

The Media Library maintains a reference library, a digital library of images, and provides productions with content research services. Footage and research assets are also marketed to non-WGBH producers and outside researchers to generate revenue to support the department's primary mission.

The 'GBH Enterprises department was established in 1992 to manage the distribution of WGBH television productions in all commercial markets, including educational, home video, cable, domestic, and international broadcasting. The first major redistribution of a pro-

Figure 1. *Say Brother* (TV series, 1968–1982). Production staff photo; copyright WGBH Educational Foundation. Courtesy of WGBH, Boston.

gram from the Archives was the *French Chef* series to the Food Network on cable television. In addition to the relicensing and distribution of programming, 'GBH Enterprises manages product development and licensing for WGBH trademarks, creates companion books, and music and spoken-word CDs and audiotapes. The Archives, Media Library, and 'GBH Enterprises are all under different divisions of WGBH and report to separate vice presidents. This decentralization could create difficulties in the efficient operation and fiscal management of

the Archives; however, the departments collaborate effectively.

Given the changing production methods and market venues, archivists must have an increasingly in-depth understanding of all aspects of production or run the risk of failing to grasp how new technologies and market forces impact retention methods and criteria. This concept was eloquently stated by Mark Starowicz, head of documentaries at the Canadian Broadcasting Corporation, who said of the changing nature of information in our generation, "the archivist must now be at the genesis of the production, part of the production team. The concept of the archivist as the keeper of a cinematic cemetery is an idea we can no longer afford."⁶

ACQUISITION APPRAISAL CRITERIA

The WGBH appraisal criteria for selection is very broad, requiring every program series and stand-alone production produced by WGBH to send specific production elements and records plus the original master, international version master, and a viewing copy of the original master to the Archives. This collecting policy for masters will most likely differ from the policy of an institution that does not produce programming. Briefly reviewing acquisition appraisal criteria for television programming is warranted because television's significance as a resource of permanent record has been so recently recognized.

In speaking about the concept of permanence, James O'Toole has said that records ensure "the continued presence of past events, persons, and things."⁷ Although discussing textual records, O'Toole's remarks about permanence are also true for moving images. Fragility of moving images and rapid advancements in reformatting technologies complicate both the ethical and practical processes of accessioning and appraisal.

In his opening address to the "Documents That Move and Speak" conference in 1990, Hugh Taylor said that through the proliferation of film and television we are reviving our earlier oral communication traditions. Taylor went on to note that media "requires a different custodial pattern, different archival techniques and interpretation," or a nontextual approach.⁸

Taylor recognized that media had its own distinctive composition and content and that it was incumbent on the archivist to learn to read and understand these technical, narrative, and visual codes.

The first official international recognition of moving images as materials of archival value was made in 1972 when the International Council on Archives (ICA) published their report, *Archives of Motion Pictures, Photographic Records, and Sound Recordings*. Further support for the collection and preservation of moving image materials came in 1980, when the General Assembly of UNESCO adopted their *Recommendation on the Safeguarding of Moving Images*.⁹

In the 1970s, the Public Television Archives Collection was organized at the PBS headquarters in Washington, D.C. The intent was to collect a representative selection of the historically important programs broadcast nationally between 1954 and the present. Alan Lewis, original director of the Public Television Archives, developed the selection criteria for long-term retention by PBS that were to be applied ten years after the first broadcast. The criteria were based on acquisition standards outlined in a 1974 Ford Foundation Study along with input from the International Federation of Television Archives (FIAT), a European-based organization of archivists who manage television material. It was to Lewis's credit that he had the forethought to develop and publish his recommendations. Lewis recommended preserving:

- All personality profile programs
- All news and public affairs programming, including documentaries, panel discussions, interviews, and other forms and formats that describe or discuss matters of public interest or importance
- All cultural programming
- A broad sampling of programs directed to children and special audiences
- With regard to program series, the first and final episodes and such other episodes as are necessary to document changes in plot, setting, characterization, technique, etc.
- A broad selection of not-for-broadcast programs that promoted, explained, or otherwise supported the transmitted

programming. These materials include samplers, new season previews, various closed circuit and teleconference programs, etc.¹⁰

In 1983 Sam Kula, the former director of the National Film, TV, and Sound Archive of Canada and current president of the Association of Moving Image Archivists, prepared a comprehensive moving image appraisal study. In the study Kula set into context the dilemma of appraisal selection for television programming and the need to consider the difficulties posed by such materials. His recommendations were "an attempt to extrapolate from archival principles and practices in processing traditional paper records a few principles that could form the basis for an appraisal policy in moving images."¹¹ Kula acknowledged that "selection criteria in television broadcasting, however, is inevitably oriented to the needs of broadcasters. Value is determined, to a large extent, on the likelihood of reuse by the production organization . . . [and] is based on the intrinsic historical or cultural value of the programme or sequence."¹²

In 1996 FIAT published the following selection criteria for acquisition of master television programs:

- Actuality material of historic interest in all fields
- Actuality material as a record of a place, an object, or a national phenomenon
- Interview material of historic importance
- Interview material indicative of opinions or attitudes of the time
- Fictional and entertainment material of artistic interest
- Fictional and entertainment material illustrative of social history
- Any material, including commercial and presentational, illustrative of the development of television practices and techniques¹³

Other moving image archivists who have written and presented innovative recommendations and thinking in the field of moving image acquisition criteria include Ernest Dick, former director of the CBC Archives, Greg Eamon, Rosemary Bergeron, and Richard Lochead of the National Archives of Canada.¹⁴

WGBH ARCHIVES ACQUISITION POLICY

Prior to 1991, the WGBH Archives had no written appraisal criteria for determining the acquisition or preservation of editorial assets. Between 1991 and 1994, the Archives developed an acquisition policy and retention schedule for administrative records and a selection policy for the acquisition of television program masters, production elements, and documentation. Shutdown occurs at the end of a program's production, at which point the WGBH Archives acquires specific versions of broadcast program masters, production elements, and documentation. These assets are specified in an agreement that was negotiated during a series of meetings spearheaded by the Archives and Media Library. Attending the meetings were program producers, financial officers, postproduction staff, Web and multimedia production personnel, budget staff, and the vice presidents of technology and administration. The discussions were productive and provocative for a variety of reasons. Some productions wanted to keep their editorial content restricted and not available for future reuse in Web, educational, or programming projects. One producer saw no reason to acquire and maintain editorial assets, believing that they had no potential future reuse. On the other hand, the Media Library in particular, and many new media projects, saw the enormous research savings in acquiring and maintaining editorial assets generated during production, particularly the original field footage, stock footage, and stills.

Once consensus on the compliance mandate was reached, a shutdown list was drawn up of editorial assets designated to meet the Foundation's historical, reuse, research, and production needs. The shutdown list is periodically reviewed and revised based on changes in the production process, new formats, and editorial uses.¹⁵ The coordination of this review and revision work is done by the compliance manager. This position was established in 1996 and reports to both the Archives and the Media Library. The compliance manager works with productions from startup to shutdown to assure that compliance requirements will be met.

The Archives has long recognized that it requires a formal policy to manage the daunt-

ing preservation challenge it faces due to its aging collection of master programs. A WGBH master program is defined as the on-line edited, mixed, and packaged broadcast version of a program. In the early 1990s the Archives began to focus on its collection of 24,644 two-inch and one-inch videotapes and the issue of what to preserve. Preservation at WGBH means reformatting or transferring the image and sound from an older video or film format to another more current analog or digital one. The current WGBH policy is to remaster for preservation by reformatting onto BetaSP and Digital Beta videotape for new masters and onto VHS for a viewing copy. The Archives established this reformatting standard with input from the WGBH Engineering Department, postproduction editors, and current recommended practices within the moving image archive field. The Archives recognizes that the act of remastering or dubbing moving image material is one that is open to discussion regarding authenticity and integrity.¹⁶

APPRAISING FOR PRESERVATION AT WGBH

Preparation Processing

The WGBH preservation selection standards are a work in progress and intended to be fully operational once the entire legacy collection has been processed. This is because the factual information needed for completing the appraisal analysis requires access to production content and documents that will not be easily accessible from within the collection until all retrospective processing is completed in 2005.

Over the past five years, while developing and implementing policies and procedures for acquisition, circulation, and retention, the Archives has also been systematically reviewing and processing its legacy collection of production elements and documentation. The bulk of the materials have been acquired over a period of fifty years. A thorough review and culling of the collection has been supported by the Foundation with two goals in mind: first, we seek to develop a quality collection of production content, one that has been pared of duplicate items, has had materials removed that are no longer deemed to be of production or ad-

ministrative value, and has been weeded of documents whose retention periods have expired; second, we describe the collection to the item level with as much production content and brief program description as possible.

These steps are a necessary part of the Archives' move to a digital asset management program, which will require quality and precise cataloging. In a collaborative effort, the Information Technologies and Applied Technologies departments, the Archives, and the Media Library have been working for the past year with Artesia Technologies to design and implement a digital asset management (DAM) system for the acquisition of and access to editorial assets. Within the coming year, the Archives and the Media Library databases will be integrated in the Artesia Technologies TEAMS digital asset management system.

Collecting Issues

All master programs are kept by WGBH with the recognition that not all will be selected for preservation. Program reuse potential is wide-ranging and ever changing. Ray Edmondson has said comprehensive collecting is impractical and financially costly.¹⁷ He suggests the option of starting with the "loss principle," meaning that if there is any reason in terms of form, content, or external association why the loss of particular items would be regretted in the future, this provides a case for preservation.¹⁸ This concept mirrors David Bearman's "risk management" approach, which advocates keeping materials if their loss would risk an unacceptable consequence. If you add Sam Kula's point that broadcast reuse potential is often the critical factor in deciding preservation priorities, you have two major cornerstones of the WGBH master program retention policy: keep all masters and consider reuse potential high in the preservation evaluation criteria. No masters are written off and discarded unless there is reason to suspect severe damage to or contamination of the tape. Many will die a natural death if they are not preserved.

Preservation Funding

Funding for preservation comes from a variety of sources including the Archives annual bud-

get line item for preservation, grant funding, 'GBH Enterprises, and the Media Library. The Archives actively seeks external grant support for preservation. Since 1995, WGBH has received five such grants: two from the National Historical Publication and Records Commission, one from the National Endowment for the Arts, one from the National Endowment for the Humanities, and one from the Institute of Museum and Library Services.¹⁹ The Media Library and 'GBH Enterprises pay for preservation of editorial content that they sell or license.

Preservation Selection

The basic outline for the WGBH preservation selection standards were initially developed by WGBH Archives Director Mary Ide, who received a Bentley Library research fellowship in 1995 to investigate the issue of appraisal criteria at a producing and broadcasting station. Thom Connors, director of the Public Broadcasting Archives at the University of Maryland, was also a Bentley fellow in 1995. His appraisal analysis was from the point of view of a public archive whose mission is to collect and preserve programs from public broadcasting stations.²⁰

The basis of the WGBH Archives' selection process recognizes the fundamental concepts of appraisal as established by T. R. Schellenberg.²¹ Thus WGBH master programs are considered records that have primary or immediate value for broadcast and secondary (lasting) value for subsequent reuse. Master programs also have significant informational value as editorial content for research and/or potential editorial reuse.

This developing preservation model is also liberally based on the appraisal model devised by Frank Boles and Julia Marks Young as described in *Archival Appraisal*. Boles and Young analyzed textual records and "attempted to develop a taxonomy that synthesized the time-honored ideas of Schellenberg, the more radical ideas of Bauer, the wealth of criteria proposed by Brichford, and their own notions of what elements composed record selection."²² Their acquisition selection taxonomy contained three component parts: the value of information, costs of retention, and implications of the selection decision.

Value Categories

Based on the Boles and Young appraisal model, the WGBH Archives developed four broad value categories: institutional, informational, reuse, and cost of retention values. The WGBH model is currently being applied to determine which titles to preserve from its two-inch collection; this chronological approach is based on the fact that older tapes may be the most fragile and need to be reformatted if they are to survive. The two-inch collection constitutes approximately three thousand series and stand-alone program titles. The two-inch collection includes early national and local broadcast series such as:

The Advocates: a series of debates, taped at Boston's Faneuil Hall with moderator Michael Dukakis and others, facilitating the discussion of national and international issues. Participants include U.S. Representative Barney Frank, Antonin Scalia, S. I. Hayakawa, Paul Simon, John Anderson, Elmo Zumwalt, John Kenneth Galbraith, Eleanor Smeal, Phyllis Schlafly, Sam Ervin, and Governor Ronald Reagan.

Thirty-three master programs on two-inch tape.

Broadcast nationally between 1969 and 1980; coproduced with KCET.

Elliott Norton Reviews: Boston theatre critic Elliott Norton interviews prominent actors, directors, and producers on their craft. Guests include Alfred Hitchcock, Al Pacino, Agnes DeMille, Gloria Swanson, Erich Leinsdorf, Ethel Merman, Rex Harrison, Pauline Kael, Paddy Chayevsky.

118 master programs on two-inch tape.

Broadcast locally between 1958 and 1982.

Say Brother: A public and cultural affairs program by, for, and about African Americans. Program featured both local and nationally known artists, athletes, performers, politicians, professionals, and writers. Guests include Muhammad Ali, Maya Angelou, Doris Bunte, Stokely Carmichael, Louis Farrakhan, Nikki Giovanni, Odetta Gordon, Eartha Kitt, Benjamin Hooks, Jesse Jackson, and many more.

Seventy-six master programs on two-inch tape.

Broadcast nationally between 1969 and 1998; in 1998 the program changed its name to *Basic Black*.

ZOOM: Original children's weekly program that showed what youngsters do and think. In 1999 *ZOOM* resumed production and continues to today.

102 master programs on two-inch tape.

Broadcast nationally between 1972 and 1979.

The data for completing the appraisal analysis is collected from numerous sources. The first point of information gathering is with producers, engineers, production staff, and administrators who have a long history at WGBH. Their input is critical, as often this information is not available from the processed collection nor accessible from the unprocessed collection.

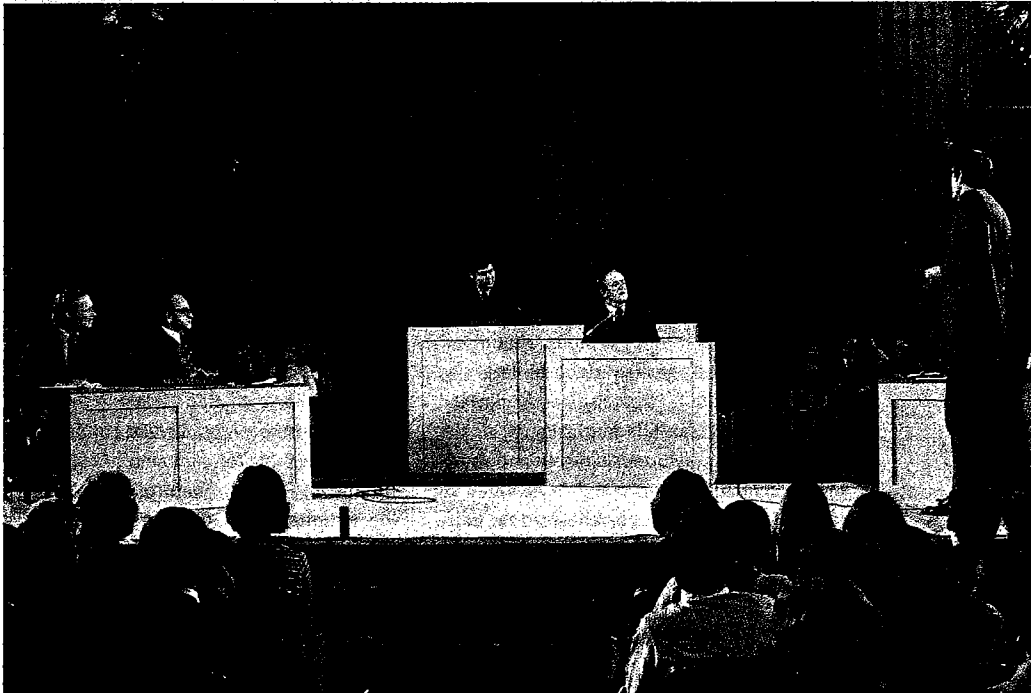
Other sources of factual information include the Archives' files of newspaper and magazine reviews of WGBH programs dating back to the early 1970s. Broadcast logs are a source of transmission data, while the corre-

spondence of presidents, vice presidents, and historical files provide insights into the background and production of programs. Legal files contain rights information for a good portion of programs produced or coproduced by WGBH.

Finally, the Archives seeks extensive input from both the Media Library and WGBH Enterprises regarding potential reuse of older programs. Given the significant work and revenue generated from the exploitation of WGBH editorial contents by these departments, their recommendations are critical.

The information-gathering method at WGBH provides as objective a selection process as possible. Ideally a numerical weighing and statistical ranking of the total input should be calculated if possible; however, the WGBH Archives does not take this step. Instead the information gathered is documented within the following value categories.

Institutional values. We track the program category and genre to keep a balanced selection from the WGBH programming spectrum, as stated in the WGBH mission statement. For



The Advocates, a series of debates on national and international issues, was produced by WGBH/Boston between 1969 and 1980. In this 1973 photo guest Advocate, Rep. Morris Udall (D-Arizona) questions Sen. Hubert Humphrey (D-Minnesota) as moderator Michael Dukakis (center) and guest Advocate Charles Walker (right) look on. The debate: "Should the President Spend the Money Congress Appropriates?"
©WGBH Educational Foundation

Figure 2. *The Advocates* (TV series, 1969–1980). Production staff photo; copyright WGBH Educational Foundation. Courtesy of WGBH, Boston.

example, what category does the series or program represent—the humanities, music, history, politics, practical arts, economics, science, or fine arts; what genre does the series or program represent—documentary, children's, public affairs, experimental, instruction, music, news, sports, drama, or dance?

In addition, we look at what production information we have, including broadcast date, season, program number, version; names of series host, producer, editor, production and technical staff, and on-air talent; and if this a local or national broadcast.

Rights to WGBH acquisitions and coproductions will vary, and they determine distribution and use potential. This critical information tells us the number of releases allowed per year and rights regarding school use, public television broadcast, cable, foreign, AV, and home video. Rights limitations can be considerable, but experience has shown that agreements can be renegotiated. If the program is an original WGBH production, then WGBH owns all rights.

What was the original funding source—foundation, corporate, public funds, or a combination? These sources could be retapped for preservation funding.

What was the public recognition and reception of the broadcast series or program; do we have reviews and ratings information? Did it win any awards?

Informational values. Cataloging of content down to the shot level makes this resource more easily accessible; shot logging is done by production staff with oversight and quality control at the Media Library. Additional rich cataloging text is available in closed captioning data, a visual text of content dialogue, and in descriptive video (DVS) data, the descriptive audio track of content action. These data streams are available on many, if not most, national productions dating from the late 1970s and late 1980s respectively. The more thorough the cataloging information, the more potential value for internal production and external client research and footage sales. It is important to know what level of cataloging is available: shot logging (scene-by-scene description), descriptive video and closed captioning data, or just a program summary level. Thus, we want to know what is the program content cataloging

level: summary, shot log, closed captioning (CC), descriptive video service (DVS), or none. We want to know the extent of original footage tapes for a master program as this provides an additional level of rich resource content for research, reuse, or sales purposes. Are the original tapes cataloged to the shot level, the tape level, or not at all?

Finally, we want to track production and technical experiments unique to a series or program. Some programming reflects particular production or technical experiments that are not necessarily evident from watching the program. Technical and aesthetic qualities of merit are documented including production technique and technical equipment used.

Reuse values. WGBH editorial content is extensively used for research by internal productions, Web and educational projects, and reuse for broadcast. The financial advantage in maintaining a vast archive of editorial content has saved both research time and money for WGBH. WGBH Enterprises is continually seeking content for relicensing.

We ask WGBH Enterprises what the rebroadcast potentials are and in what markets. We ask the Media Library what the program content reuse value might be for internal research and for potential footage sales. The Web, Interactive, and Educational Programming departments provide us with the potential values of multiversioning and repurposing opportunities that might exist for CDs, DVDs, and Web sites.

Cost of retention values. We want to know the long-range costs that would be incurred by the Archives for retaining and migrating master programs, and supporting media and documentation materials. Transfer work is done in-house by experienced engineers. We negotiate the format conversion costs that include the cost of engineering and tape stock. In addition, we want to factor in storage/overhead costs to maintain all reformatted copies plus the original. We also recognize that there will be staff processing and cataloging costs in preparing masters for preservation, cataloging the new dubs into the Archives database, and reshelving them.

We want to identify specific data relative to the physical condition of the tape. We know that the longevity of some tape formats will

vary from one manufacturer to the next. We identify the age and manufacturer of the tape and check for engineer notes within the tape case. Each time a tape is run on the two-inch machine by an engineer, any problems are documented on a card in the tape case.

This value information is gathered and analyzed by the WGBH Archives. For the past five years this methodology has been focused on the two-inch collection; to date the Archives has preserved 1,066 master programs and series from nearly 3,500 potential titles for selection. From the two-inch series mentioned earlier, the Archives has funded the preservation of all 118 *Elliot Norton Reviews* programs and 28 programs from *The Advocates* series. A selection of 40 original titles were preserved as part of the planning and promotion of the revised *Zoom* program that went on the air in 1999. All 76 *Say Brother* two-inch master programs were preserved. It is projected that, within a year, the preservation of titles from the two-inch collection that are deemed to be of value will be completed. The remaining two-inch tapes will be held in the belief that the cost of keeping them is less than the risk of losing their unforeseen potential.

CONCLUSION

In their paper presented at the 1996 Records of American Business Symposium, Todd Daniels-Howell and Mark Greene discussed their Minnesota Method for selection and acquisition as a pragmatic approach to the selection of twentieth-century business records. They described the Minnesota Method as one based on the belief that

All appraisal is local and subjective; the potential universe of documentation will always exceed the resources of any repository; it is impossible to define or achieve "adequate" documentation, but it is possible to make selection more rational and efficient relative to a specific repository's goals and resources.²³

The WGBH model is a local and pragmatic work in progress. The overall goal of the preservation selection process is to document the history of the Foundation and to assure that

editorial content is available for future production, project, and research use. As Tyler Walters recently wrote, discussion of the selection for preservation values has been "settled." "These values are the level of archival value assigned to the records, the state of the collection's physical condition and the intensity and nature of use."²⁴ The preservation appraisal and selection process being developed by the WGBH Archives focuses on identifying the "added value" components inherent in broadcast masters and supporting production elements. These components both qualify and quantify the selection process.

The collaborative nature of the WGBH Media Archives and Preservation Center's legacy preservation work is essential. It is paving the way for the more challenging work of developing an effective digital preservation policy.

NOTES

1. Thomas Cripps, "The Moving Image as Social History: Stalking the Paper Trail," in *Image as Artifact: The Historical Analysis of Film and Television*, ed. John E. O'Connor (Malabar, Fla.: Robert E. Greiger, 1990), 136.
2. Letter from William Murphy to Mary Ide, Washington, D.C., January 16, 1996. The subject concerned the planned hearings before the panel of the Library of Congress on the "State of American Television and Video Preservation."
3. James H. Billington, preface to *Television and Video Preservation 1997: A Report on the Current State of American Television and Video Preservation*, 5 vols. (Washington, D.C.: Library of Congress, 1997), 1: xi.
4. For a summary of early video preservation efforts, see "Earlier Efforts to Preserve Television," *Television and Video Preservation 1997*, 1: 6-12. For a summary of television archive history, see "A Selective Chronology of Events relating to Television and Video Archives," in *Television and Video Preservation 1997*, 1: 155-62. For an excellent general history of American television, see Erik Barnouw, *Tube of Plenty: The Evolution of American Television*, 2d and rev. ed. (New York: Oxford University Press, 1990).
5. Edward Weeks, *The Lowells and Their Institute* (Boston: Little, Brown, 1966), 167-69. The Boston Symphony Orchestra, the Boston Museum of Fine Arts, the New England Conservatory of Music, and Brandeis University joined the LICBC in 1951. Within a few years Simmons College, the University of Massachusetts, Suffolk University, and Wellesley College became LICBC members.
6. Mark Starowicz, "Opening the Vaults," address to the Association of Moving Image Archivists, annual conference, Montreal, November 3, 1999, 4. Copy of paper sent by author to Mary Ide in December 1999.
7. James O'Toole, "On the Idea of Permanence," *American Archivist* 52 (winter 1989): 25.

8. Hugh Taylor, "Opening Address," in *Documents That Move and Speak: Audiovisual Archives in the New Information Age* (New York: K. G. Saur, 1992), 21-25.
9. W. Kohte, *Archives of Motion Pictures, Photographic Records, and Sound Recordings: Report at the 7th International Congress on Archives* (Moscow, 1972).
10. Alan Lewis, "Archives Notes from the Public Television Archives," in *An Occasional Newsletter of the Public Television Archives of PBS*, no. 2, n.d., 2.
11. Sam Kula, "Archival Appraisal of Moving Images," in *Selected Guidelines for the Management of Records and Archives: A RAMP Reader*, Peter Walne (Paris: UNESCO, 1990). Available at <http://www.unesco.org/webworld/ramp/html/r9006e/r9006e06.htm>. Accessed August 16, 2002.
12. Sam Kula, "Selection and Appraisal," in *Audiovisual Archives: A Practical Reader*, ed. and comp. Helen Harrison, 1.3. Available at <http://www.unesco.org/webworld/audiovis/reader/43.htm>. Accessed August 16, 2002.
13. "FIAT/IFTA: Recommended Standards and Procedures for Selection and Preservation of Television Programme Material," in *Television and Video Preservation 1997*, 1: 184-202.
14. Several Canadian archivists have done extensive analysis and have written about appraisal of moving image materials. The following are recommended reading: Greg Eamon, "Issues and Options: Identifying and Selecting Audio-Visual Material of Enduring Value," paper presented to the Study Commission of the Task Force on the Preservation and Enhanced Use of Our Audiovisual Heritage, July 27, 1994; Rosemary Bergeron and Greg Eamon, "Selection Factors for Audio-visual Archives," paper presented at the Association of Moving Image Archivists conference, Toronto, 1995; Ernest J. Dick, "An Archival Acquisition Strategy for the Broadcast Records of the Canadian Broadcasting Corporation," *Historical Journal of Film, Radio, and Television* 11, no. 3 (1991); Richard Lothead, in consultation with the management and staff of the Moving Image and Sound Archives Division in the Moving Image, Data, and Audio Conservation Division, *Moving Image and Sounds Archives Guidelines on Appraisal* (Ottawa: National Archives of Canada, October 1990).
15. Current WGBH shutdown compliance requires the following assets be sent to the Archives: master program on Digital Beta videotape, an international master, a VHS clean dub of the master, a program window dub, and a full-mix audio master. In addition, the following elements are sent to the Archives: all digitized media, original audiotape recordings, original footage master tapes, original footage work tapes, stock footage master tapes, stock footage work tapes, screening tapes, computer-generated animation, and music CDs. Documents sent to Archives at shutdown are advisory board names and meeting minutes, a bibliography of research materials, selected correspondence, fact checklists, camera and edit logs, promotional materials, grant proposals, scripts (final program and editor's rough cut or assembly), transcripts (interview and program), treatments, and time sheets. The Legal Department is sent cue sheets, credits list, all contractual agreements, all releases, insurance documents, and copyright material. The Media Library is sent all production stills acquired during production plus the following databases: materials used, original footage, screening tapes, stock footage, and visual arts.
16. "Guiding Principles," in *A Philosophy of Audiovisual Archiving*, Ray Edmondson and members of AVAPIN, (Paris: UNESCO, 1998), 2.4.1-2. Available at <http://www.unesco.org/webworld/en/highlights/audiovisual/archiving/phil013.htm#principles>. Accessed August 14, 2002. Edmondson states that copying (dubbing) is both an art and a science involving subjective judgments and technical skills. According to Edmondson, it is possible, in effect, to distort, lose, or manipulate history through the judgments made and the quality of the work performed during the dubbing process.
17. Ray Edmondson, "A Philosophy of Audiovisual (AV) Archiving," draft two, paper prepared for discussion at the Association of Moving Image Archivists conference, Toronto, October 1995, and UNESCO Round Table on AV Archiving, March 1996. Sent to Mary Ide by Ray Edmondson, September 7, 1995. See also "Guiding Principles," in *A Philosophy of Audiovisual Archiving*, Ray Edmondson et al., 2.1.1.
18. "Guiding Principles," in *A Philosophy of Audiovisual Archiving*, Ray Edmondson et al., 2.1.2.
19. Two of these projects currently have Web sites: for the *Say Brother*/NEH project, see <http://main.wgbh.org/wgbh/NTW>. For the *New Television Workshop*/NEA project, see <http://main.wgbh.org/saybrother>.
20. Thom Connors, "Appraising Public Television Programs: Toward an Interpretive and Comparative Evaluation Model," *American Archivist* 63 (spring/summer 2000): 152-74. Connors also outlines the legislative origins of public television (PTV) and various funding, membership, and related organizations.
21. T. R. Schellenberg, "The Appraisal of Modern Public Records," in *A Modern Archive Reader: Basic Readings on Archival Theory and Practice* (Washington, D.C.: National Archives and Records Services by the National Archives Trust Fund Board, 1984), 57-70.
22. Frank Boles in association with Julia Marks Young, *Archival Appraisal* (New York: Neal Schuman, 1991), 9.
23. Todd J. Daniels-Howell and Mark Green, "Documentation with an Attitude: A Pragmatist's Guide to the Selection and Acquisition of Modern Business Records," in *The Records of American Business*, ed. James O'Toole (Chicago: Society of American Archivists, 1997), 162.
24. Tyler O. Walters, "Contemporary Archival Appraisal Methods and Preservation Decision-Making," *American Archivist* 59 (summer 1996): 337.