

Archive Creation Project Description:

VHS Conversion and Preservation

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VHS Conversion and Preservation

If there was going to be a single takeaway from working on this project, it is that Hofstadter's law—everything takes longer than you expect—is putting in extra hours in the library and academic communities. Of course, some of that involves the fact that my initial plans were overoptimistic, but that only explains so much. Where I had hoped to have a significant portion of a 160-video-collection digitized by now, I have... four. And two will need to be redone, based on what we have learned of the process from doing those. Also, there are now 250 videos, and some unknown amount that have migrated their way to individual professors' offices over the last dozen years since the library stopped being the collection repository. Despite all that, however, I am actually pleased with the project, and confident that we are moving in the right direction. There is just so much I have had to learn about the intervening steps.

Our Goals & Background

Having approached this project as “what material do you have that you'd like to process, but haven't had the time to do,” it has grown into something substantially larger.

Theoretically, after recording the speakers and subjects from the video labels, we could have placed those into the catalog and called it a day. However, the recognition that their current format was both dangerous in regard to their lifespan as well as relatively unusable has resulted in needing to research, determine, and sometimes develop best practices for storing these VHS recordings in a sustainable fashion. As outlined in the

original proposal, the plan was to determine the best means of digitizing and preserving the VHS recordings, enact said means, and catalogue the videos so that they can be easily found and viewed.

Magnetic media—like VHS tapes—is a tricky area to work with. It belongs to the era of early electronic storage, and has been often neglected because, like print texts that were catalogued and shelved, there was something of an expectation that it would keep until needed. Fortunately, it is not yet *too* late for that misconception to be amended, but we are approaching that point. Magnetic media has a relatively short lifespan, as compared to print materials, decaying within 20-30 years even when kept in controlled conditions. Moreover, it requires specialized equipment to access—equipment that is rapidly disappearing, as manufacturers have stopped bothering with it and existing machines break down. While VHS is not a truly “digital” format, because of these traits, it shares many of the preservation concerns of digital material, and fully transitioning it to a digital format is the best way it can be saved, even as that brings along its own problems and concerns that must be kept in mind.

Things That Have Been Done

The original plan was to begin by reviewing past work and research on digitization, which went smoothly enough. My literature review includes much of the references for this, but was not enough, in and of itself—I needed to process that information and reconcile conflicts with best practices and newer alternatives, while juggling the resources the library and Cyber Forensics Unit (CFU) had available. The experience has resulted in a

number of lessons on the difference between ideal and practical. I have attached the initial draft of our processing guide, which focuses on background, expectations, and requirements (but not, as of yet, the step-by-step procedures) as a reference. While incomplete—because we are still refining the process—areas where determinations have been made are included.

With the CFU interested in using this project as an example of processing quality and potentially offering it as a provided service, my hope had been that we would be able to pull some funding from there. Based on the research, doing this well enough to showcase it requires VHS machines with s-video output and preferably a time-base-correction system built in, which seem to be going for anywhere from \$150 to \$500 on eBay; what we *will* be doing it with is a number of Panasonic AG-1350s that the library already has, output in composite video only, and result in some graphical artifacting. Given that, our capture device, a Diamond VC500, will be perfectly adequate. The software included with it, however, was entirely *not*.

EZGrabber, a proprietary application, was included with the device, which, based on several tests and conversions, uses a highly-compressed video codec for the captured data, wrapped in an AVI container. Unfortunately, the compression is too much to be acceptable for our archival purposes, and has necessitated testing out other options; currently, the favorite is VirtualDub, an open source piece of capturing software that can record losslessly. It has proven to require substantial tweaking, however, to keep it from skipping frames when recording on the rather weak PCs we have for this project (and thus why

some of the videos will need to be recaptured, as they occasionally freeze during playback because of this error.) Because I am continuing with this project, I will be testing out Avidemux—which I have had some better luck with but may be too resource-intensive for the machines—before making the final determination.

In the Planning Stages

One of the concerns with this project is the man hours of processing so much video. Because of the way VHS digitization works, it cannot be done any faster than the video itself plays, during which time there is little that I can do in regard to the project. Metadata notation can fill some of the time, but not a substantial portion: when each recording averages 90 minutes, however, there is a lot of time to fiddle one's thumbs. I have been working with Caroline, the librarian at GSU's Lane Library, to set up a very straightforward process (in the form of the processing guide attached) for undergrad student workers who are already in the library to follow when I am unable to be on campus, as the materials cannot be taken off-site and it is difficult to justify a day of sitting there for twenty minutes of actual work setting up five videos.

We have also been working with GSU's digital repository folks to figure out what they need for us to make the access copies of these recordings available for streaming. While the repository intended it to be used that way, in practice, they currently are unsure how we would go about setting it up; we will be, as it turns out, the first project trying to use it that way, and it comes at a time when they are already working to integrate two schools' library catalogues into a single system. The end goal is to have the video

descriptions and metadata searchable via the library website with links to the streaming format included. Several practicing professors have already expressed interest in using some of the video lecture series in their classes once we have made them readily available, which is buoying.

Finally, the primary collection we are working with is a series of faculty lectures sponsored by the university and open to the community that not only ran for the twenty-five years the library has recordings, but has continued to run to this day, and we would like to be able to integrate these archived materials with the current collection.

Unfortunately when the original head of the series retired in 2002, it seems that the position has been passed around on a yearly basis, with each faculty member handling recording however they saw fit and storing them in an equally haphazard fashion; for at least the last two years, the only recordings have been on the phones of some attendees. As such, the scope has grown somewhat—I have spent a bit of time coordinating with the current head, Dr. Lisa Dusenberry about setting up authorized recordings again going forward and attempting to figure out where past ones may be located. The administration at GSU is amenable, but slow-moving when it comes to passing along contact information or finding former faculty who handled it.

Current Status

Nowhere near complete. As noted, we have 4/250 (247, actually) encoded, and only two completely finalized, putting the completion percentage at a whopping 1.6%. What we do have, however, are three separate stations set up and (mostly) ready with both the

hardware and software for processing these materials (one in the CFU, two in the library) and have almost pinned down our exact process, enabling me to finish the processing guide and share that so that we can tackle the materials much faster. Getting the processing started (and then saved at the end) on each machine takes less than five minutes per video, which can be easily done by anyone on-site once the manual is completed. With three stations, that would mean we can get through the entire collection in roughly three months if each is only started once a day. Adding in days I will be on site and cataloguing the material, where I should be able to start 4-5 per machine, it should start going much faster, shifting the hold-up from the conversion process to the cataloguing one.

Once materials are being processed and converted, I will still have the somewhat daunting process of identifying the speaker and subject, then applying appropriate metadata. So far, all the initial tapes have had their author and subject, when identified on the label, noted, along with their date of presentation, and it is being stored in an Excel sheet (also attached,) but there are a number of inconsistencies, gaps, and missing bits of information that will hopefully be addressed within the recording itself. If not, it will potentially require checking yearbooks or speaking with faculty who may be able to identify the speakers. The additional VHS tapes we found while looking for additional VHS players have not all been catalogued, even by labels, yet, and are roughly doubling the size of the project.

Reflecting

It is somewhat heartening to have discovered that, much as I underestimated the time it would take to do this, so too have the people I am working with. The CFU is optimistic about selling this procedure to administration as a value-add, but unable to finesse the budget for purchases that are (I would assume) relatively minor, comparatively. In the library, we have found more and more material that nobody knew was there, and the scope has ballooned yet again... which I find oddly comforting. I am not the only one this happens to; hallelujah.

While there is still a significant amount of work to be done, it has now officially been signed off on as an internship, and I will spend a significant portion of the summer semester focusing on the doing, now that the majority of the preparation is out of the way. Hopefully, by the end of August, the collection will either be finished, or well on its way and able to continue without further assistance from me. I would very much like to see it through, especially as it pertains to the current faculty lecture series; while the current series has a page on the school site, it has no record of previous lectures available there, and both Lisa Dusenberry and I would be happy to have it both more accessible and, possibly, regarded by the administration. If getting through this project can not only salvage some interesting archival material and establish a procedure for handling other VHS collections, but also reinvigorate a program that has been neglected in the wake of institutional shake-up, it would be incredibly rewarding.

VHS PROCESSING GUIDE

VHS Digitization: Proccessing Guide (ROUGH DRAFT)

As part of the consolidation of 2018, the Armstrong campus of Georgia Southern has had to begin integrating its library systems with that of the Statesboro campus, and adapt to making use of the institution's digital repository. As a part of that, documentation of existing projects that require completion led to a look at the Lane Library's VHS collection, consisting not just of films that can be found in other mediums, but also hundreds of unique materials: recordings of various faculty lectures, research interviews, and historical events. While the Lane Library does, at the time of this writing, still have several VHS players available with which to view the materials, two of the machines have been retired in the last year, and they are currently considered a minor concern when it comes to replacement and maintenance. The material included on those VHS tapes, however, is of historical importance to the university and its legacy, and given the limited lifespan of the format and associated hardware, must be addressed promptly in order to ensure that it remains accessible in the future.

The following guide is currently a description of the best-practices we have been able to ascertain for accessing, preserving, and storing not only the VHS collection currently housed in the Lane building, but also any other material of the same type that the university has interest in keeping. It is built upon a mix of best practices followed by other institutions—New York University and Stanford, in particular—but also the National Archives' recommendations, technical specifications, the support and systems available at Georgia Southern, and our own work and experience.

Expectations

As a library and archive charged with housing irreplicable materials, it is important that the preservation work we do be of the highest quality reasonably possible; in addition, as we have partnered with the Georgia Southern Cyber Forensics Unit for this project, it is important to their department that we are able to provide documentation as to the state and unaltered nature of the materials for legal and criminal justice concerns. VHS materials preserved by this project should be:

1. processed and encoded to a format that loses as little information as possible, as per standard archiving expectations;
2. stored in a format that has minimal risk of further degradation;
3. easily accessible to library patrons and university personnel;
4. identifiable as primary transfers and tamper-resistant.

We have addressed each of these concerns as thoroughly as possible within our means and budget; the decisions by which we arrived at our process can be found in the appendix. This guide produces video encoded with as little information loss as possible, as well as access versions compressed for easy transfer and streaming; each video has a hash associated with the original conversion that can be checked against to determine if it has been subsequently edited, and is stored in long-lasting mechanical hard drives kept in archival cases, with the access version made available for streaming via the digital repository.

Equipment

We recommend the following hardware and software; variations may be usable (and are somewhat inevitable in the case of the hardware), but understand that the steps may differ somewhat based on differences in equipment. Any attempt at converting and preserving these materials requires the ability to play it back; notably, the last electronics manufacturer producing VHS players ceased in 2016, which means that hardware recommended and used via this guide may no longer be available in the future. While we have not suggested a large number of alternatives, we have attempted to explain why the devices were chosen such that subsequent preservation projects can best choose a suitable replacement among their options.

VHS Players

While you may have VHS players available—and in a pinch, anything will do—certain machines will result in a much cleaner final product, with less static, banding, and artifacting in the picture. Ideally, use a player with at least four heads, supports full-frame time base correction, and has s-video output. Combined, those result in a player that is less likely to damage tapes during the conversion process, corrects for bouncing and jittering, especially on non-commercial tapes (which applies to most of our collection), and outputs a signal that is significantly less degraded than a composite (yellow) video connection.

Recommendations: JVC7600/9600 models, Panasonic AG-1980 models.

Conversion Box

For standard-definition video, almost any video capturing device with composite and s-video input, and USB output, should work. A PCI capturing card would perform better, offloading much of the work from the computer processor, but is substantially more expensive and is only recommended if you have other, higher-definition media you wish to capture via the same general process.

Recommendations: Diamond VC500, AverMedia CE310B

Storage Media

Optical media—such as DVDs—lacks the capacity to store archival-quality conversions, meaning we require larger storage. While processing your collection, working with internal or networked hard drive space may be sufficient, but expect roughly 24 gb of space required per hour of footage. External devices are a short-term solution, but not an ideal long-term home for your material due to their susceptibility to damage. We recommend using a well-rated internal hard drive, attached to a machine via an enclosure, and then stored in static-free cases when not in use.

Recommendations: Western Digital Red (hard drive); Sabrent EC-HD2B or Inatech FD2005 (HD enclosure); ProStorage hard drive storage foam or Orico 3.5” hard disk protective box case (drive storage).

Encoding Software [UNFINISHED]

Currently, we are using VirtualDub [<http://www.virtualdub.org/>] to handle the video capturing and encoding from the usb input; it is an open source application capable of recording lossless video in an AVI container format. System requirements are unclear, and it may be nonviable based on requiring too many system resources for a sustained capture.

Integrity Checking

As part of the procedure, we recommend calculating a *hash*—a unique series of letters and numbers that describes a file and changes if the file is in any way materially altered—and storing it along with your metadata, so as to be able to verify it has not been changed in the future. Assuming a Windows machine, Microsoft has a *file checksum integrity verifier* tool (the FCIV) available for free download that will generate a SHA-1 hash value for each file as you complete it. Any tool, however, will work as long as you pick a specific type of hash and stick to it.

Recommendations: FCIV, any.

Material Processing

COLLECTION IDENTIFICATION AND METADATA

Faculty Lecture Series, Armstrong Campus, Savannah, GA (1982 - 2005)				
VHS #	Date	Speaker	Title	Notes
1	7-Oct-82	James Land Jones	The Great Gatsby: a reading	3 copies made by Alumni office from video given by Robert Strozier
1	3-Feb-83	James Land Jones	History—Another Perspective	4 copies made by Alumni office from video given by Robert Strozier
2	28-Oct-82	Brad Crain	The Nature of Comedy in Modern Fiction	
3	10-Nov-82	John Suchower	Noel Coward: the Talent to Amuse	
3	12-May-83	John Suchower	The World's longest running comedy	
4	10-Mar-83	Hugh Brown	Is Change Leaving us Behind?	
4	24-Feb-83	Robert Strozier	Vulture, Hyenas and Leopards Streaming consciously to the Snows of Kilimanjaro	
5	11-Jan-83	Lorie Roth	Introducing Jane Austen	
6	11-Jan-83	Morris Whiten	Solar system and its Strange Objects	
7	6-Oct-83	George Pruden	The Four Modernizations: Development from the Chinese Perspective	
8	3-Nov-83	John Suchower	The Fabulous Dion Boucicault	
9	13-Jan-83	John Welsh	Intended Magic: The Satiric Curse and Rochester's The Imperfect Enjoyment	
9	26-Jan-84	John Welsh	Absolute Death: Measure for Measure	
10	29-Mar-84	Billie McClanahan	Ironic Parallels in the works of Nathaniel Hawthorne and Flannery O'Connor	
11	7-Apr-84	David Noble	Riemenschneider, Durer, and the Transition from Gothic to Renaissance in Germany	
12	28-Apr-84	Dick Nordquist	Get Stewed: Books are a Load of Crap: the Poetry of Phillip Larkin	
	4-Oct-84	James Land Jones	1984—To and From	Missing from library's holdings
13	25-Oct-84	Dennis Murphy	Law and Ardor	
14	25-Apr-85	Jane Ann Patchak	Composite Woman	
15	3-Oct-85	Steve Ealy	Secrets of the Capitol Dome: What Textbooks Don't tell about Congress	
15	11-Jan-85	Joe Henderson	Running Your Best Race	Guest Lecturer
16	24-Oct-85	Richard Raymond	Prevailing on a Blighted Star: the Challenge of Hardy's Pessimism	
16	10-Jan-85	Lorie Roth	Women of Mystery	
17	16-Jan-86	Olavi Arens	British Policy in the Russian Civil War, 1918-20	
18	6-Feb-86	Neil B. Satterfield	Multifarious mutations of the American family: Survival and Change	
18	27-Feb-86	Steve Rhee	U.S.-Japan relations of the 1980s	
19	1-May-86	Bonny Miller	Magazine Music: a Forgotten Avenue of Music	
19	22-May-86	Evelyn Dandy	Dialect Differences: Do they Interfere?	
20	7-Oct-86 ?		"Faculty Lecture Series" otherwise unlabeled	
20	11-Jan-86 ?		"Faculty Lecture Series" otherwise unlabeled	
21	20-Oct-86 ?		"Faculty Lecture Series" otherwise unlabeled	
22	22-Jan-87 ?		"Faculty Lecture Series" otherwise unlabeled	
23	12-Feb-87 ?		"Faculty Lecture Series" otherwise unlabeled	
24	5-Mar-87 ?		"Faculty Lecture Series" otherwise unlabeled	
25	16-Apr-87 ?		"Faculty Lecture Series" otherwise unlabeled	
26	7-May-87 ?		"Faculty Lecture Series" otherwise unlabeled	
27	28-May-87 ?		"Faculty Lecture Series" otherwise unlabeled	
28	8-Oct-87	Lorie Roth	Legends of Arthur, the Once and Future King	
29	29-Oct-87	Robert Strozier	How to Rekanize [sic] Good 'Ole boys and good 'Ole Girls	
30	19-Nov-87	Larry Babits	Uncovering Patterned Behavior	
31	11-Feb-88	Ronald Beumer	The Hot and Cold of it: Thermoregulation in Animals	
32	26-May-88	Marilyn Buck	Health Promotion and Prevention of Illness: a Life-Long Quest	
33	29-Sep-88	Tom Cooksey	Aphrodite and the Violent Goddess	
34	17-Nov-88	Randall Reese	Making Sense of Jazz	
35	20-Oct-88	Dick Nordquist	Preachers, Pedagogues, and Poltroons: H. L. Mencken and the Great American Circus	
36	12-Jan-89	Dennis Murphy	Their Perch and Not Their terror	
37	9-Feb-89	David Noble	Saints, Strangers and Salzburgers: Religious Confrontation in Early Georgia	
38	9-Mar-89	Frank Clancy	Second Annual Sebastian Dangerfield St. Patrick's Week Lecture: the Ginger Man's Dublin	
39	13-Apr-89	Olavi Arens	Soviet Economic Model: Strengths and Weaknesses	
40	4-May-89	John Jensen	Raku Pottery: from Inception to Completion	
41	25-May-89	Evelyn Dandy	What is it Like to be the Only One?	
42	5-Oct-89	Robert Strozier	The Poetry of self discovery in the stories of Bobbie (?) Ann Mason	
43	19-Oct-89	Rober Patterson	Baseball as a metaphor	
44	2-Nov-89	John Kearnes	The Great Betrayal Madison and Henry debate the constitution	
45	16-Nov-89	Janet Stone	Reflections on the French Revolution, from 1989	
46	11-Jan-90	Tom Cooksey	Monsieur Jacques and his Masters: Derrida, Deconstruction and Postmodern in context	
47	8-Feb-90	Steve Rhee	U.S. Chile? Trade Relations of the 1980s: caveats and opportunities	
48	21-Feb-90 ?		Economic Development in the Black Community	
49	15-Mar-90	Frank Clancy	Third annual Sebastian Dangerfield St. Patrick's week lecture	
50	17-May-90	James Anderson & Olavi Are	Report of cultural exchange visit to Soviet Georgia	
51	11-Oct-90	Michale Palmiotto	The Misconception of the American citizen's right to keep and bear arms	

52	15-Nov-90	John Kearnes	James Madison: the original intent of the first amendment	
53	10-Jan-91	Robert Strozier	The Eyes have it: The Author critically reads his poems	
54	31-Jan-91	Ed Aenchbacher	Physical exercise and depression: Do I have to run five miles a day to feel better?	
55	21-Feb-91	Olavi Arens	The Russian revolution in retrospect	
56	14-Mar-91	Frank Clancy	The Fourth annual Sebastian Dangerfield St. Patrick's 's week lecture: A scandalous woman: Edna O'Brien	
57	4-Apr-91	Jim Anderson & Randall Ree	Introduction to Colombian Folk Music and Jazz: The Andean and Atlantic Coast Regions	
58	25-Apr-91 ?		The New Left: What is Lef [sic] and What was Not?	Author listed as "RP"
59	16-May-91	Rich Raymond	Writing Across the Curriculum at Armstrong: Attitudes and Applications	
60	3-Oct-91	Dennis Murphy	The quaint and curious Persian Gulf War	
61	24-Oct-91	Lorie Roth	The Resurrection of Frankenstein AUDIO tape only	Audio tape only not included in coversion
62	14-Nov-91	Cedric Stratton	Oxygen and Oxidation	
63	30-Jan-92	Tom Cooksey		
64	20-Feb-92	Yassaman Saadatmand & Jo	The United States Economy and Global Competitiveness	
65	12-Mar-92	Frank Clancy	The Fifth Annual Sebastian Dangerfield St. Patrick's week lecture, "The voice of Joyce in Publin"	
66	16-Apr-92	George Pruden	Issacher Jacox Roberts: a Missins Maverick in China	label marred, hopefully correct spellings in video
67	7-May-92	James Byrd	Heavy Metal: Toxic metal poisoning in fact and fiction	
68	21-May-92	Carol Andrews	The Politics of American Literature	
69	24-Sep-92	Randall Reese	Accentuate the positive: a visit with Johnny Mercer	
70	14-Oct-92	Barry Weingarten		
71	29-Oct-92	Julia Baker	Nature's Wonder Drugs	
72	12-Nov-92	Steve Ealy	Elephants and Donkeys Dancing in the aisles & the Democratic and Republican conventions of 1992	
73	2-Feb-93	Steve Rhee	Political economy of the Asian Mini-Dragon: The case of South Korea	
74	25-Feb-93 ?		History on trial: Fact and fiction in the Robenberg Case	Author listed as "RP"
75	17-Mar-93	Frank Clancy	6th annual Sebastian Dangerfield Lecture	
76	29-Apr-93	Bernard Comesky	Medieval Books & Libraries	
77	23-Sep-93	Marilyn Buck & Camile Sterr	Critical Thinking: beyond mere thought	
78	14-Oct-93	Joseph Adams	German Education: Good, better, or best? A fulbrighter's view	
79	4-Nov-93	Ronald Beumer	Lost in Space: environmental physiology research at NASA	
80	18-Nov-93	Robert Strozier	The Limerick: Lewd, lascivious, and soporific	
81	13-Jan-94	Francis Thorne	Color, Patterns, Shapes, Scents, and Foul Play: pollination in the flowering plants	
82	24-Feb-94	Anne Yentsch & Barbara Fer	Black and White Landscapes of Coastal Georgia	
83	10-Mar-94	Frank Clancy	7th annual Sebastian Dangerfield St. Pat's week talk and Irish coffee reception	
84	14-Apr-94	Barbara Tannenbaum	Hepatitis B or HIV: which virus poses greater risk?	
85	5-May-94	John Jenson	Mixed Media Ceramics sculpture	
86	26-May-94	Robert Kolodny	Sweet smell of success: artificial perfumes and fragrances	
87	6-Oct-94	Bob Lefavi	What 's love got to do with it? Connection, Spirituality and Health	
88	27-Oct-94	Christopher Hendricks	Creating Utopia The Moraviaans n North Carolina and Northern Ireland	
89	17-Nov-94	Robert Harris	Handel's Messiah from Mozart to Quincy Jones: a study in durability	
90	19-Jan-95	Ed Wheeler	A paradox named Alabama: episode not covered in history	
91	2-Feb-95	John Kearnes & Daniel Skidr	A Lincoln-Douglass Debate	
92	23-Feb-95	James T. Byrd	It all runs downhill: personal perspectives on pollution	
93	9-Mar-95	Frank Clancy	8th annual Sebastian Dangerfield St. Patrick's week talk	
94	6-Apr-95	Moonyean Brower	Venom in the Garden of Eden: joint-footed animals that plague homo sapiens	
95	27-Apr-95	Carol Jamison	Bawdy Tales in the Middle Ages: the medieval fabiaux	
96	11-May-95	Lester Hardegree	Multimedia is the Message	
97	26-Oct-95	Christopher Schuberth	An East African Geologic Safari	
98	16-Nov-95	Stephen Taylor	Sexual selection and female mate choice in Mosquitofish	
99	8-Feb-96	Steve Rhee	Nuclear 'Powder Keg' on the Korean Peninsula: new phenomenon of the post cold war regional instability	
100	22-Feb-96	Judy Awong-Taylor	Designer Genes: Jurassic Park, Gene Therapy, and tomatoes	
101	18-Jan-96	Thomas Cooksey	Fusing the five elements: alchemy, allegory and The Monkey King	
102	18-Apr-96	Olavi Arens	He who rules Eastern Europe...rules the world	
103	9-May-95	Henry Harris		
104	7-Mar-96	Frank Clancy	9th annual Sebastian Dangerfield St. Pat's week lecture	
105	23-May-96	Dennis Murphy	Terrorism as Olympic Event	
106	5-Oct-96	Robert Harris	Hitler gives the Jews a City: the concentration camp of Terezin	
107	16-Jan-97	Will Lynch	The Gold Quest	
108	20-Jan-97	T. Frank Crigler & Dr. Mukht	Somalia before and after operation Rescue Hope	
109	27-Feb-97	Barbara Fertig & Chris Hend	Listening to Voices and structures: the Pin Point community	
110	13-Mar-97	Frank Clancy	10th annual Sebastian Dangerfield St Pat's week talk	
111	17-Apr-97	Freya Zipperer	Search for native orchids in Belize	
112	8-May-97	Chris Baker	Battling Bards	
113	22-May-97	Marilyn Buck & Sandy Steat	No ifs, ands or butts: the underage smoking problem	
114	30-Oct-97	Mark Finlay	Looking for Shorty: industrial espionage in the American Steel Industry	
115	3-Nov-97	Suzanne Kemke	Crisis in the history of Life: mass extinctions	

116	7-Nov-97	Deborah Walker	Marrying close relatives: advantage of inbreeding in an Indian community
117	15-Jan-98	Tom Howard	Report from Uzbekistan
118	12-Feb-98	Richard Wallace	A taste of organic chemistry: I never met a sweetener I didn't like
119	26-Feb-98 ?		"Faculty Lecture Series" otherwise unlabeled
120	12-Mar-98	Frank Clancy	11th annual Sebastian Dangerfield St. Pat's week talk
121	14-May-98	Jane Barnard	From the Georgia Pine cone to historical Savannah mathematics everywhere
122	28-Oct-98	Leslie Scanduto	Who's Afraid of The Big Bad Wolf? The metamorphosis of the werewolf in French Medieval Literature
123	11-Nov-98	Ruth Garrett	Mid-life, what crisis?
124	2-Dec-98	Brett Larson	Sojourn in Southern Africa: a biologist's photo safari
125	19-Jan-99	Will Lynch	Oxygen : its radical baby
126	20-Jan-99	Robert Harris	A Mozart and Salieri: A musical murder mystery?
127	10-Feb-99	Ginger Pruden & Jacqueline	Protecting against nuclear, biological and chemical threats
128	10-Mar-99	Frank Clancy	12th annual Sebastian Dangerfield St. Pat's week talk
129	24-Mar-99	Jim Byrd	Chlorofluorocarbons: a chilling tale
130	10-Feb-99	John Jenson	Raku Pottery
131	16-Feb-99	Camille Stern	On my honor: The Legacy of Juliette Gordon Low
132	29-Sep-99	Jim Brawner	Hoping to win the lottery: Does it pay to play?
133	17-Nov-99 ?		"Faculty Lecture Series" otherwise unlabeled
134	8-Dec-99	George Pruden	China's recovery of Macao: another wayward territory comes home.
135	1-Mar-00	Frank Clancy	13th annual Sebastian Dangerfield St. Pat's week talk
136	1-Oct-00	Dr. Greenlaw	
137	20-Oct-00	Marilyn Buck & Sandy Steat	Not My Child! Study of health behaviors of 9th grade students in Chatham County.
138	1-Nov-00	Dr. Jones (Thomas Z Pres.?)	
139	1-Feb-01	Steve Taylor	
140	1-Apr-01	Dr. Dennis Murphy	
141	19-Sep-01	Susan While & Janet Stone	Belize
142	14-Nov-01	Mark Finlay	Thomas Edison, Henry Ford and the search for rubber in Florida and Savannah
143	1-Jan-02	Chris Hendricks	
144	20-Feb-02	George Pruden	
145	6-Mar-02	Frank Clancy	
146	4-Sep-02	Carol Jamison	
147	25-Sep-02	Kevin Hampton & Jill Miller	
148	15-Jan-03 ?		"Faculty Lecture Series" otherwise unlabeled
149	26-Mar-03 ?		"Faculty Lecture Series" otherwise unlabeled
150	26-Sep-03	Kevin Hamption	
151	17-Oct-03	Steve Taylor	
152	23-Jan-04	Dr. Leaver	
153	27-Feb-04	Christopher Schuberth	To dig or not to dig
154	16-Apr-04	John Jenson	Raku Pottery
155	27-Aug-04	Robert Harris	Friedl Dicker-Brandeis and the child artists of the Theresienstadt Concentration Camp
156	10-Sep-04	James Smith	Editing a Literary Journal: Southern Poetry Review at Armstrong
157	22-Oct-04	James Brawner	Is there a mathematician in the House? The apportionment problem in the U.S. House of Representatives.
158	1-Sep-05	Dick Nordquist	
159	18-Nov-05	Will Lynch and Delana Niver	Light Induced Nano Transformations: The Good and bad of biological and environmental nanophotochemistry