GEORGIA INSTITUTE OF TECHNOLOGY OFFICE OF CONTRACT ADMINISTRATION SPONSORED PROJECT INITIATION

]	Date: <u>April 8, 19</u>	80
Project Title: Machine-Ma	de America: To	echnology	and Democratic	Ideals
Project No: G 43-619				
Project Director: Dr. Melv	in Kranzberg			
Sponsor: National Endo	wment for the l	Humanities	3	
Agreement Period:	From <u>1-1-80</u>		Until 9-30-80	
Type Agreement: Grant No	. FP-10018-80-	0354		
Amount: \$47,943 G-43- 1,310 GIT v \$49,253	619 (originally contributed to the contributed to t	y thru GIT ibution G ²	T, but awarded t +3-323	o GTRI).
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GEORGIA INSTITUTE OF TECHNOLOGY OFFICE OF CONTRACT ADMINISTRATION

SPONSORED PROJECT TERMINATION

	•	D	ate:	8/21/81		
Project Title:	Machine-Made America: Technolog	y and D	emocra	tic Ideals	**	
Project No:	G-43-619					
Project Director:	Dr. Melvin Kranzberg					
Sponsor:	National Endowment for the Human	nities				
Effective Terminati	on Date: 9-30-80					
Clearance of Accou	nting Charges: <u>12/31/80</u>					
Grant/Contract Clo	seout Actions Remaining:				•	
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FACE SHEET

NATIONAL ENDOWMENT FOR THE HUMANITIES

DIVISION OF FELLOWSHIPS AND STIPENDS

PERFORMANCE REPORT: NARRATIVE REPORT OF ACCOMPLISHMENT

Georgia Institute of Technology INSTITUTION:

Atlanta, Georgia 30332

PROJECT DIRECTORS: Dr. Melvin Kranzberg (Director)

Callaway Professor of the History of Technology

Dr. August W. Giebelhaus (Associate Director)

Associate Professor

School of Social Sciences

Georgia Institute of Technology

Atlanta, Georgia 30332

PROJECT TITLE: "Machine-Made America: Technology and Democratic Ideals"

GRANT NUMBER: FP-10018-80-0354 (Georgia Tech Project No. G-43-619)

January 1, 1980 to September 30, 1980 GRANT PERIOD:

AMOUNT OF GRANT: \$47,943.00

DATE OF REPORT: February 9, 1981

SIGNATURES OF DIRECTORS

BACKGROUND:

During the summers of 1978 and 1979 Professors Kranzberg and Giebelhaus directed a month-long seminar for journalists at Georgia Tech on the subject of "Machine-Made America: Technology and Democratic Values." This program was part of the NEH Professions Seminar program in which business executives, journalists, labor leaders, lawyers, judges, physicians and health care professionals, public administrators, and school administrators are given the opportunity to get away from their daily grind to meet with other professionals for a period of intense study and reflection on college campuses across the United States. The Georgia Tech seminar proved to be a great success these first years and the Endowment office asked us to conduct the seminar for a third year, this time listing it as an "interprofessional" seminar rather than targeting it just for journalists. Thus, the program was advertised as being open to all of the above professional designations and fifty-three applications were received for the fifteen openings from a diverse group representing many occupational, geographical, age, and sex designations. The 1980 seminar was held on the Georgia Tech campus from June 23 to July 18, 1980.

The central focus of the 1980 seminar, as in the past, was the relationship between changing technology and American democratic traditions. Although the major thrust of the seminar's work was in the history of technology, we also tried to relate this historical investigation to issues of current relevance. This was particularly true during the second two weeks of the seminar. The directors are both historians in the School of Social Sciences at Georgia Tech who possess specialties in the history of technology.

The first two weeks of the seminar, which focused on the history of technology, brought to the participants a facet of American history which was totally new to most of them. But aside from our discussion of the development of new machines and processes, the historical case studies we dealt with enabled us to investigate the extent to which technological innovations have helped to democratize America, effect fundamental changes in the American way of life, and at times bring about negative social and human consequences. Readings and discussion topics were designed to present both the positive and negative aspects of technology in our past. This intense historical inquiry of the first half of the seminar was deemed fundamental before embarking on the second half of the seminar which focused on the twentieth century and specific human problem areas that have appeared at the interface between technology and society. One major contemporary issue that served as an organizing theme in this latter part of the seminar was the issue of energy.

The fifteen professionals who attended the Georgia Tech program indicated in both their written evaluations (attached) and oral comments throughout the period, that the goals of the seminar were achieved. They learned a great deal about subjects that had previously been mysterious to them, found the structure and format of the meetings conducive to the free exchange of ideas, and discovered that they had been forced to think about a number of issues in new and provocative ways.

PROJECT ACTIVITIES:

The first segment of the grant period (January - February 1980) was devoted to planning the seminar and working with the NEH in the advertising and promotion of the 1980 program. Since this was the third time around for us, we were in a position to re-evaluate the 1978 and 1979 seminars, retaining what had seemed most successful and revising areas that were relatively weaker. We also had to do some thinking and planning around the fact that we would be dealing not only with journalists, but with a much more diverse group of working

professionals. The directors also had to undertake work on local arrangements for the June-July seminar. This included housing, food service, library, recreational, and social arrangements aimed at making our participants' stay in Atlanta a pleasant one. The months of March and April were largely consumed with the selection of participants and final planning of the seminar syllabus. Selection was completed during the first week in May and from that point to June 23, the directors were busy with final planning and direct communication with the participants.

There was a relatively large and very diverse pool of applicants this year of fifty-three individuals. The largest number of applicants were school administrators (15) followed by public administrators (12), lawyers (6), journalists (5), union leaders (5), medical doctors and health care professionals (4), engineers (3), businessmen (2), and librarians (1). In an effort to select the fifteen best individuals, but also to make the seminar as widely diverse in terms of occupation, region, personal background, and interest, the directors spent a great deal of time in not only reading the dossiers of individuals, but in "negotiating" with other seminar directors. Each applicant was allowed by NEH regulations to apply to three seminars. Sometimes, an individual who had listed us as his or her second choice, was deemed to be of higher priority than someone who had listed us first. Therefore, if one of these "premium" people had not been accepted to the first choice, we were free to make the person an offer after clearing with the other seminar director. This process helped us to come up with an excellent group of people, but it was very time consuming.

Assisting professors Kranzberg and Giebelhaus on the Georgia Tech selection committee were Ms. Michele Green, staff writer for the ATLANTA CONSTITUTION and a 1978 "graduate" of our seminar; Mr. Mitchell Shields, staff writer for

ATLANTA WEEKEND Magazine and a 1979 "graduate"; and Dr. Walter Bloom, an M.D. and director of the affirmative action program at Georgia Tech. Among the fifteen finalists selected were three school administrators, three engineers, two lawyers, two public administrators, two businessmen, one union leader, one journalist, and one librarian. Although we were very pleased with our final list (attached), the committee was disappointed in that we were not able to attract anyone from the medical field and that there were so few female applicants. Each of our four applicants from medicine accepted positions at other seminars, and we ended up with only two women in our final group of fifteen. One minority applicant, Mr. Wallace Carson, was a member of the seminar.

Prior to the beginning of the seminar in June there was a great deal of work involved with preparing materials for distribution to the participants, telephoning each individual personally to inform him or her of selection and to discuss any particular needs or problems, and finalizing the daily seminar schedule. The directors personally met with the participants upon their arrival at the Field dormitory on the Georgia Tech campus on Sunday June 22, 1980. Thirteen of the fifteen seminarians roomed in the dormitory and two of them stayed in furnished apartments near campus. These two individuals elected to bring their families with them for the month in Atlanta, and, unfortunately, the rather Spartan dorms here are not suitable for family living. The directors located these apartments with the help of the Georgia Tech Housing Office and the living arrangements worked out very well. In general, however, the directors support the NEH goal of encouraging the participants to live together. We have found from our three experiences with the Professions Seminar program that much is to be gained from the contact among the students outside of the formal seminar setting.

The seminar met for the first time on Monday, June 23, and subsequently, each morning, Monday through Friday, from 9:00 a.m. until 12:00 noon. The group took lunch together in a private dining room where morning discussions were carried forward in an informal atmosphere. Some afternoons we assembled together for field trips or special programs. Daily topics for discussion along with pertinent reading assignments were listed on the syllabus supplied to each participant (attached). Reading came from three assigned books which were purchased from the Georgia Tech bookstore and selected handouts prepared by the directors.

Each morning there was a presentation made by one of the directors which was followed by a coffee break. Following the short break there was directed discussion of the topic scheduled for that day focusing on the day's reading and the morning presentation. On a few occasions Georgia Tech colleagues visited the morning session either to make a short presentation based on their specialized interest and research, or to take part in our discussions. In addition to these somewhat more formal visits, we arranged to have other colleagues visit us at lunchtime during the course of the month-long program. The decision to invite these individuals was partially based on our evaluation of successful meetings in past seminars, but in some cases it reflected specific requests made by seminar members. On Monday July 14, the topic for discussion was the social implications of changes in communication and we were able to have the group speak with Dr. Jean-Hervé Lorenzi, a specialist in the human implications of computer science from the University of Paris. In town to meet with Dr. Kranzberg on other matters, we found that his presentation to the NEH seminar was of great interest and value.

Based on the very positive evaluations of the previous two seminars, we did formally arrange some afternoon activities. Among these were field trips to a

General Motors assembly plant in town, the solar energy experimental facilities at Georgia Tech, the Georgia Tech test nuclear reactor, and the student-operated textile mill located on campus in the School of Textile Engineering. The GM trip, held during the last week of the seminar was an excellent culminating activity as it allowed the participants to observe many of the things we had discussed about machinery and the workplace. In addition to a personally guided tour, we had the opportunity to meet for an in-depth question and answer session with the local plant management team. The tours of the solar energy facilities and the nuclear reactor during the third week coincided with our focus on energy questions. Here the students could see the technological side of the two main areas of renewable energy discussed widely today. As our colleagues in both places took advocacy positions, very stimulating discussions followed both visits. The trip to the textile facility, conducted early in the seminar, gave the students a unique opportunity to see an entire range of textile machinery in operation, thus giving a spark of life to our class discussions of the importance of textiles to American industrial and technological development.

On those afternoons when nothing was scheduled, the seminarians were free to work on their own in the library or in their rooms, to meet for informal small group discussions with the directors, and to engage in "bull sessions" among themselves. The feedback from the participants indicated that these latter sessions were of great value. We were also receptive to suggestions from the participants for special, unscheduled activities. For example, one of our participants, an engineer with New Jersey Power and Light, procured a video tape of the Illinois Power Company's reply to a CBS "60 Minutes" broadcast critical of nuclear power. The group viewed the tape together at the campus Instructional Resources Center one afternoon and stayed for a very interesting and rewarding discussion following.

The directors felt that it was important for the seminar to be flexible enough to allow for the special interests of the participants. Thus, we arranged special afternoon sessions or invited luncheon guests on an <u>ad hoc</u> basis during the month period. In addition to this, the syllabus was arranged so that the last week of the seminar would be devoted to topics selected by the group. The first two weeks, as mentioned above, were a structured examination of American technological history, and the third week topically focused on energy problems. We presented the group with a list of ten topics that the directors were prepared to cover for the last week and had the group select the five that they were most interested in. This gave us the desired flexibility without departing too far from the proscribed course of study that we had developed.

The Georgia Tech 1980 Professions Seminar, "Machine-Made America: Technology and Democratic Ideals," was very tightly organized. There is no question that when July 18 came around both directors as well as the fifteen participants were close to exhaustion. Yet, the group jelled magnificently and there was much enjoyment along the way. There was a relaxed atmosphere during the morning seminar meetings which allowed for a great deal of open discussion and participation from everyone. We were very pleased that everyone got along so well and that people from so many diverse professional backgrounds gained respect for each other. We did not always agree as a group, and sometimes discussion became quite heated. We did, however, learn to listen to each other and consider the other person's point of view.

There were several successful social activities which also contributed to the degree of cohesiveness among the group. A picnic at the associate director's home at the beginning of the first week helped to "break the ice" and help everyone to become acquainted. Many friendships were made among the participants and

small groups made weekend trips together, dined in the evening, or attended concerts and sporting events in the Atlanta area. We maintained a seminar tradition by holding an evening softball game with the ATLANTA CONSTITUTION squad and there was a very enjoyable farewell dinner held on the final evening of the seminar on July 17.

On July 18 the seminar came to an end and our fifteen participants departed the campus to return to their respective jobs. It is our hope that the dialogue begun during the month at Georgia Tech has not come to an end, but is only beginning. We have heard from several of the seminarians with letters and telephone calls to indicate this is so. Unlike the 1978 and 1979 seminars, however, when our graduate journalists would send us clippings of their work, we have not had as systematic an evaluation of the lasting impressions of the program.

RESULTS:

The short-term results of such a program are relatively easy to assess. A diverse group of people representing different professions, coming from different backgrounds and perspectives, and representing all areas of the country, came together for one month at Georgia Tech to learn and to hopefully bring back ideas and points of view which might give them a new outlook on their job. Based on the written evaluations of the program and the comments made to the directors by each and every participant, the goals of the seminar were reached. All felt that the program had fulfilled or exceeded their expectations and that it was a month well-spent. The directors can testify to the enthusiasm, commitment, and good will exhibited by all fifteen of our professionals. Although we had conducted similar programs in 1978 and 1979, there was a major difference this year. The

journalists in our previous seminars were bright, interested, and anxious to absorb as much knowledge about as many topics as possible. Sometimes this had a partially negative aspect--the desire to obtain material for stories rather than simply broadening horizons. The journalists also seemed to be rather more cynical as a group than the general population at large. The 1980 interprofessional group, on the other hand, struck us as being on the whole a more mature and reflective group. We feel that much of this stemmed from the inherent advantage of the interprofessional seminar. Participants were forced to consider many points of view and were constantly being challenged by others. At one point this past summer for example, our three engineers became the target of criticism because they seemed to symbolize, by the nature of their profession, everything that was wrong with rampant technology. Subsequent class discussion made it abundantly clear that 1) generalizations about any given profession are often misleading and 2) that others with what they may have thought was a more "humanist" bent were actually more sympathetic to economic growth and development than were the engineers! This diversity simply added another valuable dimension to the total experience offered by all of the Professions Seminars.

As mentioned above, we do not have the follow-up assessment that we had with the journalists--namely, reading stories that they have written or learning about programs that they have produced since the seminar. We do have the occasional letter or telephone call commenting that they do somehow feel "different" about themselves and their work as a result of the seminar experience, but this is for the most part very impressionistic data. Several participants have specifically praised the value of an historical perspective that was gained from the seminar. We feel that in very general terms this is one of the benefits that history, as a humanistic study can offer. Others spoke to us about the opportunity that the

Seminar provided to challenge many of their preconceptions about technology. One engineer, for example, felt that he had been forced to examine the social implications of his work more, while a school administrator who was also active in local politics confessed that she had come to the seminar with a biased view against technology, a view that was partially altered by the experience of the seminar. The somewhat tangible benefits such as new friendships, a month's intellectual stimulation, and the acquisition of more knowledge about American technology can be measured to a degree. The more intangible results—how a given person's life and attitudes toward his fellow man may have changed—are more difficult to assess. We feel that the seminar provided an environment in which these men and women, leaders in their respective communities, could grow as individuals. There was clearly great opportunity for them to expand their horizons. We can only hope that it has done so for a majority of our "students."

The directors also feel that the 1980 seminar had a very positive effect on Georgia Tech and we were pleased to be given the opportunity to serve as a host institution. Much of Dr. Kranzberg's work over the past twenty years has been in communicating his interest in technology to a wider audience. He has also been interested in communicating a humanistic perspective to his engineering colleagues. The activities of the seminar, the interaction of the group with our engineering colleagues, and the very presence of the group on the campus were all helpful in furthering attempts by the School of Social Sciences to foster study of technology and society. The seminar was thus a two-way street. We hope that our seminar participants truly left with something of value from their experience here; we know that their participation left our campus the better for it.

We might also add a few comments of a personal nature. Both the director and associate director have tried to be communicators to the audience beyond

academia. The seminar presented us both with a unique opportunity for three summers to interact with working professionals from many fields. Our journalists in 1978 and 1979 were wonderful; our interprofessionals of 1980 were even better. The National Endowment for the Humanities has encouraged us in our work through the sponsorship of this and similar programs and we sincerely hope that they may continue. We have made forty-five new friends as well. We frequently hear from the 1978 and 1979 participants and we fully expect to maintain contact with this latest group for years to come. It was a very rewarding month for us and we anticipate our connections with our seminarians to remain a valuable part of our lives.

EVALUATION AND RECOMMENDATIONS FOR CHANGE:

We feel that the 1980 Georgia Tech seminar was a very great success. Having conducted similar programs in 1978 and 1979 we were in a position to "fine tune" the program, eliminating things that had not succeeded and adding others that arose from our perceptions of student needs. The very favorable experience of having an interprofessional group rather than journalists alone was a very positive characteristic of this particular program. We had changed many of our readings from previous years and, based on the interest from the other seminars, devoted one entire week to energy technology and its effect of society. We feel that this judgment was a correct one and would do so again if a similar program were offered. The field trips and visits made by outside experts were all received very well and added much to the overall program.

Efforts were made also to incorporate the experience from past seminars into the daily organization of the 1980 program. We were aware, for example, of some past criticism that discussions sometimes became too open-ended and there was a continuous need for direction. The format of planned presentations and discussions

on a detailed syllabus was retained as it enabled us to accomplish a great deal within the relatively short time period. The decision to lunch together was a good one and we found this daily occurrence to be a very helpful device to develop the cohesiveness of the group. In short, after having conducted the seminar for a third time, we feel that there is very little that has to be changed if we again offer a program. Our effort to combine a rigorous and planned educational program along with an environment conducive to open and free discussion was largely a success.

One point of contention remained consistent with both the 1978 and 1979 seminars—the dormitory living arrangements. There are always problems when adult professionals are forced to live in austere college dorms, but Georgia Tech's older facilities do present some special problems. The success of a seminar program like this depends to a large degree on how well the chemistry of the group works, and unhappiness over something as mundane, yet as important as housing, can work against the harmony of the group. The Georgia Tech administration is aware of our housing problems and is currently undertaking a major program of dormitory renovation.

Other campus facilities were much more appreciated. The Student Athletic Complex containing a wide variety of athletic and recreational activities was made available to our people, and the library, food service, and continuing education departments were most helpful. When we called upon colleagues at other units of the campus to help us in some way or another they were very eager to cooperate. Among those whom were especially helpful were the Georgia Tech Engineering Experiment Station, the Schools of Nuclear and Textile Engineering, the staff of the nuclear reactor facility, the Student Center, and the Instructional Resources Center.

All in all, we think that each successive Georgia Tech summer seminar has improved upon its predecessors. There is very little that we would change if offered the opportunity to hold another Professions program at some future date.

STATUS:

The departure of the fifteen participants in the 1980 Georgia Tech Professions seminar for all practical purposes brought the program to a conclusion. We hope that our 1980 "graduates" will have taken with them a desire to continue their interest in technology and that the seminar has opened doors for them that will continue to interest them the rest of their lives. Similarly, there are no specific publication or research plans that the directors see coming from the 1980 seminar experience. Both will, however, continue their efforts in teaching, research, editing, and communicating about technology and American society. In this sense, the 1980 summer seminar is part of the career activity of both the director and associate director.

Although the directors were interested in conducting the seminar for a fourth year, we were informed by the Professions Seminar office at the NEH that it was unlikely that one instutition would be funded for more than a third year. At the suggesion of the NEH office we submitted a new proposal for an interprofessional seminar under the title "Energy, Technology, and Values" on the understanding that such a new effort would have a better chance for funding. Unfortunately, our proposal was not selected for the 1981 Professions Seminar program. If the occasion does arise that we conduct a seminar at some future date, we feel that our experiences in the past will aid us in putting together a worthwhile program. In the meantime, we plan to keep in touch with the participants in our

NEH seminars as part of our continuing commitment to the National Endowment for the Humanities. Experience from the 1978 and 1979 seminars indicates that we will be called upon for a number of requests for information or to just talk over things with individuals. We look forward to this task with enthusiasm.

ANTICIPATED DISSEMINATION OF RESULTS:

Since Grant # FP-10018-80-0354 funded a one-month Professions seminar and was not a research grant, the directors have no plans to publish any results from it.

ATTACHMENTS:

- A. List of 1980 Seminar Participants
- B. 1980 Syllabus
- C. Participants' Written Evaluations

Members of Dr. Kranzberg's and Dr. Giebelhaus's 1980 Summer Seminar

"Technology and the Democratization of American Society"

- Mr. Jay J. Becker
 Deputy District Attorney
 Los Angeles County
 Los Angeles, CA
- Mr. Wallace B. Carson Planning Consultant Self-employed
 East St. Louis, IL
- Mr. C. Bryce Draper School Superintendent Cache County School District Logan, UT
- 4. Ms. Joyce Y. Hanrahan School Principal York Board of Education York, ME
- 5. Mr. Ted A. Jankowski Radio Director/Producer WILL-AM-FM Urbana, IL
- 6. Ms. Anna M. Penrose Librarian Campbell Library St. Joseph's College Philadelphia, PA
- 7. Mr. Carl Roman
 Roman Resources and Development Corp.
 Allentown, PA
- 8. Mr. Ralph A. Siciliano Engineer Jersey Central Power and Light Asbury Park, NJ
- Mr. John Harrigan
 Avionics Development Engineer
 U. S. Air Force
 Shalimar, FL
- 10. Ms. Kathryn J. Tobias Staff Analyst, Governor's Office of Planning and Research Sacramento, CA

- Mr. Jerry J. Wall
 Supervisory Attorney
 U. S. Department of Health
 and Human Services
 Atlanta, GA
- 12. Mr. Frank J. Waters
 Director, Data Processing
 City of Norwalk
 Norwalk, CT
- 13. Mr. Gerald A. Webb
 Director of Vocational Education
 Edwardsville Community Schools
 Edwardsville, IL
- 14. Mr. Morton Weinberg
 Marketing Manager
 Motorola Corporation
 Ft. Lauderdale, FL
- 15. Mr. Kenneth W. Yunger
 Union Secretary-Treasurer
 Topeka Mailers Union
 Topeka, KS

SYLLABUS

NEH Summer Seminar for Professionals
"Technology and the Democratization of American Society"
Georgia Institute of Technology
June 23-July 18, 1980
Student Center Room 319

Dr. Melvin Kranzberg Director

216 D. M. Smith Bldg.

Telephone: 894-3198 (office)

256-1943 (home)

Dr. August Giebelhaus Associate Director 202 D. M. Smith Bldg.

Telephone: 894-3195 (office)

378-2746 (home)

During the first two weeks of the seminar we will examine the role that technology has played throught American history. Although part of this inquiry will involve a look into the development of new machines and processes, our discussions will primarily explore the extent to which technological innovations have helped to democratize America, effect fundamental changes in American life, and at times bring about negative social and human consequences. Most of the third week will focus on topics related to energy, a major issue facing the United States today. The final week's schedule is open so that we can concentrate on topics selected by the group from a list provided. Once we have decided on the themes to be addressed during this last week, we will distribute a syllabus, including reading assignements, for that final week.

The first part of each day's meeting will be devoted to an informal lecture on part of the topic scheduled for that day. After a short coffee break, the seminar will reconvene for a discussion of the ideas presented in the lecture and contained in the assigned reading for that day. Informal discussion will be continued during lunch hour in Room 359.

Required Reading (on sale at the Georgia Tech Bookstore):

John G. Burke and Marshall C. Eakin (ed.), <u>Technology and Change</u>.

Melvin Kranzberg and William H. Davenport (eds.), <u>Technology and Culture</u>:

<u>An Anthology</u>

Nathan Rosenberg, Technology and American Economic Growth

DAILY SCHEDULE

Monday, June 23

Topic: "Technology and the Democratization of American Society"

Reading: Ferguson, "Technology as Knowledge;" Ferkiss, "Technology

and Industrial Man;" Elgin and Mitchell, "Voluntary

Simplicity (3)" (photocopies).

Tuesday, June 24

Topic: "The Transit of Technology, 1607-1800"

Reading: Rosenberg, Ch. I, "Technology in Historical Perspective;"

Ch. II, "The Economic Matrix;" Wilkinson, "Brandywine Borrowings from European Technology;" Heilbroner, "Do Machines Make History;" Mumford, "Authoritarian and Democratic Techniques;" Rae, "The Know-How Tradition in American History" (Kranzberg and Davenport); Ashton, "The

Industrial Revolution" (Burke and Eakin)

Wednesday, June 25

Topic: "The Beginnings of American Technology, 1800-1860"

Reading: Rosenberg, Ch. III, "The 19th Century: America as Borrower;

Burke, "Bursting Boilers and the Federal Power" (Kranzberg and Davenport); Meier, "Technology and Democracy, 1800-1860;" Fairburn, "The Invention of the Riveting Machine;" Schmookler, "Economic Sources of Inventive Activity;" Ferguson, "Nonverbal Thought in Technology" (Burke and Eakin); Woodbury, "The Legend of Eli Whitney and Interchangeable Parts" (Kranzberg

and Davenport).

Thursday, June 26

Topic: "The Formation of Industrial Society, 1870-1900"

Reading: Rosenberg, Ch. IV, "The 19th Century: America as Initiator;"

Condit, "Sullivan's Skyscrapers as the Expression of 19th Century Technology;" Rasmussen, "Advances in American Agriculture: The Mechanical Tomato Harvester as a Case Study;" Wik, "Henry Ford's Science and Technology, for Rural America" (Vranghers and Devempent)

(Kranzberg and Davenport).

Friday, June 27

Topic: "The Development of Industrial Leadership, 1900-1940"

Reading: Rosenberg, Ch. V, "The Twentieth Century;" Giedion, "Engineering

the Household; "Cowan, "The 'Industrial Revolution' in the Home;"

Veblen, "The Role of the Engineers;" Guest, "Scientific Management and the Assembly Line" (Burke and Eakin).

Monday, June 30

Topic: "Innovative Technology in Contemporary America"

Reading: Rosenberg, Ch. VI, "Technology and Social Options;" Price,
"Little Science, Big Science;" Drucker, "Applied Science
and Technology;" Weiner, "How the Transistor Emerged;"
Ravetz, "Social Problems of Industrialized Science;" Nader,
"Unsafe at any Speed;" Marlowe, "Public Interest--First
Priority in Engineering Design;" Wik, "The Government and
Agricultural Technology;" Pursell, "The Government and
Industrial Technology" (Burke and Eakin).

Tuesday, July 1

Topic: "Slavery, Technology, and the Civil War"

Guest Speaker: Dr. Robert C. McMath, Jr.

Reading: "A Humanistic Perspective" (photocopy); Daniels, "Technological

Change and Social Change" (Burke and Eakin)

Afternoon Program: Visit to Textile Engineering "Tex-Tech" project.

Wednesday, July 2

Topic: "Changes in Communications Technology"

Guest Speaker: Dr. James E. Brittain

Reading: To be announced

Thursday, July 3

Topic: "The Emergence of Large-Scale Business Institutions"

Reading: Chandler, "The Beginning of 'Big Business' in American

Industry" (photocopy)

Friday, July 4

HOLIDAY -- NO CLASS

Monday, July 7

Topic: "Energy Crises: Past and Present"

Reading: Nef, "An Early Energy Crisis and Its Consequences" (photocopy).

Tuesday, July 8

Topic: "Nuclear Energy: Promises and Problems"

Reading: Einstein, "Letter to President Roosevelt;" Atomic Energy

Commission, "Report on the 'Super';" Sakharov, "Nuclear Weapons Development" (Burke and Eakin); Lanquette, "Nuclear Power--An Uncertain Future Grows Dimmer Still" (photocopy).

Guest Speaker: Dr. Alfred Schneider

Afternoon Program: Visit to Georgia Tech Nuclear Reactor

Wednesday, July 9

Topic: "Solar Energy: Past, Present and Future"

Reading: Lovins, "Energy Strategy: The Road Not Taken?" (photocopy)

Guest Speaker: Dr. Tom Brown

Thursday, July 10

Topic: "Alternative Technology"

Guest Speaker: Dr. Stanley Carpenter

Reading: Glacken, "Nature and Culture in Western Thought;" Rosenberg,

"Technology and Resource Endowment," Hibbard, "Mineral Resources: Challenge on Threat?;" Gimpel, "Environmental Pollution in the Middle Ages;" Dubos, "The New Environmental Attitude;" Hostettler,

"Amish Society" (Burke and Eakin).

Friday, July 11

Topic: "Synthetic and Alcohol Fuels"

Reading: Krammer, "Fueling the Third Reich" (photocopy); Giebelhaus,

"Farming for Fuel" (photocopy).

Monday, July 14 - Friday, July 18

We will select topics by class vote from the following list:

- 1. Social Implications of Changes in Communication
- 2. Technological Interaction with Education and the Arts
- 3. The Interaction of Science and Technology
- 4. Human Values and Modern Technology
- 5. Technology and the Environment
- 6. Innovation and Productivity
- 7. Technology and the Limits to Growth
- 8. The Role of Technology Assessment
- 9. American Technology and the Third World
- 10. Technology Policy

Monday, July 14

Topic: Social Implications of Changes in Communication"

Reading: Mumford, "The All-Seeing Eye;" Simon, "What Computers Mean for Men and Society;" Ramo, "The Systems Approach;" Roszak, "The Citadel of Expertise; Ferkiss, "Bureaucracy;" White, "Dynamo and Virgin Reconsidered" (Burke and Eakin)

Guest Speaker: Dr. Jean-Herve Lorenzi, University of Paris

Tuesday, July 15

Topic: "Technology and the Environment"

Reading: Ayres, "The Industrial Way of Life;" Lilienthal, "Democracy at the Grass Roots;" Morgan, "The Garrison Dam Disaster" (Burke and Eakin)

Guest Speaker: Dr. Fred Rossini

Wednesday, July 16

Topic: "American Technology and the Third World"

Reading: Davis, "The Migration of Human Populations;" Jensen, "The Food-People Problem;" Zaheer, "India's Need for Advanced Science and Technology;" Clark, "Intermediate Technology" (Burke and Eakin); Ritchie-Calder, "Technology in Focus -- The Emerging Nations" (Kranzberg and Davenport)

Guest Speakers: Mr. J.E. Jacobson, Dr. Jay Weinstein

Afternoon Program: Visit to General Motors Assembly Plant, Doraville, GA

Evening Program: Softball game versus Atlanta Constitution/Weekend Magazine

Thursday, July 17

Topic: "Human Values and Modern Technology"

Reading: Commoner, "Are we Really in Control?;" Mumford, "The Technique of Total Control;" Ellul, "The Technological Order;" Florman, In Praise of Technology" (Burke and Eakin); Mumford, "Authoritarian and Democratic Technics;" Huxley, "Achieving Perspectives on the Technological Order;" Buchanan, "Technology as a System of Exploitation" (Kranzberg and Davenport)

Guest Speaker: Dr. Daryl Chubin ("Values in Scientific Controversies")

Friday, July 18

Topic: "Technology is the Answer, but That's Not the Question"

Reading: Wallace, "Freedom and Direction;" Keniston, "Technology and Human Nature;" Drucker, "The Futility and Dangers of Technology Assessment;" Winner, "Technology as Legislation;" Nelkin, "The Technological Imperative versus Public Interests;" Brooks, "Technology Assessment in Retrospect" (Burke and Eakin)

SEMINAR EVALUATION

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened?

The seminar met my expectations and the descriptive material received reflected what actually happened.

2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued?

Yes - It should be continued. It gave me a greater awareness of the diverse opinions regarding the solution to the problems facing society today.

3. Comment on the style and content of the directors' presentations. How clear and well-presented were they?

The style and content was effective in achieving the goal of the seminar. The topics were well presented and enabled the participants to express their views.

- 4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program?
 - I felt their helpfulness and attitude toward the seminar participants was excellent.
- 5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

Although the quantity of the reading material was substantial - on the most part it was of good quality and timely. Some minor changes in assignment could be made. Specifically, the assignments for the last week; i.e., the readings on technological assessment and technological monitoring should have been assigned earlier.

6. What changes should be made to improve the reading materials if the seminar is offered again?

7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind?

Most of the guest speakers were excellent, and I valued the opportunity to hear the different views and philosophies. The discussions at lunch were excellent, but I found that there were too many side conversations going on. Perhaps in the future, after lunch is completed, some time could be devoted to a more formalized presentation in the form of questions § answers.

8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?

I enjoyed the field trips and found them very informative. The only problem I found was hearing the guides explain what was going on.

- 9. How much did you get from the seminar? How would you rate its overall value to you? The seminar provided me with an awareness of the impact technology has had on our lives. The fact that there could be many solutions to solve the problems facing society today. How to deal with the different opinions.
- 10. Would you recommend this seminar to a colleague?

Yes.

11. Additional Comments (use back if necessary)

SEMINAR EVALUATION

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened?

The seminar surpassed any expectations I had prior to attending. The syllabus prepared me for the subject matter we covered. The directors delivered what the syllabus indicated they would.

2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued?

Yes, on both counts. I was introduced to many new subjects, concepts and attitudes during this meeting. Familiarity abounded as well throughout the subject matter presented providing a feeling of confidence toward both the directors and their field of study.

3. Comment on the style and content of the directors' presentations. How clear and well-presented were they?

Both directors' presentations can only be described as lucid. Both are high power lecturers who not only state their positions clearly but remain unbiased when the views of others are considered.

4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program?

and enthusiasm for the program?

The directors handled even the hard cases with poise. They seemed always ready and willing to present the material in spite of the Monday morning blues, etc. I looked forward to all the presentations knowing that each director offered something new and valuable each day.

- 5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.
 - I found the Rosenberg book difficult to pick up. I had no moblems with the reading in the other two books. I especially enjoy the strictly historical readings and less enjoyed the philosophically leaning material. Readings tied closely with the presentations and covered all facets of the subjects studied.

6. What changes should be made to improve the reading materials if the seminar is offered again?

I would leave the reading as is in spite of my feeling of difficulty with Rosenberg. Those lacking my economics mental block would probably handle this material with little difficulty. It made me, and I think would make others, read "harder" and find the other material all the easier and clearer for it.

- 7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind?

 I can only say that all the guest speakers were outstanding and well chosen. Dr. Schneider was my absolute favorite probably because of his confidence in nuclear energy and his explanation of the process and its benefits.
- 8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?

 OUTSTANDING!!! Don't change this a bit.
- 9. How much did you get from the seminar? How would you rate its overall value to you? After the rigors of mathematics and the logics of computers, history is my favorite subject. Much of the historical data given in the seminar was new with respect to the point of view we were given of it. I view the study of history as an aid in preparing for the future by answering present questions and solving current problems based on what has happened in the past. This is how I intend to use much of the information I received in the seminar.

10. Would you recommend this seminar to a colleague? ABSOLUTE/ENT!!!

11. Additional Comments (use back if necessary)

SEMINAR EVALUATION

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened?

The seminar content met my expectations almost exactly although I should say that my expectations were not fully developed until sometime during the first week of the seminar. I think that the implications of technology on society are only now beginning to register in the mind of the man on the street.

2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued?

This seminar program was very much worthwhile and should be continued or even expanded. People must become aware of the kinds of problems we studied.

3. Comment on the style and content of the directors' presentations. How clear and well-presented were they?

Although the directors have dissimilar styles of teaching, they are both excellent presentors.

4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program?

I don't know how the helpfulness and general attitude of the seminar directors could have been better. Preparation for this seminar was done in depth and in every other aspect of the program great attention was given to detail.

5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

Since the reading materials were authored by a number of different people, there was a considerable variation in their styles of writing. Some were better than others. Overall, I was very pleased with having the reading material presented in this type of short essay because it enabled me to get a capsule view of the authors thinking very quickly. The large number of authors provided a wide latitude of thought.

6. What changes should be made to improve the reading materials if the seminar is offered again?

I really don't know how you could improve the reading materials unless those of a supplementary nature might be displayed in the seminar classroom.

7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind?

The guest speakers were all good and were interspersed often enough to keep new ideas flowing. I particularly enjoyed the talk regarding nuclear reactors.

8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?

The field trips were appropriate and also well done. I would not delete any of them but would add if possible to the number so that as many as two per week might be experienced.

9. How much did you get from the seminar? How would you rate its overall value to you?

The overall value of the seminar for me is a rearrangement of information that I already had plus enough new to start my thinking processes all over again. I think I am much more sensitive to the impact of technology on society than before.

- 10. Would you recommend this seminar to a colleague? Positively.
- 11. Additional Comments (use back if necessary)

SEMINAR EVALUATION

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1.0 To what extent did the seminar meet your expectations? (2) Did the descriptive material that you received at the time of application accurately reflect what actually happened? (1) Triet and exceeded my exhictations 2.1)Do you feel that the NEH Professions Seminar Program is worthwhile?(2)Should this and similar programs be continued? (1) Year (2) Wefunitely 3. Comment on the style and content of the directors' presentations. How clear and well-presented were they? Style and presentation was iten, well-presented and highly metivating to the listener. Prothusinom of presentation racidly greatly to the recitivity of presentation and induced grap participation in 4. Comment on the directors' helpfulness and general attitude toward the seminar participants. (4) How did the directors contribute to or detract from your interest. and enthusiasm for the program? (i) Esternely supplied, aren in fersonal matters and in matters legend-cheir control (telephone service, etc.) 5. Comment on the quality, quantity, level of difficulty, and usefulness of the Pasitive in all arens. Regretted there was not more time to discuss some of the more from the active actives. reading materials assigned.

	What changes should be made to improve the reading materials if the seminar
is	offered again? There (Lee quistant 5 as related to which)
7. (Comment on the value of the guest speakers in the program. Were there too many?
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94:1	How much did you get from the seminar? How would you rate its overall value to you will much. (2) It was excellent, puriticular printerior of furticular
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10.	Would you recommend this seminar to a colleague?
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11.	Additional Comments (use back if necessary)
•	Additional Comments (use back if necessary) Tranc. It was many will them. Thanks

SEMINAR EVALUATION

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened? 200

would prove a more substantial discipline; Expected
More challenge to Participants

2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued? 7eS

3. Comment on the style and content of the directors' presentations. How clear and well-presented were they? Quite clear - AT the expense of Tepth

4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program? Very Nelstul - A Bit coudes conding (or Defensive) in Dealing with class interaction

5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

For participants, unused to ACADEMIC ENVIRONMENT, probably NOT well-CNOUGH CONNECTED TO classwork - Some quito relevant, others loss so-overall quite useful

6. What changes should be made to improve the reading materials if the seminar is offered again?

Better, more current technology critiques, More current stuff on evergy

7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind?

A DISTRACTION - INTERESTING AS INDIVIDUALS, BUT NOT consistent of Any general emphasis or focus of course of Hemath, Brittain only tangential fun to Meet them - Schneider An interesting Exhibit - PIDN'T Ew courage Insolvement on the value of the field trips. Which should be included in a future

seminar? Which if any should be dropped?

LOUD- I'D LIKE TO LEARN BETTER how the MAChiNES! ASSEMLLINE WORK

- 9. How much did you get from the seminar? How would you rate its overall value to you? Considerable Broadening - understanding of Analytic Framework of historians of Tochnology - Appreciation of United Points of view of those I work with in Larger Society
 - 10. Would you recommend this seminar to a colleague?

Yes

11. Additional Comments (use back if necessary)

Eigquit flows = filure to apitalize on groups being logither for a mould-Study of recipic is the by subgroups ainas, ele would have he elect Course Showed no underselanding of hope intech not day to in 10:0 -A-

SEMINAR EVALUATION

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened? That adjusted the constant of accurately described.
2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued? The Laterapy of elease by flasher of elease backgrounds or elease in Turner of officering over-view
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reading materials assigned. Coloquette Three lests give

6. What changes should be made to improve the reading materials if the seminar is offered again? I would not the delighted too too attection sufficienting testing. Escourage that the design transport in living territories are continued as interest.
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ary constitution of and office and agency, many
8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped? in alreable, resulting prones in testing of Jan tech to believe unhabitant structure of machinery.
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10. Would you recommend this seminar to a colleague?
11. Additional Comments (use back if necessary)

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TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

1. To what extent did the seminar meet your expectations? Did the descriptive
material that you received at the time of application accurately reflect what
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3. Comment on the style and content of the directors' presentations. How clear and well-presented were they?

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4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program?

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5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

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1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened? The seminar fully mut my expectations. The material gave quite a procise description, officerall plan there technically has decire rationed macrety and plane exectly is nevering to decire rationed bedieved by, and of pleaduling of meetings, lunch, ele.
2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued? in which the is no very in which the diversity of participants and the regertice of the directors of the vainers remains could be assembled or a local land.
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3. Comment on the style and content of the directors presentations. How clear and well-presented were they?
The presentations were structured but flexible and contains a good mix of facts, stillnighty, issues-
4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program? The directors were unfailingly patient and tactful toward a group with divirse pack grounds, and I think that they communicated their states so in.
5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.
. They would to cover all the angles and to be
araten by knowledgel 2- payer.

- 6. What changes should be made to improve the reading materials if the seminar is offered again? From Kreenberg, I would like to see more primary waterial such as Prinatein's letter, included & a celetter of literature such as armold, Ruskin, some of Irankenation & even Prometheus Bound
- 7. Comment on the value of the guest speakers in the program. Were there too many?

 Too few? Were there any who particularly stand out in your mind?

 Good way to get experts in the various frelds and get barrows view points.
- 8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?

 The field trips were some of the most valuable parts of the seminar. I would like to see at least as many as this year included in the future. I would suggest a nun-through I what will be seen before intring the site because explanations were difficult to hear over the noise.
- 9. How much did you get from the seminar? How would you rate its overall value to you?

 A very valuable overview and a hinghtened aurenous of Contingency issues with stimulating discussion and opening.
- 10. Would you recommend this seminar to a colleague? Yes indeed
- 11. Additional Comments (use back if necessary)

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

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2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued?

/R 5

3. Comment on the style and content of the directors' presentations. How clear and well-presented were they?

Straight forward, lucid, responsive to gaistions, intelligent.

4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program?

Showed much more patience Whan expected with a number of us. Proceeding Kept interest directed generally

5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

Appropriate

is offered again? Decrease The number down
. The end.
7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind? Well balanced - Stan Corpenter was primes interpares
8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?
Jaluble, all Kept. Add morse if possible
9. How much did you get from the seminar? How would you rate its overall value to you bersonally I felt it was withinke to me because of an internal agenda 4 be cause it answered my some unique questions of mine.
10. Would you recommend this seminar to a colleague? I would if Here Were a Suitable-colleague?! 11. Additional Comments (use back if necessary)
There is a place where people are not address; no each other for verifying that they
understand what they are responding to. I
recomment the Corl Rogers dialogue model be used attimes, to insure the similarity of

6. What changes should be made to improve the reading materials if the seminar

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

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2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued? The seminar does wake one up and make one aware of wall activities in the Humanutian

3. Comment on the style and content of the directors' presentations. How clear and well-presented were they? The relat informal style afthe directors added greatly be the success of the program. The centures several the different subject subject arms: therefore, Presentation were also and I not the excellent.

4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program? Ducitors related very clarely lattly group, and made it a close hint almost farmly group. Ducitors was very untirestic in welfare of the group. In there are they can be considered outstanding compared to the group remunes, law attentions

5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

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7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind? Were valuably part of the proble program. Yumla along the Chiling and the Weinster. Da Chiling and the Weinster.
8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped? All good, Changes only if something special develops.
9. How much did you get from the seminar? How would you rate its overall value to you?
1 Streperld my thuly well and will shelf
y future carrier planning. It will be be
y value in ducetry my efforts in areas I have
10. Would you recommend this seminar to a colleague? I work certainly would recommend it highly
11. Additional Comments (use back if necessary)

6. What changes should be made to improve the reading materials if the seminar

TECHNOLOGY AND THE DEMOCRATIZATION OF AMERICAN SOCIETY

- 1. To what extent did the seminar meet your expectations? Did the descriptive material that you received at the time of application accurately reflect what actually happened? The material which it received did accountedly reflect what happened. They expectations were met, although I would be welcomed another day or two to cover topics of my own intenst
- 2. Do you feel that the NEH Professions Seminar Program is worthwhile? Should this and similar programs be continued? Charlislely
- 3. Comment on the style and content of the directors' presentations. How clear and well-presented were they?
- 4. Comment on the directors' helpfulness and general attitude toward the seminar participants. How did the directors contribute to or detract from your interest and enthusiasm for the program?

Extremely helpful, positive, back contributed to my interest and enthusion.

5. Comment on the quality, quantity, level of difficulty, and usefulness of the reading materials assigned.

I had a little trouble "getting into" the Rosenberg book, but once I did I liked it. The readings were enteresting. I felt that some of the articles evere a little old. So much seems to be hoppening so fast, some late 70's books would be lonight have I him better.

6.	What	changes	should	bе	made	to	improve	the	reading	materials	if	the	seminar
is	offer	ed again	n?										

Der # 5

7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind?

The quest of capers were all excellent, ever our lunch quests (furticularly the Shaker- Mouran-breila guy).

Because of my own hime, I'd reate Carpenter, me Thath, Wenneten & Chuby wery high.

8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?

Nom skould he droffed. Only disappointment: broken machinery at Jech Mill.

9. How much did you get from the seminar? How would you rate its overall value to you?

Its overall value is hard to rate until I have a chance to do some thinking. I got a lat from it and expect it to have a heal impact on my future flamming, work, etc.

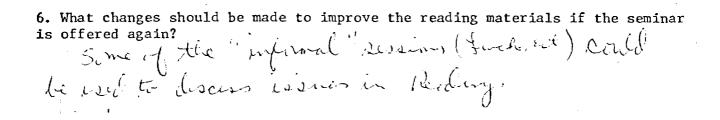
10. Would you recommend this seminar to a colleague?

11. Additional Comments (use back if necessary)

I'd like to thank back of your for a fine four enecks. I expect to put something down on paper about the exterience. I'll sens you a copy!

Joy? a_

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1. To what extent did the seminar meet your expectations material that you received at the time of application ac actually happened?	
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- 7. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind?

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- 8. Comment on the value of the field trips. Which should be included in a future seminar? Which if any should be dropped?

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- 9. How much did you get from the seminar? How would you rate its overall value to you?
- 10. Would you recommend this seminar to a colleague?
- 11. Additional Comments (use back if necessary)

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6. What changes should be made to improve the reading materials if the seminar is offered again? In not such the more Concise is shouted attitute, were more with to my interest on look of a furing them they made they complex, lengthey once of what technical depth. Dee S. (and prime fithin - Drop Notes of Front 1. Comment on the value of the guest speakers in the program. Were there too many? Too few? Were there any who particularly stand out in your mind? They may be due to the flet that Krongfey is such a great which may be due to the first that Krongfey is such a great when they have the forth that they were supported to the field trips. Which should be included in a future seminar? Which if any should be dropped? All the trips were excellent - purham a Court of after thousand be odded. (Airfert? omin an freshous flore.)	ナル
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