

NATIONAL ARCHIVES ORAL HISTORY PROJECT

Oral History Interview

with

James L. Gear

April 16, 1985

at

8701 Ventura Lane
Annandale, Virginia

Interviewed by Rodney A. Ross (National Archives employee)

Basic summary abstract prepared by Geraldine Ludwig
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James L. Gear. Annandale, Virginia. April 16, 1985.
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For thirty-one years, from 1950 through 1980, Gear was involved in preservation concerns at the National Archives.

Gear, a chemist by profession, recounted his preservation-related work during his years at the National Archives. In particular he discussed questions about lamination and deacidification, or lack thereof, during the Archives' early history.

In his interview Gear also touched on a variety of subjects including Arthur Kimberly's role at the Archives, Walt Robertson's support for preservation endeavors, the establishment of a preservation research laboratory at the National Archives, the work of the repair and preservation division and its successors, the involvement of the National Bureau of Standards with archival preservation questions, and Gear's administrative responsibilities.

The interview, approximately 60 minutes in length, was conducted at Gear's home in Annandale, Virginia.

Abstract of Interview with James L. Gear
at his home in Annandale, Virginia
April 16, 1985

Interviewer: Rodney A. Ross

Tape length: Approximately one hour (all of side 1 or a 90-
minute cassette and a third of side 2)

SIDE 1

Background

James Gear was born in Mill Creek, West Virginia, March 15, 1922. At that time his father was working with the railroad and shortly thereafter his father decided to go into the ministry. He was educated in Frankford, and then in Mount Storm, West Virginia, and finally at Davis & Elkins College where he earned a BS degree in chemistry in 1943. He was subsequently employed by the Celanese Corporation of America as a research chemist and initially did research in chemicals from petroleum gasses. Later he did extensive research in the area of cellulose and cellulose derivatives which was very closely related to paper. He did quite a lot of work on some processes that were put in use by Celanese in the new plant they built off the west coast of Canada, including a process for making purified cellulose from which paper can be made.

Question: How did it happen that you joined the National Archives?

Answer: At that point in time, things were very rough in the chemical industry. Celanese had a big personnel reduction plan, and being one of the youngest people on the rolls, Gear was one of the first to be let go. He had applied at two other large chemical companies besides the Archives, but he decided he would like to try the government for awhile.

Question: Was Arthur Kimberly head of preservation when you joined?

Answer: Yes, in fact he was the man who interviewed Gear, and was responsible for his employment there.

Question: Did he subsequently retire shortly after you came on board?

Answer: It was really quite a few years before Arthur Kimberly retired. Gear started with the Archives on May 8, 1950. It was shortly thereafter that the Korean War erupted and as a result, Kimberly, who was in the Air National Guard Reserve was ordered into service in November 1950. Gear became the acting head of the branch during the time Kimberly was gone. It was quite a while later before he did indicate that he wasn't coming back. When he got out of the Air Force Gear knew that he had had some talks with the Archivist of the United States, and decided not to come back to the Archives.

Question: When you first came to the Archives in 1950, could you describe the number of personnel, some of the leading persons and what facilities there were for Preservation at the Archives

Answer: Kimberly was really a one man show. Gear was hired by Kimberly and they had a very small laboratory in what is still the main preservation room. It has been remodeled several times since then. He was to do work in the laboratory.

Question: There was a repair and preservation division that had been extremely active in the 1930's in doing needed preservation activities. Was that kind of activity ongoing when you joined the Archives?

Answer: To the extent that they were fumigating records and cleaning records to remove dust and dirt, yes that was still going on and under the preservation branch.

Question: What other responsibilities did the preservation branch have?

Answer: Mainly, the preservation of paper records and the repair of them. That was the main function at that time.

Question: In terms of repair, was silking, lamination or encapsulation in practice?

Answer: The main repair process at that time was lamination. There was some silking, but it amounted to only about 10% of the total work.

Question: Am I correct that the Archives has moved away from the idea that lamination is not a good idea and instead practices encapsulation?

Answer: It appears today that that is what they have actually done. They have moved away from lamination and have gone almost totally to encapsulation. There are other things that have developed over the years in terms of Archives preservation. It may have been about 1954 that there were some questions raised about lamination. At that point, the Archives decided to investigate it and find out what was going on. The Archives asked the National Bureau of Standards to undertake a project to look into it and they agreed to do so. That project was under the direction of a man named William K. Wilson. Out of that came a very good report that stated that as far as lamination was concerned, there was nothing wrong with lamination. It answered a lot of questions that people had about lamination and it's still, as far as Gear was concerned with his background as a chemist, a good viable procedure and should not be totally discontinued. It is a good procedure for some things, but not for everything.

Question: Which things would be best suitable for lamination?

Answer: That is difficult to answer. You have to look at the record itself. What it is, the condition it's in and all of the factors that are concerned and then make your decision. There are some things that cannot be laminated. There were a lot of problems with laminating many of the cartographic materials. While some of them could still be handled very well by lamination, he thought it would have to be done selectively. Oddly enough, the Archives had removed the best piece of laminating equipment that was available, the hydraulic press. There were two hydraulic presses there when Gear left. The very large one was removed, and he thought it a correct decision because that machine was never correct. He had told the powers that be that it wasn't right and that it would never work right in the beginning, but it was purchased, and under the circumstances, he thought that perhaps had he been in their place he might have done the same thing. However, they didn't listen to him... The original RD Wood press was very good. Gear was convinced that it was a better piece of laminating equipment than the current flatbed presses being used today.

Question: In reading about preservation I read something about a mangle with regard to a hydraulic press. What is a mangle?

Answer: It is a piece of equipment that is designed for ironing clothes. At one point in time, Gear was not there at the time, one of the stack areas was used for flattening hundreds of pieces of paper a day. Records were constantly coming in and fumigated and cleaned, shaking off the loose dust that had gotten on them from garages and barns and attics and every other place they had been stored. There were people who were unfolding and flattening and there were untold number of mangles and units for humidifying.

Question: When you joined the staff, was flattening still done in terms of humidifying the documents and then ironing them?

Answer: Yes. Gear stated that they did a tremendous amount of that.

Question: Was it still being done when you left?

Answer: Very little was being done by the time Gear left.

Question: Was that because of a change in notions toward technology, or simply because there weren't the records coming in?

Answer: The Archives is not taking in the large number of records that they were in the early period, so the amount of fumigation and cleaning and flattening that was required then is not being done today. The records that are coming in today are probably in better condition in many cases than they were then, considering the fact that in the beginning there wasn't an Archives and it took a long time to fill the Archives up.

Question: One of the first things you did was establish a research lab, is that correct?

Answer: No, that wasn't one of the first things done. The major thing Gear first got involved with was in the work the National Bureau of Standards was doing for the Archives regarding lamination. He was very much involved in that. He kept in close touch with what was going on and it wasn't very long after he got into that project that he realized that from some of the data was that one of the things that the Archives was not doing was deacidification or neutralization of the acids in the paper. Very early in the program, Gear decided that was one of the things that they needed to be doing. He wasn't totally satisfied with the Barrow system which involved calcium carbonate. He thought it too cumbersome a process. He wanted something that wouldn't consume so much time because the National Archives was processing a million or more pages of paper a year. The Barrow process was a two step process. You would soak it in one solution and go on to another. Instead, Gear came up with magnesium carbonate, one solution only, which seemed to work very well. Of course, he noted that there have been modifications, and today there are different methods of deacidification, and there will be better methods in the future.

Question: Did you say that prior to your coming the Archives was laminating without deacidifying?

Answer: That is correct. He admitted that that was a mistake. There could be damage to the paper because heat accelerates the action of the acids in the paper. The amount of heat used in laminating certainly would. However, for some things that have been deacidified, according to the Bureau, there has been no change.

Question: Shortly after you came to the Archives, the Archives acquired the papers of the Continental Congress. What preservation was done for those papers?

Answer: There was none at that point in time, and none they were asked to do, or even look at.

Question: What eventually was done, and when?

Answer: It was shortly after Dr. Chandru Shahani came to the Archives that they got into doing something on the Continental Papers, and then most of what they were doing was deacidification.

Question: Had the papers used a silk-screen process?

Answer: Many of them had already been silked, or repaired in one way or another before they came into the Archives. They are bound into volumes. That was done, Gear assumed, in a project at the Library of Congress.

Question: At what point did you establish a research laboratory at the Archives?

Answer: About 1975.

Question: Could you describe what your goals were for the lab?

Answer: Before the Archives came into being, there were programs established at the National Bureau of Standards to do research that would be of benefit to the Archives. There were projects at the Bureau of Standards supported by the Carnegie Foundation to learn something about the preservation of records. A lot of that information was transferred to the Archives. Arthur Kimberly was one of the persons that worked on these projects and subsequently came to the National Archives. In 1954, the research began again when Gear asked the Bureau to study lamination. There were various projects from there on that the National Archives supported, i.e. heat sensitive copy papers, etc. The real problem was that in getting the Bureau to do anything, was that one year they might be willing ~~they~~ to do something, another year they might not. You never knew where you stood. Gear felt that some kind of continuing full-time research program was needed in all areas of preservation, not just paper - photographs, sound recording, every media that the Archives had on which records were recorded. This was the sole purpose and intent of developing that laboratory. It was to be a continuous basis of research to meet the needs of the Archives.

Question: Could you describe for the layman what went on in that laboratory. Was it mixing chemicals, applying chemicals to film surfaces...

Answer: Gear stated that that was a part of it. The major part of it was to look at the material, determine the major causes of record deterioration were, what the various components that go into the makeup of those records' deterioration, and then try to determine by what means they could prevent that from happening.

Question: Who was the staff for the research lab?

Answer: The original staff was Bob McClaren, Bob Hueber, and Mary McKeil.

Question: Were they professional chemists or graduate students?

Answer: They were professional chemists.

Question: How did this program compare with what the Library of Congress was doing at the same time?

Answer: Gear suspected that in some ways the lab was a competitor except that some of the things the Archives did were parallel to what the Library of Congress did. The Library's major collection is bound volumes, while the Archives' was loose papers and records. He admitted that the Archives had a lot of bound volumes, but not as many as LC. As in anything, politics enters into this type of thing in any organization. At that time, Gear was not totally happy with some of the things that were coming out of the research laboratory at the Library of Congress. He felt they were being influenced or biased. Whether or not it was true, he could not prove. He felt that the only way to get the proper answers for the Archives was to have its own lab, even if some of the research was parallel to what the Library was doing.

Question: During your whole career at the Archives, the Archives was under GSA. From your perspective, what did that subservience have on preservation at the Archives?

Answer: Gear thought it had a big effect in terms of the money that was allocated to preservation. He was not sure how to qualify that statement. He stated that there were many things that happened and he did not know what went on in relation to the Archives and GSA versus OMB. He related an anecdote.... He assumed they were measuring for GSA statistics, how much was accomplished in flattening, lamination, deacidification, the various functions, Gear remembered that at one time Dr. Bauer, who was Schellenberg's assistant in the Office of the National Archives, called him up and asked how much Gear thought he would do in the coming year. Gear gave him the figures. They were about half-way into the year when Dr. Bauer called him up and asked him what was wrong with the statistics; production was only about half of what it should have been. Gear refuted him and said that is was right about what he had said it would be. Bauer said, "Oh, but they are not the figures that we agreed to with the

Budget people". Gear replied that there was no way he could have met that agreement. Gear introduced the term "preservation units", a scheme whereby they would convert every piece of paper into a letter size sheet of paper being a unit. If a sheet of paper was larger than that letter size sheet of paper, it became one and a half, or two or four or five units. Where we were counting it as a single piece before, we may now count it as five units, so they met their quota budget wise that year. That's how units came into the figure.

Question: In terms of priorities that various Archivists had, could you discuss or differentiate between those of Wayne Grover, Bob Bahmer, and Bert Rhoads? Had Dr. Warner come in by the time you retired?

Answer: Yes, Dr. Warner had come in. Gear thought all three of them were aware of the preservation problems and the preservation needs. He thought it was a question of getting enough budget money. It just never seemed to come forth. In 1954, when they entered into the research work on lamination, they cut back preservation work by half, at least, at that point in time. Not because funds had dried up, but because they thought it prudent to cut back until they could find out what the real story was about lamination and the techniques they were using. It was difficult to build that back up again.

Question: Were you in charge of preservation services for overseeing converting nitrate film into safety film?

Answer: That was a part of Gear's preservation services, yes.

Question: Could you give some background leading up to the fire at Suitland and how the fire at Suitland changed the procedures at the Archives?

Answer: Gear recalled that there were two fires at Suitland. The first one that occurred had some suspicious circumstances that might have resulted in that fire. One vault caught fire and burned down and that was essentially all that was lost. If you talk about nitrate conversion, you must go back a long way, back to Wayne Grover. Gear remembered a meeting in Dr. Grover's office that lasted almost all day. At some point during the afternoon, Wayne Grover called and asked Arthur Kimberly to come up to his office. This was back in 1950 when Kimberly was still at the Archives (Shortly thereafter he went into active service). Apparently the head of the photographic division at that time was proposing a separate building for the preservation of motion picture materials. Gear assumed it was because of the instability of the material. A building that would be better than where they were then housing it. Some of the film was down in the Vint Hills (sp?) area, toward Warrenton, in buildings that were widely separated. There was no air conditioning; they were just stored in the buildings. They wanted to build a completely new facility to put the film in. Arthur Kimberly was called into it and said no. The nature of the material they had would be better converted to safety based film and dispose of the nitrate. That whole program goes back to 1949-50. Apparently Wayne Grover accepted that. There wasn't any great push to do it, perhaps because of lack of money, until about the time of the first fire at Suitland.

Question: Did the Archives have a great percentage of nitrate film prior to the donation of the March of Time newsreels?

Answer: There was quite a bit, but Gear couldn't recall how much. Back when Wayne Grover decided to copy it and dispose of the nitrate they did put quite a lot of time and effort into surveying the total motion picture holdings and weeding out a lot of the material that was of no value and/or duplicative. Gear stated that someone had told him that they had fifty copies of the life cycle of a fly. Shortly thereafter all of the film was moved out to the vaults out in Suitland. Gear wasn't involved in that because at that point the preservation branch was mostly concerned with paper records.

Question: When was it that preservation services became a gigantic catch-all for more than just textual records?

Answer: Gear recalled a reorganization around the early 1960's. The sound recording, photographic laboratory, and preservation branch were combined under the so-called Technical Services Division, under Jack Landers.

Question: Recently the Archives for the next fiscal year has an additional three million dollars in its budget for preservation activities. Was that something that was a long time in coming that you perhaps were involved in during your last years at the Archives?

Answer: Gear stated he would not have been involved in that, although since 1978 on there's been a big push to build up that total budget for preservation.

Question: At the time you retired, could you describe the numbers of personnel involved in preservation, where the various activities were and what the main goals were?

Answer: At the time Gear retired, he headed the Preservation Services Division, which consisted of the preservation branch, photographic laboratory, sound recording branch, and the research laboratory. He supposed in the total number there were about one hundred and nine people. He suspected that 50% of the personnel were in the photographic branch, the next largest number were in the preservation branch, about 6 people in sound recording and the rest in the laboratory.

Question: When you speak of the photographic branch, do mean people making microfilm copies?

Answer: No, this was still photography, motion picture, microfilm, everything regarding photography.

Question: Were these the custodial units as well?

Answer: No, it did not include the custodial units. The people there that they had were involved in still, motion picture, sound recordings and so on.

Question: What would you say were your main accomplishments during your years at the Archives?

Answer: Gear wasn't sure that he wanted to say that there were any main accomplishments. He thought one of the main things was recognizing the fact that the Archives was not deacidifying and getting that started. The second would be getting the research laboratory into the National Archives, and he hoped that they continued it and got the right kind of people and the right kind of research programs going because he thought that in the long run it would be of tremendous value to the Archives in terms of its own preservation.

For whatever reason, there was a lack of confidence in scientific personnel. If scientific work, dealing with preservation, is going to be of any value to them, this confidence has got to be accomplished. Gear had the feeling that whether people didn't trust Arthur Kimberly, and himself, as a result they weren't listened to at times. This was something Gear was trying to develop, but he wasn't sure he had ever accomplished it.

Question: In terms of your participation with the Society of American Archivists, and the International Council of Archives, can you discuss your involvement with those two organizations?

Answer: His main participation was with the Society of American Archivists, with the Preservation Committee and the various preservation programs and through the meetings and other things they sponsored. He participated in those whenever he could and whenever he was asked to participate. He thought it was necessary to help the Archives and to meet with other people in the area and find out what they were doing and let them know what the Archives was doing in order to help both parties in terms of preservation.

Question: At the Archives, as a division chief, were you treated, or did you regard yourself an equal of the other division chiefs? You mentioned the distrust of scientists. Did it manifest itself administratively?

SIDE 2

Answer: In some ways it did. In Gear's lifetime at the Archives, he had developed the knowledge about preservation and probably knew as much about preservation as anybody anywhere, yet many of the Archives people did not come to him and seemed to go outside and ask about preservation.

Question: At what point did you decide you were going to retire, and why?

Answer: He had been at the Archives almost thirty-one years. At some point in time, everyone gets tired of the day to day frustrations, personnel problems, union problems, affirmative action programs, and says, "It's time for me to hang it up and do something else."

Observation: Apparently you had a key impact on Meyer Fishbein. In talking to Meyer, he had mentioned that you were retiring and thought maybe he should too.

Gear stated that he would have liked to have stayed on for a couple more years, but it was his choice, and he decided it was the best thing for him to do.

Question: When did you say you did retire?

Answer: December, 1980.

Question: You mentioned, and I suppose it is a somewhat sensitive area, that you had union problems. What kind of union problems?

Answer: Many of the things were small problems which could have been handled with discussions between the staff without ever having them become problems with the union. He thought that once you get a union, staff ~~in to take your~~ problems to the union people, rather than coming ~~to the staff people go~~ to the supervisor. Even as Branch Chief, Gear stated that his door was always open, and that he would talk to anyone anytime when they had a problem. He mentioned that he had had a lot of meetings and settled a lot of problems that way

Question: In another area, you mentioned affirmative action. I may be mistaken, but I am under the impression that by reputation, Arthur Kimberly was not an open minded person regarding equal opportunity for everyone. Is there any basis to that in preservation itself or just in terms of employment practices at the Archives. What changes did you see during the years you were there in terms of opportunities for minorities to advance.

Answer: From Arthur Kimberly's standpoint, Gear did not see what the interviewer was talking about. If you were in the wrong, Arthur Kimberly let you know about it in no uncertain words. But even if you were in the wrong and you knew it, he may give you hell to your face, but he'd back you up one hundred percent every time. That was his nature. Gear recalled one time when Arthur Kimberly was in the service. He had just gone in and it was at that same point when he was going in that the Declaration and the Constitution were being transferred from the Library of Congress to the National Archives. Because of his involvement in it, the preservation, they asked him to come in and coordinate it. They had to get the Air Force to agree for him to do that. We had been using half inch acrylic, lucite Gear said that he forgot the designation for the material for preservation of records. He had discovered something that wasn't right about it. Gear confronted Arthur Kimberly about it. He just turned around and wouldn't even look at him and wouldn't respond. He was wrong and Gear was right, but he just didn't want to respond to it.

Question: What about the question of equal opportunity?
What concerns did you have as a supervisor?
Was there a concerted push on the part of the
Archives to employ blacks? Or was that never
really a question.

Answer: From Gear's standpoint, he had no problems with
employing blacks. His main concern was with having people
who were capable and willing to do the work. For example,
one time there was an anonymous complaint made to the Civil
Service Commission that he was discriminating against blacks.
The Civil Service turned it over to GSA and GSA decided they
would have someone investigate it. An individual came in and
investigated it. In all of these type investigations that
Gear had observed, only the black people were questioned,
they didn't talk to anybody else. He thought this was a
mistake. When the investigator had finished, he came in to
talk to Gear and went through a rigamarole about what he
wanted Gear to write down and sign what was to be said. Gear
stated that he let that pass. The investigator then told
Gear what he had been doing and what he had found out, and
the result was that Gear had not been discriminating, but he
had found two people who should have been promoted. Gear
said he then told the investigator who the two were and his
eyes widened. Gear then told him why they had not been
promoted. They did excellent work when they were here. Then
he showed him their leave record. They discussed it for about
ten minutes, the investigator left, and Gear never heard
another word.

Question: When you mentioned affirmative action, is this
an example of the type of problems you meant in
terms of being a supervisor?

Answer: Gear stated the he thought one gets tired dealing
with that kind of problem. He never thought that he
discriminated. If he had good people and good workers, he
had no hesitation in recommending any of them for promotion.
And they had some who were very good, some who would work
with no supervision, who would do more than requested. Gear
mentioned one man whose job required him to be around the
building all day long under no supervision and there was
never any complaint about him or his work, or being on the
job, or leaving the job. He was totally conscientious. You
have some very good workers in government, but black or white
some of them have problems. Gear stated that it was just the
amount of time you had to spend on that type of thing all the
time. He recalled one time that someone was talking to him

about affirmative action and GSA's involvement in affirmative action. Supposedly, their goal was to see that the personnel in government was seventy-five to eighty percent black. At least that was what the person told Gear.

Question: What about the position of women at the Archives? During the years you were there, Mabel Deitrich was head of the National Archives building. Did you think the Archives, by the time you left, was giving greater opportunities to women than at the time that you came?

Answer: Yes, he thought things had changed tremendously. The qualified women were given more opportunities, and he didn't see anything wrong with that.

Question: Was there a particular person that was involved with upgrading the positions for women, or was it something of an evolution?

Answer: Gear didn't recall that it was any particular person. He thought that it was just one of those things that had occurred. He supposed it was a whole process that started with the emphasis regarding affirmative action, minorities and women.

Question: During your years with the Archives, Theodore Schellenberg was one of the big names. Did he interest himself in preservation?

Answer: Yes, he was quite interested in it.

Question: Did he have particular things that he was interested in?

Answer: Nothing in particular that he was interested. Gear felt that he was interested in the overall program.

Question: Were there any of the higher-ups that took an especially keen interest in preservation programs. Before your time, Buck was supposedly into everything.

Answer: Grover did. Bahmer did. Schellenberg and Walt Robertson were extremely interested in it. In fact Gear always felt that Robertson was the person who basically helped him get the research laboratory in the Archives. Gear thought he understood him and what he was trying to do. Gear thought Robertson was the one who gave the major push that enabled him to get that across.

Observation: George Scaboo once mentioned that Robertson had been an extremely good person in listening to people and getting things accomplished.

Answer: Absolutely, he was. Gear thought of Robertson as the most valuable person to the National Archives in all those years. He thought he had a tremendous understanding of the whole archives, whether it was records management, or records centers, or libraries.