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University History Series

Sanford S. Elberg

GRADUATE EDUCATION AND MICROBIOLOGY AT
THE UNIVERSITY OF CALIFORNIA, BERKELEY, 1930-1989

With an Introduction by
Carl G. Rosberg

Interviews Conducted by
Ann Lage
in 1989

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a modern research technique involving an interviewee and an informed interviewer in spontaneous conversation. The taped record is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The resulting manuscript is typed in final form, indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

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Sanford S. Elberg, "Graduate Education and Microbiology at the University of California, Berkeley, 1930-1989," an oral history conducted in 1989 by Ann Lage, Regional Oral History Office, The Bancroft Library, University of California, Berkeley, 1990.

Copy no. 1



SANFORD S. ELBERG
1972

Cataloguing Information

ELBERG, Sanford S. (b. 1913)

Dean Emeritus, Graduate Division

Graduate Education and Microbiology at the University of California, Berkeley, 1930-1989, 1990, ix, 269 pp.

Childhood, family, education in San Francisco; undergraduate and graduate education at University of California, Berkeley, 1930-1938; Professor Karl F. Meyer, Hooper Foundation; Berkeley professor of bacteriology and medical microbiology, 1941-1978; brucellosis research for U.S. Army, Camp Detrick, Maryland, World War II; developing Rev-1 vaccine for brucellosis, work with World Health Organization; the Department of Bacteriology and School of Public Health, graduate students, research work; Naval Biological Laboratory, 1935-1987; Administrative Committee on Building and Campus Development, 1953-1961; Dean of Graduate Division, 1961-1978: Free Speech Movement, Vietnam War protests, Graduate Minority Program, Graduate Representative Assembly, departmental reviews; Campus Research Office and research institutes; national and regional association of Graduate Schools; retirement years, UC Education Abroad, provost for professional schools, Graduate Theological Union, Faculty Club.

Introduction by Carl G. Rosberg, Professor of Political Science.

Interviewed 1989 by Ann Lage for the University History Series. The Regional Oral History Office, The Bancroft Library, University of California, Berkeley.

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PREFACE

When President Robert Gordon Sproul proposed that the Regents of the University of California establish a Regional Oral History Office, he was eager to have the office document both the University's history and its impact on the state. The Regents established the office in 1954, "to tape record the memoirs of persons who have contributed significantly to the history of California and the West," thus embracing President Sproul's vision and expanding its scope.

Administratively, the new program at Berkeley was placed within the library, but the budget line was direct to the Office of the President. An Academic Senate committee served as executive. In the more than three decades that followed, the program has grown in scope and personnel, and has taken its place as a division of The Bancroft Library, the University's manuscript and rare books Library. The essential purpose of the office, however, remains as it was in the beginning: to document the movers and shakers of California and the West, and to give special attention to those who have strong and often continuing links to the University of California.

The Regional Oral History Office at Berkeley is the oldest such entity within the University system, and the University History series is the Regional Oral History Office's longest established series of memoirs. That series documents the institutional history of the University. It captures the flavor of incidents, events, personalities, and details that formal records cannot reach. It traces the contributions of graduates and faculty members, officers and staff in the statewide arena, and reveals the ways the University and the community have learned to deal with each other over time.

The University History series provides background in two areas. First is the external setting, the ways the University stimulates, serves, and responds to the community through research, publication, and the education of generalists and specialists. The other is the internal history that binds together University participants from a variety of eras and specialties, and reminds them of interests in common. For faculty, staff, and alumni, the University History memoirs serve as reminders of the work of predecessors, and foster a sense of responsibility toward those who will join the University in years to come. For those who are interviewed, the memoirs present a chance to express perceptions about the University and its role, and offer one's own legacy of memories to the University itself.

The University History series over the years has enjoyed financial support from a variety of sources. These include alumni groups and individuals, members of particular industries and those involved in specific subject fields, campus departments, administrative units and special groups, as well as grants and private gifts. Some examples follow.

Professor Walton Bean, with the aid of Verne A. Stadtman, Centennial Editor, conducted a number of significant oral history memoirs in cooperation with the University's Centennial History Project (1968). More recently, the Women's Faculty Club supported a series on the club and its members in order to preserve insights into the role of women in the faculty, in research areas, and in administrative fields. Guided by Richard Erickson, the Alumni Association has supported a variety of interviews, including those with Ida Sproul, wife of the President; athletic coaches Clint Evans and Brutus Hamilton; and alumnus Jean Carter Witter.

The California Wine Industry Series reached to the University campus by featuring Professors Maynard A. Amerine and William V. Cruess, among others. Regent Elinor Heller was interviewed in the series on California Women Political Leaders, with support from the National Endowment for the Humanities; her oral history included an extensive discussion of her years with the University through interviews funded by her family's gift to the University.

On campus, the Friends of the East Asiatic Library and the UC Berkeley Foundation supported the memoir of Elizabeth Huff, the library's founder; the Water Resources Center provided for the interviews of Professors Percy H. McGaughey, Sidney T. Harding, and Wilfred Langelier. Their own academic units and friends joined to contribute for such memoirists as Dean Ewald T. Grether, Business Administration; Professor Garff Wilson, Public Ceremonies; Regents' Secretary Marjorie Woolman; and Dean Morrough P. O'Brien, Engineering.

As the class gift on their 50th Anniversary, the Class of 1931 endowed an oral history series titled "The University of California, Source of Community Leaders." These interviews will reflect President Sproul's vision by encompassing leadership both state- and nationwide, as well as in special fields, and will include memoirists from the University's alumni, faculty members and administrators. The first oral history focused on President Sproul himself. Interviews with 34 key individuals dealt with his career from student years in the early 1900s through his term as the University's 11th President, from 1930-1958.

More recently, University President David Pierpoint Gardner has shown his interest in and support for oral histories, as a result of his own views and in harmony with President Sproul's original intent. The University History memoirs continue to document the life of the University and to link its community more closely -- Regents, alumni, faculty, staff members, and students. Through these oral history interviews, the University keeps its own history alive, along with the flavor of irreplaceable personal memories, experiences, and perceptions.

A full list of completed memoirs and those in process in the series is included in this volume.

The Regional Oral History Office is under the administrative supervision of Professor James D. Hart, the Director of The Bancroft Library.

9 November 1987
Regional Oral History Office
Room 486 The Bancroft Library
University of California
Berkeley, California

Harriet Nathan, Series Director
University History Series

Willa K. Baum, Head
Regional Oral History Office

INTRODUCTION by Carl G. Rosberg

The University is extraordinarily fortunate that Sandy was Dean of the Graduate Division during the 1960 and 1970s. This was a time of enormous upheaval and questioning of authority, institution, and values, especially at Berkeley. During these difficult times, Sandy provided stability, continuity, inspiration, and the kind of distinguished leadership that caused graduate education at Berkeley to be rated the best in the country.

My first most vivid recollection of Sandy Elberg is of an encounter I had with him in 1966 when he was Dean of the Graduate Division and I was Vice-Chair of the Department of Political Science. I had an idea about creating an acting instructor position for advanced graduate students, to give them an opportunity to teach their own course; one primarily among lower division courses, not as teaching assistants, but as instructors to incorporate teaching in their Ph.D. training. I presented this proposal to Dean Elberg, and within a matter of minutes he said, "Fine, go ahead. I'll be happy to provide the funds." That was my introduction to Sandy's decisiveness and willingness to experiment in assisting departments to develop graduate programs which he felt were worthwhile. Indeed, from my experience he was always a take-charge person, responsive to any faculty member as to how to build more effective programs to advance graduate education at Berkeley.

In 1973, Dean Elberg asked me to become director of the Institute of International Studies. It was becoming very apparent that foundation support for international studies was drastically declining. Despite this reduction in support, he had a vision of the importance of maintaining programs in international studies at Berkeley. He was most supportive in making it possible for the Institute of International Studies to move onto the central campus, which facilitated the involvement of faculty and students in new programs and activities of the institute. He assisted us in getting the space which currently houses the institute's library in Stephens Hall by his willingness to move the graduate student lounge to the third floor of that building, as well as assisting us in attaining funds to remodel part of the building as a library. His contribution to international studies was expressed not only in his direct help to the Institute of International Studies in a variety of ways over the years, but also by the assistance he gave to the East Asian studies centers in their efforts to establish their own institute in order to provide a better vehicle by which they could obtain resources. His vision and assistance to international studies in the 1970s helped Berkeley meet the new challenges to internationalize higher education in the 1980s and 1990s.

He was remarkable in that while he was a world recognized scientist who made major contributions in his field, he was also the ideal dean who made others feel that what they were doing was important and he was there to help. He would always respond as best he could to any reasonable request that would advance the interests of graduate education and research at Berkeley. His outlook was one of trying to respond to any sensible innovation. He was not there simply to control but to inspire. He knew how to motivate others yet was also able to make tough decisions. During his tenure as dean he brought new pride to the University. He had a remarkable demeanor and personal qualities of warmth and enthusiasm which drew others to him and generated affection and respect. This was dramatically illustrated in the extraordinarily generous and enthusiastic support of former University presidents, Berkeley chancellors, and some four hundred faculty members throughout campus to the establishment of the Sanford S. Elberg Distinguished Lectureship in International and Comparative Studies.

Carl G. Rosberg
Professor
Department of Political Science

13 February 1990
Berkeley, California

INTERVIEW HISTORY -- Sanford S. Elberg

An early highlight of Sanford S. Elberg's oral history memoir illustrates the style, concerns, and good-humored approach of this eminent teacher, scholar, and university administrator. Elberg recalls his teaching assistantship in 1934 with K.F. Meyer, legendary chairman of UC's Department of Bacteriology. At Elberg's suggestion, Meyer for the first time adapted the physics and chemistry departments' system of having a demonstrator illustrate while he talked about the subject matter. "While he would be talking, I must have had my act going too. There'd be all this clatter of glass petri dishes, you see, underneath the lecture table, and I would come up with these dishes and run around up the aisles, passing them out. Of course, weeks of effort had gone into preparing all this." For his role as Meyer's assistant, Elberg earned the nickname "Friday."

Seven years later, Elberg was to hear Meyer say, "Friday, how much do you need to live on?" and find himself hired as an instructor in the Department of Bacteriology. As Elberg would tell Meyer in later years, "I would have paid you for letting me come!" so great was his excitement at launching his career at the University of California, Berkeley. This career was one of distinguished research, humane administration, and always the concern for good teaching and student welfare evidenced in his first teaching assistantship.

In the course of his thirty-seven years as instructor, assistant, associate, and full professor of bacteriology, immunology, and medical microbiology, Elberg's major continuing research interest was brucellosis. This economically devastating disease of sheep and goats, which was also severely debilitating in infected humans, was a major animal and human health concern in Europe, Africa, Asia, and Central and South America. Beginning during World War II at the army's Fort Detrick, Maryland, and continuing after his return to Berkeley, his research focused on immunity for brucellosis. He was successful in developing a live vaccine for animals and then worked under the auspices of the World Health Organization and the Food and Agricultural Organization to demonstrate its use and effectiveness in affected countries. Elberg's Rev-1 vaccine is now in use worldwide and has led to effective control of brucellosis in both animals and humans.

While carrying out his impressive research and teaching responsibilities, Elberg was also busy with administrative duties and service to the University. He chaired the Department of Bacteriology from 1952 to 1957, and his oral history elucidates the complex interpersonal and political conflicts within that department. The

conflicts eventually led to the withdrawal of the medical microbiologists and their move to the School of Public Health. Enmeshed in this web was the Naval Biological Laboratory, which Elberg helped oversee for the University in the 1950s through the 1970s. His story of the uneasy relationship between the lab and the University may illuminate issues surrounding other similar units in the University system.

Elberg became increasingly involved campuswide as member (1953-1959) and chairman (1959-1961) of the Buildings and Campus Development Committee. This advisory committee to the chancellor coordinated all physical planning on the Berkeley campus. During Elberg's tenure, it produced the influential long-range development plan of 1962. His oral history gives an overview of the work of this committee, illustrates planning mechanisms and decision making on this complex campus, and comments on the contributions of Chancellors Kerr, Seaborg, and Strong.

In 1961, Elberg was asked by Chancellor Strong to become dean of the Graduate Division, a position he held with distinction until his retirement in 1978. One half of the oral history is devoted to an examination of the functioning, the policies, and the concerns of the Graduate Division and the graduate dean during these years. Elberg's tenure began as new campuses in the University system were being established, with the administrative readjustments the system's expansion entailed; it continued through the turbulent years of student unrest over free speech, the Vietnam War, and Third World liberation movements. As dean, Elberg dealt with the challenges of affirmative action in graduate student admissions and the consequences of budgetary restraints for the university under a succession of unsympathetic governors and rising inflation in the seventies.

Elberg's oral history gives a picture of the University's response to these turbulent times that written documentation could not reflect as well, for he worked within a system of diffuse and unspoken lines of authority: "The inherent authority of the dean . . . was zero. The dean of the Graduate Division operated, in my view, entirely by persuasion, cajoling, nudging, screaming, and rational argument." Making good use of these various skills, Elberg left a distinguished record as dean of the Graduate Division.

Responding to the perceived anomie of graduate students, particularly in the social sciences, Elberg worked to establish a representative assembly of graduate students to advise the dean and the Graduate Council. He instituted the Ford Foundation fellowship program to support graduate students in the humanities and social sciences and to decrease the time for completion of the Ph.D. degree. He listened to graduate student complaints about the quality of their education and worked to improve offending departments.

In an era of affirmative action pressures, he established the Graduate Minority Program and worked with campus departments in an attempt to increase the numbers of qualified minority and women students at the graduate level. Elberg expresses his regret that his circumscribed authority as dean, and the seeming inertia at the department level where graduate admissions decisions were made, limited the results of this effort.

To fulfill what he perceives as a major role of the graduate dean--the maintenance of Berkeley's standard of quality throughout the graduate program--Elberg instituted a program of departmental reviews and then either discontinued or provided new leadership and direction for marginal programs. He encouraged and fostered new and innovative Ph.D. programs. In his capacity as administrator of campus research programs, he reviewed all the research institutes, with a particular goal of putting them to the service of graduate education.

At the same time, Elberg maintained Berkeley's active leadership in national and regional associations of graduate schools, and his interview includes a review of these activities. Also included is a discussion of his retirement years, including work with the University's Education Abroad Program, service as acting president of the Graduate Theological Union, a stint as acting provost for the professional schools, and his presidency of the Faculty Club, among others.

Ten interview sessions were held with Sandy Elberg, from February to June, 1989, in The Bancroft Library conference room. This was a difficult time for Elberg because of his wife's deteriorating health and his own health problems. Prior to his last interview session, he underwent major surgery for a longstanding back condition. Shortly thereafter, his wife, Sylvia, passed away. Despite these difficulties, Dean Elberg came to each interview session having given serious thought to the planned topics and usually with brief notes on material to be covered. He was unfailingly good humored and cooperative during the interviewing and editing process. He made only minor changes during his review of the manuscript, editing for clarity and accuracy. Tapes of the interview sessions are available for listening in The Bancroft Library. We are grateful to the Chancellor's Office and the Graduate Division for providing the funding for this comprehensive oral history.

Ann Lage
Interviewer/Editor

18 April 1990
Regional Oral History Office
486 The Bancroft Library
University of California
Berkeley, California

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name SANFORD SAMUEL ELBERG
Date of birth 1 DECEMBER 1913 Birthplace SAN FRANCISCO, CA
Father's full name SOLOMON ELBERG
Occupation CLERK Birthplace LIVERPOOL, UK
Mother's full name ELIZABETH LEVENE
Occupation HOUSEWIFE Birthplace LONDON, UK
Your spouse SYLVIA MARANS ELBERG
Your children CASSANDRA ELIZABETH ELBERG GIBSON
GRAEME MAURICE ELBERG
Where did you grow up? SAN FRANCISCO
Present community BERKELEY
Education U.C. Berkeley, A.B., 1934; Ph.D. 1938
Occupation(s) BACTERIOLOGY DEPT. U.C.B. PROFESSOR
M
Areas of expertise MEDICAL MICROBIOLOGY AND
IMMUNOLOGY
Other interests or activities UNIVERSITY ADMINISTRATION—
DEAN, GRADUATE DIVISION
Organizations in which you are active ASSOCIATION OF GRADUATE SCHOOLS IN
A.A.U.; COUNCIL OF GRADUATE SCHOOLS; WORLD HEALTH
ORGANIZATION; AMER. ASSN. IMMUNOLOGY; AMER. SOC. MICROBIOLOGY
A.A.S. FELLOW; AMER. ACAD. MICROBIOLOGY; SIGMA XI, PHI BETA KAPPA.

I FAMILY, YOUTH, AND EDUCATION IN SAN FRANCISCO AND AT BERKELEY

Family Values, Interests, and Pastimes##

Lage: We are going to start today with some information about your family background and growing up in San Francisco.

Elberg: I have no brothers or sisters, but I was born [December 1913] into a family with many aunts and uncles and lots of cousins. That was one of the great influences, the family knitting together and socially being very close.

Lage: You saw a lot of family?

Elberg: We saw a lot of family.

Lage: Did the family live in the neighborhood?

Elberg: No, not necessarily, but we all got together on frequent occasions for dinners and whatever. Any occasion seemed to be an excuse for a family gathering. Both my mother's and my father's sides were very close with each other. I would say that my mother's family was much more informal and raucous as a social gathering. My father's family were much more formal. I think I learned something about the give-and-take from my mother's side because there was free exchange, very lacking in restraint.

On the other side, I received my interests and the influences in music, the theater, the symphony, opera. They took me to all of those occasions. So I grew up with Alfred Hertz and

##This symbol indicates that a tape or a segment of a tape has begun or ended. For a guide to the tapes see page 252.

the San Francisco Symphony and simply have progressed since the twenties until 1988 when we had to give up our attendance. Aunts took me to plays. I was present at the debut of Yehudi Menuhin. A particular aunt took me to every concert he ever played in San Francisco from that time. So that was one close association.

Lage: Did you play an instrument yourself?

Elberg: I was trying to play the piano with indifferent success. The louder it was, the better I liked it, but when it came to the skill with fingering, I was all thumbs. I took piano lessons for many years. Actually, my teacher was Monroe Deutsch's sister. So that was a connection that I always enjoyed.

Lage: You had mentioned Monroe Deutsch when we talked last time. Did your family know him otherwise?

Elberg: My family and his family lived close by, and so they all knew each other. Life diverged, of course, as interests did, with Monroe coming to the University. I suppose, in a way, that was another influence on my family's respect and affection for higher education. It was their intention I should go to the University from the beginning. So family influences of that sort were very great. They had many interests, as I say, in the arts and in the life of San Francisco.

Lage: It sounds like a lot of family was here in San Francisco. When did each side come?

Elberg: Each side must have had seven or eight brothers and sisters each.

Lage: Let's start with, say, your father's family. When did they come here?

Elberg: My paternal grandfather and grandmother came from London around 1882. My father was born in Liverpool in 1872, and they came to the United States. My grandfather brought them and the family, up to that time, to the United States. He was a tailor, on his own. He earned the money for the passages by living in successive places, first New York, and then earned enough to move the family to Denver and earned enough to move the family to San Francisco.

Lage: Do you know why he had the goal of San Francisco?

Elberg: No. He was gone before I was born, and for some reason, I was saddened about that. Some years ago, when I began to think how little I really knew, how little my family seemed to know of their parents and grandparents. Certainly, they must have known

about parents, but I never heard anything of their grandparents, of what would be great-grandparents to me. And I don't know what brought my grandfather to San Francisco.

I think that he left Russia, probably, or some part of Germany or Poland. He left when it became clear that he was going to be drafted in the Russian army. So he got out and went to England, where he married and lived for a number of years. So I suppose they lived in Liverpool for some years as my father was born there, and then they came directly to the United States.

I tried to find out something of those people when I was in England at the Central Registry Office, but I was not successful in having the time to do it, and I've regretted it ever since.

Lage: What was your father's full name?

Elberg: Solomon Elberg, and my mother's full name was Elizabeth Levene. Now among the Elbergs there were many brothers and sisters. They all lived at home until they married and continued to be quite close with the parents. They were the ones who were attendants of whatever life went on in San Francisco, very active people, socially, in their friends. Lots of friends, lots of children connections. My father was a Mason; he went into the Masonic Order and went up to the thirty-second degree and was a Shriner, and so on. They did those things, I guess, much more in those days. All the brothers joined at about the same time. So that was the paternal side.

My mother's family came from London. I don't know when they came, but they also came with many brothers and sisters and settled in San Francisco directly.

Lage: When your mother was a young girl?

Elberg: My mother was a very young girl at that time and went to school in San Francisco, as did my father and all of that generation. My grandfather, the father on my mother's side, was a cigar manufacturer and made his living selling and making cigars. He had a small business.

Lage: Did you know him?

Elberg: Yes. He, I knew. He died in 1921 when I was about eight, so I do remember him, and at that time my grandmother came to live with us. So their interests on that side were more outgoing. That is, they loved picnics. My recollections are constantly of beaches--Santa Cruz or the Russian River--and picnics in Alameda at the resort areas such as Neptune Beach, which was a great

place to go. Wonderful for children. They did things like that. They were always going out into the country and, in the spring, making a regular family pilgrimage, in one of the few cars they had, down to Burlingame and San Mateo to see, further down, the fruit orchards in blossom. That was an annual occurrence and a great event. I think it must have taken a week's preparation. And then, vacations were spent, as I say, at some place of that sort--whatever was accessible by train, as we never had a car. That was great fun, to go on the train to Santa Cruz or up the Russian River.

So I think that we had a good family life, because it fell to my mother, somehow, to take care of the trouble spots in the family. When my aunt became very ill, she and her husband came to live in our house, so my mother could take care of her until she died. I know that my mother raised a nephew--her sister's child--so that the parents could work. She raised him for a number of years.

Lage: Did he live with you?

Elberg: He lived with us, and that was before my memory, only I heard of it all those years. Then my grandmother lived with us until she died in 1936, so that was about fifteen years. There was always someone in the house for my mother to be taking care of. She was excellent at that and did a wonderful job, in the way of the family nurse, care of the sick.

Lage: What part of San Francisco did you live in?

Elberg: I was born onto Sixth Avenue, just between Balboa and Cabrillo Street, a couple of blocks down from Golden Gate Park.

Lage: Is that the Richmond side?

Elberg: The Richmond district. We lived there. My father's family owned the set of flats. The rest of his family lived upstairs with the mother. Then they all moved out, and we moved upstairs and rented the downstairs flat and then eventually moved out further into the Richmond to Forty-third Avenue, which was almost nothing but sand dunes. So I lived there up into my young adult life. I went to the Frank McCoppin School, which was just across the street on Sixth Avenue, and then I moved out to the Lafayette Grade School, and from there to Lowell High School. I was on Forty-third Avenue until 1940, with time out renting a room in a boarding house in Berkeley. So we lived there, and when I finally left, it was in '42 to go into the army, because I was commuting to the University.

Religious Influences

Lage: Was religion part of the family life?

Elberg: Yes, my parents belonged to Temple Sherith Israel, the conservative synagogue. I grew up in that synagogue and went to Sunday School for many years there and was bar mitzvahed there. I refused to be confirmed. I don't know why, but I had just had enough. Then we attended, of course, through the years, and I was an usher during the major holidays, and I carried on when we came over here. We joined Temple Beth El until 1966, when the children had grown and finished religious school, and I'm afraid the Free Speech Movement just interrupted life from that direction, and I was growing away from it. I was having doubts about a lot of things that happened in the sixties. So I discontinued membership and have never rejoined a synagogue, to my regret at this time, but that's another matter. It was a big influence in early life for me. I was greatly influenced by the rabbi under whom I was trained at Sherith Israel.

Lage: What kind of an influence?

Elberg: I suppose it was a general approach and attitude towards life and love of the Jewish faith and tremendous respect for his learning. He was one of the last of the great rabbis. The tradition is somewhat gone.

Lage: What was his name?

Elberg: His name was Jacob Nieto, and he was a great orator. He was the official orator for the city of San Francisco as well. So he was involved in the community tremendously. Quite a figure in the city, he was a tall, imposing man looking like something out of a Rembrandt or da Vinci portrait, with this long beard and great figure and carriage, and a great speaker but also a very austere man and disciplinarian for the youngsters.

Lage: Did he teach?

Elberg: He didn't teach, no. But he saw to it that the Sunday School was adequately run, and he was always there. You would find him on unexpected occasions, and if things weren't right, he had no hesitation in teaching. His was a wonderful, marvelous personality to know. What his influence on me was, I suppose, just the tremendous scholarship with which he prepared his sermons and the emotional impact on me.

When he died, his successor was a very good one, but he did not satisfy the congregation. He was far too socially conscious for those years and was involved in the Mooney-Billings case. Those were two men that were caught up in the Preparedness Day Parade bombing in San Francisco, and it became a famous case. This rabbi ended his career at Sherith Israel by involving the congregation in the Mooney-Billings case on the Day of Atonement, Yom Kippur, with tracts in the seats. That ended him. People thought that that was not an appropriate atonement for them. It was quite obvious that it was, because it was an injustice, and that's what he was trying to show. But it didn't sit well with that group.

Lage: Did it divide the congregation?

Elberg: It divided the congregation.

Lage: So some may have favored this?

Elberg: Some favored it--a few, not enough votes on the board. Then they obtained the rabbi that remained for the rest of my life there, Morris Goldstein, and he was a marvelous successor to Nieto. I would say that my connection with the Jewish organized religion was very strong in those days, in the reform context. So religion did have some influence--its teachings, things that I can remember, and the moral lessons.

Lage: Maybe the push towards intellectual interests?

Elberg: I think so, because that was the side I saw of it. As I say, family and religious influences were all pushing towards an intellectual-directed life.

Lage: You were the first in your family to go to college?

Elberg: There was a cousin that went, on my father's side, and that's the side that would have leaned in that direction. I think the reason was probably economic, too, on the other side. It was not a well-to-do maternal side, except at the great uncle and aunt level, where there was great wealth. But none of that filtered down, as I recall, to any great extent.

The Postal Telegraph Company

Lage: What did your father do for a living?

Elberg: My father started out with the Postal Telegraph Company. He was an acquaintance of John W. Mackay, the founder, and went up the ladder, as it were, to the office of the chief clerk and secretary of the Postal Telegraph Company in San Francisco. That was his life. Unfortunately, he was persuaded to leave the company and go with his brother into the retail ladies' ready-to-wear in a very successful store on Polk Street, which was a major shopping street there, quite different from today. He was there with my uncle for many years, but he was never given any kind of a partnership, as I think he deserved.

And then when the reverses of '29 came and the business wasn't doing too well, he was let out. That was my first introduction to, in a sense, the fiscal realities--although he protected the family wonderfully well from what really was going on. I wasn't aware of the actual seriousness. I knew he was looking for work. There always was plenty of food on the table, so the house went as normally as I had thought, but I didn't realize the toll it was taking on him. He was taken back to the Postal Telegraph Company, and there he stayed for the rest of his life until retirement, which was around '47. So the Postal Telegraph Company was a great part of my consciousness.

Lage: Tell me more about the Postal Telegraph Company.

Elberg: Well, it was the rival of the Western Union, you see, and it had its role. It was a great cable company, laying cable to Europe and to the Far East. In those days, of course, when you wanted to send a telegram, you could call in and a messenger would then take the telegram to the addressee. And of course, if it was sent anywhere, there were the telegraph messengers on their bicycles. It was a way of rapid communication, the only way, except for telephone.

Lage: No fax machines.

Elberg: Nothing. Eventually, of course, they had something like fax machines and that was, I remember, one of the great advances, when they had the different method of getting the messages all over the world.

Lage: Would your father talk about work at home?

Elberg: Not very much. He'd discuss something, but none of the technical side. He would tell me, occasionally, what the new developments were in the engineers' office. I worked there. That was a blessing, because I started as a junior in high school. I wanted to get work and to begin to save some money for college. I was taken on in the Postal Telegraph Company for Friday afternoons

and all day Saturday, and I was the addressograph clerk, making the new address plates for the bills and preparing the addressed billing sheets for the billing clerks.

I worked under William Saroyan's brother--William Saroyan, the author. Henry was the one I worked under, and he was William Saroyan's brother and used to talk to me a lot about his brother and their life in Fresno and so on. He was the head of that section, and I worked there all through high school and then all through college, on vacations--summer vacations and winter--and weekends, and so on. So that was good. And the munificent salary of sixty dollars a month, pro-rated to what I worked, you see? That was the standard wage for young people, not so young even.

Anyway, the Postal Telegraph Company had some influence on me, just as a matter of loyalty and interest in the business. I got to know many of the people--the general manager of the Pacific division and so on. Because of my father, I felt quite an affinity and an affection, for that company, and it just killed him, and me, when it was taken over by the Western Union. The end of a great tradition, because Mr. Mackay, the founder, was one of the Comstock Lode people, along with Crocker, and so on. So that was that. I suppose that deals somewhat with family values, interests, and pastimes [referring to interview outline].

Medical Problems and Preparing for a Career in Medicine

Elberg: The public education--it was at Lowell High School that I had my first physical, or medical disasters. In the routine medical examination--they used to send out city physicians--it was discovered that I had something wrong with my heart. So my parents took me to our family physician. He confirmed it. I was put on a regime, and it was quite serious. He wanted me to rest a great deal, which I did. He took a vacation for three months and put me in the charge of an excellent cardiologist in the city, and that went well. So the cardiologist, when my physician returned, gave him an excellent report.

Unfortunately, I committed a terrible error before I was to see our physician for the first time after his absence. I belonged to the Boy Scouts, and the Scoutmaster decided to take the Boy Scout troop to a hike up Mount Tamalpais to Rock Springs. And I went on that. I guess I nearly had a heart attack, because I developed a very severe myocarditis, an inflammation of the muscle. I knew something was wrong when I was breathing and had pain over the next few days, but I didn't say anything at home.

I didn't know what was happening. When the time came that I was to see my physician, well, I thought the earth would have opened up. He was absolutely livid when he listened and then heard the story. I never saw him so angry because he was a great personal friend and had taken care of me all those years. The result was I was put to bed for four months, right in the middle of high school.

So I did my term at home. They arranged with friends to bring me the lessons. I suffered through those four months, and it eased up. But at the same time, it led or was connected with a beginning curvature of the spine. So that began another series of orthopedists and so on, which never solved the problem. And so I'm now suffering the results after a lifetime of it. So that delayed me a bit, but I graduated from high school on time. Those were two messy businesses.

Lage: That must have affected you--

Elberg: It did. It affected life in general. We were never an athletic-attracted family, but this put an end to anything I might have done independently. I think that was a great loss.

Lage: How would that have been treated today, the kind of condition you had?

Elberg: The spinal thing--as soon as it would be discovered, I think, the person would have been put into a complete body cast. That's one way, and the other way would probably be some degree of surgery to prevent it from moving any further, to stabilize it, and braces.

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In any event, braces, too, would be used. I had a very cruel brace during my whole undergraduate period at Berkeley, that was impossible. I put up with it for as long as I could, until almost my senior year, and I knew it was all wrong. The thing was not properly done. But for some reason we never seemed to pursue the things, as I would have with my own children, to get proper advice on the matter. So one day I took the thing off and flung it down the stairs at home to the basement and never looked at it again. That was a great mistake, anyway. I'm paying for that today.

Lage: What about the heart condition? Would that have been treated--

Elberg: That eased off. I finally outgrew it, I guess, although there's still some residual. It's never been of any importance.

Lage: Now what about Lowell High School? Was that an influence?

Elberg: Lowell was the greatest influence, I think, of those years, naturally, a long-lasting influence. My interests at Lowell were Latin and science, because of the fact that I had some marvelous teachers. The man I have remembered all of these years is Mr. Frank Tucker, the Latin instructor, who was out of this world, a man of great presence, great appearance, modern in every sense of the word, quite an inspiration. His knowledge of Latin was superb, and his teaching was unbelievable. I think that that and the science teachers--chemistry and physics--were the main things that I recall. I had gotten very little out of the history, but I got a great deal out of the English. The biology, not so hot.

Lage: Was that the elite school at that time?

Elberg: Yes. It was the university preparation school. It didn't have the aura of such elitism in those days. If you wanted to go to college, you first thought of Lowell. But then all other schools prepared people for the university. Lowell had something about it, a tradition, and so those were really quite great years. I made a lot of friends that I have, some, to this day. We were a group, a small group of four or five of us, who were great pals.

The influence of the school--the relaxed but exciting sense about it meant that it was a pleasure to go to, and of course, learning these new things and reading in all of the four years' worth of Latin. I don't know why Latin stands out so much, but it did. I wished I'd gone into the classics, sometimes. I might have been better, but I don't know.

Lage: Now why did you go into science?

Elberg: I was influenced by two family members and by my physician who took care of me. It wasn't science that I was headed for. It was medicine. And this great-aunt of mine who was a very great worker in the Hadassah organization for Palestine, then--for the resettlement in Palestine--imbued me with the sense of Palestine. I determined at the age of six, that I was going to study medicine and go to Palestine. [laughter] That lasted for many years. I think Lowell helped in directing me towards pre-med, because I was conscious of all the requirements that I should be taking.

I had an uncle who was a physician. He was a great patron, as it were, and would have supported my whole medical education, had it continued to be possible. Anyway, that was the beginning of that. When I would visit him and my aunt, the family would visit, and I'd go upstairs to his study and read the medical

books on the shelf. That I thoroughly enjoyed, because he was a specialist in tropical diseases. He had been in the army as an army physician, and so he had a wonderful library. So I kept on that way. Everything seemed to stimulate me to that.

Entering UC Berkeley and Pursuing Bacteriology--Life as an Undergraduate

Lage: You sound as if you were very intellectually curious.

Elberg: I suppose so. I'd never thought of it that way. I may have been, and then, of course, when I graduated and came to Berkeley, somehow I had made contact by letter with K.F. [Karl] Meyer at the medical school.¹ As I had some contacts with him by letter and then personally, for advice, I decided to make my undergraduate major bacteriology, as a result of his influence. I thought that would be a good way into medicine. But as the time went on, and the back problem became more aggravating, my doctor said, "You can never practice medicine. If you do anything, the best thing you could do would be to become a pathologist, where you can sit and have a more sedentary life. But you could never carry out the physical demands of a medical practice, either privately or in a hospital. Your back won't take it."

So I said to myself, "This is not going to do. I don't want to be a pathologist looking at tissues from other people. I'd like something more alive." So I decided on bacteriology and never regretted it. But it was the influence of Meyer, and then, as I took bacteriology and began to know the faculty, Professor Krueger. Albert Paul Krueger was a great influence and kind of quietly directed my interests in bacteriology. And so I decided not to make the effort to go to medical school.

Lage: Was that a disappointment for you?

Elberg: It really wasn't, because, bless my soul if I could see the financial solution to that goal. '33 and '34 were not the best years, and I wasn't earning enough with the Postal Telegraph Company. I decided perhaps if I go into one of the subspecialties, I could get some financial assistance, and it was as a result of taking Krueger's and Meyer's courses that I got to know them and they me. They kind of took things over, saw to it that I did receive teaching assistantships.

¹Karl F. Meyer, Medical Research and Public Health, Regional Oral History Office, 1976, p. 439.

Before that, Mrs. Eleanor Roosevelt had started the National Youth Agency, which gave money to students for employment in colleges. When I graduated, Meyer asked me if I would like to help him in his lecture work, and he could get one of Mrs. Roosevelt's stipends for me, which was twenty dollars a month, a tremendous sum. So that's how I started with him. In the senior year, he mentioned that, and Krueger drew me into his own research. So I did some work as a senior for Krueger to the point where we were able to publish the results of my first studies. From then on, somehow, one or the other of them seemed to look after me.

Lage: How did you get Meyer's name when you initially contacted him as a high school student? Was he well-known, or how did you have the contact?

Elberg: Meyer was the chairman of the Department of Bacteriology. I looked him up in the University catalog and simply found his address. He only spent Friday afternoons at Berkeley. The rest of the time he ran the department at the medical school in San Francisco and the Hooper Foundation, which was his great interest. So that's how I got to him.

Lage: How did he respond to this young person coming to him for advice?

Elberg: With a very straightforward, serious, kind answer that there was no question in his mind that chemistry had to be taken before one took bacteriology, and that was that! [laughter] No ifs, ands, or buts. I don't know, I had this crazy idea. I wanted to hurry into bacteriology, and could I take it before the prerequisite chemistry. Oh, I would have made such a mistake. Thank heavens. It would have been a disaster. So I followed his advice; there was no question about that. I followed it most of my life as a student.

So that was the beginning, really, I feel, of my adult intellectual life. I have the funniest recollections or reflections on my life as an undergraduate. I don't feel I was really very conscious. There was no campus life for me. First, commuting--that took three hours out of the day. It was an hour and a half by streetcar, ferry boat, and train to the campus each way, or an hour and three-quarters. It was a long, long commute. So there was no life except on Saturday afternoons, since the University always held classes on Saturday mornings. Saturday afternoon in the fall provided a wonderful reason to go to the football games. And that I never missed. That was my campus life. I was never invited or even looked at by any fraternity.

Lage: Did you think of that as an option?

Elberg: It was no option. It wouldn't have been. It was just a blessing they never asked me and created all that unhappiness and envy. I was never asked, and so that was that.

Lage: You listed that you were in the Order of the Golden Bear. That was later?

Elberg: Oh, that was way later, as Dean of the Graduate Division. So I had no campus activities except my automatic election, as an honors student, to membership in the Honors Students Society, and of course I latched onto that since it was the first invitation from anything. I made such a to-do over what was nothing. I'm ashamed of it even now, as I remember the lack of perspective. Anyway, the Honors Students Society did have a very interesting volunteer activity. You could volunteer to serve a faculty member during the advising period at the opening of the term, and you would take the student coming in to be advised by the faculty member and look over what that student wanted to do and sort of get things in line for the faculty member, so he wouldn't have to take so much time. I thoroughly enjoyed that. I worked for a couple of years for Professor William Green, the professor of Latin.

Lage: Well, there you've got your Latin!

Elberg: I got my Latin again and also helped an associate in English named Dundas Craig. I enjoyed it. It was absolutely nothing, but I thoroughly enjoyed it. And that was that. That was my great campus activity. It's almost a shame to mention.

Lage: I expect that most students today don't have any more connection than that.

Elberg: It could very well be. The fact is, I was so satisfied with my undergraduate life, it never occurred to me to think what I was missing. I knew about all of these activities--clubs and athletic teams, and so on, but I had no desire for them. So campus life, or the lack of it for me, didn't mean anything. I was busy enough.

Lage: Were you aware of various protest movements during those Depression years?

Elberg: No. I was aware, of course, of the Hearst newspapers constantly carping at the students and the University for their sort of Communist sympathies, but you took that. We subscribed at home to the *Examiner*. I knew that nonsense, and I never paid the slightest attention to it. Of course there were people that

might have had interests of that sort--why not? But no, I was not much aware of that, and now I carry no memories of any protest movements in the student days.

Teaching Assistant in Bacteriology for K.F. Meyer

Elberg: So then that was it. I graduated, and I became an assistant and had a tremendous lot of fun assisting Meyer in some new activity that had never been done before except in the chemistry and physics lab. I'd suggested to him that he adopt that system for his lectures and have a lecture demonstrator illustrate while he talked about the subject matter.

Lage: He hadn't done that before?

Elberg: No, this had never been done. While he would talk about things, I would perform or have previously performed and prepared demonstration materials that could be passed out to the students. And so we were really a very well-known team here. This was something the students thought was just absolutely the funniest thing they ever saw, and interesting, because while he would be talking, it seems to me now, I must have had my act going, too. [laughter] And there'd be all this clatter of glass petri dishes, you see, underneath the lecture table, and I would come up with these dishes and run around up the aisles, passing them out in order to get them to the students in time for them to look at them while he was talking. Of course, weeks of effort had gone into preparing all this, and sometimes I had to build little pieces of equipment. It was most wonderful.

Lage: It sounds like you had a natural knack for teaching.

Elberg: Well, I'd like to think maybe I did. Students, in all my life, have said that I was a good teacher for them. Anyway, we did this. We did it for two years. It was a remarkable thing to develop this set of demonstrations, but it was only for him. No other person had the slightest idea that they wanted anyone cluttering their lecture and making this noise around them. He loved it, because he was a showman, you see. And I would be the target of some of his showmanship, too. It made the class a tremendous delight and pleasure. The students were in stitches sometimes.

Lage: Was it an introductory class?

Elberg: Yes, it was the first course in bacteriology.

Lage: Did this attract a lot of people into the field, do you think-- having a teacher with this kind of presence?

Elberg: Oh, yes. He attracted people from all over the campus to come to his lectures. And his other course in Introduction to Animal Pathology, where he would bring diseased animal specimens from the slaughterhouse, right into the class in these great metal trays, you see, with huge abscesses in the livers and all these organs that had something wrong with them. Well, that class was famous. He used to give it at four o'clock in the afternoon, and they'd come pouring in just for the fun of it, and he had all this stuff from the slaughterhouse. And so you got a very interesting introduction to medicine in a very painless way. It was kind of a perspective. So that was another way he was an influence. After two years of graduate work, getting ready for the oral examinations, I passed them, and he said, "You've had enough here at Berkeley. I'm bringing you over to the Hooper Foundation to do your thesis research."

Research Assistant at the Hooper Foundation

Lage: Now what was the Hooper Foundation?

Elberg: The [George Williams] Hooper Foundation for Medical Research was, and continues to be, an institute, a foundation, given by the wife of George Williams Hooper, a great lumber magnate of California. Mrs. Sophronia Hooper left all her money, or a lot of it, to the University of California for medical research. The Regents created the foundation, and they had some nationally famous people as directors. And finally, K.F. Meyer became the director, and so it was a great graduate student research place over on the San Francisco campus of the medical school, where not so much research was done in those days.

Lage: So the medical school was more practical-oriented.

Elberg: Yes, in those days, yes.

Lage: Would you get a stipend for the research there?

Elberg: Well, I got a research assistantship, and I went up to the amazing sum of fifty dollars a month. I was living on easy street. Gosh! Fifty dollars a month in those days just went everywhere.

Lage: Especially if you were living at home.

Elberg: That's right! So I could contribute to my living at home, you see, and still have money. I had a wonderful woman friend, Mrs. Esther Adler, who helped me financially also during the undergraduate years, with my tuition.

Lage: A family friend, was she?

Elberg: Yes. She had founded what was then the Adler Sanatorium. It became the Dante Hospital on Broadway and Van Ness Avenue. It was San Francisco's best hospital, and private, and is now a retirement center. Mrs. Adler was, till her death, a tremendous friend to me, and I used to drive her on Sundays to get her out of the house. We were great friends. We would have dinner together; she was a family friend, you know, a real grandmother.

Lage: Was she particularly interested in your being a doctor?

Elberg: Yes. Her son was a doctor and died of heart disease, and she was always very interested. Of course, that was the first thing she gravitated to, without any training, to start this hospital when things were kind of tough in their family. Her son-in-law, Felix Kahn, was one of the "big six" builders of one of the great dams, perhaps the Hoover or Coulee dams. They had adjoining houses, the Kahns and Mrs. Adler. I would drive her son. He was so ill, and I'd get him out for an afternoon drive, and then I would take her on Saturday or Sunday. We'd just spin down to Carmel and back in her great Twin Six Packard.

Lage: All in a day, down to Carmel? That's a long drive today.

Elberg: All in a day, yes. It was, but in that car, it was wonderful. Anyway, that was a great lot of fun, and that was all part of the university years.

Lage: Could we talk more about K.F. Meyer?

Elberg: Yes. My two years with him at the Hooper were hectic years. He was the kind of professor who left you completely alone. If you wanted him, he was there. When he was there, he was available. But he wasn't one that came down daily and wanted to know the results of the research. It was a pity he didn't, because I think he could have saved me a lot of missteps.

Lage: Do you think this was a philosophy he had?

Elberg: I think it was just his way based on his Swiss university background. In the long run, he had his own research to worry about, and the training of graduate students was something you did, or the encouragement of them, but I don't think he trained

them. If you made a mistake and told him, well, he'd give you a good criticism, but it wasn't of such a nature that you'd want to tell him again a second time. Anyway, I did that Ph.D. research as much on my own as I guess you could, and it was finally completed.

The Hooper was an interesting place in those days. It was populated mainly by women. He was a great one for women assistants, and a great one for never encouraging women to the Ph.D. It was a German-Swiss system.

Lage: So the women were employees?

Elberg: They were all employees.

Lage: Had any of them come up from Berkeley in the graduate program?

Elberg: Yes, some of them had, up through their master's degrees, but he did not encourage them to take a Ph.D. Some of them were outstanding scientists, and they did wonderful work.

Lage: Did any of them protest this?

Elberg: Some did go ahead anyway, despite him, and one or two may have made it, but it was mainly the men whom he prepared for the Ph.D.

Lage: Did that strike you at the time as being--

Elberg: Oh, yes, it was well-known, but what was there to be done? I was there on my assistantship, and he had all these women as his staff doing research for him. It was not easy. They were unhappy, a lot of them. But there was a great spirit. There were some funny things there that I won't go into, but personality matters among the ladies and so on.

II EARLY EMPLOYMENT, MARRIAGE, WORLD WAR II SERVICE

Lecturer in Public Health, UC Berkeley, 1938-1940

Elberg: So I finished my graduate work, and then the trouble began. That was finding a job.

Lage: And this was what year?

Elberg: In '38. 1938. And I must have written a hundred letters across the country inquiring about the openings and had maybe three positive responses. Nothing turned up. Meyer didn't lift a finger in that time to do anything about this, as would be the custom today. I had upset him earlier by having a problem with his principal assistant, and things had cooled considerably.

Lage: Was it not the custom then to help find employment?

Elberg: It depended on the individual. He did not. So, on the other hand, when I was not getting anything, Krueger came to the rescue and suggested to Meyer that I come back to Berkeley as one step up, just to tide me over.

Lage: As an instructor?

Elberg: No, no. As a lecturer in public health laboratory practice.

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Now at that time, 1938, Meyer had created at Berkeley under the Social Security Act that had recently been passed a section for the retraining of public health officers of communities, cities, state, for bringing them back and upgrading them and updating them in the field. So Meyer created at Berkeley what was known as the Curriculum in Public Health. To that time, there had only been a Department of Hygiene.

The Curriculum in Public Health was enormous, in the sense that he used faculty from all the adjacent institutions of the Bay Area--Stanford, UC Med, Berkeley, Davis, the State Department of Health, and so on, from all his professional contacts. And he brought new people in on that fund. He started what was the precursor to the School of Public Health, and they put out two or three generations of retrained public health officers, one of whom, Dr. Ellis Sox, who graduated when I received my Ph.D., became the city health officer of San Francisco for some time. Anyway, that's where they put me, into that curriculum, and I was to upgrade their knowledge of public health laboratory work and what it could offer them.

Lage: Did your background prepare you to do that?

Elberg: Oh yes. All the associations I'd had over those previous two or three years with Meyer told me what I needed to be interested in. So I taught that class and also assisted in the Department of Bacteriology.

Washington State College and City College of San Francisco

Elberg: Finally, I was offered an instructorship at Washington State at Pullman. And off I went on January 22, 1940, to Pullman--in a drowning rainstorm all the way up.

Lage: Did you drive?

Elberg: I drove, with all my library and reprints and clothes and everything in the back of the car, and got to Pullman after a hectic drive and a broken axle enroute. Well, that was six months. Such a funny college! It was a half-time instructorship that I was offered, and I was glad to get it. It paid seven hundred and fifty dollars for the half year, but that was payable in six installments. So I was getting 125 dollars a month and reveling in it, because room and board, three meals a day, was twenty-five dollars a month, you see.

Lage: Did you live in a boarding house?

Elberg: No, I lived in a private home. I had the downstairs room with private bath and a little hot plate. I ate at one of the student restaurants with my colleagues in the department and began to teach at Washington State.

Lage: How did you find the atmosphere at Washington State?

Elberg: Absolutely deplorable. So repressive. Such a narrow administration. I can't conceive of it. It was so natural then, I wouldn't have known any different, but I realized it was nothing to what I had been used to. We, as instructors, were under such close supervision by the dean of the college, who was a chemistry professor, and I hated him. My chairman was a very gentle and nice old gentleman and a very influential member of the faculty, and had done some good science himself. But he was no match for this dean, and so he never could increase that instructorship to full-time. Well, I worked there like a dog for the six months.

Lage: Were you actually working full-time?

Elberg: Oh, of course.

Lage: Research and teaching?

Elberg: Yes, I was expected to do both. My research was on my Ph.D. topic--botulism, or food poisoning. I was trying to find out more about the toxin, or the poison. I was not very well liked there, because I had to concentrate gallons of this awful-smelling culture medium that had grown the *Clostridium botulinum* bacilli, which was a putrefactive anaerobe, and the smell permeated the building as this thing concentrated down over the heating, you see. I think they were delighted to see me go, but anyway, when the time came, I had, before I even left, probably a year earlier than that, while at Berkeley, applied to the San Francisco junior college for an opening. They said I could have it when they went into their new building, but that wouldn't be for a while. They would keep me on the list.

So I was up at Pullman, and I had one problem after another with this research and then came down with adult measles. I never was so sick, and the doctor had to come to the house and take me in his car to the hospital thirty-five miles away. I was a teaching case. They had never seen such a measles rash. I was almost delirious, I remember, when the doctor brought in all the student nurses, to see this, because this was the perfect diagnostic event, you see. This is how you recognize measles. Well, after a week or ten days there, I was all right and came back home. He brought me home, and there was convalescence, because it was a dangerous period. Fortunately, I didn't have any complications, but there could have been.

Anyway, at that time, well into the term, I asked the head of the department, "What about next year? Will I have a full-time appointment?" He said he would try. He shortly came back from the dean's office, saying, "No, the dean was not about to

convert it." Around that time, I then wrote again to the junior college president to learn that yes, indeed, they were moving, and would I be there July 1 to begin the preparation of the laboratories? The salary would be twenty-five hundred dollars a year. I nearly flew down. I said I was resigning. I left the first day after the term ended and came down in my old Buick just as fast as I could, and there was the job, in this magnificent palace of a new building out on Ocean Avenue. When I saw my bacteriology laboratory, I could almost have wept, it was so magnificent. I had never seen anything like it at the University.

Lage: And this was just for the first two years of college?

Elberg: Yes. You never saw anything like it. The equipment--they had binocular microscopes of the most recent Bausch and Lomb type. I had never had a binocular, only a monocular. The laboratory was, well, it was simply huge--you looked down there and you could hardly see the end of it. I could just see the students coming in there. The preparation room, which was foolishly lavish, was all tiled floor, so that if you spilt anything bad, it was permanently stained. I spilt one of the dye solutions the first day!

Lage: Where did they get all the money to build that?

Elberg: The city taxes. It was a wonderful thing. The other laboratories--the chemistry labs and all--were super.

Lage: Were you just in charge of the bacteriology lab?

Elberg: I was in charge of instruction in bacteriology.

Lage: They must have had a whole range of sciences, then.

Elberg: Oh, they had chemistry, physics, and all the biological sciences. It was a great school.

Lage: Were they preparing students for the university or for other kinds of work?

Elberg: Both. But my crowd was preparing them for the university. So that started, and it was a remarkable year. I had good students, very interested, some that came here to Berkeley. My teaching was way over their heads. I would have had to have two or three years of practice to get down to how to do it, but it was a wonderful experience. The only thing that disturbed me constantly were the little girls with hair ribbons in the class, who couldn't have been less interested. Why they were there, I

never knew, but you took everybody. Anyway, I gave my lectures, and I had this lecture auditorium. You pressed a button, and this board came down. You pressed another button, and something else came up. Oh! It was something to see, so it was great fun.

The other great pleasure of that institution was that they ran a hotel management school, and in that school, they ran the school cafeteria, or restaurant. The eating was equal to The Faculty Club here. We had marvelous meals. The faculty had its own dining room, and we were fed beautifully. It was great fun, and it was relaxed. Fortunately, the medical school department, where I had worked for my Ph.D. degree, were very helpful in giving me supplies that hadn't arrived but had been ordered. I was always going back and forth, hauling equipment and glassware from Parnassus Avenue to Ocean Avenue.

Lage: Now was this the medical school of UC?

Elberg: The medical school of San Francisco--of UC, my old gang. They couldn't do enough. So I kept seeing Meyer all the time. We'd run into each other, and he'd laugh himself to death about me in the city college. But he reopened his warmth, and it was around January of 1941, so I had finished the first term at the city college and was getting ready for the next, when I happened to make a visit to Berkeley to see Krueger. I think I needed some supplies, and I found out that the naval unit, which Krueger had created for the study of influenza, was being activated and taken onto active duty. He being the commanding officer was having to withdraw from the University and go into the navy. I had been one of the original members of that unit, and I had received my instructions from the navy, to prepare to join it and to appear for the physical examination.

Lage: This was all before the war.

Elberg: Yes, you see, the year before. I went to take my physical examination, and the navy said, "We can't accept you. Your back and so on, et cetera." So I was out. It was something I had counted on, in case of any military need, I would have had my niche. Here, suddenly, I had nothing, and so I had to, you know, sign up for the draft. I enrolled in the selective service, but that was just an enrollment. Krueger said, "Well, if you don't mind, I'd like to propose to K.F. Meyer, since I will not be here, that you be appointed. Mrs. Stewart, one of the associates, is resigning because of marriage, and there will be an instructorship. I'll make an appointment with K.F. for you to come over and see him next Friday."

Return to Berkeley as Faculty Member, 1941--Teaching Bacteriology 101 with Meyer

- Elberg: Well, I went over. I think I must have been two feet off the ground at the possibility of returning, and, as I said earlier, K.F. simply sat back in this great big chair with his pipe, and he said--he always called me "Friday," his man Friday--"Friday, how much do you need to live on?" And I told him, thinking the best acceptable amount of two thousand dollars, knowing that eighteen hundred was the standard instructorship, I said, "Two thousand." He said, "All right. July 1. Next." So I announced to the city college I wouldn't be continuing the next year, but we finished out that year.
- Lage: And you took a pay cut.
- Elberg: I took five hundred dollars as a pay cut and didn't mind it at all. I'd have paid them. As I always told him later, "I'd have paid you for letting me come!" So I came, and that was July 1, 1941.
- Lage: Now, this may be an obvious question, but why were you so excited to come back?
- Elberg: Oh! The University of California at Berkeley was my life. It simply was and never has changed. There was nothing--nothing honest--I wouldn't have done to be a member of the faculty. That was the dream of my life, to be a member of the faculty at Berkeley, and I couldn't believe it was happening. I simply, to this day, don't know why such a good thing happened, but it did.
- Lage: Was it understood that the instructorship was a career track at that time?
- Elberg: Yes, that's what I was going to--no other thought. So I started, with great excitement, my first undergraduate teaching in this great course of Krueger's and Meyer's in the fall term of '41. It was, to this day, something never to be forgotten. It was a great class, and K.F. Meyer would come over on Fridays and give the lecture. There was something about it, socially and intellectually, that was so uplifting and so exciting, and so busy. You were just working like a dog, but that was the fun of it.
- Lage: Was it this particular class, or was the excitement because it was the first time you taught it?

Elberg: This was the famous class we all referred to as "101," the first advanced course in bacteriology, which covered everything, but mainly the infectious diseases. It was a famous course, over the state.

Lage: It had been famous in the past?

Elberg: It had always been. K.F. Meyer had created it way back in the twenties. It had been the regular medical school course, and then it became the Berkeley course, and so on. It was a great course, to which many graduate students from other biological science departments came, especially if they were going to offer bacteriology as one of their fields. So one got to know the best of the graduate students in zoology, and some even in chemistry, biochemistry and physiology, and so on.

So it was an exciting thing, and he introduced, for his Fridays, a new method of teaching. He was very enamored of a man by the name of F.M. Burnet¹, of Australia, who had written on the nature of infectious diseases a general treatment, very evolutionary in its treatment of the subject--a good reading for anybody, but especially for these students. Meyer decided to teach from it, by asking the students to analyze the sentences, sentence-by-sentence. "Where did it come from? What was the background of this statement and that?" So they had to do a lot, and it was the most exciting way of teaching for that time. We had a wonderful class.

Lage: How large a class?

Elberg: There were always fifty. Each one at a big laboratory desk in this giant room. So that went on for that term, and it was a great success. A new young instructor, with an especially warm relation to the professor--the students sensed the esprit and reacted positively to the setting.

Lage: Now Meyer taught it on Friday.

Elberg: He taught on Friday, and I did the Monday and Wednesday periods, 1-5 p.m.

Lage: And did he direct you at all?

Elberg: Never. No. I always had to guess what he would have wanted and do it that way, and he would come in, sometimes, on Friday while I was giving the preliminary instruction. He would come in

¹In later years he was knighted and became Sir Macfarlane Burnet.

around three, to give the lecture. The class started at one, so that the lab had been going, and I'd been giving that instruction. He'd come in, stand there quietly in his white coat in the doorway, listening, and would sometimes come in and offer to make a suggestion. He was very gracious in that way. He never embarrassed me when he could have.

Service as an Army Officer, 1941-1946

Elberg: So we came to the end of the term, and unfortunately, December 7th [1941--Pearl Harbor Day] arrived. We ended the semester. Some of the students were in the Army Reserve, and I went to the Southern Pacific train station to see them off, to say good-bye, on the way to their camp, including Meyer's own son-in-law, who had been a student in the course and who has just retired as dean at Arizona.

Come Washington's birthday, which was a holiday, I went down to get the mail, and there was my summons from the draft board. I had done nothing about that, so I went to my local draft board in the neighborhood, and they said, "You'll be going. We will be drafting you." Well, I said, "May I have some time to make an application for an Army commission in my own field?"--which was then the sanitary corps, now the medical service corps, where all bacteriologists were relocated. Well, they said, "Yes, surely." So I rushed over that very day to the Presidio in San Francisco and applied to be commissioned in the army, and whom do I meet there, in charge of the recruitment of the sanitary corps officers, but one of my former Public Health Curriculum students. Well, he said, "Friday, what are you doing here?" [laughter]

Lage: So they all called you Friday?! [laughter]

Elberg: They all called me that, yes. "What are you doing here?" I said, "I'm here to do the same thing everybody else is." He said, "Well, fill out the form. There'll be no problem." So I filled it out, and on April 1st, when I came home from the University--I was commuting then--my mother said, "There's been two things. There's a telegram for you from the army, but there's also been a telephone call to notify you that the telegram was coming from Washington." So I rushed to get the telegram, and there was my offer of commission as a first lieutenant, and that I would probably be having to go to my assignment on April 30th, giving me a month's notice.

So I told them all at the University, and I was in the middle of the second term, you see. We were coming close to commencement, which was held in May, then. And so I got my military leave through Deutsch and Meyer and said good-bye to my undergraduate seminar, the "199ers," who took me to an Italian restaurant in Berkeley for dinner and gave me a wonderful pipe. I never have forgotten that crowd. We had a wonderful term together. We did some unusual studies together and would meet on Sundays, in order to have a big room in the library to ourselves, which was quiet. They came without any objection. We had a seminar on viral infections.

So the day came. I had to go be sworn in, go to Roos Brothers to buy my uniform, say good-bye to the family, and my aunt and uncle drove my mother and father and me over to the Oakland pier, where I got the train for Portland, Oregon, where I was to go to Vancouver, across the river to Barnes General Hospital, as the new bacteriologist. So May 1st, I entered Barnes Hospital as a first lieutenant in charge of the bacteriology section of the laboratory. And that was the beginning of another life.

Lage: Did you ever have any concern that your job wouldn't be held at Berkeley?

Elberg: No, oh no. That was sacred.

Lage: How long did you serve in the army?

Elberg: Four and a half years. I was back in July of '46.

Lage: Were you in Vancouver that entire time?

Elberg: Oh, no. I was in Vancouver, at the hospital, for two years, and then the other two years at Camp Detrick in Frederick, Maryland, and then six months back here, one at Auburn at DeWitt General Hospital, and the rest at the naval laboratory under Krueger, where I terminated my service.

Lage: So you ended up back with the navy.

Elberg: I ended up right here, right with the navy, as an army officer. They didn't know what to do with me, and I didn't know what to do with them.

Lage: What kind of work were you doing? Was it research?

Elberg: Bacteriology. Research. It was all research.

- Lage: So you really were putting your background to work.
- Elberg: I was really getting great background build-up and learning, yes. So for me, the war years were, intellectually, very important as a period of growth, professionally.
- Lage: You don't hear that from too many people, when you ask them about the war years.
- Elberg: No, but I did a great deal of growth, professionally-speaking, and as a human being.

Marriage, 1943, and Family

- Lage: You were married in that time period.
- Elberg: I was married in July of '43, almost a year after I got there, in Portland. It was in November of '43 that I went to Frederick, Maryland, and my wife followed me in January, when I could get a place to live for us.
- Lage: Had you known your wife here, or did you meet her in Portland?
- Elberg: No, I didn't meet her until in Portland. It seemed that there were a group of Jewish young ladies, who wanted to do something for Jewish army officers through the USO. The USO was delighted to have somebody enter this area, so they gave a party for some of us from the hospital, to meet them. And Sylvia, my wife, was the one assigned to call for me at my room. I couldn't live on the hospital grounds. There was no room, so I rented a room in a home, and she picked me up. That was our blind date, and she was a little odd, because she seemed to be worrying about something, and I really didn't discover until later what had happened. She had spilled a whole bottle of perfume in the car, but anyway, I didn't notice it.
- Lage: You were used to strong smells.
- Elberg: Exactly. But it turned out to be a very fateful meeting. We began to see each other regularly, and I decided to make an honest woman out of her.
- Lage: Did you bring her down to meet your parents?

Elberg: I did. I sent her down. I couldn't come, but when we were engaged on New Year's Eve in '42, I asked her to come down to meet my parents. Her father went down to meet them separately.

Lage: Separately? Did she come all by herself?

Elberg: She came by herself and stayed with my folks to meet the family.

Lage: That must have been difficult.

Elberg: Well, I don't know, I don't think so. They made her very welcome and were so delighted that--

Lage: I guess what I mean is, the thought of it must have been difficult. I'm sure the experience was delightful.

Elberg: Exactly. Well, she was a remarkable girl, and they fell in love with her and she with them. So it was really wonderful, and we were married in July at the Benson Hotel in Portland. My folks, of course, came up. So that was it, and that's been it ever since.

Lage: Did you have children?

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Elberg: We decided to wait until the war in Europe was over, so we did, and when we came out to DeWitt General Hospital in Auburn, she was pregnant. My daughter was born, then, in May of '46. Our son was born in '52, and that was the end of that. We decided that two would be what we wanted.

Camp Detrick, Maryland--Years of Professional Growth###

Lage: We were going to follow up on the last interview. A few things had occurred to me after I spoke with you. One was on the wartime research as an army officer. You had said that the wartime work was important to your professional growth, and as a human being. That kind of piqued my curiosity. I thought maybe you could elaborate on that.

Elberg: First, I think that, professionally, the last two years of my service, which was carried out at Camp Detrick on brucellosis, was important and was a key factor in my professional growth

because most of the major figures who were to develop in the American Society of Microbiology were on duty there, either in the army, navy, or as civilians. So it was a tremendous environment of professional skill and expertise, and there were conversations and seminars going all time, informally--not formally. Thus, I met and worked with many of the key people in American microbiology. Not all, of course. Secondly, the nature of the subjects I was asked to work on fitted my own interests. I was asked to take over the project on brucellosis as an object of study in biological warfare.

Now, this means that there are two things that I have to comment on here. One was, there was no choice. This was an army assignment, and it was of such a nature that once in, one was not able to get out, as far as I knew. Secondly, there was ample evidence that the Germans, and probably the Japanese, were at work on the same sort of things, because there was clear proof from the Rockefeller Institute that certain viral cultures had been stolen by visiting German workers, removed from the facilities of the Rockefeller Institute's laboratories and taken back. There would have been no need for this surreptitious thing, or covert removal of cultures, if everything had been normal.

So, there was no question, since the history of bacteriology was grounded both in France and Germany, that the bacteriological and immunological talent was perfectly evident there in Germany. One had to assume that in such a regime, biological warfare would not be ignored. That was my assignment.

Lage: Was there discussion about--?

Elberg: No, in fact, the whole operation was so secret, that when I was ordered by the army to report there, no one had ever heard of Camp Detrick at Barnes Hospital in Vancouver, Washington. Nobody could tell me anything about it, and nobody knew where it was. I wasn't asked to report there but to simply depart the train at some Baltimore and Ohio station nearby, and I would be met. So that had quite a bit of a curiosity attached to it. I remember that one of the enlisted men in the medical laboratory, in the bacteriology section of the hospital at Barnes, said to me, in a very joking way, "I know what you're going to do. You're going to be making bacteria bombs!" And I said, "Don't be crazy." [laughter] Such a thing had never even occurred to me.

Lage: When did you find out that that--?

Elberg: When I arrived, on Thanksgiving night, about eight o'clock in the evening at Harper's Ferry, which was the place where the train

stopped. I was annoyed later that they didn't let me at least continue on to Washington, D.C., which would have been only about a half-hour more, where I could have had a proper kind of stay-over. Anyway, I got off the train and telephoned this number, and they sent a car and driver. That was a long ride, and I got in late on Thanksgiving night, long after any dinner had been served.

I had fried eggs and ham, and I remember that Thanksgiving very well. I was then shown to my room, and in the course of getting ready to go to bed, I took a shower after this long, five days' train ride. There was another officer in the shower room, and I said, "What in the world is this place?" "Oh," he said, "you'll learn. I can't tell you a thing. You'll learn tomorrow." Well, that kept me awake all night. I had to know what in the world was going on.

The next day there was a briefing, and I was informed. I must say, it was a shock. For a while, I just simply didn't know what I was doing, or what to do. I was disturbed, but I realized that there had been so much set in motion, and I'd been recommended by dear friends in various institutions that knew me, and so I went through. That was it. I was glad I did, in the long run, as I say, because I was asked to work on both topics with which I had some familiarity.

Lage: Had you already started your brucellosis research?

Elberg: The first topic I was asked to work on was the toxin of *botulinum*, a food poison, and that had been my thesis research. The nature of the toxin in *botulinum* growth, or botulism, was a very difficult problem. I was not making much headway. After three or four months, I couldn't see that there were any ideas that I could use to grasp this problem, for the purposes that I was really given.

Fortunately, at that time, a friend joined the project--Dr. Carl Lamanna from Washington State, who had succeeded me in my position there. Carl was from Cornell, and he also joined this *botulinum* team. He approached it from a completely basic point of view, which was an enormous lesson to me; I had been concerned with the practical side of things. He simply decided to purify, for the first time in history, the toxin, and to go to work and do things that would lead to its crystallization, which was at that time a major step in the purification process. It took him the two years to do it, and he succeeded. He was the first one to do so.

In the meantime, after a few months on this thing, I was asked to work on anthrax. That was a joint British-American project, and my chief really didn't know what he wanted me to do with it. I began to study its growth. At that time, it was grown and harvested on agar medium. These organisms were grown on agar, and you simply vacuumed them off the agar surfaces. But, there was an enormous shortage of agar.

Lage: What is agar?

Elberg: It's the solidifying agent for bacterial cultures. Instead of broth, you solidify it, gelatinize it with agar. It's an extract of Japanese seaweed, or of seaweed in general. There was a great shortage of this, so I was asked to find a substitute.

This is facetious, but you can see sometimes how things do happen. I had heard that there was somewhat of a pending crisis in the southern peanut industry, and I decided singlehandedly to save the industry, by trying to extract some kind of a gelatinizing material from peanut shells. So I asked the quartermaster in the supply department to get me pounds of peanuts, which I shelled--and kept the nuts for home--and used the shells to make up a mess, which I clarified. By golly, I added this to the broth, the regular bacterial culture soup, and it worked beautifully. It simply worked beautifully by producing a gelled medium.

I was so ashamed of the ludicrousness of the whole thing that I didn't tell anybody, but I simply went to work on my peanut shell medium, until one day the chief of the laboratory came in and asked me what in the world I was doing ordering so many peanuts. It had come to his attention, and nobody could understand. So then I had to explain that this was my contribution to the scarcity of agar. Well, after a great deal of laughing and whatnot, it went on, and it worked beautifully.

Lage: Did others adopt it?

Elberg: I don't think so. I think they decided to stay with agar--what little they could get. It was an interesting sidelight, and absolutely of little use or value, but it showed that one could be independent, for anthrax, at least.

Then I was asked if I would take on the whole brucellosis project, in all forms.

Directing Brucellosis Research at Detrick and Other Army Assignments

Lage: As the director of the project?

Elberg: Yes, and that's when I really started my serious work.

Lage: That was your first introduction to brucellosis? Where had you done it before?

Elberg: No, I had begun that before I went into the army. As an instructor, I had begun. K.F. Meyer had said to me one day, when we were coming across the bay--he had just made a very major discovery that the *Brucella* organisms principally spent their lives inside the cells of the infected animal or human. They were intracellular parasites, which accounted for a great deal of the explanation of the problems and which explained much of the mystery of brucellosis, its illness, and some of its pathological changes. And he said, "You know, if this is correct, and it is an intracellular parasite, then there is a whole new field awaiting you, if you would study the immunity to intracellular parasitism. From my studies, it is the mononuclear cell in the blood, and not the polymorphonuclear cell, which is the major defense cell in the human or animal, that disposes ultimately of the *Brucella* organisms."

So he said, "Why don't you think about it and try to be interested in that?" And I said, "Yes, that strikes me as very interesting and very basic, and I will start by studying the nature of the mononuclear cell." Well, I had just gotten started, and then I had to go off to the army, and that was that until '43.

Lage: Did they know of your previous work? Is that why they chose you, or just coincidence?

Elberg: No, it was pure chance. Nobody else wanted to work on the *Brucella* that I could find out, because they were so afraid of getting the disease in the laboratory. Next to tularemia, it was the worst laboratory infection.

Lage: Easier to catch, or the worst disease?

Elberg: You acquire the disease by becoming infected while working on the organisms.

Lage: I see. I mean, is it easier to catch than the other things they were working on?

Elberg: Oh, yes.

Lage: More contagious.

Elberg: Well, it wasn't contagious. It was just easier to be infected as a laboratory worker.

Lage: But this didn't bother you.

Elberg: No, it didn't. I suppose that if I had known what was going to happen in my project, it might have, but I felt that reasonable skill in manipulations in the laboratory, which I had been well taught because I had always worked on pathogens--*botulinum* and so on--would take care of that. It just didn't occur to me.

So the first thing I did, in the beginning of '44 when I received this project, was to study its growth, because it was a very temperamental thing to grow. I studied first the growth of the thing and took a hint from the other projects, where I noticed in their large-scale growth--these organisms had been worked on for decades--they always pumped sterile air into the cultures.

I decided to see what that would do with *Brucella*. It had never been done, and the result was revolutionary. I set up this apparatus, I remember distinctly, one mid-afternoon, with an aerator bubbling air into the culture medium. It was crystal clear, like water, when I left for a few hours. I went out to dinner. I wouldn't leave it alone all night, so I was there most of the night, but I went out for a few hours. Now, normally, nothing would have happened in that culture for twenty-four or thirty-six hours, but I thought, if it's going to work, something might happen. So I went back after dinner, after three or four hours, and to my utter amazement, the culture was already like milk. I said, "Ah! This is a contaminant. This is something from the air that's gotten in this. It can't be what I'm working on." So I examined that culture. It was pure *Brucella*. And I had never seen anything quite to that extent. It had grown like mad.

Lage: Just from the infusion of the air?

Elberg: Just the air, you see.

Lage: Did that indicate something significant?

Elberg: That indicated that the turnover of nutrient materials was so much faster in the presence of added air than in the stagnant conditions that usually went on, and this was responsible for

decreasing the time needed for one cell to divide into two. In other words, the generation time was reduced from about an hour to about ten minutes. I was working at that time in collaboration with a young woman bacteriologist, Dr. Emily Kelly, and we both saw this thing together. She happened to be working that evening, and when I said, "I think I have a breakthrough on our project." This was the first step that's needed, to get sufficient growth, so we went on together on that.

There were two other people in the project who were interested in enormous amounts of *Brucella*, because they wanted to get immunizing fractions out of the cells. I went on to confirm it over and over and to learn what the conditions were actually to get the most growth. What we were getting was something like two hundred billion cells per cubic milliliter, whereas normally, one might have had a million. It was very important. That was a breakthrough that we needed for many other approaches.

There were two things that had to be studied. One was whether this organism could be used as a respiratory agent. Brucellosis, up to that time, was known to be acquired by drinking milk from infected animals--cattle, goats, sheep--or eating the soft cheeses made from that milk, or by skin contact--by spilling, or by the farmer taking part in the birthing of an infected lamb or heifer, where the *Brucella* organisms are just spilled all over the premises. The infection takes place through abrasions in the skin, or via conjunctiva. It had not been demonstrated that it might be inhaled, and I had thought this would be a remarkable thing, if the respiratory tract was a new portal of entry.

Lage: Did anything give you the idea that it might be?

Elberg: No, there had been no signs that in natural brucellosis primary infection of the respiratory tract occurred although it was shown by others that the *brucellae* could invade the lungs from other internal sites. It didn't start to grow there, but it was picked up there and carried to other parts of the body, where it did cause trouble.

Now, at that time, the British scientists, Lord Stamp and Dr. David Henderson, came over to Camp Detrick from Porton, near Salisbury, England, to liaise with the Americans. They had been studying this organism, too, so we joined forces. I met Dr. Henderson and Lord Stamp quickly, and Dr. Kelly became a very great friend of David Henderson's. That increased our chances for contact, and when I showed Henderson the nature of these new aerated cultures and the growth, he, too, was astonished, and he

said, "Then it's ready for us to study in the respiratory chamber."

Well, that put me months ahead, if he took it on, because they had developed an aerosol technique and were masters of it. He arranged, with the group that he was in charge of at Detrick, to take our cultures and demonstrate the respiratory pathogenicity for guinea pigs, by having the guinea pigs breathe from a cloud that was passing in front of their noses. Again, the results were amazing. It turned out, contrary to expectation, that *Brucella* were very hardy organisms and not the delicate little things that we thought they would be, from growing inside animal and human cells. Here they had been growing in test tubes, and they were as tough as the typhoid bacillus. They could withstand exposure to the environment and unfavorable conditions. It was obvious very quickly that one whole area of my project had been solved, for the purposes of the war. It needed only further development, which others in the laboratory did.

The second question, obviously, was what about the defense against such an organism? And there was the immunity, and there was my basic interest from Berkeley "coming out." I was given additional staff to help work out possible immunization. That was assigned to Phillip Manire, who later came to Berkeley for his Ph.D., but his interests fitted the Hooper labs so I sent him over to get his degree with K.F. Meyer. He's become, since then, head of the department at Chapel Hill and then Vice-Chancellor for Medical Affairs and Graduate Affairs, and he's just retiring after a fine career in teaching and research in virology.

Lage: He was without a Ph.D. then?

Elberg: No, he didn't have a Ph.D. at Detrick. He came to us as a young naval officer from Wisconsin and Texas. Phillip was a "natural" in the lab. He started to think about how to make a *Brucella* vaccine. He adopted the methods used in virus work, by growing the organisms in the embryonated egg and trying to do for the *Brucella* what had been successfully done for the *Rickettsia* of spotted fever and typhus, and of other rickettsial diseases. We didn't get very far. We just simply did not. It wasn't responding, because we were thinking in terms of a dead vaccine. Well, eventually, the war ended, and the project had succeeded only in the area of production and not the other. That left the lifetime of work for me to do.

Lage: To work on the other area of immunity.

Elberg: Yes.

Lage: Were the lab facilities and the organization conducive to a lot of creative work?

Elberg: Oh, yes, you mean at Detrick? Oh, yes, there was nothing lacking. There was nothing available that you couldn't have or get. There was plenty of manpower. There were also plenty of laboratory-acquired infections in my project.

Lage: Of brucellosis?

Elberg: Yes. Not as many as on the tularemia project, where I think they had a 125 cases among the staff. And I've forgotten what I had, around nineteen or twenty, but it was a serious problem because of lack of specific agents for treatment.

Lage: And is it a treatable illness?

Elberg: At that time, it really was not. It just often burned itself out, but not always. It was not a fatal disease, strictly speaking. But it caused long weeks of invalidism, and some people never did recover properly from it and were chronically ill for a lifetime.

So, back to Berkeley. With the end of the war, the government decided that the scientists at Detrick could publish some of the results of their work.

Lage: Did it have to be cleared?

Elberg: Oh, I think the papers had to be cleared by the army, but there was very little that wasn't cleared. I was able to report the nature of my work without any restrictions in the *Journal of Bacteriology* and elsewhere. My colleagues and I published joint papers of our other sides of the work there, and so forth. So, as I say, professionally, it was a plus. I did as if I had been home, in a way.

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Lage: You did the kind of work you would have done as if you had been at home?

Elberg: Yes.

Lage: But perhaps you advanced a little faster than you would have at home?

Elberg: There's no question of that. There's no question I would never have accomplished anything like it.

Lage: Was there more cross-fertilization?

Elberg: Absolutely, yes. We had a building the size of this floor, and after you entered it through all the safety locks, and changed your clothes and did all that, and went into the labs, then it was like one big group working together, and we just simply worked together. There was complete exchange--arguments about how to do, what to do, and so on.

Now, of course, being an instructor, I'd kept up contact with Dr. Meyer and Dr. Krueger, and when I returned, Meyer was as well-informed about what I was doing, because he was on the particular committee of the National Academy of Sciences that oversaw all of this, the entire national operation. So he knew, and I had visited him on my somewhat frequent trips to San Francisco.

There had been a time when I was asked to interrupt my work at Detrick, because the Japanese were sending over strange balloons, which were carried on the currents of air to the United States and Canada. These balloons would eventually land wherever, and a family or two, who happened to come upon them in the woods in Canada, I believe, or the northern United States, found them, didn't know what they were, of course, and were handling them, and they exploded. It was thought that they might have been bacterial warfare weapons sent from Japan. It later turned out they were anti-personnel weapons. They were intended to kill people. Well, they flew over in enormous numbers, but most of them landed and were lost forever in forests and the far North. An occasional two or three landed in California, which, of course, not knowing what they were, scared everybody half to death.

So I was ordered from Detrick to come out here and determine whether they were bacterial warfare equipment. Well, that was a most awful, boring three months. I sat in an office, in the Presidio at San Francisco, almost twenty-four hours a day. I was always afraid to leave, for fear there would be one of these reports. And then I'd have to go with everyone else. We would be flown to the area where a balloon had been sighted, but most often you had eventually to make your way on foot, in these wild places, to come upon them. It was simply nothing but a circus.

Lage: So you did have to make some trips like that?

Elberg: I had to make trips, two or three of them, from the Presidio with the team. The commanding general of the Presidio, who had a Congressional Medal of Honor from the campaigns in Italy, would not hear of the clothing precautions I was asking the team to

take, in case this was bacterial warfare. He found them all just too distracting, and he wouldn't. So we just had to take our chances from a safety sense.

Well, one look at the thing, and it was clear there was nothing of B.W. [bacterial warfare] involved. I had the great help and support of the naval lab in Berkeley under Dr. Krueger who were the prime ones to do the analyses if anything should develop. So we worked together on that. I finally said to the people at Detrick after three months of this enforced sitting with nothing to do but wait for a call, that there was no point. I was coming back. The Berkeley lab could handle the matter entirely. That was all, so I was coming back. And I did. They gave me my orders, and I returned and got to work again. It was for just a short time, and then the European war was over. I was reassigned.

Lage: Did you then go to the Naval Lab?

Elberg: On leaving Detrick I was assigned to De Witt General Hospital at Auburn, California, only to find on my arrival that it was in the process of closing down. So I talked by phone with my section in Washington and was assigned to the Naval Medical Research Lab on the Berkeley campus under Krueger, a most ironic assignment. I worked there on aerobiology until June 1946, when my time for discharge from the army arrived. This was eventually processed back through the Navy to the Army, and I returned as a civilian to the University department in July 1946.

The work, which I discussed regularly with K.F. in person, when he would come East, he was familiar with, and so it was decided that one of the best things I could do after my return to Berkeley would be to find out what the nature of *brucella* immunity was, where it was located, and so that started in '46 and never ended until my retirement.



III RESEARCH CAREER: LIFETIME WORK ON BRUCELLOSIS

Continuing Relationship with K.F. Meyer

Elberg: I think that the work with K.F. is important--that is, the contact. He only stayed on as chairman of the Department of Bacteriology until the end of the war, and then in September of '46, he resigned the Berkeley chairmanship and turned it over to Krueger. He and I kept our contact for the rest of his life. We would lunch every two weeks together at his club in San Francisco, or I would invite him to the Palace Hotel or some equally elegant place. We had our scientific meetings, our sessions, over lunch, and cigars, and everything. It was a perfect friendship up to his death in 1974.

You asked about my first two papers. Those first two papers were my doctoral dissertation, prepared for publication. Of course, I had him as co-author as an acknowledgement of the help and support that he gave on the scientific side as well as the moral and other support. The two papers in '51 and '52, again, were in acknowledgement of his deep interest and his availability for me to go and talk to him. Much of the discussions we had contributed to the work, but he didn't do any of the physical or the laboratory work.

Lage: Was he an idea man, sort of?

Elberg: He was certainly an idea man, and he also was able to make certain materials or equipment available to me, in the very beginning. You see, that was before the NIH system of grants. That started around '47, and he was on the national committee, the Health Advisory Council, which created these grants, and let me know at once that they were coming and that I should apply. I guess in 1948, I received my first NIH research support, which continued to 1970. I guess it was one of the longest uninterrupted research grants, being renewed, first, every three

years, and then every five years. In fact, it was probably in the beginning renewed every year. Then they went to a three-year span and then to a five year.

Lage: That must have made a big difference, having that steady source of support.

Elberg: It was a tremendous difference, and I had made the money go a long way. I was modest in my requests, and so it worked. It gave me the chance to support a graduate student or two. I did my own work. The ideas I bounced off K.F.--sometimes he didn't agree. I knew he yearned that I repeat some of the old methods, which I felt had been passed by and were no longer worthwhile procedures--laborious old-fashioned methods of picking colonies and studying each one. That just didn't seem to me to promise much. He was very good. He was very open-minded. That was his great nature, to be open-minded and to accept other ideas and not to insist, even as a friend.

I began to attack the problem by trying to get out what I thought would be the immunizing substances from inside the bacterial cell, and I worked with my students on that for three or four years, studying the different fractions and their ability to immunize.

Lage: The different fractions, did you say?

Elberg: Yes, the different fractions, the different portions of the insides and the surface of the bacterial cell. There were mixtures of proteins and lipopolysaccharides. There were also polysaccharides and all different kinds of chemical substances and materials, and we tried them all to see if they were immunizing. They were just very modest in that capacity.

Brief Return to Detrick

Elberg: Finally, around 1952, after I had come back from a stay at Detrick to accomplish some work there--no, let me back up there. I had become somewhat discouraged with my work, and I had had an offer from one of the division heads at Detrick in the civilian times, to return as a civilian scientist. I decided, foolishly, to give it a try, and I took a leave of absence.

Lage: When was this?

Elberg: From August of '50 to March of '51. I went back there to do this special study, and I quickly realized, after looking at it in an exhaustive way, I had made a dreadful mistake. The project that they were interested in having me study was nonsense.

Lage: Brucellosis-oriented?

Elberg: No, it had nothing to do with brucellosis. It had to do with coating bacterial cells with substances that would increase their resistance in nature. I thought, at the beginning when he talked to me, that it was a very interesting, basic kind of a subject, to learn about surfaces. But it turned out to be a study of the vagaries of a particular apparatus, which they had gotten themselves hooked onto by some political "flim-flam-flummery." I was stuck with this instrumentation and knew nothing about it. I was not mechanically inclined, and I decided that was it. I couldn't stand it. I told them I was leaving in February, back to Berkeley.

It was a decision that was not well-received. In fact, the two heads of Detrick were very angry with me. They were old friends from the war days, but they were angry that I had come while on a leave of absence from UC. And I left in March. That following September, I met one of the former heads of Detrick, Professor Woolpert of Ohio State University at the annual meeting of the bacteriologists, and he said, "Well, Sandy, I flew the coop right after you did." And I thought, "Well, after giving me the very devil, that is interesting." It was obvious it was not going in the right direction. After the war, the civilian direction was very poor for a while.

Problems of Developing a Live Vaccine for Brucellosis

Elberg: While I was at Detrick, around December or January, 1951, I had an idea of how to attack this problem completely anew. You can see I had been thinking brucellosis when I shouldn't have, and I was consumed with it. I knew I was going back, and I had decided what I was going to do. I decided on what my next project would be in getting at this immunity. It was an intracellular parasite, I reasoned, and I suspected although it doesn't necessarily follow logically, that this disease will never respond to anything at this time of development except to a living vaccine, but weakened in its ability to cause infection.

So I decided the way I would weaken it would be to obtain or prepare a *Brucella* organism that actually required streptomycin

to grow on. The idea being that as long as streptomycin was in the environment of this bacterium, it would grow. If I stopped the streptomycin--if I didn't give it anymore into the culture or into the animal--the organism would stop growing, because it required it. I could therefore cut off the infection anytime I wanted.

Lage: Was that a new approach? Had they tried it in other diseases?

Elberg: It was a new approach, yes. I got the idea, at least, that a streptomycin dependence did occur in the case of the primary organism causing meningitis. The professor of medicine at the University of Chicago had discovered that he could isolate streptomycin-dependent meningococci from cases he was treating with streptomycin. These were growth-dependent on the streptomycin. It occurred to me then, "Well, I could try that." "That's the way to do it," I thought.

Now, when I got back--and I had a very fine graduate student, Mendel Herzberg--I asked him if he would take on as his doctoral work the isolation of a streptomycin-dependent *Brucella*. The genetics of antibiotic work had mushroomed, so the techniques for doing so were easily available. As he prepared them, he and I would study them for their ability to immunize. He began to isolate on a gradient slope--where the thick end of the slope had the more streptomycin--*Brucellae* which were growing on less and less antibiotic. He found, in a certain zone, that the organisms he had cultured did indeed require streptomycin for growth, and he isolated several in pure culture.

We studied them in guinea pigs, and, my goodness, they were very promising. The whole idea was very promising. We were injecting them into the guinea pigs and then injecting streptomycin for as long as we thought it would take the immunity to develop, and then we'd stop. Of course, our control animals were just receiving these streptomycin-dependent organisms but not getting streptomycin. They had to fend for themselves, and we found out that, indeed, we didn't need to inject the streptomycin. The organisms had enough "push" in them to survive. You might say they still had enough virulence without the streptomycin to go along, grow enough, finally die away, but leaving the guinea pigs with a reasonable degree of immunity.

Well, the guinea pig is one thing. Humans, cattle, sheep, or goats are still another. Herzberg and I then spoke to Dr. Meyer, because I was interested only in goats and sheep immunity. The cattle immunity, I felt, was in the hands of the U.S. Department of Agriculture. That was their main goal for veterinary work, to rid the country of cattle brucellosis. There

was no point in setting up a competing immunization or vaccination project. They were working on cattle, and they were working on the kind of *Brucella* that infects cattle, called *Brucella abortus*.

Lage: It's a different strain?

Elberg: Different. I had decided early I would have nothing to do with *abortus*. I was going to work on a goat and sheep organism, known as *Brucella melitensis*. I went over to see K.F. I knew he had goats. He had goat facilities in the back of the medical school, in the hill, a concrete, walled-in place, where you could keep a small herd of goats. He was excited. He turned this whole facility over to me. He bought the goats, even, because he knew the healthiest could be imported from College Station in Texas, at Texas A&M University.

Lage: Why were these the healthiest goats?

Elberg: They were well-raised. They were completely free of any brucellosis themselves, which would have complicated my problem, if I had goats already infected with brucellosis. He knew the head of the veterinary station, and everything worked out. They were shipped out by train, and Mel Herzberg, Ken Faunce, and J.G. Cunningham (my technician) would meet them at the Southern Pacific Freight Station in Berkeley. They always arrived in the middle of the night in Berkeley, and they would have a truck and haul them over to San Francisco to the Hooper Foundation.

So we started with goats over there, and Mel and I worked on them with Faunce and Cunningham. The goats didn't share the same enthusiasm for this vaccine that the guinea pigs had, and I was a little bit crushed. I was writing my story to my friend, David Henderson, in England at Salisbury, and told him our results in the guinea pigs and the goats. He said, "I'd like you to come over here to Salisbury. I'll provide the monkeys, and let's see if we can immunize the monkeys, which would be something analogous to the human, and challenge them by the airborne route." He was still hot on the airborne route. "Let's do it that way--vaccinate them and then expose them to this route."

So I wrote to my friends at Detrick and said, "Would you be interested in supporting this trip of mine?" And they were. I spent three months. I took the family over in the summer of '53, ten days after the coronation of Queen Elizabeth and still in meat-rationing days, and David got us a house in the Cathedral Close--that is, within the borders of the Salisbury Cathedral itself. I went to work at Porton, and he provided everything.

Over the summer we did the immunization, and then they gave the infecting dose after a certain time.

They said they would do the examination to see how the monkeys came out, and a few months later I got the report that the immunization had failed. It had not worked well with the monkeys, and I thought, "Well, I know the reason, I'm sure." I thought, "The reason is that this streptomycin-dependent organism somehow is too weakened. It just doesn't stay long enough in the vaccinated animal to give the jolt that's needed for immunization."

So I went back to Mel Herzberg, my graduate student. I said, "Mel, what we need is to get, in the terms of genetics, a reversion of this dependency back a bit--not so that it's dependent, but maybe independent of streptomycin, but be a weakened organism nevertheless." The techniques were all available to study that reversion, or further mutation, as it ultimately turned out. He selected ten colonies that grew out from the streptomycin-dependent strain without streptomycin in the medium. He was able to get ten colonies that were growing independently of it. We studied each of those in the guinea pigs. The first one proved to be unbelievably effective in the guinea pig. We were getting 80 and 90 percent protection.

Lage: But they still wouldn't go on to kill the guinea pigs?

Elberg: They were still not going on. These vaccine organisms disappeared in about three to six months. The animals were not diseased, et cetera. But they began to show really solid immunity. So I said, "Now, for the goats again." This time, I was not going to carry on, running back and forth to the medical school, besides which, they had had a disaster after we had left, that had nothing to do with us. But when they got other goats in after our work, cases of Q fever, another disease, began to occur in the hospital, among the staff. Apparently, what had happened was the animals that they had brought in were infected with this Q fever.

Lage: And it carried to the staff of the hospital?

Elberg: Yes, there was quite a to-do. I was not going to be bothered with the commute anymore. I persuaded the University, then, to give me a small plot of land where the Lawrence Hall of Science now exists, probably the premier spot of land for view in the entire campus. I was able to get an old, one of these things from the war--what do they call them? A kind of semicircular building that was so common?

Lage: Quonset hut?

Elberg: Quonset hut. I got a Quonset hut given to me, and I was assigned a site up there. The Quonset hut was installed. Water was piped in.

Lage: Did the University pay for all this?

Elberg: Yes, and we established a good goat colony up in the canyon.

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We established ourselves up there and began to get goats from College Station, Texas.

Lage: Without Q fever, I hope.

Elberg: No, absolutely clean. My general laboratory assistant and technician, Kenneth Faunce, just was heroic. He and my animal caretaker, John Cunningham, were utterly heroic in their ability to get this thing organized, the goats properly handled, the premises cleaned, et cetera. It was excellent.

We started an immunization program with what I called "Rev 1," or the "number one reversion strain." This was in '54 to '55. Well, I couldn't believe the results. We had 90 percent protection of the vaccinated goats against 100 percent infection in the unvaccinated goats. Of course, that experiment took about a year, and I published it in the *Journal of Bacteriology* in 1956.

Demonstrating the Effectiveness of the New Rev 1 Vaccine in Spain

Elberg: I must say, all hell broke loose around the country and the world. The first thing that happened with the publication of these results was that I received an invitation from the veterinary surgeon general of Spain to come and spend a year in Spain under his guidance and support, to demonstrate the effectiveness of the vaccine on Spanish goats.

Lage: Did you feel it was ready at that point?

Elberg: Oh, yes, it was just what I wanted to carry this into the field after another check at home, which we did. The same thing happened. So I wrote now to my friend in the World Health Organization, which is another story, of course, but I wrote to Dr. Martin Kaplan and said I would only go to Spain if I was

under WHO [World Health Organization] sponsorship.

Lage: Why was that?

Elberg: Well, I just didn't want to be in Spain without some neutral protection. I just didn't know about this place.

Lage: Because of the politics of the country at the time?

Elberg: The politics of the place and whatever. I thought, "If I'm going to a foreign country, I'd better go under United Nations WHO auspices," so that I'd have some protection. WHO was most agreeable to help this project. They had known all about it, and that's another story, but to continue this thread, I took my one and only sabbatical and received a Guggenheim Fellowship for the year. I took the family. I had been invited to go and visit first, by Dr. Pedro Carda, the veterinary surgeon general, so before I went, there was a meeting in Geneva to discuss my pending trip with several consultants. We talked out what I would attempt to do. And from Geneva, then, I was to proceed directly to Madrid to meet Dr. Carda and the Spanish authorities. I was well prepared, and the hospitality from Dr. Carda was utterly overwhelming. I was housed in the Palace Hotel in Madrid.

Lage: Was this with your family?

Elberg: No, I was alone. Then, he said, "Now, I'm going to take you on a trip through the goat-raising areas of Spain, and in each place you will be shown the facilities that you would have available, and you can make your choice where in Spain you would like to set up your laboratory." That was like something out of the Arabian Nights, that trip by Mercedes car and chauffeur with Dr. Carda and his assistant, and we traveled down to the south of Spain into goat country, Andalusia.

We went to all of these famous communities, and villages, and towns--Cordoba, Seville, Granada, Jaén, and so on. And in each place, it was like the tour of a visiting potentate, Dr. Carda being the head of all veterinary matters in Spain. It was his official tour, and each of these places tried to outdo each other in the hospitality they showed us, and the banqueting. It was unbelievable. Utterly unbelievable. In the meantime, when we weren't eating and drinking, I was out looking at the health facilities, the veterinary facilities, and the labs.

Finally, as we made our way, it was clear to me that it was the city of Cordoba, the old capital of the caliph in the Moorish times. Cordoba, it seemed to me, had the best building for the

health department. They had the biggest area for us--a complete floor for us to set up shop--and they were all ready to provide veterinarians and lab technicians to set up a completely functioning brucellosis diagnostic laboratory. This was their opportunity, while having me, to have themselves fitted up to become a brucellosis laboratory for the region.

Lage: At some point, we need to make clear what brucellosis did--what its impact was.

Elberg: The reason Spain and many other countries were so interested in having this demonstration carried out was that they had a perfectly terrible brucellosis problem in their goats and sheep. Probably 90 percent of the flocks at that time were infected.

Lage: I see. And that wasn't the case in the United States?

Elberg: No, we had no goat brucellosis in the United States. It was a disease of Europe, Africa, Asia, the Far East, Central and South America. Now, the disease in animals has two basic consequences. It causes the abortion of the young, thus a loss in animal stock. During the time that the mother animal is infected with the *Brucella*, the milk production drops, so there's an economic loss in milk, and butter, and cheese. The losses in those days were enormous. They were enormous in the United States in the thirties, forties, and fifties, from the disease in cattle, because of the loss of livestock from abortion and the loss of food products, et cetera.

Now, second to that is the fact that where there is animal brucellosis, there is human brucellosis, because humans will drink the unpasteurized milk. They will make cheese and butter from the unpasteurized milk. The male members of the population, the farmers, will be handling the infected animals, the aborted placentas, and the afterbirth tissues; the animal, in aborting, sprays the ground with all this infected fluid. It's a miracle when the human caretaker doesn't come down with it eventually.

The illness is very severe, especially with the *melitensis* variety. It's a very severe disease. It's not fatal, but I'm sure most people wish it could have been at some time. Pre-antibiotic times, and in areas where there are no antibiotics, it can last for months or even years. There are internal complications that may affect every organ of the body, such as bone abscesses, liver abscesses, spleen abscesses, heart disease, brain and spinal column disease. Wherever the organism goes, it sets up an abscess of some sort and causes havoc. It's a disease that, when it's not complicated, is like a very severe influenza with polyarthritis in all the joints, terrible headaches,

prostration, sweating, fever, et cetera--a very debilitating disease. Of course, when the antibiotics came, that was a miracle. Aureomycin was the first, followed by streptomycin and terramycin.

So of course, Spain was interested. Italy had the same problem. France had been struggling with it for decades. When Dr. Carda read my paper in the *Journal of Bacteriology*--an assistant brought it to his attention--he issued his invitation to me. So we selected Cordoba, told him what was needed, and he promised to get everything ready. The health director and veterinary faculty of the province of Cordoba seemed most welcoming.

I don't want to take up all the time on Spain, but we went as a family. They obtained a house for us in the hills, where it was a little cooler--a lovely farmhouse with a family of servants, and with a swimming pool and an olive grove. I couldn't use the swimming pool, because when I filled it up once, and had all my swimming pool disinfectant sent from Berkeley, I noticed one day that all the farm workers who came by would stop and urinate in my perfectly clean pool. I emptied it, and that was the last. We never got to use it once!

Anyway, the work was catastrophic in one sense. It was so hard. They had ideas of their own of how to supply my needs. Well, I should start with the impossibility of getting my laboratory equipment from Berkeley through the Spanish customs.

Lage: Even with all the support that you had?

Elberg: With all the official government support, there is no handling the Spanish customs, which I didn't know of and was not going to--

Lage: You have to explain that.

Elberg: You have to bribe them. I sent the materials from Berkeley in plenty of time, and they arrived at the port of Málaga. I waited and waited for them, and they never came to Cordoba, which was just a few hours' drive. I would get one reason after another. So, finally, one day I decided to take my native Spanish associate, Dr. Esteban, and my wife, and we would go to Málaga, visit the customs, and try to get them released. There was a refrigerator that was sent from the lab, along with the other equipment that we needed.

We drove to Málaga in an absolutely blinding rainstorm. Málaga, when we arrived, was completely flooded. The hotel where

we had reserved space was closed. It was flooded, so they sent us to another. We finally were settled in, and then Dr. Esteban and I went over to the customs department. We couldn't have been more warmly received. He and they were talking, it seemed to me, for hours in the most jovial, cordial way, but the stuff never could be released.

Lage: You didn't speak Spanish?

Elberg: I said, "What is the matter, Emiliano?" Well, he said, "I don't know, but they are stuck on one item. They don't want to release the refrigerator, and they can't hold that alone. They have to hold everything." I said, "Why don't they want to release the refrigerator?" He said, "They're afraid you'll simply sell it to some Spaniard." Well, I said, "Give them every assurance." So he did--oh, yes, it would be released. We went back, thinking it would be coming. That was October. We had arrived in September. Nothing came in October, November, December. I wrote to Dr. Carda, finally. Dr. Carda himself went down to Málaga, and according to his deputy, he paid the customs under the table plenty for the release, and told me later it was perfectly normal. Normal. "Stupendo," he said. "Stupendo" was the term.

It came. He finally got it out.

Lage: It took three months, though.

Elberg: It took three months! Now, in the meantime, we had to work with the local equipment. The electricity in Cordoba went off every day at four in the afternoon, and I said, "Now, we have just so much time. We must get this experiment underway. We know the stuff is coming. I want the goats purchased."

I left it to these veterinarians that I had working for me to purchase the goats. The goats arrived, and a sorrier lot of goats you never saw. They had been underway on a truck, in a driving rainstorm, for forty-eight hours. Half of them were coughing--obviously had pneumonia. They unloaded them, and the next day, I began to count the dead ones. The veterinarian said, "Well, you can use the rest." I said, "Well, these animals are not fit for any kind of experimentation. I wouldn't trust any result!" So he said, "Well, what'll we do with them?" I said, "What do you normally do with them?" He said, "We'll sell them at the local slaughterhouse." I said, "You just sell these diseased goats?" He said yes.

Well, I decided not to say anything. This was custom, and I had learned that there were Spanish customs that you simply

didn't question. So I said, "Well, I've got to have another set of goats, and they have to come here properly," and made a tremendous fuss with the director, who began to dislike me immediately, along with his local staff. I said, "I can't work with these goats. They're all dying!" So they got rid of them, and they said, "We'll get better goats."

What they had done, I think, was to have succumbed to a little bit of flim-flammery, and they had accepted for sale what you would call "culls" from each of the farmers--goats he didn't want. Oh, good enough for the lab, you know, that weren't very healthy even on the farm. I don't know the difference in price--where it went--but Dr. Carda was paying for all this, and I wasn't about to inquire, because I wouldn't have been able to speak to them. I didn't have enough Spanish anyway, which was a handicap.

Lage: Did you have anyone, sort of, on your side?

Elberg: I had Emiliano. Emiliano spoke both English and Spanish and was my go-between. He was a young veterinary graduate. The next set of goats came, and that was different. They were a delight. So we got to work, over the months, and we began to get our equipment regularly. The experiment went on very well. It came time to infect them to see how immune they were, and we did that.

In the meantime, there's always a lot of waiting in brucellosis, weeks of waiting until this step was ready, so I began to set up their diagnostic laboratory for them. They began to learn all the procedures, and they carried out surveys of the numbers of infected flocks in the Cordoba region. I taught them the laboratory tests, and so on.

Lage: Were they receptive to this kind of guidance?

Elberg: Oh, that's what they really wanted, yes, because clearly, they were the target to become maybe a national Spanish brucellosis center. It didn't work out that way for them, because they were simply incompetent. Dr. Emiliano Esteban, who was my assistant, went back to his native area, and he did get the national laboratory after some years of experience around.

Anyway, the experiment was completed. The animals were tested. Before we left Spain, I came down with brucellosis, and I had to treat myself. Considering the conditions we worked under, we did very well on this.

Lage: Were your animals well immunized?

Elberg: They were well immunized. They could have been better. But under the conditions we worked under, I think it was the best we could get. It was my turn, then, to get some treatment, and so I returned to London, where I knew a specialist. I was treated, and eventually, we returned to Berkeley.

Lage: Did you have a bad case of it yourself?

Elberg: It was quite severe, but it ended.

Lage: So you can speak with authority when you describe the symptoms.

Elberg: Yes, indeed.

Lage: Has it been a recurring problem?

Elberg: No, it was well treated so the infection was cleared up, but it left me with an allergy to brucellar products. The Spanish venture was successful as a good demonstration under the worst conditions. The point was, here's where international politics enters in. I learned a bitter lesson. You can never carry out an experiment of this kind, if it's only carried out and sponsored by the veterinary animal authorities. The human health people have to be involved. They were not.

There was this sharp split in the Spanish hierarchy of health, between veterinary and human, and Dr. Carda apparently did nothing to bring the human people in, or they were not interested. I never knew. The result was that when I left, thinking that Spain would carry on the brucellosis control campaign with the new vaccine, they did nothing. It was as if I had never been. I never could understand that. It is now, about thirty-two years after we left, that Spain decided that the vaccine was to be used as a national vaccine. Dr. Esteban, I think, was the one to bring the campaign along eventually, but he recently died.

But this latest affirmation was helped by the fact that Spain was influenced by the European Economic Community, the EEC, which some years earlier had given the go-ahead to their member countries--that they were to go ahead with *Brucella* vaccinations of this sort. Spain, if it wanted to be in the community, had to come along.

Lage: Were they using a different sort of vaccine?

Elberg: No, they weren't using any. They had the knowledge. For thirty years, they sat on it. Meanwhile, the other countries--Italy, France, Malta, South Africa--all took it on, demonstrated to

themselves its usefulness, and adopted it. The results in Italy were fantastic. They created a zone right down the whole Italian country that was free of brucellosis, as a result of Rev 1, in goats and sheep. I think that Italy and other countries were interested and persuaded the EEC. The success in Spain, which I published with K.F. Meyer, persuaded WHO that it was the vaccine of choice, and the Expert Committee on *Brucella* in WHO began to take a real interest in it.

Worldwide Acceptance of Elberg's Vaccine

Elberg: The result of Spain was immediately noticed. It was in '63 that the WHO Brucellosis Committee decided that it was time to recommend Rev 1 for wide study throughout the world, for experimental reasons, to check it. In 1970, seven years later, the Brucellosis Committee decided to accept the vaccine as the one it would recommend to the world. Now with the '63 decision, WHO and the Food and Agriculture Organization [FAO] in Geneva and Rome came together to have a Mediterranean region symposium on brucellosis, to be held on the island of Malta, where Sir David Bruce discovered the *Brucella* in 1896 when he was head of the British Royal Commission, to find the cause and means to control brucellosis in Malta because of its danger to the military and naval forces stationed on the island. Malta was delighted with the conference idea as a counterweight to the idea that it had always been associated by name with the disease, Malta Fever.

Lage: Oh, that's the common name for it?

Elberg: That was the name before the term brucellosis. It was felt unfair to Malta to stigmatize them. Malta hosted this wonderful Mediterranean regional conference, in which scientists from both sides of the Mediterranean came together on Malta for a symposium, which WHO had intended should be the opening move in getting their acceptance in the Mediterranean region for the use of the Rev 1 vaccine.

Malta decided that it would require goat vaccination with Rev 1. It had funded a laboratory for brucellosis ever since the Bruce days and since 1960 had supported a voluntary eradication campaign led by Dr. Godfrey Alton under FAO auspices. Malta was a "natural" for this effort, and the law requiring vaccination of goats and sheep led to many other Mediterranean countries becoming similarly interested. Earlier, South Africa had independently demonstrated the usefulness of this vaccine and put it on public sale for their animals.

So it began, and after Malta, Israel and Iran followed with large programs of study and field work. Then, Peru and Argentina became interested and invited me and Dr. Alton to demonstrate the efficiency of the vaccine and to speak at a national symposium on brucellosis. And, since all the Central and South American countries sent representatives, the effort began to spread.

Lage: In the meantime, were there competing methods of dealing with it in various countries?

Elberg: Yes. In those countries such as New Zealand or Australia where no *Brucella melitensis* infection occurred in nature, Rev 1 was not acceptable for fear of introducing the *melitensis* even in attenuated form as Rev 1. There and elsewhere, strains of another sheep *Brucella*, named *Brucella ovis*, were employed.

Then, there were the claims of the Russians, who preferred a variety of the cattle vaccine, but they, too, eventually accepted the Rev 1 strain.

Lage: So Rev 1 was the only *Brucella melitensis* vaccine that really had been demonstrated?

Elberg: No. A living strain of *Brucella melitensis*, strain H38, had been long used in France under the guidance of Professor Renoux, but there were practical objections to its use in animals, except possibly where areas refused to admit having *melitensis* bacilli and the difficulties with H38 were accepted.

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And so, gradually, Rev 1 extended itself through the recommendations of FAO and WHO. A huge project was introduced by the People's Republic of Outer Mongolia, which borders Russia. A massive vaccination has been carried out on millions of animals with great reduction in human and animal infections and so on around the world. Italy and most lately France have been using it according to new laws prompted by the strict requirements for brucellosis-free goats and sheep promulgated by the EEC.

Lage: Most lately?

Elberg: Well, France came along a few years ago.

Lage: What took so long?

Elberg: There were, I think, national products (e.g., H38) and pride. But since other vaccines were not in the WHO recommendations, France and more recently Spain recognized, I think, that they would follow the European Economic Community requirements and

thus use the Rev 1 vaccine. I turned over all my materials and cultures to France, and their laboratory is now the source for the Rev 1 vaccine strains that are distributed worldwide to national laboratories. They keep a very close watch on it. In the meantime, they're doing a lot of immunization of sheep with novel methods and quite successfully.

Lage: It's interesting it took them so long, and then they embraced it so enthusiastically.

Elberg: Yes, you never know the insides of the struggles in countries, among their veterinarians, their proponents of one or the other. There were, of course, rival vaccines up for competition, but they simply, after a while, didn't work out. It takes time to disprove the claims of some of that--much is at stake and personalities have to pass on, yielding to younger and less personally involved persons.

Lage: Did the rival vaccines use a different approach?

Elberg: Oh, completely different. One utilized the old-fashioned way of isolating what we call a "rough variety," which had some impact but had certain disadvantages. Of course, Rev 1 has certain disadvantages, but they didn't outweigh the advantages. Among the great disadvantages one had to watch out for was that when you immunized animals, you didn't interfere with the country carrying out its national diagnostic and survey tests for the presence of the infection in the national herd. Vaccination with a living strain has one big disadvantage: it leaves antibodies that are used normally to tell the presence of infection. If they didn't know what they were doing, they would detect vaccine-infected animals instead of naturally-infected animals and to tell the difference was not, at that time, possible. Such results would confuse the surveys. The way to avoid all of that was to confine goat and sheep vaccination to the first six months of the animal's life; in such animals the antibodies slowly disappear.

Lage: Just to back up a minute. What was it that K.F. Meyer was referring to, about a human vaccine, in his oral history?¹

Elberg: Ah, yes. WHO is, of course, primarily interested in human health. It's the Food and Agriculture Organization that is interested in animal health. Well, it so happened that in

¹Karl F. Meyer, Medical Research and Public Health, an oral history interview conducted 1961-1962, Regional Oral History Office, University of California, Berkeley, 1976.

brucellosis, FAO was very, very slow to act in the fifties and sixties, so WHO carried the ball even in much of the animal work. As you can see, they supported all of this. They're the ones that organized symposia and founded much of the research on both animal and human brucellosis.

Elberg: Dr. Kaplan, the director of the Veterinary Public Health Unit in WHO, thought, and I did, too, at the time, that Rev 1 would be worth studying in humans. And so, in 1960, we had a meeting in Geneva to decide the nature of the trial. The leading person to do that was Dr. Wesley Spink from the University of Minnesota, a very famous brucellosis specialist in the human disease. He agreed to carry out a human experiment among volunteers in the penitentiary outside Minneapolis. That was done, but unfortunately, I recommended too high a dose of vaccine. K.F. Meyer also felt that the human subjects should have been utilized at a much slower rate, allowing one or two to be vaccinated, waiting a few weeks to observe the effect and then vaccinating additional persons. Unfortunately, all available subjects were vaccinated at the same time.

What was done was to test both the well-known cattle vaccine, Strain 19 of *Brucella abortus*, which was in widespread use in cattle and which the Russians claimed worked on humans. There was great difference of opinion whether that vaccine in humans would be considered tolerable by Western standards. The general impression was that the Russians, in those days, were willing to accept greater risks to their people from the vaccine than we would have been permitted. It was decided to check the Russian idea of the cattle vaccine and mine.

So Spink did them both, and injected the full recommended dose that we used in animals, thinking that the humans would be more resistant. It was quite apparent, within a week or two of the vaccination, that both groups were going to come down with the disease, so he aborted the experiment by treating all volunteers with the required antibiotics and terminated the trial.

This event showed me that the animal dose of Rev 1 was unsafe for humans. Now, what might have protected that experiment was that if Spink had only injected one person, waited several days, seen what happened, then another one, et cetera, which is what Meyer would have done. Anyway, it wasn't done, and the Rev 1 vaccine idea for humans ended at that moment in Meyer's mind, and in mine. It could not be used at such dosages for humans.

Shortly thereafter my colleague Dr. [Demosthenes] Pappagianis of the UC Davis medical school repeated a human experiment up at Vacaville with volunteers, in a very good experiment which taught much and ended well. We gave very minute doses and worked up to find what was the limit, where they began to feel a bit ill, and then terminated the trial at once with antibiotics. We found that the difference between the lowest dose we used, which was perfectly safe, and an unsafe dose was too narrow an interval. So I concluded it can never be used for human immunization unless it is tried again by the oral route, but that is, in my view, not the way to go. Rather, we must eradicate locally the animal disease, and the human infections will disappear on their own.

Lage: So it has to be controlled by controlling it in the animal.

Elberg: That's right. If you control it in the animals, you do control it in the humans. And, of course, that was the WHO principle all its life: get rid of it in the animals, and you'll take care of the humans. In the meantime, though, there were countries that weren't going to be able to get rid of it, so they had the idea maybe there's some protection you could offer people who are occupationally exposed and give them a vaccine. It was a lovely thought. It still is. Only recently has another laboratory in France found a chemical fraction of their *Brucella* that seems to protect humans, at least specially exposed laboratorians and veterinarians. It remains to be seen how worldwide that practice and material can be exploited.

WHO's Expert Panel on Brucellosis##

Lage: We're going to complete the story of your brucellosis involvement and your work with the World Health Organization.

Elberg: Well, first the matter of the Expert Panel on Brucellosis of the World Health Organization: that panel is composed of people who are actively engaged in research and other activities, such as control and eradication of the disease from animals, and these persons are selected from various countries of the world.

The committee began in 1951 at the conclusion of the First International Congress on Brucellosis that was held in Washington, D.C. It then set up a pattern of policies in its meetings. The function of the committee was to assess what was known and what needed to be known about prevention and control of brucellosis in man and animals. And so, after reviewing all of the facets--the clinical, the bacteriological, the diagnostic, the control, the immunologic, and so on--the committee would then

conclude its sessions by formulating the nature of the research it would like to encourage people in the world to do.

From that point on, the actual administration of the WHO brucellosis program was in the hands of the Veterinary Public Health section of the Division of Communicable Diseases of WHO in Geneva. The Veterinary Public Health idea was the creation of Dr. Martin Kaplan, a veterinarian graduate of the University of Pennsylvania, who during the war had been employed by UNRRA: . United Nations Rehabilitation Recovery Action. Then, when WHO was created, he was invited to join, and he created then this unique Veterinary Public Health Unit, which occupied itself with all the diseases of animals that could be transmitted to man.

Lage: Were there other expert panels, then, on other diseases?

Elberg: This was one of the very first. Then, eventually, many expert panels developed: on rabies, plague, influenza, other viral diseases including smallpox--which, of course, was the triumphant panel because it led recently to the practical worldwide eradication of smallpox--and many other diseases.

Dr. Kaplan's idea was that you bring the panel of experts together, and then you have the panel suggest the names of persons whose work ought to be supported. WHO could never support the full research, but they could add a little to make the work easier, if a person's monies were a little short. What they did most effectively was to plan international collaboration between workers, by bringing them together, either to Geneva or by offering seminars in various countries of the world, where they would bring the committee members and experts together, to give the seminars to the people of that particular world region. That method and research support, and the general moral support and encouragement, was his main way, and it was highly successful--probably one of the most successful expert panels in the WHO.

Every five to seven years, the committee would be called together to review the current status of the disease worldwide and to lay out the recommended work for the next period. My main connection began when I published the results of the vaccine study with the living vaccine, and it continued to 1985, although it started earlier by just attendance at the committee meetings as a technical advisor. The actual collaborative work with people from England and Italy and Spain, and so on, was brought about through Dr. Kaplan and his successor, directors of the Veterinary Public Health Unit.

Lage: Was your collaborative work in research?

Elberg: Yes. The collaborative work was both research and testing of the results, trying out the results of the work on the vaccines. Among the places where they arranged for me to have collaboration and confirmation of my results independently were England, and, as we went over last time, they helped support the year in Spain. Then I went to Iran, to Peru, and Malta, and Israel, working with the people of those countries. In the meantime, they would make some money available to help my research, because I never really had all that much from the NIH, but it was enough. I think that's the way they worked, and there's not much else to say. We could go on indefinitely on detail.

One of the interesting things, though, was the result of the USSR seminar that I was sent to lead. I had been invited to go, and I was briefed in Geneva about the seminar that was to take place in Moscow at the Central Veterinary Research Laboratory under Professor Eugene Orloff. At the last minute, Dr. Kaplan couldn't go, and he asked me to take charge of the whole seminar, which was really quite a frightening, but a very exciting, event.

Lage: What year was this?

Elberg: This was 1962. The USSR seminar in Moscow on brucellosis was one of those actions that our expert committee supported. It was to be a seminar on brucellosis given by various people to members of the East European bloc and several from the Middle East countries. I went there and was in charge of the delegation. I had a unique experience in Russia, not one that I would or ever did care to repeat.

Lage: In what way?

Elberg: That is, scientifically, it was excellent. Russia had insisted on being the host, because WHO had accumulated a lot of rubles, which they couldn't use anywhere else. Russia thought that they should spend that right there in Moscow. And they did, and it was at a time of very great tension in USSR-USA relations. Americans were tolerated, and I was just about tolerated--that is, by the government bureau which handled foreign seminars. Within the seminar itself, they were just as gracious as could be. Anyway, we had a very good seminar. Indeed, I suspect it was the opening wedge in presenting the results of my work, along with all the other European studies on the successful nature of the Rev 1 vaccine, that caused the Russian veterinarians to consider testing it. They did, and over the years, there were just more and more examples of their testing, which showed even in their hands the great superiority of this Rev 1 vaccine for goats and sheep.

Lage: What had they been using?

Elberg: They had been using a modified preparation from the international cattle vaccine, which had always been considered too virulent for man. They had used it, and were using it, for both animals and man. They had tested enormous numbers of agricultural workers on their animal farms, and they were set in their way. They were not going to change. They saw no reason to, but of course, their vaccine wasn't so good on goats and sheep. Mine was. Eventually, the results were quite overwhelming, and though they never said anything, I just heard bits and pieces over the years, that oh, yes, they had vaccinated millions upon millions of goats and sheep with my vaccine. Never did they ever indicate that, except in an occasional publication very briefly. Anyway, that was a feeling of great satisfaction.

Lage: You told about a trip that a Soviet Union scientist made here.

Elberg: Yes. After that seminar, a small delegation of Soviet bacteriologists and immunologists came, ostensibly, to visit Dr. Meyer. I shouldn't say "ostensibly." They did, but they also came to visit me. They wanted to see my laboratory, which was never one of those laboratories that you see on TV. My laboratory was a little bit messy, and there were not many places to sit down. They all stood around. But anyway, we had a very interesting visit in the evening and the following morning. They were very interested, but the language barrier was very great. When I asked the group leader whether he would recommend Rev 1 if their tests on it were successful, the leader of the group just shook his head: no. That was that. I never heard anymore from him, but he didn't play much of a role anyway in the key policies.

Lage: Was there a free exchange of information?

Elberg: Not especially, except in brief journal articles. There wasn't much to exchange. They had an excellent group of brucellosis people, under Professor Vershilova. She and her women colleagues at the Gamaleia Institute worked very hard and very productively. We kept up contact over the years, and she was a member of the expert panel.

That's the WHO aspect, in that they made it possible for many countries to obtain my vaccine, and to test it, and to show whether it helped or not. That kind of work is still going on, now pretty much supported by the Food and Agriculture Organization, FAO, from Rome, and so on.

Basic Studies on Cellular Immunology of Brucellosis

Elberg: Simultaneously, from 1955 on, I carried on more basic studies. The point was, I had always wanted to do basic studies on the immunology of brucellosis, but I had a very strong obsession, or prejudice, that you couldn't study immunity in brucellosis until you could produce animals that were truly immune by the most severe criteria of immunity that could be proposed.

For my organism, which was *Brucella melitensis*, in the goat and the sheep, there were no such vaccines available until our preparation came along. When it was then established that you could work with thoroughly immunized animals--goats, sheep, monkeys, guinea pigs, et cetera--then I started to work on the cellular aspects of immunology. Dr. Jacob Fong, my colleague, and I were among the early ones to work on the macrophages. Those are the main cells that finally do destroy invading bacteria. For many years, I worked on the macrophage and how it worked in killing the *Brucella*. That finally came to an end in 1971.

Lage: Is that work ongoing now?

Elberg: No. Nothing I've done here is ongoing. I was the only one that ever worked on brucellosis and apparently the only one that ever will have. No, but cellular immunity goes on in what was formerly called the microbiology department.

Lage: Is there an applied result? Once you've found the vaccine, then what is the reason for the basic research on immunity?

Elberg: A very interesting question since the practical result allowed us to study immune mechanisms with confidence that we had truly immune animals to study. This is where I differed fundamentally from the many workers who used very superficial tests to call an animal "immune."

Lage: A question of understanding--?

Elberg: No, it's more a question of operational design--with the "popular tests" for immunity, an animal (usually mouse or guinea pig) can be employed one week or two after vaccination. That, to me, is not an immune animal--three months, possibly. We were trying to understand the mechanism by which macrophages from immune animals are able to destroy, or what they do do in leading to the destruction of, the *Brucella* in that animal. It turned out to be a very complicated process by which other cells actually activate macrophages in the immune animal. That was the operational point

that I missed, and it has become the biggest development in cellular immunity: the working together of cells. T-cells, especially--how they activate other cells to destroy intracellular parasites.

That was the work of the last fifteen years or so. It had been suggested to me by René Dubos from the Rockefeller Institute in 1955, when he came out as a Hitchcock professor. He knew we were interested. We were beginning our work on the macrophages, and he encouraged that.

Lage: Was there interaction between you, working on brucellosis, and others in the department also working on cellular immunity?

Elberg: At that time, only Fong and I were so involved. No one had been brought into the department to work on cellular immunity. That was later. We never did have any contacts--no collaboration--because their direction of interest was entirely different. My colleague, Dr. Doris Ralston, carried on most of my work with the macrophages. I did some. After I became dean, it was more difficult, and so I had Dr. Ralston and graduate students whose research was on the nature of the macrophages and the immunity.

Targets of Opportunity in Research--Growth Hormone, Bubonic Plague

Elberg: I worked on several different things that didn't have any relationship, just because I was interested in them and because they were what you might call "targets of opportunity." For example, when I was starting instruction in immunology in the department, and Dr. Elvin Kabot came out on two summer sessions from Columbia University to give the summer course (which I gave in the fall or spring), his coming catalyzed a lot of interest in my lab from the rest of the campus, because he and I were very great friends, and he must have spoken about it.

Anyway, Dr. Choh Hao Li came one day to ask if I could assist on a problem, namely, certain people to whom they were giving the growth hormone were not responding to the hormone. He wondered if maybe they had developed some kind of an immunity to the preparation. There might have been an antibody, and he wanted to know if I would study that. He would supply everything. I did and did indeed find that the hormone was antigenic. It produced antibodies which could probably inactivate the hormone.

Lage: Did you ever work with Herbert Evans?

Elberg: I did not do anything with Dr. Herbert Evans. At that time, he was a bit hard to meet or to work with, but Li had obtained the help of some of Evans's people for advice. Once I finished showing that the hormone and an antibody reaction could take place, that was all that I needed to do. Li was a very enthusiastic and wonderful person to work with, and most helpful. A very exciting mind--so orderly and well-regulated in the lab.

I did not work with Herbert Evans, although I would like to have. In an interview I had with Dr. Evans he indicated that he would help with our work via bioassays, but we didn't get to do it. That was the one thing I wanted to do, because although I found out that the antibody precipitated the hormone, I then wanted to find out if in that action, the hormone was biologically inactivated, or did it remain active even in the antibody-precipitated state. Evans and I thought we could bioassay the precipitates by injecting them and measuring the growth of certain joints in the fingers of their animals, but it never came to that. It would have been a nice finishing touch, to know whether, indeed, the reaction with an antibody led to the inactivation of the hormone. It probably did.

The other major research that I was involved in was on bubonic plague. That was at Dr. Meyer's suggestion. My second graduate student, Dr. Myron Silverman, who is now at Chapel Hill, and Dr. Sidney Silverman of Frederick, Maryland, took Ph.D.s with me. I was having my luncheon with Dr. Meyer, and I said to him that I thought that the vaccine he was working on for plague could be purified a little bit further by taking the precipitate made by the vaccine (antigen) and its antibody and dissociating the antigen from the antibody, leading to material that would be immunogenic.

The vaccine was a very complex mixture, very impure, and Meyer had the idea that there was a certain component that was the immunizing agent itself. I said, "You could test that by bioassaying the antigen-antibody precipitates." And he said, "Well, good. Have you anybody that would do it?" I said, yes, Dr. Myron Silverman would like to do that--I had already discussed it with him--and he reared back in his seat. He said, "Without discussing it with me first?!" I said, "Yes, and here's the idea," and I explained it to him. He said, "Sure, we'll do that. You get the precipitates over to us, and we'll bioassay them." Surely enough, those precipitates of the vaccine-pure material that came down in the precipitate were still active. You could measure the actual amount of vaccine by this method.

He was not ready to accept those findings, ever, because he had not directly himself worked on the problem. He was not too keen on modern immunology, especially the quantitative aspects of it. That was all right. The work sits there in the literature, but without his active interest in it, nothing much was done. But there it is, and it worked.

Lage: Would that affect how a vaccine was prepared?

Elberg: It could have led to a greater degree of purification of that material, yes. It had already been purified in crystalline form, but I always felt that it was still impure and that the antibody, or one of the antibodies, might very well bring the pure substance down.

IV ASSOCIATES, STUDENTS, TRENDS, AND THE DEPARTMENT OF BACTERIOLOGY

Collaboration with Research Associates and Graduate Students

Elberg: Why did I get involved later with plague? Well, that's a simple thing. Dr. Meyer came to his retirement. He was trying to place his people, so they wouldn't be out in the cold. He started that process of placing them.

Lage: His graduate students, is it?

Elberg: No, these were his associates, his technicians.

Lage: Nobody took over his function?

Elberg: No. Nobody could. He was not a personality that could have accepted a successor. In fact, the active successor, as director of the Hooper, had a very difficult time with Dr. Meyer there in the building, unable emotionally or temperamentally to give up. It was not a happy time for K.F. He had earlier asked me if we could take Ms. Adeline Larsen, and I said, "Absolutely, yes. We'd love to have her," because we needed a person of that skill to run the laboratories that I was teaching. She proved to be just a gem. Then he had his own research associate, who had been with him many years, Dr. T.H. Chen, from China. He asked if I could possibly take Dr. Chen on. Well, I said I could. I knew that Chen could not work on anything but plague, so he said, "Well, I'll try to help get the plague work started, and perhaps some grants from the army," which he did. I was able to take Dr. Chen on, and I guess we were together for about fifteen or twenty years.

Lage: What would have been his position?

Elberg: He had been research associate at the Hooper Foundation. I put him on as an associate research bacteriologist, on the research ladder here, and he continued his excellent work on plague that

he had been doing. He was an excellent laboratory person. He had developed many valuable tests and been recognized as a major contributor. We had a long and valued collaboration, until his retirement. He helped on some of the brucellosis with monkeys, later, but his main work was with monkeys and plague immunity. He succeeded in doing some beautiful work here.

So Dr. Chen and Dr. Doris Ralston were my main research associates. I had one post-doc from Israel in the period of around '60 to '62, Dr. Moshe Aaronson, who was also an absolute treasure. That resulted in a nice collaboration.

As for my graduate students, I had some very good ones. The two Silvermans went on to academic work and research. Dr. Sidney Silverman went from my place, not to academic work but to Camp Detrick, to do research on the staphylococci. Dr. Myron Silverman went to the Naval Radiological Defense Laboratory in San Francisco, operated by the navy, and was there for many years after which he spent a short time at the Naval Lab in the School of Public Health, but in 1968 he went as a professor of microbiology in the Dental School of the University of North Carolina at Chapel Hill and is still there, now as an associate graduate dean as well.

Lage: What did the Naval Lab in San Francisco do? I had noticed that on your--

Elberg: The Naval Radiological Defense Lab was the laboratory established by the navy, principally to study how to protect humans from the irradiation produced by atomic weapons.

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Lage: What does a bacteriologist do in that respect?

Elberg: He was studying the destruction of the immune system from irradiation, which leads to massive infections. The immunological paralysis, or destruction of immune cells, by X-rays and other radiation was known to be one of the most severe and damaging of all the effects of radiation. People became sensitive to infections, and he wanted to learn more about what the damage was and what might be done about it.

Another excellent bacteriologist that followed me from the war labs was Dr. Phillip Manire, and he was with me only a year when I realized that he could do better with Dr. Meyer on researches more to his liking. He was more interested in viruses, and so K.F. took him on as a graduate student. He took his Ph.D. degree at UCSF medical school and then went directly to

Chapel Hill as assistant professor, eventually becoming head of the department and vice-chancellor.

Two other excellent graduate students--both ended up on the faculty at the University of Hawaii--were Albert Benedict and Mel Herzberg. Herzberg was the one who actually discovered the Rev 1 strain, and that was part of his thesis research. He did a wonderful job. Benedict went first to Gainesville, Florida, to the university there, and then arranged for Herzberg to come. Both of them were invited to the University of Hawaii. They spent the rest of their professional lives there. Herzberg, unfortunately, died a few years ago.

Then I had a very interesting graduate student, Cheng Lee Ho, who came to Berkeley before the Communist revolution in China. He had been sent around 1948, and he finished his master's degree with me in 1950. Even though the Communist government had taken over, he decided he had to go back and do what he could for his country. We did not hear from him after he left here in 1950, until the Nixon years opened relations with China. We received our first Christmas card around 1972 or so, and he's written ever since. Now he's retired. He did some very excellent veterinary work.

James Douglas also went to the University of Hawaii, where he is now an associate professor. He's a more recent graduate student. I think Douglas was the best laboratory man of all my graduate students. He had a natural facility to make things work in the lab, and it was a joy. I inherited him from a faculty member to whom we did not give tenure. Douglas looked like the mountain man with his huge beard, and he was a big fellow. None of the other people in the department were very keen on him, but I was certain he had great ability. I knew what kind of work he could do, and he certainly proved it out, to the embarrassment of some of my colleagues, who ultimately were very supportive of what he finally did. He discovered certain bacteriophages for *Brucella melitensis* that had never been found.

Lage: As a result of his careful laboratory work?

Elberg: Yes, he was just superb. His phage has become one of the principal diagnostic reagents for identifying *Brucella melitensis*.

Now, another graduate student, whom I thought should never have gone into research--and it shows how wrong you can be--he always had such trouble with his dissertation work. But he really didn't in the long run. He did fascinating work, but it seemed to me to be at such a cost to him that I said to him one

day, "You know, Al,"--Alvin Warfel--"you ought to really think of a position in teaching, maybe at the state college or something." He said, "No, Dr. Elberg, I'm going into research." I placed him at New York University with another colleague, Dr. Barksdale, and Warfel did some beautiful work. Then he went off on his own to other positions, and now he's at the Sloan-Kettering Laboratories, where he has done excellent work on macrophages. Dr. Thomas Hayes in medical physics helped Warfel do most revolutionary studies with the ultrascanning microscope on the macrophages, producing pictures of those cells that had never been seen before, which gave a new feeling to what those cells were.

Lage: Now what time period would this have been?

Elberg: This was in the mid-seventies. I had one other Ph.D. recipient whom I will mention; John Wong did a very interesting study on plague antigens and immunity. I also placed him for further training at NYU with Dr. Barksdale, but the "chemistry" was wrong. I learned I was much too easy with my students, and when they wanted to go play handball or something, or run, as some of them did, it never occurred to me to object, as long as they did their work. But Barksdale was a hard taskmaster, as was more proper, and they didn't hit it off. I don't think Dr. Wong ever continued in the field. He ceased to maintain any contact with me which hurt Mrs. Elberg and me very much. I don't know what happened to him.

Directing and Placing Graduate Students. Women in Bacteriology

Lage: Do you want to say more about how you worked? Did you have a particular style of directing graduate students?

Elberg: Yes, I had to deal with them as I had been dealt with. I didn't really know much else, and that was to give my students absolutely complete freedom to do, within the subject area, any kinds of experiments they wanted--to keep in touch with them, of course, but not to be looking over their shoulder, and not to work side-by-side with them. I found that with some it was good. With others, I have to admit, it was not the right way, and I regret that. They needed much more direction than I realized.

Lage: Did you help them define a problem?

Elberg: Yes, that I did do.

Lage: Did you assign problems?

Elberg: No, I never assigned a problem, but I told them of the various things I was interested in, in other words, in advance. Before they said they would work with me, I always talked with them and said, "Now, these are my interests, and these are the kinds of problems I have money to support. I just simply can't take any interest you have and support it, as much as I would like to."

Lage: Because your money would come from grants.

Elberg: My money came entirely from grants, for a certain phase of research that I had proposed. Broad, but, nevertheless, it had its limits. I never found anyone that wasn't willing to take something within that area and get to work on it.

Lage: Was there competition for good graduate students?

Elberg: Yes, there was. Since I was never what I have considered a "research star," as you learn to define that on the Berkeley campus, I was always a little surprised that people selected to come to work with me, out of the blue. I didn't go out to seek them. Only in one case, and that proved to be a disaster. [laughter] One was a disaster. I sought two at the same time. One turned out to be not so hot. He was caught up in the Free Speech Movement, and I rarely saw him. The other one was absolutely a dream, but the problem was wrong for him. As soon as a colleague and I shared his direction, he just flourished. Well, that's the way it is, you know.

Anyway, as to letting them work by themselves, I was always available if they wanted to come in and talk, or make an appointment. My availability was somewhat limited, being dean, but there were always appointments. I had one young lady from Thailand, Naline Bhongibhabat. She was a personal scholar supported by the king of Thailand. She was really remarkable. She could do everything in the lab. I just told her what I was interested in, and would she like to work on the allergic skin test reagent for brucellosis? She not only did, she revolutionized the technique for getting it and obtained one of the most powerful at that time. Naturally, someone always, elsewhere, comes along, builds a slightly better mousetrap, and made it a little simpler, but it was based on Naline's methods. She did a beautiful job.

When they needed to buy anything expensive, then they knew they had to talk, and if they were pack rats, as some were, then we had to have a talk. But anyway, it was a very free and easy environment.

Lage: What level were they at when they came to you?

Elberg: They were graduate students.

Lage: Just beginning graduate students?

Elberg: No, they had taken the first two years, and, usually, I was on their qualifying examination committee and had taught them. Then they would come to me, as they would go to everyone, and ask about the opportunities for personal support and doing research for the thesis. And so when they did, and if I thought highly of them, I took them on. They took the first step, except those two cases, and those were two cases that I mention where Ms. Larsen, the lecturer and head of the laboratory, came to me one day. And she said, "If you let those two young men get by without being your students, I'll never speak to you. You go out and recruit them," which I did.

Lage: Oh, she was the one who suggested them.

Elberg: She was the one. She saw them at work in the class, you see, and she knew they were good. And they were! They were excellent. Anyway, I let them do their course work and then the seminars. I was very active, however, in helping them with their dissertation. They would do the first draft, and we'd go over it very closely until it was, I thought, in shape to present to another professor. So that was it.

Lage: What about placing them? You've mentioned, "I've placed them with somebody--"

Elberg: Yes, I always tried to place them.

Lage: How do you do that?

Elberg: Well, I had contacts all over the country from my service on different committees, and if a certain student came along who I thought might fit the interests of oh, Dave Berman at Wisconsin or Lane Barksdale at New York University or René Dubos, I would phone and set it up for them. With the Silvermans, I knew the people at Detrick, and they wanted someone like Sidney Silverman. I knew the people at the naval lab in San Francisco and mentioned Myron Silverman to them, and they appointed him.

Benedict got himself the job at Gainesville and then told Herzberg there was an opening, and so Herzberg went. Then Benedict was invited to Hawaii and took Herzberg with him. Dr. Haidar Husseini, the nephew of the grand mufti [Lebanon], was an

early graduate student. It was hard for me at first because there were such terrible actions of the mufti with Hitler. Anyhow, Haidar and his lovely wife, Lela, and daughter, Fatima, and my wife and I had a good and long, friendly relationship. We never discussed politics. He knew, and I knew, and we never mentioned anything. He managed on his own to be made head of the virus laboratory of WHO at Alexandria, ultimately, and has been most successful.

Dwayne Savage was a graduate student in whom I was most interested. Actually, he was not my student but was a TA [teaching assistant] of ours, and I was very interested in him and his work. When he was finished, I telephoned René Dubos at the Rockefeller Institute one day. I said, "I have this wonderful graduating student from our department. Would you have an opening?" He said, "Yes, send him on." There was Dwayne, sitting there in the dean's office with me. I think he nearly fell off his chair, and so did I. But he had a wonderful, wonderful post-doctoral experience with Dubos. From there he went to become head of the department at Illinois, and so on. He had great training there and developed a field of research that was uniquely his own.

Lage: What about women in the field?

Elberg: I had several women graduate students. Nancy Harvey came to me from the old Department of Hygiene and then the School of Public Health. She took her Ph.D. degree, and then she found her own opening at Michigan. I had known the man in biophysics at Michigan, so I recommended her to him. He was glad to take her. Also, they gave her a joint appointment in bacteriology. My old friend from Detrick days, Professor Nungester, was chairman at Michigan in the medical school, and so he took her on, too.

Then there was Herta Vickery, a graduate student whom I inherited at Dr. Fong's tragic death. I took Herta on, and she went to the Wayne County Hospital in Detroit, eventually, and did a most interesting study on the macrophages.

Lage: Were the opportunities as good for women as for men?

Elberg: They were not as good, no. There were a couple of others in the earlier years. One went to Nebraska, is on the faculty, I believe. I guess that's about it, three or four at the most.

Lage: How many women graduate students would there be, proportionately, do you think?

Elberg: You mean in my group or totally?

Lage: In your department.

Elberg: Oh, I would say that women graduate students were about 20 percent. They were divided among all the faculty.

Lage: And how about the faculty here?

Elberg: Aha. The faculty, until the sixties, didn't have any women in the department. And then, we began to take women on as lecturers. They held the lecturer appointments. There were no women as faculty people until quite late, I think, in that department, in the seventies, the first being Dr. Marian Koshland, who came over from the Department of Biochemistry, and she became a professor of bacteriology and immunology. That's Dan Koshland's [professor of biochemistry] wife. And that's it.

Lage: Do you have any reason?

Elberg: Anne Good was also a lecturer, along with Adeliën Larson. Why? I think the reason was that we certainly did not want our own graduate students to be on the faculty, and when we looked, the women were not all that good at the time. Now, that is not the case today, but that was the case then. That movement was just getting started. We had them in special faculty lectureships with security of employment--tenure. That's all I really can say about that. It was not the best record.

Well, the trials and tribulations of guiding and working with students--[referring to topic on interview outline]--I think that's like any relationship with any other person. You have their personal family problems to contend with, their poverty, and their penchant for having children too early [laughter]. Their illnesses, mental and physical. And Mrs. Elberg, or I, or both of us, worked hard with many of them to make them feel welcome and a bit more secure.

Lage: Did they seem to be under a lot of stress?

Elberg: Well, there was a lot of stress, yes. Some came with it. Some developed it. Some never were bothered by that. Then at times there were the interfering aspects of their outside interests. Some came to work only in the lab and did nothing else. Others felt that had a place in their life, but other things had a place, also, which was all right, but their sense of balance was always imperfect. And so you were always adjusting your expectations, I found, to fit their temperaments and their ability to work, and to nudge them when it was necessary, and to lean away when necessary. I found I always had a very good

relationship with my students, even though there were times when it was hectic and at times downright aggravating.

Lage: Did you try to get them finished up quickly?

Elberg: Oh, yes, absolutely. I didn't have anyone that took more than four or five years, because I said, "The support ends. You finish, or you're on your own. You can stay until you finish, but I can't support you." But I saw to it they did, and maybe I rushed them occasionally, but that didn't hurt them, either. The problem was they had to fit into my system and my timing, if I was going to have any of them. I told them that. Being dean during those eighteen years, I wasn't as available. They had an adjustment to make, and so did I.

Lage: Did you spend a certain amount of time in the lab?

Elberg: Yes, I tried to. It was not always possible, but I tried to set Fridays away from the dean's office. Most of the time I did, and that was when I could talk to them. I think that that's about all I can recall. That's enough on the graduate students.

Three Revolutions in Microbiology and the University's Response

Elberg: You mentioned here [on the outline] the comment I had made about the subject area of microbiology, the revolutions that I'm conscious of. I'm conscious of three such periods of great advance and change. One was in the thirties and forties, with the ideas of bacterial nutrition and bacterial physiology in biochemistry, and how bacterial enzymes worked. This was while I was a student, mainly, but it was an area in which I myself was not actively interested, except in my dissertation work. One of my problems was the study of the nutritional requirements of an anaerobe, *Clostridium botulinum*, an agent of food poisoning. The first part of my dissertation dealt with the nutritional requirements, to see if I could get the organism to grow in a completely synthetic medium, rather than the soups we always used, made of beef heart and liver, and so on--absolutely undefinable media. The idea of the revolution, when it occurred, was to make media of completely known substances. For many organisms, it was a tremendous triumph. For the *Clostridia*, it was too difficult at that time; the problem was one for a chemist and biochemist and was not of sufficient importance compared to the organisms of diphtheria, cholera, food-borne infectious agents, et cetera.

The next revolution that I was aware of was the revolution in immunology--as you might call it, the "immunochemical revolution,"--when precise chemical methods, quantitative chemical methods, were brought in to study the reactions of antigens and antibodies.

Lage: And that came after you were--

Elberg: That came while I was working in the mid-thirties and in the forties and fifties. I was influenced in that, particularly, by the two men most responsible for that revolution, Michael Heidelberger at Columbia and Elvin Kabot, his greatest student. Elvin and I are still in contact with each other, warm friends. Elvin was the main influence on me directly, because I invited him out when I was chairman to teach in the summer. I learned so much from him and continued to do so. He was a major formative figure in my professional life. It was as a result of that that I decided to introduce the subject of immunology as a special course, a new course in the department.

Lage: Was that well-received? Were other people eager to pick up also?

Elberg: Oh, yes, it was very well-received. I guess it was one of the first courses in immunology, especially designated as such, in the country. Most of the time, that subject was treated as part of the bacteriology course, as an outgrowth of infection and immunity, but Kabot and Heidelberger did some things that made it possible to be attractive to people like C.H. Li. They saw that they could use the techniques of immunochemistry, and the immunochemical revolution was a very great one. I tried to teach that and to introduce students to these methods.

Lage: Was there crossover with other departments here at UC?

Elberg: Yes, there was, in the sense that they would send students to take the course. Faculty members would be involved in some of the lecturing, and somehow we made contact with the San Francisco Medical School campus on immunology matters.

Lage: Now, when you say "somehow," was that not common?

Elberg: It was difficult to make it and to keep it going.

Lage: So there isn't a strong connection there between the two institutions?

Elberg: No. There was, at one point, but they grew away from us. They wanted to become completely independent and certainly did, their

driving force being one of Kabot's students who was added to the UCSF faculty and has done exquisite work.

Lage: Do they send students here at all?

Elberg: They once did. You see, at some point, I was instrumental, among other faculty members that were then in the department, in creating the Ph.D. Group in Immunology. Of course, what we did in that was to involve Davis and San Francisco faculty with ourselves in supervising graduate students and in offering instruction, so that a student at Davis or San Francisco could take the Ph.D. in immunology, first by doing much of the coursework at Berkeley and then less of it, as more was developed on those two campuses. Then, finally, each of the two campuses developed their own independent programs, and that was it. But that was the beginning.

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Lage: When did this occur, this cooperative program with Berkeley, San Francisco, and Davis?

Elberg: In the fifties and sixties, principally.

Lage: Were there a lot of tensions involved with that--the intercampus rivalries?

Elberg: No.

Lage: You didn't have trouble later giving up the programs?

Elberg: No, there was complete cooperation and interest. It wasn't really until the Academic Senate reorganization of the University of California itself took place in around 1960, or '59, when it was no longer the Northern and the Southern Divisions, but each campus was assigned its own senate division. That opened up the possibilities that Davis and San Francisco would run their own graduate affairs and not be part of the Berkeley graduate division in the north. That meant these degrees, that were then joint, slowly became separate.

The third revolution, I think, was the microbial genetic revolution. That one I was never a part of.

Lage: And when did that occur?

Elberg: That occurred in the early fifties and went on, and has been going on. But I think it really reached its peaks in the sixties and seventies. It certainly started in the early fifties, and that's when we brought Professor Edward Adelberg into the

department from Stanford, where he had been working with one of the great microbial geneticists, Edward Tatum.

Lage: Now, was that approach just not relevant to your work?

Elberg: No, it was, but I was not interested in that direction, and at that time *Brucella* were not useful agents to study their genetics. In fact, only now are they beginning to yield genetic data. It would have been relevant had I been interested in the *Brucella* primarily as organisms, but the *Brucella* themselves proved to be extraordinarily difficult to work with in the genetic revolution. There was something strange about them. They didn't respond well to the techniques that were developed for other organisms, and it took many years. It's just now that the *Brucella* are being studied genetically, and this is almost the end of the eighties.

Lage: Were there rivalries between people representing these different approaches?

Elberg: Well, yes. I wouldn't say it was rivalries, but there were, with certain people--this was true in our department and in many departments--they were unable to see any importance to any other areas of study, except the one they were in. Or, they were especially not interested in the work with disease-producing bacteria. This finally caused the breakup of the bacteriology department, but it needn't have happened, and it was very unfortunate. There just seemed to be no satisfying some of these colleagues without offering complete deference to their wishes.

I mentioned earlier the tremendous hubris among scientists, and I think that that is one of the qualities that possibly makes it difficult for certain groups of people to remain together. There is such pride in their own work and their own field and disregard for the work of other areas.

Lage: Now, is that something new, or--?

Elberg: No, I don't think that's new. I think that's human nature, that has always been present and always been there. I think that what is possibly new is that it was allowed to exert its influence under a greater democratization of faculty in departments, as you got away from the rather dictatorial chairman, where the chairman was the word. That broke here--slowly, but it did, and in some departments there was a real crisis of leadership by the chairman.

On many campuses, the departmental faculty assumed more of the decision making, and it was more consultative, so that a

chairman became an executive officer, rather than the leader. I think under the heavy hand of certain chairmen, some of that rivalry was suppressed, possibly not healthily. But with a very democratic department, it is quite easy for faculty members to exert more than the proportional influence, depending upon their sense of status in their research. As a campus tends to worship research more and more, they're the ones who come home with more of the rewards, possibly, and can get more space, et cetera--all the things that may tend to make rough edges in the contacts between faculty members and chairmen.

Lage: Competition for money?

Elberg: Well, it's looking for reputation, and the reputation brings the money. The money enhances the work that can be done and thus adds and builds up the opportunities to become more and more famous.

Lage: Now you referred, when we talked at our initial session, to shortcuts and ethical problems. Has that been something you've seen on this campus?

Elberg: Well, I've never seen that here, no, but one reads about, in the last decade or so, the cases of fraud among scientists, the lack of ethics, the carrying out of experiments which should probably have not been done without further consultation and approval--things such as possibly using human subjects improperly, and so on. These are problems of humans, which means that scientists are subject to them, although it's kept under control, I think, by one's peers and peer pressure. Also, the system, by which research monies are given, is carried out with such a review process that it's awfully difficult to hide things from committees of your peers from other places. So one's work is watched very much more.

There are failures even in that system. There was a great study once on the peer review system at the NIH, and I once wrote a comment: "There's nothing wrong with the peer review system. What is wrong is when you get some bad peers." And you do. You get some that show cronyism. You get some who are not rigorous in their critical reviews or are overly rigorous and expect the impossible. Anyway, it's the matter of plain, simple people.

Leadership of a Troubled Department of Bacteriology, 1952-1957

Lage: Some of your remarks lead into talking about the Department of Bacteriology. You were chairman of it for quite a while, and vice-chair.

Elberg: Yes, I had my five years as chair, 1952 through 1957.

Lage: When did this change from a dictatorial chairman take place? Before or after your term?

Elberg: Oh, no, that ended with K.F. Meyer's resignation as chairman in 1946. I wouldn't call him a dictatorial chairman, but he was an authoritative chairman of the old school, and he made the decisions. As a result of that, the Department of Bacteriology at Berkeley never really flourished under his chairmanship. I don't even think the medical school department flourished, particularly. Most of the flourishing in that field was done at the Hooper Foundation. Now, in my time as chairman--

Lage: Whom did you succeed?

Elberg: I succeeded A.P. Krueger. He became chairman in '46, when Meyer resigned. He took over just at the end of the war, and he had added two people, [Roger] Stanier and [Jacob] Fong. Then, when I came in as chair, I added the geneticist, Edward Adelberg, and two immunologists, Ben Papermaster and Leon Wofsy. Wait a minute. I was not chairman when Wofsy and Papermaster were hired, but I was instrumental in interviewing them and persuading my colleagues to appoint them. At that point, I think it was Dr. Fong who was chairman.

I can't remember now. Adelberg succeeded me as chairman in 1957 and stayed only a few years before he left for Yale. Then Fong was appointed chair. It was in Fong's period that we made a lot of changes in immunology, strengthening that field. I left in '57 to go on sabbatical, and my major tasks had been the building-up of the immunology component and just generally holding the place together. We were in the loyalty oath controversy when I first came on as chairman, which was a very, very difficult time.

Lage: Can we talk about that a little bit more?

Elberg: Well, the loyalty oath controversy affected the department in this way. Professor [Michael] Doudoroff was accused of possibly Communist tendencies or interests at the time of the McCarthy

period. He was removed as a member of a NIH study section in the witch hunt of that period.

Lage: Would that be removed by the NIH?

Elberg: Yes.

Lage: Just on the basis of this accusation?

Elberg: I think so. I think they caved in a little early. Then he began to protest and demanded hearings that were open to him. There was a hearing, at which he could hear the accusations from any of those who wanted to make them and be defended. It caused a very bitter blow-up in the department, because the department was split on other issues such as its contract with the navy to supervise the Naval Medical Research Laboratory.

Lage: Already split? Was it split along the lines of the loyalty oath?

Elberg: Already split. No, it was not split at all on the lines of the loyalty oath. It was split mostly on the matters of federal support of the Naval Biological Laboratory, the nature of the research of that lab, the virulent opposition to it by Professors Doudoroff and [Roger] Stanier. It came to a head with the accusation that Doudoroff had made statements that were in conflict with what was possibly considered acceptable at a dinner at the naval officers' club.

Lage: You had mentioned that Krueger was--

Elberg: Krueger was hosting the dinner and was the scientific director of the laboratory.

Lage: And he was a naval officer.

Elberg: He was at that time a naval reserve officer, not retired but on the reserve list. He kept up his contact with the naval officers' club all his life, and this incident happened at a dinner party. Someone at a neighboring table must have brought an accusation, and it led to the hearing. The FBI entered the matter. They were the investigating organ for the NIH, and it created a break in the department that never healed.

Lage: Was this in the early fifties that this occurred?

Elberg: '51 or '52.

Lage: Just as you were coming in as chairman. Did you have a role, as chairman, in helping resolve it?

Elberg: No. That is, it just was resolved itself by the NIH.

Lage: Did he regain his research status?

Elberg: I don't believe so. The problem was that such matters were never really solved or cleared up.

Lage: Did he stay on with the department?

Elberg: Oh, yes. There was no problem there. He was vindicated in a way--declared innocent of the charges, as I recall. But, as in so much of that loyalty oath business, some of those wounds in departments never did heal. A result of that bitterness led to Dr. Krueger's early retirement from the faculty in 1955.

Lage: Was he accused of being the accuser, or--?

Elberg: No, indeed. Someone else did that, I do not know who. The relationships between Stanier, Doudoroff and Krueger, on a professional basis, were not all the best. They did not have the most respect for his work, and they felt that his work was not in the mainstream of current studies on bacteriophages. They didn't hesitate to let it be known. It got back to him, and I think he just didn't want any more of it. So he retired, and that was during my chairmanship.

I realize, now, somehow--I don't know whatever happened--but I know I regrettably didn't think of it. There should have been some kind of a retirement ceremony, but there never was. There wouldn't have been. It could never have happened. Half of the department wouldn't have come. That's my guess. The other half wouldn't have felt representative, as it were, so it just was never raised. It occurred to me only recently that that was allowed to happen and was a terrible thing that I neglected to carry out something. I don't know why, but I just plead guilty of negligence on that one. I also believe Al would not at that time have wanted a department function. Some of us did things individually for the occasion.

Lage: It sounds like an impossible situation.

Elberg: It was. Our headaches were also in maintaining a balanced department in offerings of courses. That was a constant headache, in view of the constant pressure from one group to overwhelm the curriculum in one direction.

Lage: Picking up with the new directions in your field?

Elberg: Making certain that some of the older directions were still taught and not given away.

Lage: Given away to other departments.

Elberg: Yes. So much of bacteriology on the Berkeley campus was, in earlier years, given away from the department. It was a very unrepresentative department at the time Krueger became chairman. It was a department of extremely narrow, confined, and restricted interests--no faculty representing large segments of the field, and that had to be rectified. That had to be rectified, and that's what Krueger and I did do.

Others who came after really did it, and so it became, for several years, in the first five leading departments of the country, despite the difficulties inside. Everybody around the country knew of those difficulties. They knew the origins of them and were very decent and gracious about them. At a certain number of years in the late fifties and the early sixties, it was a department famous for its breadth of subject and for the quality of its faculty. There's no doubt about that.

Medical Microbiologists Move to Public Health, 1966

Lage: Is this before the break-off to Public Health?

Elberg: Yes. The break-off to Public Health occurred around 1965 or '66, when we simply came to a point of no reconciliation. First, there had been so many incidents that were overcome and healed--not healed, actually, but there were overlayers of "scar tissue"--it always seemed to come back to the Naval Biological Laboratory and its director, and problems concerning the director's possible faculty appointment. That was a constant irritant in the minds of some of the faculty. Then there was an additional feeling that the medical aspects of the subject were not of interest to many in the department, and they would just as soon have stopped teaching that area despite predominant student interest in that area. It was at that point that some of us felt that there was no hope in going on, in the face of an invitation to join the School of Public Health. So that segment of us joined the school to open up the breadth of laboratory instruction in medical microbiology and immunology.

Lage: The medical segment.

Elberg: The medical side, yes, including the emeriti professors, John Northrop, who was not medical, but a biochemist and Nobel laureate, and Albert Krueger; and the active faculty, [Stewart] Madin, [Jacob] Fong, and myself.

Lage: Was there a leader in that move?

Elberg: I was the leader.

Lage: Did you initiate the invitation from Public Health?

Elberg: No, it just came out of the blue, when I was talking to Dean Smith one day about our Naval Laboratory and department curricular problems, because he and I were extremely close. Before I left the chairmanship, I realized I could never leave the contract of the Naval Biological Laboratory just open for grabs. So I succeeded in transferring that contract in 1957 from the bacteriology department to the School of Public Health, which was a far better and more hospitable place for it.

As a result of that contract change, I had much contact with Dean Smith over the years. When I told him, one time, of the problems we were facing, he said, "Well, why don't you come over here and start the teaching of the laboratory fields here?" I took it up with my colleagues, and they all agreed to go. We announced it at a department meeting, and, of course, the new members were shocked--Papermaster and Wofsy. But there was nothing that could be done. We had come to the parting of the ways.

Lage: What did that leave the department with?

Elberg: That left the department with three or four people, a very restricted department, which they were allowed to eventually rebuild. They did so very well. They brought some fine people in, and it became the department of today, but for a while, it was a very badly split campus, as far as the subject of bacteriology was concerned.

Lage: That must have made it difficult for students.

Elberg: Well, we made it easy. Both departments--well, certainly the old department--realized that 50 percent or more of their students were interested in our area and that there was nothing to be done but to live and let live. So, slowly, arrangements were made for our area to be represented in their major as before. It went on, until just recently, where the College of Letters and Science and the School of Public Health have shamefully decided the financial support isn't there anymore to keep that undergraduate section

for bacteriology going, unless the L&S college provided resources. But I have long believed one could not expect progressive or forward-looking policies from L&S. The School of Public Health's resources from the federal government, that supported all of this undergraduate bacteriology, had terminated. One of the results of the past eight years' federal administration is the loss of support for the public health schools.

We began to rebuild over in Warren Hall and added on faculty. I'm certain that we made some very serious mistakes in our choice of new faculty. They did not turn out as promised, and we were not tough enough to say no to some of the search committees.

Lage: To say no to the search committees?

Elberg: Yes, to reject the committee's recommendations. In other words, it wasn't so much saying no to the candidate. It was saying no to those on the faculty who were pushing for that particular person's appointment. It proved to me how absolutely vital it is to be as critical and rigorous, in the selection of new people, as is possible, as in English, Classics, and Chemistry. Anything less dooms the department.

Lage: But you do have the review before tenure.

Elberg: You do, and as a result, we've lost some of those cases. Some made it, because the review committees were not tough enough. Nor were subsequent chairs tough enough to refuse to recommend the nominees to tenure. That's where it should have been stopped. Then and there, at the chairman's level.

Lage: Is that a general problem?

Elberg: It's a general problem differently solved by many different departments. The very best departments have solved it long ago and completely. They don't put up with any nonsense.

Lage: So it's departmental leadership.

Elberg: It's departmental leadership, backed by a strong collegial esprit that lets the chair know that only the very best should remain or be appointed in the first place.

Lage: Is this a good time to pause?

Elberg: Yes. We've covered most of the outline under number five. The answer to any relationship with President Sproul is "simply none." [laughter]

Lage: You didn't have a personal relationship. When you needed something for your research, like your goats up on the hill--

Elberg: I could write to Sproul. That's what you did. That was before the chancellor system, really, and we wrote to him. We would either get it or we wouldn't, but he acted.

Lage: But you didn't pick up the phone.

Elberg: No. Well, you picked up the phone, but you never got Sproul; you got Miss Robb, bless her heart. [laughter]

Lage: Well, let's leave the rest for the next time.

Elberg: Yes. All right.

V THE NAVAL BIOLOGICAL LABORATORY

Founding and Prewar History of the Lab--NAMRU I##

Lage: We're going to start with the Naval Biological Lab.

Elberg: We'll start with the Naval Biological Laboratory and its history, as it affected the teaching of bacteriology on the Berkeley campus. The Naval Biological Laboratory was first known when it was created as the Naval Medical Research Laboratory Unit Number One in the U.S. Naval Reserve. It was created by Professor Albert Krueger in 1935, in a proposal to the navy to create a series of naval laboratories which would carry out research on medical problems of interest and importance to the navy. Krueger's idea was to have a laboratory that specialized in what he thought would be an imminent problem in case of a mobilization--namely, influenza. The navy accepted the idea, although I think influenza was a very unfortunate choice, because the nation was filled with civilians and scientists in the naval reserve, who were far better qualified to work on influenza.

Lage: Than whom?

Elberg: Than the personnel of NAMRU I, as we used to refer to it, who were graduate students and a few others, none of whom had any experience with influenza research.

Lage: Krueger was in the reserve at that time, as a medical naval reserve officer?

Elberg: Yes, he was appointed a lieutenant commander at first as the laboratory was created, and he selected people who would agree to join up. They applied to be in the naval reserve. Of course, in '35, there was no reason for the navy not to take anyone in that was alive and breathing and warm. So the navy gave these non-commissioned rankings of [laughter] chief pharmacist's mate to

all these aspiring young graduate students, including myself, who agreed to join. It was a nice little group. We all knew each other, and we would meet, maybe once a month, at Krueger's house to have seminars and things like that.

Lage: Were you supported for graduate study?

Elberg: No, there was no support. This was, basically, an effort to insure that in case of war, one had a naval berth to go to, if the draft were to occur. It was extremely attractive in the sense that if you were accepted, you knew that you would be at least doing scientific work for which you could well be trained.

Lage: But there wasn't actual work you were doing.

Elberg: There was no actual work then, at all. It was simply a paper organization, and it was the first of such organizations created by the navy. The NAMRUs, I think, went up to I, II, III, and IV. One of them found themselves in the South Pacific. One of them was in Cairo, Egypt, and the other one spent its time at the Great Lakes Naval Training Station. They all had different functions and different goals, but NAMRU I was originally the influenza one and later went to work on bubonic plague.

Now, in 1940, when things were getting, internationally, very chancy--I think around January of 1940--the navy activated NAMRU I. All its members were, therefore, to report for active duty. They first had to be re-examined medically for their physical qualifications, and it was there that I was eliminated because of my back and my eyesight. As I tried to ask the naval physicians, what did a bad back have to do with sitting at a microscope, which I did all the time? Obviously, I could see what I was doing. I had no luck at all. They were very particular, in those days, in the navy, about the physical specimens they wanted in the service, and I was relieved of my exalted rank and thus became subject to the draft in the army. Well, it turned out to be a blessing in disguise, for my life.

World War II Plague Research on the UC Campus

Elberg: So then in January of '40, NAMRU I was activated, and it arranged with the Department of Bacteriology, in Life Sciences, to occupy the department's storeroom space on the fifth floor of the building, at that time dead storage space. The University profited because the navy constructed all that awful space into beautiful laboratories. And then, as the time went on, the unit

expanded, taking over space belonging to the anatomy department and to the zoology department, until it really occupied the entire west side of the Life Sciences Building and extended around the corners along the north and south sides, going east quite a ways. It occupied quite a large area.

Lage: Was this during the war, then?

Elberg: This was during the war.

Lage: Was there objection at that time, or was this accepted as part of the war effort?

Elberg: No, the University and the departments were willing to give up, temporarily, space. I'm not sure how willing, but they did. The laboratory started as a naval-commissioned laboratory, fully military, and the University helped in any way it could. During the war, it began, for the first year or so, I suppose, to work on influenza.

Lage: Concerned about an outbreak among the troops?

Elberg: Yes. It was preventive research. It was an attempt to have information available in case there would be expected outbreaks.

Around 1942, Dr. Karl Meyer, the chairman of the department, who was a member of the National Academy of Sciences's very secret committee to examine the possibilities of defense of the nation against bacterial warfare and defense of the military, joined the academy committee in recommending that the country begin a full-scale effort to determine the potential of biological warfare--this meant bacterial and viral warfare--on the grounds that army intelligence had it that the Germans were already at work, having obtained, by some degree of covert activity, some of the viral strains of particular importance from the Rockefeller Institute laboratories.

It was then that Camp Detrick in Maryland was created, under the recommendation of the National Academy, to be the principal agency for studying biological warfare. As K.F. Meyer was the great bubonic and pneumonic plague specialist in the United States, it was given to him to suggest how the plague organism could be studied safely, and yet productively, in the United States. Meyer suggested that NAMRU Number One, under Krueger, be charged with the task of studying the potential of the plague organism as a biological warfare organism. He would be willing to serve as a civilian consultant to the laboratories, and his staff at the Hooper Foundation would do what they could, under his direction, to help, although not officially. The Hooper

never did engage in that effort. He merely advised Krueger and the staff on the scientific aspects of the plague research. And so it went on.

Lage: This was still at LSB?

Elberg: This was in LSB for the entire duration of the war.

Lage: It sounds dangerous to me.

Elberg: It was originally quite limited in that respect, the work mainly concentrated on attenuated bacilli. They had very exceptional equipment for those days, and safety procedures against the biohazard, but there was some danger, I think, especially in a university community. But there was nothing to be done. It was one of the very few places, designated by the surgeon general of the Public Health Services, where plague research might be carried out in the United States. Everything was going along well, and the navy unit carved out its own niche of research, namely on studying how the bacillus went through the air--a lot of aerobiology--in which they became world-famous for their developments and technology. And so the work went on through the war, with Camp Detrick being the senior partner but not working much on plague.

The relations with Detrick were very cordial, although Detrick always felt that the directions of the aerobiology work at Berkeley were not as sound as they might have been--victimized, possibly, or being confined during the war years to a certain apparatus which they, at Berkeley, were hesitant to give up, because they felt they were very expert with it, which indeed they were, far more than Detrick was, with its equivalent piece of apparatus.

Lage: So the apparatus--

Elberg: The apparatus had a great deal with shaping the research, with formulating the scientific relations between the scientists in both laboratories. I might say, in my own view, if it weren't for the British independent point of view on studying aerobiology, as it was called, with plague and other organisms, the Detrick effort might have been very much less successful. The British contributed enormously to the scientific bases and the methodology, as they were not at all subject to the prejudices of an instrument. They had their own way, and they made progress much faster, as I learned with my own work on brucellosis.

The war ended. I wouldn't say that the Naval Biological Laboratory in the war years accomplished much in understanding the actual defense against plague aerosols, or in the far more serious task of presenting a B.W. agent ready for use, even, in offense. Certainly the navy would never have that as a part of its assignment in contrast to the army, which had to consider the preparation of weapons for offense as well as for defense. But the navy insisted that its Medical Research Unit could only be studying any agent in terms of potential defense for its own personnel and the fleet vessels.

Lage: Was there a reason for that difference in attitude?

Elberg: The navy operation was run entirely by the Bureau of Medicine and Surgery, which would have nothing to do with offensive considerations of any subject agent. The army biological program was run not by the surgeon general of the army, but by the chemical warfare division of the army, which felt obliged that its mission included complete knowledge of the agent's offense, as well as defense potential. And so, thank heavens for that, the naval unit was spared the necessity of studying anything but, how an airborne attack might be possible by the plague organism, including how, possibly, to work with K.F. Meyer on immunity against plague infection.

Move to Oakland, Secret Research, and Departmental Strife over the Lab

Elberg: The war ended, and the naval unit was kept on in the Life Sciences Building contracting in spaces to kind of a small-scale activity until about 1950, when the University urged the navy to get out of the Life Sciences Building and return the space to the original departments. It felt it need no longer lend all that space, which was denying the departments their own expansion. There being no war, the navy agreed and said that it would relocate the naval laboratory, NAMRU I, over to the Oakland Naval Supply Station and create new space, which it did.

Sometime, then, it moved out, and, I think in 1950, the navy reorganized the arrangement with the University to have the University operate the laboratory on a contract basis and be responsible for its civilian personnel, even though the navy supplied a certain number of naval officers to be trained in the laboratory. These officers, since they were on active duty and were mainly M.D.'s, and dentists, and so on, interested in research and medical specialties, needed a commanding officer.

They had one. The navy provided an officer who watched over just the naval personnel and the physical welfare of the staff, the loan of the space and equipment, and who worked with the naval supply station and its admiral at the Oakland Naval Supply Base to have amicable and productive relations.

It worked out very nicely, and so all was going well. Krueger remained the acting scientific director. Then, in 1952, with the Korean War, the navy became concerned again, as did the army, and asked Krueger to devote more time to this effort. He arranged with the dean of the College of Letters and Science, Professor A.R. Davis, to be relieved of all teaching and to devote whatever time he needed to the naval direction of the lab, which he did, until about 1955. From 1952 to '55, the navy poured more resources into the Oakland laboratories, developing them into a preeminent world laboratory on respiratory routes of infection. The skill of the staff was, as a result of its University sponsorship, to become world-famous for its creative solutions to problems of basic aerobiology.

Lage: Were there still graduate students there?

Elberg: There were always graduate students, but one could not guarantee at that time, naturally, with the war on, that there wasn't also secret research, to which no student could be admitted, a sore point with the faculty on the rest of the campus regarding this contract.

Lage: So it was one of the issues in the department.

Elberg: It was an issue from 1947 on. It was a serious issue. Krueger decided to retire from the University in '55. But in '52, he decided to give up the chairmanship of the department, and I was appointed chairman. I inherited the problems.

Lage: Were you aligned with one or the other groups, or did you have support of both groups, as chairman?

Elberg: At the beginning, I enjoyed a very sweet honeymoon. Since I was not working at the laboratory, I tried to run the department in the interests of both, and it was a very difficult task, since there was very little give on either side.

Lage: Was the objection to the lab a political one?

Elberg: The objection to the lab was always that despite its claims, nevertheless, it must indeed be carrying on secret research, and this was anathema.

Lage: Biological warfare research.

Elberg: Yes. This was anathema, and I'm afraid it might have been carrying on some as a contract, as a result of the Korean War. But in 1956, we obtained as director Dr. Ralph Muckenfuss, formerly from the New York City Health Laboratories and also a prominent army officer in World War II--a colonel in the medical corps. We had attracted Dr. Muckenfuss to come and succeed Dr. Krueger as director, and Muckenfuss was an excellent man for this task, a conciliator and an experienced, large medical laboratory administrator, in civilian as well as military life. He was never given much of an opportunity to conciliate, and he did not like the way the lab was organized; it carried on too many of the inconsistencies of administrative complications from earlier years. He felt that he wasn't in complete-enough charge. I tried my best to turn things around for him.

Lage: Because of the navy presence?

Elberg: Not because of the navy presence. Because of the civilian scientists, who had been carried over from their naval careers, and who felt that they knew much more about running the lab. Muckenfuss was a bit nonplussed at times as to the extent of his authority. I tried, as chairman, to give him every support, but he also realized that there was departmental dissension. As a result, he was never welcomed warmly into the department as I had expected and hoped, because of his distinguished career.

Lage: Was he a professor?

Elberg: He was not a professor. He was a civilian employee of the University, paid on funds provided by the navy on a contract. He lasted until '56, about June, possibly. I don't remember what month. It doesn't matter. But he suddenly resigned to become director of the research laboratories of the Naval Medical Center at Belvedere, Maryland.

When he resigned, I thought it's time to have a long talk with Clark Kerr, the Chancellor, about this whole situation. Kerr and I had a long lunch one day at The Faculty Club, and we opened up the whole record of NBL--NAMRU--from the beginning. And he said, "I am not happy with the fact that we have an important University laboratory without a faculty member in charge. I'm willing to make a provision for an FTE professorship for the next director." I thought, "This must be God speaking. This is the answer to our prayers."

Unfortunately, I did not play the thing properly, politically. The problem was that I knew if we used the professorship as the driving force, then the department faculty would exercise an inordinate authority over who would be selected, and it would not be with any regard to the navy's needs. The lab would be doomed.

The University set up the usual search committee, and we located Professor Carl Lamanna from Johns Hopkins School of Public Health. I negotiated with Carl, who was an old friend, and he agreed to come, especially with the idea that there would be a faculty appointment since he was an associate professor at Hopkins. His reputation in microbiology, internationally, was unassailable for basic research. He had done superb science at Detrick in the war years on botulinae toxin. We appointed him the director, and then I proposed him to the department.

The department was, of course, split. There were those who thought he was just excellent, a marvelous addition, and no way would interfere with the department's normal growth in FTE. This wasn't to be taken out of the department's FTE hide in the future. It was just a free-and-clear new FTE. Others felt that they couldn't agree to it, because they wanted a full national search for someone to be the professor and then, incidentally, to be the director of the laboratory. Well, I realized then, that would not work. The department met and had a terrible battle. It was obvious nothing could be done via that avenue.

I decided, at that time, to go ahead with the appointment as director, and, at the same time, it was clear to me then that the department could not be allowed to go on as the agency in charge of the contract. I had a long talk with the School of Public Health dean, Charles Smith, and he and I agreed that the contract should be transferred to the School of Public Health, where it was more compatible with the long-range interests of the school's laboratories. In the school, the matter of the professorship was regarded as an appointment of a superb teacher, scientist and administrator.

Lage: Did you confer with Clark Kerr on any of this?

Elberg: Of course. Oh, yes, Clark Kerr was involved in all aspects of the department. The opposition wrote him its most strongly-worded views of objection, and he would not push. He just expected me, as chairman, to work out something that would be in the best interests of both sides. It seemed to him, when I presented the School of Public Health proposal, that this was an ideal solution, as it was in my view, too. With the dean of the School of Public Health so well-connected nationally with the

army and the navy medical departments as an epidemiologist and medical research person himself on San Joaquin Valley fever, there was no question that the lab would be in very good hands, with a supportive faculty behind it.

At the time, however, when Muckenfuss resigned in 1956, Kerr asked me to be the acting director of the lab and to be paid on summer salary only--three months. Those things, of course, as you would expect, are always full-time, so you have two full-time jobs going on. That was all right. It was great fun, in that sense, to be involved in the national policies.

I went on sabbatical in September of '57, turning over directorship to Dr. Lamanna, who was now a professor in the School of Public Health and director of the lab. Lamanna came out, settled himself, and, I thought, was doing beautifully. Although a very taciturn and very effective person, he apparently did not consult too widely with the staff, and there were objections to his style of administration. By that time, Dr. Seaborg was Chancellor, Dean Stewart was dean of the graduate division, and, try as I might, I couldn't reconcile the staff with the director.

Lage: You were on the policy committee here?

Elberg: I was on the Chancellor's advisory committee for the lab, and we realized that something needed to be done. Unfortunately, Seaborg decided to make a change in director. This was after I came back, around 1960, '61 and had failed twice to conciliate the staff. It was the most terribly painful episode in my life, because Lamanna and I were old and close friends. It was awful, as I could not seem to get him to see the problem.

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Lage: Was the problem Lamanna's managerial style?

Elberg: It was a question of managerial and personal style, and there was nothing the matter with his scientific direction. I think that the staff had been used to too free-wheeling a directorship from Krueger's days. I was later convinced that one or two irreconcilable staff members should have been fired and the director saved.

But the search for a new director, under Seaborg's direction, began. That, of course, upset the whole arrangement again. It meant that a new director had to be searched for, with all that, and the Department of Bacteriology began to insert itself into the matter, when it had no official reason to.

Lage: Raising the same questions.

Elberg: Yes, always the same questions.

Policy Issues Plaguing the University-NBL Relationship

Lage: I just want to bring up one document I had found in The Bancroft Library, in the University Archives, that, in '57, refers to a policy review that made several recommendations regarding the lab: a closer physical relationship to the University, an end to secret research, more research under faculty and graduate students rather than this permanent staff, and, then again, an objection to applied research, rather than basic. How did you view those things?

Elberg: I was in complete agreement with those findings and had always operated on those principles. Every effort was made to bring about those recommendations. You might say, to this day, it was never possible to engage significant numbers of faculty in the place, because it was too difficult to get down to Oakland, and the same for students. Despite all attractions that were made, not many faculty felt they could transfer their work down there. There was always the suspicion that because of the great care in safety procedures, that there was "something" going on. Well, of course there was, in the sense of working with dangerous organisms, but in fact there was no secret research going on, and had not been for years.

Lage: After the Korean War had ended?

Elberg: Oh, no, it wasn't, not after the Korean War. There was no secret research, certainly, in those years of the report. But you couldn't convince certain faculty members.

Lage: What about this emphasis on applied research? You said you'd seen a--

Elberg: An emphasis on applied research is perfectly valid. It was the great emphasis on basic research, and not enough on applied, which came in later years and destroyed the laboratory's effectiveness in the doing.

In fact, the thing I always feel that destroyed the laboratory was the complete reversal of the pendulum, so that only basic research was considered healthy, to the point where the navy felt it wasn't getting anything out of the research

program. The lab's work now could have been done in any laboratory anywhere, and the navy felt it had enough laboratories doing basic research, and this was the one they had counted on to do applied research. The last two directors brought the laboratory into an impossible position by taking it in areas where the research had little applicability to the navy's needs and reflected the kinds of studies done in dozens of labs all over the world. As money became harder to get, they had to spend their money on things they felt that were needed.

We come, then, to the point where it was decided, really, that if you were going to have a faculty director, you could probably not any longer always seek faculty from outside the campus to be directors. Eventually, there came a time when that was not practical, because new FTEs had to be found to be given to the director, and ultimately those directors decided to transfer full time to the University teaching and research and leave the directorship when their time came to an end.

So it was decided that only existing full-time faculty could be made directors, and that's what happened towards the end, except for the last one. After a difficult appointment process, he was brought up from San Diego, and he lasted about a year. He took himself off on leave to the National Science Foundation, where he stays to this day. He was a total loss as a director and faculty member.

The one who succeeded him as acting director was even more catastrophic, brought to the University from Seattle, Dr. Nina Agabian. She was a MacArthur Fellow. Because the School of Public Health had no space to offer her except in the naval laboratory, an impossible situation was created for her, too, to function as a professor and as acting director, because she had to be at the Naval Lab there most of the time. She set up her laboratory down there and converted much of the lab's work to her own interests. The inevitable thing finally happened. The navy decided to disestablish the laboratory, and it was closed without any campus deliberation or attempt to negotiate, a shameful episode in the history of the campus's stewardship of this once great institution.

Lage: When are we now in time?

Elberg: We're at '86, '87.

Lage: So, very recently it's been terminated.

Elberg: It was terminated apparently with no effort made by the Chancellor to examine the causes and intervene actively on either the campus's behalf or the navy's.

Lage: Where had it been located when it was terminated? Did it stay at--

Elberg: Right down in Oakland at the naval supply center. It occupied three good-sized buildings, magnificent quarters, which worked very well.

Lage: It seems there was an effort to site it here.

Elberg: There was, for many years, an effort to relocate here, but only desultory, never with any realistic intent. The University administration was never willing to give the space, nor was it sure that it was a long-enough, permanent, naval interest to afford to give the space. Space was precious. The navy, too, was never very anxious for the move to the campus, because they had more control over on the naval supply center base. They didn't feel they needed to spend money when they already had good space in Oakland. It's not clear that there ever would have been any great gain by bringing it here. I don't think faculty would necessarily have participated. But that need not have been a fatal flaw.

Lage: Does it tell us something about the University's relationship with other outside labs, like the Lawrence Livermore lab?

Elberg: Well, I think, in a sense, it does. It simply is a question of the overriding importance in the public mind, as well as the University, of the Livermore laboratory and the Berkeley Lawrence laboratories, in contrast to the lack of overriding importance of the naval laboratory in the nation's security and welfare. There is simply no comparison of the national importance in the case of the first two, versus that of the other one.

So there was never the constituency supporting the naval lab, such as the physicists and other faculty here who were so heavily engaged in the Lawrence laboratories, compared to the lack of faculty participating down at the naval supply center in Oakland. If it had been here on campus, it may be that more faculty would have participated in the naval laboratory. That would have been its saving grace, because then they would have known what was going on, would have revitalized the program and been subject to more immediate peer review.

They wouldn't have needed me, as dean, to assure them that when I was reviewing the grants and contracts on the campus, I

rejected one that came up from the navy for a secret project. That was the end of it.

Lage: When was that?

Elberg: That was sometime after 1961, when I became dean. I don't remember when the particular contract came up, but it did come up, and I rejected it and sent it back to the navy. That was it. The last vestiges of strife, as it were, came with the Vietnam War business and the dissent and, once again, raised the issue of the naval laboratory and its work.

Finally, after many difficult times, Professor Loy Sammett, who was vice-chancellor of research, suggested we have an open meeting at which questions could be raised about the navy lab, and we could answer them. That was done. I felt it was very successful, in the sense that the scientists of the laboratory, I thought, answered every question so thoroughly that there was nothing left to be argued about. They showed, conclusively, that there was nothing to hide. They explained what they were all working on, and that was that.

Lage: Was it accepted?

Elberg: It was accepted, as much as anything is accepted. It was just decided that that tactic was not working any further. In the meantime, I had a few brickbats thrown at me by some of the student dissidents. I remember Robert Kolodney, one of the student activists, writing an article in the New York Review of Books about the graduate dean at Berkeley and his history of having been engaged in biological warfare. What that had to do with the Free Speech Movement never was clear to me, but it was an attempt to discredit my work, on behalf of the University, in the Free Speech Movement, one of the sillier moments in that event.

There was an interesting thing, though, in connection with all of this Vietnam thing, and that was an interesting contrast between the national professional societies--the one of chemists and the one of microbiologists. Professor Alvin Clark, in molecular biology was in our Department of Bacteriology at the time; he became quite concerned over the fact that during and after World War II the American Society of Microbiology always had a committee of its members acting as advisors on request from the Chemical Warfare Corps on biological warfare, just as the American Chemical Society had for chemical warfare.

The American Society of Bacteriologists decided they didn't like that anymore, and they asked that that be stopped. Since I

had been a longtime member of that committee, Clark came to me to discuss the matter, and I explained to him what the committee did. I was chairman at that time. I explained what it did and what it didn't do. The society went on not to like it, and they disbanded that group, in contrast to the chemists, who I think simply rode it through, didn't see anything particularly harmful to their chemical profession to have such a committee of them advising the chemical crowd. An interesting contrast in professional and ethical maturity.

Lage: What did the committee do--and didn't do?

Elberg: The committee was brought to Camp Detrick once a year, to hear an update on the research that was being done and to offer suggestions on the quality of what was being done and to follow up certain leads.

Lage: Was it a security-clearance thing?

Elberg: Oh, it was very secure. Yes, it was secret. Oh, it was, at Detrick, yes. Now, the naval laboratory had its own naval advisory committee of academicians nationally, formed by the navy. That group would come out once a year and hear the report of the research. I don't know how long that lasted. In later years, I never heard of it. Both committees would recommend and would be informed. Their members were cleared for secret work. This is what we did. We advised what we thought were the weaknesses of the program and the strengths. It was only advisory. They didn't have to follow our advice at all. That was about that.

Termination of the Lab, 1987

Elberg: I think you might say that from the Free Speech Movement years the naval laboratory slowly went a little bit downhill in the intensity of its work and the quality and in faculty involvement, and so on. The administration of the University was in a very weak position to defend it when the navy suggested that it was time to close. I had considered, for years, that it had passed its time and should have been discontinued, that it wasn't productive, unless much more vital direction was to be provided.

Lage: Did you feel the quality of its research was good? I saw that there were some critics.

Elberg: In later years it was not what it should have been.

Lage: Did they also get caught up in mechanical apparatus?

Elberg: Not in the later years. In the last couple of years, it was not bad. It was basic work, but it was the kind of work that could have been done anywhere. There was nothing unique to it, of little value or concern to the sponsors. I had nothing to say about it because I had long retired, but from those years just before retirement, up to '78 and then after, I began to ask, what is the University getting out of it now except some funds for running it? And what is the navy getting?

And that was it. It finally came to a funereal termination, and it was closed down, I guess, in early '87. It was kind of a sad formal naval occasion with not a single University official present at the ceremony. It represented, really, thirty-six, thirty-seven years of civilian activity, and about nine years, ten years of naval, so it probably was one of the oldest laboratories on the campus or in the Berkeley system. Anyway, it showed that everything has its time. And that's about it. A shameful absence of University leadership.

What with all of the constant strife of the sixties, as I said, a group of us in the department decided, when some of the members of the department felt that the direction of the department teaching and research should change, that our time had come, too. Half of us, or so, moved over to the School of Public Health. And that was that. That was a chapter that ended. This somehow seemed a precursor to what we have just been discussing, but not necessarily a direct relation.

Lage: This was all related together?

Elberg: Not necessarily a direct relation, but I think this was very much tied in the long run, historically. In other words, the end of the song begun in the cradle of 1940.

Lage: The bacteriology department--did it change its name to microbiology?

Elberg: Later, yes.

Lage: The members of the bacteriology department who objected to the lab--were they of a different political persuasion?

Elberg: Well, I think they were very much more liberal in politics, but I must say I attribute their position more to ethics than politics.

Lage: Were they a younger generation?

- Elberg: Yes, possibly so. I think also that they had a sense of anti-military bias, that we shouldn't even have military funds for research on campus. Their position was almost nihilistic.
- Lage: Was that more pronounced in the department than it was in other departments on campus?
- Elberg: I couldn't say. It was certainly pronounced here, because of the fact that they did not realize that so much of the military money was for medical research, as contrasted with other departments that had money from the government or military for non-medical. It was all tarred with the same brush. It was just the general anti-government feelings that ran so wildly in the sixties.
- Lage: But it started way back, well before the sixties.
- Elberg: Yes. Oh, it did start before, but it was given a great impetus in the sixties.
- Lage: Did this group feel more strongly, also, about the scientists doing applied research? You hear that in the University a lot, that the applied research is not what the University is all about.
- Elberg: No, you didn't hear that so much in the department. Now, it was possibly to be found in all-University review committee reports, but in the department, applied versus basic was almost part and parcel of the same coin. It was the nature and the topics of the research and what the research was directed towards, both in imagination and in fact. It was difficult to persuade. The philosophy of some of us was to carry out basic research and test the results by application in the field. When your work is confined to test tubes, that is not a great issue.
- Lage: I think we have a good picture of it all.
- Elberg: That really tells you the history of the department in modern times, up to '66 or '67, I guess.

Recent Relations between Public Health Microbiologists and the Department of Microbiology

- Elberg: Interestingly enough, the relations between the two segments (Microbiology and School of Public Health) actually flourished after the split, because the microbiology students brought the two parts together by insisting that they wanted to continue the

kind of teaching they were being given, the kind of courses they were being offered. Those were the interests of many of the students in bacteriology. The people in the Department of Microbiology were remarkable for their breadth. Once the issues were resolved, they did everything they could to make life easier for the departing faculty. So did the L&S dean, William Fretter. They tried to do whatever they felt was wise, in behalf of their students, and so they supported the departing faculty in giving the same things but under different auspices, now in the School of Public Health, which was probably best in the long run--or short run, I should say. Anyway, it was best for twenty years.

Elberg: I wouldn't say what's happening now. I think there are changes again, but it is very interesting. I maintained the most cordial relations with members of the microbiology department, possibly because one of the most difficult antagonists in the department not long thereafter removed himself to France permanently, and possibly because the other one remaining was never a real antagonist. After a few years he and I were completely reconciled, personally. I never felt we had been unreconciled, but we had been separated. In later years he called me to say he felt I had been most unfairly treated over those years. I valued this relationship.

I was always very pleased with the personal relationships that maintained themselves, as far as I was concerned, to the point where one time in the seventies, members of the old department came to me and asked if I would be interested in rejoining them. I was terribly touched. I would have, had it not been for my colleagues who would not have been asked to rejoin, and I didn't feel that I could leave them, although I think, professionally, it would have been better for me to have rejoined. I stayed with the school out of loyalty and affection, and also out of loyalty to my colleagues.

I thought, at the time, what a nice resolution of a difficult issue came about that day in California Hall, when Professor Leon Wofsy and Marian Koshland asked me if I would consider rejoining them. That was probably one of the happiest days of my career. So there we are.

The move to Public Health brought a new life to the group: new courses, new interests, new faculty members. It has its own problems now. I think the results of the move, in general, were not as favorable as I thought they would be, professionally. I think had we stayed in the department and been patient and waited, perhaps, for events which nobody could foresee, I think it would have worked out that our professional development would

have taken on new roots and grown. But that wasn't to be foreseen, and so you do what you think at the time is right.

It's my view that our interests in the teaching of bacteriology and immunology--and I think this has been proven by the activities of my crowd--have been far more basic than applied and far less of use to the School of Public Health, professionally. From our research, you'd think we still were members of the College of Letters and Science, and I think that's the problem. The School of Public Health finally probably appraised our group and said, "What is it they're doing for us?" I think the answer is somewhat lacking in the affirmative here.

Lage: Do you think there will be a move back? [The following remarks were added during review of the manuscript, to take into account the recent reorganization of the biological sciences at Berkeley.]

Elberg: Not anymore, with the break-up of the biology departments. I would have hoped so, for both units. For three units: for my little group of medical microbiologists, for the school itself--for its national development in the professional aspects--and for the former Department of Microbiology, not in demise, which could have profited from a broadening such as our group could bring to it; the department, in turn, could have had a creative influence on the nature of the medical microbiology teaching and research.

But now such regroupings are hopeless as the faculties have been reaggregated with absolutely no thought having been given to the laboratory faculty in Public Health. It's appalling to realize the complete reduction of the pertinent public health faculty to a non-existent basis for consideration. I don't know how such a situation could possibly have been created, where the pertinent public health faculty were never considered to be part of the biological sciences.

Lage: A sad resolution of all this.

Elberg: Yes. Tragic in many respects.

VI THE ADMINISTRATIVE COMMITTEE ON BUILDINGS AND CAMPUS
DEVELOPMENT, 1953-1961

The Committee and its Subcommittees under Chancellors Kerr and
Seaborg##

Lage: We were going to talk about the Administrative Committee on Building and Campus Development.

Elberg: Yes. As I thought back, I think that that is one of the most successful ideas that Clark Kerr had--to create this very large committee, with all of its subcommittees, to attack the problem of academic planning, along with the space and the physical planning that had to occur to accommodate the changing academic events.

Lage: Did this committee actually delve into academics?

Elberg: Oh, it had to. There was not, I believe, much of anything in the way of an academic planning committee. I'm going to refer to it now as the BCD committee. To accomplish its goals each year--the goal being to present to the Chancellor its final recommendations on priorities for the campus, for new construction, and that was always entitled the major capital improvements, as well as the listing, in priority order, of the minor capitals, which were defined as anything costing less than fifty thousand dollars.

In order to do that, you had to have a means of examining, we learned over time, the relative academic needs, which would be the ultimate justification for awarding a space on the priorities list to some proposal. Those academic needs had to be interleaved with student needs, for student life, with administrative needs, and with all the other general needs that a campus has. So we had a complicated newer system of subcommittees, in which every category of need really had a

committee that was responsible for reporting its findings to the parent committee.

Lage: Now who devised this system?

Elberg: I think that Clark Kerr did, as Chancellor with the help of chairman C.W. Brown of psychology. Of course, he had the help of successive BCD chairs also. There weren't many chairs of the BCD committee, but I think that the committee itself saw its needs and suggested the subcommittee structure.

I began my association with Building and Campus Development around 1952 or '53, when I was appointed to the Life Sciences Building subcommittee. Most buildings, at the time, were getting building subcommittees, to adjudicate the competing needs of units in that building, you see. In the Life Sciences Building, we had historically been victimized by the tremendous power of early zoology and botany department chairs, who almost divided the building up between them. We little ones, like physiology and bacteriology, found ourselves without very assertive chairs, and they had lost ground. It was felt that to keep peace--this probably occurred in most buildings--a committee of the occupants should watch over these things. It proved to be a very great plan of Chancellor Kerr's. Therefore, each building committee submitted its report of its needs, and thus of the departments in that building.

I served on that for a few years and then received my first assignment to the BCD system, by being appointed by Kerr to what was then called the Space Needs and Priorities Committee. Now, that was a key committee. Not because I was on it, but Space Needs and Priorities did about everything including a review of academic needs, and saw the need for further subgroupings of committees. Anyway, we began by considering how to order the priorities. You had many factors to consider: the populations of the departments, their activities, their fame, how their faculties could command our support, the distinction of the faculty, nationally and internationally, which told us that these were departments that needed to be cherished, et cetera.

Lage: What about student requests, or demand for the courses?

Elberg: Student demand, of course. But, you see, that would be handled pretty much by the college in which the department existed, because the college had to be concerned with staffing, providing the sections, et cetera. We didn't have that to worry about. All that was done when the department eventually came to us and described its situation. We were able, then, to develop a system of comparisons, and it became exceedingly complicated. I might

add that all along that time, the statewide administration was becoming more sophisticated, as it reviewed the different campuses' presentations of their own BCDs. Then, of course, you found that the state legislature and the state agencies began to become more sophisticated, as they had to deal with finding the money to fund these university-wide, consolidated priority requests.

So, the Space Needs and Priorities Committee was a very interesting and exciting committee under Harold Weaver, professor of astronomy. Harold was the ideal chairman, because he thought in quantitative terms. He had tremendous breadth of understanding of the campus and just general wisdom, and I learned so much from Harold Weaver in many ways, of how to handle this kind of problem. I was on that subcommittee, and as a result of being on that, I was a member of the big BCD committee.

At that time, it's interesting, because the first chairman of the Life Sciences Building subcommittee was C.W. Brown, from psychology, and he went from that to be chair of the BCD parent committee. He was the one who brought life to it, after many years in which it didn't do very much.

Lage: Had it been in existence before Kerr came?

Elberg: Yes. Before C.W. Brown, if I'm not mistaken, it was for many years under Professor Percy Barr, in forestry, and it was a kind of somnolent committee that didn't have much to do, because there was no great push under President Sproul for major building developments at Berkeley. C.W. Brown was brought in as Barr retired, and Brown had a genius for this. He simply remade the BCD operation in conjunction with Kerr. The two of them were geniuses at seeing how to get this thing done and how to work and accommodate the conflicting pressures from the campus.

C.W. Brown was the chairman, and we were very close, as a result of our association on the LSB. I just loved C.W. He was a father figure to the whole committee, and he devoted his life to it. It was marvelous. He was sensitive and original, creative, and so on. Now, as chairman of the bacteriology department, earlier, I had hired a business manager for the department, Mr. Lindley Sale. Lindley did wonders for the bacteriology business operation, and when I saw that we were going to break up as a department, I thought it would be best to kind of provide a better future for Sale. So I recommended to C.W. Brown that he, Brown, take on Sale as his executive assistant for the BCD committee.

Lage: Had they had an executive assistant before?

Elberg: No, really not. Brown was trying to carry it with some secretarial assistance, but he needed a real executive assistant, and Sale was a very able businessman, had come from the private sector, and proved to be also one of the best appointments we ever had--I'll give you an example of that later. Sale and Brown began to really handle this thing in a very businesslike way, and finally, I was brought in to assist Brown as vice-chairman. With Sale there, we had quite a team.

Lage: I hope at some point you'll give me an example of how something was resolved.

Elberg: Yes, I can give you that now--in other words, illustrating Sale's genius, just the way he could see things. During the terrible strife of the Third World uprising here, when Wheeler Hall was set on fire and the auditorium was so badly damaged, the first plan from the BCD committee was, of course, to seek high-priority ranking for the repair and restoration of Wheeler Hall auditorium, which was one of our main large auditoriums. The state, however, came back on that request, by saying that Berkeley had more than its share of large rooms and didn't need that. They were not going to give any money. Well, I think Chancellor Heyns was just, probably, overwhelmed by such a reply, and we put it through, again and again.

Lage: Was this a vindictive kind of thing?

Elberg: No, it was just that the state thinking on building and campus development, at that time, was so narrowly conceived, in terms of so many square feet for every purpose you could think of, that they had added up what they thought was our need, and they came out with the fact that we had more than enough. They didn't understand the variety of uses to which Wheeler Auditorium was put, and they thought it was just teaching.

It was absolutely going to be hopeless, and finally, Lindley Sale had an idea. He said, "We won't ask the state. We'll simply repair Wheeler Hall out of the insurance money that we should have from it." So he talked to Mr. Louis DeMonte, the principal architect of the campus staff, and Mr. DeMonte took a look at the cost possibilities and at the available insurance money. He said yes, he could be sure that the costs of repairing Wheeler Hall and restoring it could be done within that money.

Lindley Sale developed the proposal. It passed through C.W.'s hands and went to Heyns, who said, "Well, I prayerfully sign this request." It went through to the statewide. They telephoned back and said, "Well, what about the state?" And Lindley said, "They have nothing to do with this. We are simply

repairing some damage." And they said, "I think it'll work." So what the state administration said was, go ahead. It didn't go any further. The repairs were done, and here we are to this day, with a beautiful auditorium again, which didn't cost the state an additional penny.

Now that's what I mean by Lindley Sale having earned his salary many times over. He did this on many an occasion, such as redesign of California Hall for the Chancellor's Office and staff. When he had the inspiration to move the Graduate Division from Sproul Hall to California Hall, a most symbiotic relationship flourished.

As you would imagine, the system became more and more complicated, as the years went on.

Lage: I had thought you had left the committee when you became dean.

Elberg: Well, I did, but I'm talking about what happened while I was still there. The system of presenting proposals to the state became more and more demanding, so that each project was a small book, with all the justifications and everything that could possibly be asked.

In any event, the BCD committee began, really, during those years, to examine the campus--to have all the departments present their needs, their minor and major capital requests. It worked, as you can see when you look at the '55 plan, I think it was, and now that of 1962, which I think was the high-water mark of that work.

Lage: It seems that there was also the Campus Planning Committee. How did they relate?

Elberg: All the work of the BCD committee went to the Chancellor, and it was reviewed by his Campus Planning Committee, a smaller group of architects on the campus, Regent [Donald] McLaughlin, the Chancellor--a very small group, which decided what they wanted out of the BCD listings, and so on, and then sent the final plan that they approved on to statewide. So the Campus Planning Committee was the last word, and they rarely made any major changes. They made certain changes, which were a very important thing.

Lage: Didn't you participate in that, also, when you were chairman?

Elberg: As chairman of the BCD committee, one was also a member of the planning committee, because I, or whoever was chair, had access to all the facts. By that time, of course, when I was chair,

Kerr had become president, and [Glenn T.] Seaborg was chancellor. I had enjoyed a wonderful relationship with Kerr, and I continue to. It proved to be enormously helpful to Seaborg and the planning, that I could, on certain occasions, go down quietly and have a talk with the President about certain needs and either get his views or his support.

Lage: Can you remember any particular--?

Elberg: No, I really can't. I used to have almost a monthly meeting with Kerr on some trumped-up excuse that I could think of, because I used to love to go and visit with him. I found it quite exciting. But he always had an item. I mean, if ever I called him, he always would say, "Well now, I happen to have an agenda, and when you come, we'll discuss it."

So that was fine, but very often our meetings were most informal. For example, he might be having his car and driver taking him to a luncheon meeting in the city. He'd have me come down, and I'd go over with him in the car. We'd have our meeting in the car, and then the driver would bring me back. We'd also have what he called "walking appointments." He didn't have any formal time for me, but he'd say, "I'm going to be walking up to The Faculty Club for lunch. Come down to University Hall," or wherever, "and we'll walk up together." [laughter] I got more done out of those walking appointments and chauffeured appointments.

Anyway, with Seaborg, it was a wonderful experience, because his understanding of the needs of the sciences was so acute. Of course, this was the era of the expansion of engineering and mathematics, chemistry and physics, and so on.

Lage: Was it the era of expansion for physical sciences because you had Seaborg in there, or is that why Seaborg was in there?

Elberg: Neither. Seaborg, of course, was there for his general distinction. Also, because of his science and because his word carried so much weight.

Remodeling of LSB Cancelled, 1957

Elberg: I mentioned that this was the era of physical sciences. Now, I have to go back a moment to tell you another interesting but painful experience, to show you how all the best-laid plans of BCD could go awry. That was the expansion of the biological

sciences. I, being in one of them and working in the LSB, saw the deplorable state of affairs of that building and the departments in it. It was a mess. It was constantly having to be rehabilitated or remodeled, but there was a limit. There was always something wrong with it. It was just sheer agony working in it, for some departments.

As I left the campus for my sabbatical in 1957, I left having seen to its completion a plan for the remodeling of the Life Sciences Building. All the funds had been set aside by the state. The architect for the remodeling, Professor Michael Goodman, had been selected. Goodman had prepared a plan in which the inner courtyard would be the site of a construction of a central tower, large at its base and decreasing in size as it went up each floor. The purpose of the expansion, in part, was to handle all of the animal colonies in a proper way, to provide additional laboratory space. It would have been the making of biological sciences in that building.

When I left for the sabbatical, everything had been settled. It was to go ahead. I learned, while on sabbatical, that the zoology and botany department faculties had second thoughts, because of the tremendous amount of upheaval that construction in the courtyard would have on their laboratories that bordered the courtyard and the terrible problem of huge masses of material being brought in through the building and into the court--the dust, et cetera. They finally thought, also, that filling up the courtyard would take away a certain kind of natural north light, which they wanted for their microscopes. Well, I never would have believed it possible, but those arguments prevailed, and, while I was on sabbatical, the entire project was canceled.

Lage: Do you think, if you had been here, it would have made a difference?

Elberg: No. The faculty was just not willing to give enough, at that time, to accommodate.

Lage: Did they not see that there was some danger to their abilities to stay abreast of things?

Elberg: I don't know what was going on. I thought the reasons given at the time were terribly shallow, were terribly selfish, and were hysterical. But, that was the fact, and, therefore, we really lost twenty-five years before the biological sciences could have their day in court again. The fact that this happened was such a blot against the reputation of the biological sciences faculties, for not being able to get down and work things out, that neither the statewide UC administration nor the state had any confidence

in anything they proposed. That's been the source of the great loss in biological sciences' building strength here, in contrast to what we're seeing now, to make up for these years in the desert.

Lage: You're showing how the building space is related to departmental excellence.

Elberg: Yes. You see, here we didn't need to occupy any further space. It could all be done within the space of the LSB, and it would have made a marvelous improvement, because the whole building would have been redone from the inside out. But that was it.

Lage: Did it also affect the quality of animal labs?

Elberg: Oh, yes. It doomed them, for all modern purposes. You see, what you're seeing now, over the past ten years--the turmoil and the politics about animal care reaching the national government, and its censure of the University's care of animals and threatening to take away its licenses to have animal colonies. All of that resulted because the animal colonies in Life Sciences, try as you could, were never able to really be made proper, even with a campus veterinarian, because many of his advices were ignored by powerful faculty, and he was not given the authority to impose solutions. All of these faculty members, for reasons sufficient to themselves, had requirements they felt had to be met. They would not consolidate under a centralized animal agency.

The result is that the University was forced to the construction of the present animal research facility, and, I think, had it been done properly, we could have avoided all this animal rights business, which is a smokescreen for simple anti-vivisection and has, I feel, little or no validity. Anyway, that's the story of that. It shows that, with the best of intentions, the faculty does, ultimately, decide.

Now, that raises an interesting question. Many have asked, was BCD a senate committee, or was it a Chancellor's committee? Well, it was a Chancellor's advisory committee. But, it wouldn't have made the slightest difference had it been a senate committee, because you had, all told--I once counted the number of faculty who were involved with the BCD committee in itself and all its subcommittees--about a hundred and eighteen. Now that's a sizable representation of the faculty, so it really was a senate committee, but it was not responsible to the senate. It was responsible to the Chancellor, and I think it got a lot more done in those days than otherwise would have been possible had it only reported to the senate.

Lage: Otherwise, its recommendations would have gone to the senate.

Elberg: Yes, and who knows what would have happened. The argument was always being raised by some faculty that this was not a senate committee and all this stuff, transforming the campus, was being done without senate advice. But with a hundred and eighteen faculty members, annually appointed and replaced, and those people being the seed for discussions within their own circles, they must have reached out in their departments to practically every faculty member. The BCD committee itself sought advice from all over the campus, and so on and so forth.

Relating Physical Planning to Academic Planning and Landscape Design##

Lage: We talked about the relationship of BCD with academic planning, and I'm still not clear. Was there a formal academic plan prepared and then the Building and Development Committee worked from that? How did it relate?

Elberg: No, there was not a formal academic plan, because, I suppose, we all considered that academic planning was going on as departments came together to prepare their requests for more space, or for more facilities. That was always preceded by a statement of their academic plan for the next x years.

Lage: So it was long-range-minded?

Elberg: It was long-range, and the Space Needs and Priorities Committee simply tried to consider all these proposals in terms of what areas on the campus needed to be encouraged and pushed, and what were not in such need.

Lage: And did you give priority to the more prestigious departments, as opposed to trying to bring up some of the ones that weren't?

Elberg: We did both. I wouldn't say that they were not, or that they were less, prestigious, but they were not of the same ranking order, I think, in our minds. You take the example of the Earth Sciences Building. We had requests from geology, paleontology, and other departments of the earth sciences, separately. They were all around the place. They were scattered, pretty much. It occurred to me, at one point, that they all made a natural grouping. We could satisfy the needs of several with one good-sized building, and so I was the one that introduced the term, "the Earth Sciences Building Project," just out of my head. That name just sort of stuck, and that's the name of the building. There was no earth sciences conglomerate at that time, but it

solved a very interesting problem of bringing those people all together and letting them flourish that way. In a way, that was an aspect of academic planning. I think that the use of Wurster Hall [housing the College of Environmental Design] and the mathematics building is another example, but I think that takes us beyond my chairmanship.

Lage: You were chairman until 1961.

Elberg: I was chairman until I became dean, and then I resigned. Professor David Reed, in English, took over. During this time, the committee became involved in a variety of new topics. The first thing we knew was that as the sites for our new buildings were being prepared, we were suddenly confronted, as an example, with the fact that certain segments of the zoology department found that the natural habitats of certain of the wild rodents, and other forms of animal life, were being destroyed to prepare the site for a building. They were, therefore, losing their teaching materials.

Lage: They taught in the natural area.

Elberg: Yes. So did botany. We realized that we had to be much more careful. Therefore, we began to pay much more attention to the landscape design that any new building would require and what the effect on existing departments would be. That all had to be taken into consideration. That meant that the landscaping design of the campus had to be introduced and properly coordinated.

Thus developed the idea that certain areas were not to be built upon. Those were to be the gardenlike and vista areas. We went from one consulting landscape architect to another, until we found Thomas Church, who was the best of them all and who laid out the long-range landscape design that really governed the setting and placement of buildings.

Lage: Did you take that idea to him, though, that there would be this area where there was no building, a central area?

Elberg: Oh, yes. You see, the Campus Planning Committee had Regent McLaughlin, a very strong advocate for the beauty of the campus. And so, at some point, the Regents themselves set forth certain areas of the Berkeley campus that were not to be built upon, and if there were structures there, eventually they were to be taken down and the area restored by appropriate landscaping.

Lage: And that was Regent McLaughlin's influence?

Elberg: His influence was absolutely remarkable. He worked with Bill Wurster, Thomas Church, Professor Walter Horn, and Professor Stephen Pepper. They developed this whole landscape planning, and that suddenly created a terrible problem for Seaborg, because, suddenly, at one meeting of the Campus Planning Committee, Regent McLaughlin and Dean Wurster said, right there, "This means, Chancellor, that the temporary buildings in the glade opposite the library must go."

Well, this was a complete disaster for which Seaborg and I were unprepared, because we had no place to put those people. Seaborg said, "But we can't." And McLaughlin and Wurster said, "Yes. Those buildings have to come down." Well, we got into a spat, and I said to Wurster, "Bill, it's as if you haven't been on the BCD committee. Where have you been? You know what those occupants are, and where will they go?" He said, "You'll find a solution, somehow. Those buildings have to go," and McLaughlin agreed with him.

At some point, the meeting ended, and I sat there in stunned silence with Seaborg. I think the two of us could have wept. He was absolutely nonplussed, and I had no idea what we could do.

Lage: Where did the authority lie? With the Regents?

Elberg: Yes. You see, with McLaughlin on the Regents, there was a tremendous weight of authority. After all, it was the Campus Planning Committee that was telling Seaborg and me this, and that was the law. "Well," he said, "I don't know what we're going to do." I said, "Well, let me go back and talk with Lindley Sale, and we'll just see how we can manage." Well, as you can see, to this day those buildings are there and only under sentence of destruction with the new proposed Long Range Development Plan of 1989.

Lage: So how did that happen? I'm not sure I'm glad they're there.

Elberg: They are due to go. There's no doubt. But now is the time for them to go. Lindley Sale and I decided that we would just say nothing further about them and, in a sense, stonewall the matter and not bring it up again. Fortunately, Wurster and McLaughlin understood. They had made their point, and they knew that it was in the record. At some point, they knew the administration would agree, as soon as it was humanly possible to do so. It has been almost twenty years, that it's become humanly possible, because there's a new source of state money now, and so on.

You ask about the master plan, the academic plan. That didn't come, I think, until--well, Kerr did have a plan, but it

was mainly a geographical plan. He visualized the campus as Chancellor, as in certain sectors: this would be the physical science sector, this would be biology, this would be agriculture, this would be engineering, this would be the social sciences and the humanities. It lasted. That's the way the campus was divided.

Lage: Wasn't it that way, to an extent, before that?

Elberg: It was, but it was "cemented." In other words, one was not going to put the new mathematics building down in the agriculture area, even though there might have been a good site, the idea being that contiguity brought contacts between people of similar likes, and discussions. That was the idea. It's been violated, to some extent, but it's still that kind of a campus. I think that we had many concerns then, in addition to the landscaping. We had the concerns about saving certain trees--certain eucalyptus trees, which had become monuments.

Lage: Were those expressed through the professors, or students?

Elberg: Both used to address the committee, and we profited greatly that way. There were certain obvious trees that were so tremendous, or beautiful, that everybody considered them inviolate, except when they'd fall from old age, crushed that way.

We had many concerns that we had to consider. You mention in your notes about overcrowding. Seaborg was Chancellor for a short time and then went to Washington, to be succeeded by Ed Strong. Strong was a marvelous Chancellor for building the campus, for understanding the academic. He almost, himself, had a sense for the academic planning. He was vice-chancellor for academic affairs under Seaborg, so he was promoted. It was a very happy arrangement for the BCD committee.

It was about that time, I suppose, that we began to think of, with all this building, how many students should this campus support? It was growing terribly. A figure of 27,500 had been established over a long time, but you could never stick to it. There had to be some device for watching over that, and there was, but we seemed to grow and grow, until around 1969 or '70, when Heyns, as Chancellor, took the matter in hand. We set certain firm limits for growth, and that was it. It's been a constant matter, something that you cannot control too well, because there is a limit to the number of campuses. The University is under obligation to accommodate eligible students.

Planning for the Growth of Biophysics and Molecular Biology

Lage: How well did you find that people on your committee, with their own private interests, had the big picture?

Elberg: Most of the time they did. They were well chosen. They were a remarkable collection. They were statesmen, in the best sense of the word, the members of that committee. They could see beyond their own immediate interest. In fact, they were most careful not to push for their own interests. They knew that would be taken care of in the normal operation. Their job was to adjudicate conflicting, competing interests, and I think that was the genius of the BCD committee.

Lage: So it was a high-minded approach.

Elberg: It was a very high-minded approach, and I don't really ever remember anyone pushing for their development who was on the committee. Why, they may very well have stimulated their colleagues to come down and push, but that was all right. That's how we learned. This is illustrated by the committees under Seaborg. The committee was faced with the revolutionary academic development that was known under the term of biophysics and molecular biology. That was a new growth area in science, and Seaborg was very concerned that we be properly staffed to meet the needs.

Lage: This was a national development?

Elberg: This was international. This was one of those scientific revolutionary steps, and we didn't have any department of that name. We had those fields reflected in botany. For instance, Vice Chancellor Roderic Park was brought to the campus as a molecular biologist or biophysicist. He had his training with Melvin Calvin [Nobel Prize winning professor of chemistry and director of the Laboratory of Chemical Biodynamics], too, as a post-doc, I believe. He was really the first faculty member of that area to be placed in one of the standard departments as a professor of botany.

The new fields were being represented in the various departments but without any growth plan, or any concerted plan, and Seaborg was concerned about this. He asked me to make a trip around the country to find out how other universities were handling the molecular biology, or biophysics, movement. How did they organize it on their campuses? And so I went around the country to the major universities.

Lage: Which ones did you go to?

Elberg: I went to Illinois. I went to MIT and Harvard, and I went to Chicago and Stanford, some places like that--Yale, Princeton, so on, and New York University. I visited all of them--and Colorado--and got a feeling for what they were doing, and how they were appointing their people, and what units they were creating. There was tremendous variety. I brought that all back to Seaborg, and we had a big committee of faculty brought together to discuss it.

Lage: People in this field from the various departments?

Elberg: Yes, and reflecting major differences in their view of the nature of scientific inquiry. There was great difference of opinion, and there was no conclusive result. It took a while and a lot of different approaches. It was obvious that biochemistry was strong in it. The Calvin laboratory was strong, as were other places on the campus.

It was decided to let biochemistry and virology probably take the lead. It was [Professor of Biochemistry and Virology] Wendell Stanley who had a great deal to say. For quite a while, it was handled as a subject in biochemistry, which Stanley, incidentally, had completely reorganized on being brought here. He created the Virus Laboratory, which was an astoundingly superb lab, and it was like a teaching unit. Eventually, though, within that Virus Laboratory, there was a segment created called molecular biology.

Lage: Did this weaken, though, the departments such as botany, or--?

Elberg: No, because Seaborg, and those who came after him, realized that if this field was to be properly handled on this campus, the existing departments might have to do it. He was not about to create a new department at that moment. There wasn't enough agreement. In order to encourage the departments to go into that area as they wanted, he made available faculty slots that would be given to them, without compromising their need for faculty positions in other areas that they had long wanted. It was like a gift, like a little bribe. It worked, so the molecular biology effort had many sources and variances that reflected the usual Berkeley campus pluralism.

Lage: Now, this is going way ahead, but it might be the place to talk about it. Didn't you chair a committee, fairly recently, in the eighties, that reorganized the biological sciences at Berkeley?

Elberg: No, I was not on that committee. I was on a follow-up of it, to adjudicate conflicting needs of faculty, as to whether they would be in this or that, or other, area of biology, but I was not on the primary committee considering biology. I had retired by then. My views were long-known, as Dean of the Graduate Division, on the matter, popular or not.

Lage: What were they?

Elberg: Well, my views were that the biological sciences were in a bad state. They had become parochial in some areas. They needed to be reexamined, realigned, but it was not something, as dean, I could speak widely for, because I was not a budgetary officer. For me to speak would have been improper, since I had nothing to put in to support it. In private conferences and whatnot, the growth of the new areas in microbiology, in public health, in physiology, and even optometry, were all of concern to me, because these were programs for graduate students.

I was concerned that the graduate students get the best education they could and that the programs should open their boundaries up to allow their students to take larger amounts of material from other departments. That's how I tried to influence faculties, through the Graduate Council, by always impressing on those who would listen that the thing our students needed, in a sense, was outreach. I wrote about this in an editorial of the Council of Graduate Schools on the "disadvantaged graduate student."

Disadvantaged was always a term relating to undergraduates and other concepts, but I was talking about the disadvantaged graduate student that wasn't being given the chance to learn the deep history of his or her subject and where foreign languages had been all but forgotten. This is quite beside the point, but the foreign language requirement had been so abused, legally, as the Graduate Council rules permitted, that most students, even graduate students, hardly knew French or German adequately. Many departments had done away with the requirement, with our permission, which was a great mistake. I was writing about that, and I'm glad to read in last Tuesday's edition of the New York Times education section, that concern for foreign languages is returning in higher education. I had no audience for my comments in this paper I wrote. People just didn't understand what I was getting at.

Outstanding Achievements, and Failures, of the Committee

- Elberg: We want to consider what the outstanding achievements and the failures of the BCD committee were. I think the outstanding achievements were, obviously, the building program, the long-range development plan of 1962, which has pretty much lasted to this day: the developments of the sciences and engineering, and, now, the developments in the biological sciences. I think that things that didn't work were those of aesthetic values. I think Wurster Hall was a great disappointment because it was intended to be a teaching model to the students who went in there to see how the building was constructed. As a thing of some beauty, it's monstrous.
- Lage: Your committee didn't pass on that, on Wurster Hall?
- Elberg: No, I was long gone, and I'm not sure the committee ever was shown the interior designs.
- Lage: I didn't realize that the committee even passed judgement on the architecture.
- Elberg: Oh, the committee did. Oh, yes, the architects for each building presented their design to the BCD committee and then to the Campus Planning Committee, and then to the Regents.
- Lage: So you covered everything, the plans--
- Elberg: Oh, yes. We covered everything.
- Lage: And you had subcommittees for these various activities.
- Elberg: Yes. For each building, there was a subcommittee. That committee, of course, was key to reviewing the architect's plan, and many a plan was thrown out and the architects told to come back with something different. In fact, sometimes the architects were discharged and a new firm introduced.
- Barrows Hall was not a great success, either; it smells like a city high school, or worse. It looks like a penitentiary. It was a disaster.
- Lage: And the placement of it.
- Elberg: The placement of it was a catastrophe.
- Lage: Now, how did that happen?

Elberg: How did it happen? I can remember this day, walking with Seaborg and McLaughlin up Bancroft, trying to visualize what that building would be like. Nobody really saw what would happen. We didn't really conceive of the effect of that monstrous thing on looking into the campus. It was one of those failures. We were, at the moment, with Barrows Hall, dealing with a new principle that had been established--that is, that you build the greatest number of square feet possible for the site, because you don't know when you're going to get any more money. So they filled that site, and I think that's part of it. For many years, that was a principle.

There were other awful things, like the standard square footage that the state allowed for every function, which were totally unrealistic. We had to do everything we could to get around it: imagine the idea that seminar rooms were not legal. You couldn't put a building proposal in with any amount of square foot for seminar rooms or conference rooms. Utterly ludicrous.

Lage: They thought they were frivolous, or--?

Elberg: Frivolous--that they weren't needed.

Lage: So that has a lot to do with the kind of class you can offer.

Elberg: That's right. Our other great projects in BCD were the student dormitories, the development of the whole residence hall program.

Lage: Who initiated that idea? Was that a Kerr--?

Elberg: Oh, yes.

Lage: Or did it come from faculty?

Elberg: No, it came from Kerr, or, I would say, Kerr and successive Chancellors. Kerr's genius, again, came to the fore, in that he had a vision of student life. That vision included the student buildings on Sproul Plaza, the great Zellerbach Auditorium, the student government building, and the great building right on the corner--the student union.

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Kerr, Seaborg, and Strong were great proponents, and so, of course, was Heyns, of the development of student life in an organized fashion. That meant that, once again, the University was going to have to condemn or take possession of land that was officially part of the city. This meant a tremendous amount of liaison with the city. Fortunately, that was not at the level of the BCD. That was either Campus Planning or the Chancellor

himself appointing a liaison officer. That was how that worked.

Lage: Did you make your plan for the residence halls before you talked to the city?

Elberg: Oh, yes. The residence halls were a kind of standard plan that was developed to house about 844 students, as I remember, in four towers in each place. That was standardized.

Lage: How were these figures arrived at?

Elberg: The Regents decided, at the suggestion of the campus, that the University should try to house something like one-quarter of the total undergraduate population, and that's how, I think, it came about. They had, already, the graduate student apartments out on the Albany field station, and I had begged and pleaded for a graduate center on the Berkeley campus--a dormitory or residence halls appointments.

Lage: Was this later, when you were dean?

Elberg: This was when I was dean. I thought we could have a building like that, but made of small apartments, one or two bedrooms, for the single and married graduate students and maybe one or two children. This came to nothing, of course. They couldn't do it, but it was a dream. Nothing ever came of many of my dreams. So that's about it.

Appointment as Dean of the Graduate Division, 1961

Elberg: I remember, then, we were finishing up the BCD committee meeting one afternoon, in 1961, sometime in October. I had a message to call next door, to see Chancellor Strong. I went in, and I was prepared to tell him the results of the BCD committee meeting, and he listened. We had our little heart-to-heart talk about certain problems that were beginning then, in his mind, with student problems, and with faculty problems. After we talked about that, he said, "I want to ask you something. I'd like you to be the next dean of the Graduate Division." Well, I simply collapsed inwardly.

Lage: What were your feelings?

Elberg: My feelings were of such elation. I couldn't think of an administrative position I would more have wanted, but I had never thought of such a thing. It had just never occurred to me. I'd

never thought of ever being a campus administrator, never. And when he said the Graduate Division, I had had such reverence for the Graduate Division, as a faculty member and as a student, that I just could not answer him. I said, "I'd be less than honest if I didn't want it, but I have to talk it over with Sylvia, my wife." He said, "Oh, yes, of course. Call me tomorrow." I called him tomorrow and said, "Of course."

I think I was floating on air. He said, "Don't say anything about it. It has to go to the Regents next week." And I think they met shortly before Thanksgiving. I've forgotten, but it was sufficiently before Thanksgiving that I was told I was the next dean. I decided to take the whole family to Carmel for the Thanksgiving weekend--wife, daughter, son, mother-in-law, and friend. We went down there and celebrated quietly the next stage of life, at Carmel.

Lage: Do you know how the selection was made?

Elberg: I never had the slightest idea. Obviously, they had a search. They had a search committee. You see, the previous dean had died about a month or two earlier. I had filled in as a part-time helper to him, when he was so ill in the previous summer. That was my first introduction to the Graduate Division. The ladies in the Graduate Division were wonderful teachers of what was what.

Lage: You hadn't been on the Graduate Council.

Elberg: No, I had never been on the Graduate Council, nothing like that. I had been a good friend of Morry Stewart, the dean, in the NBL relationships and all. But there must have been a search committee. Those things had to be. I don't know who the competitors were, but, in any event, I never worried about that. I got the job, and I was thankful ever since.

Lage: Did that require giving up the teaching?

Elberg: It required that I give up most of the teaching, but I couldn't possibly give up my research. I had to withdraw and leave it in the hands of my associates, but I had to keep it going. I did for ten years.

VII THE GRADUATE DIVISION AND ITS DEAN: RESPONSIBILITIES AND RELATIONSHIPS

The Office, Its Personnel and Philosophy in 1961##

Lage: Last time we got you appointed as dean of the Graduate Division. This time, we were going to start out by talking about how the division was organized, more or less. What was the dean's authority? Who did you answer to, and whatnot? Can we start as generally as that?

Elberg: Oh, surely. When Chancellor Strong invited me to become dean, I had had a subsequent telephone conversation and visit with Clark Kerr, who had called to wish me well. Since I hadn't received any kind of a charge, I suppose they assumed I knew what the Graduate Division was all about, although I had never had any contact with it. One thing President Kerr said to me, "I hope that one of the things you'll accomplish is to make it a more humane office for students to come to." That struck a responsive chord in my memory, and I knew at once what he was talking about.

The Graduate Division, I found, was a collection of very long-term employed women, who had become extremely wise and knowledgeable about everything the Graduate Division was to do. They knew about the Graduate Council and its relations, and, I think, in many respects, they were the continuity of the place.

Lage: They were administrative assistants and the like?

Elberg: They were administrative assistants, and some had been there for thirty, thirty-five years. They had the institutional memory, and they could always tell you what the precedents had been. In the beginning, they could always tell you why you could often not do what you wanted to do.

Lage: Is this what they told you or what they told the students?

Elberg: This is what they told me. They were not expected to tell the students very much, except the facts. On my first employment in the Graduate Division, I began to learn the structure, and I found that there were two associate deans, at that time, Dean Robert Cockrell, from the forestry department, and Dean James King, from the history department. They were long-time associate deans and were running the office very successfully under the acting dean, James Cline, from English, who had stepped in at Morris Stewart's illness and held things together. When I became dean, Cline retired, and I had the wonderful services, absolutely invaluable, of Cockrell and King.

Lage: How much of their time was given to the Graduate Division?

Elberg: They gave about half-time. Then there were the ladies of the Graduate Division, who handled the sections on admission, the section on the award of graduate fellowships, the section on the awarding of degrees--of the requirements and thesis requirements, et cetera, everything connected with obtaining a degree. There were about four basic sections. King supervised admissions and fellowships, and Cockrell supervised the others. I came in and left them to it, for the while. We just simply began to run the office as it had been.

The philosophy, however, of the office, which I think accounted for Clark Kerr's concern, was very interesting. Most of the ladies in the office operated according to the principle that the Graduate Division could not make an error. It had to give the correct answers all the time. I suppose, for them, there never had been an error, until I came. Anyway, that meant that there was complete preoccupation with the rules. So, of course, you couldn't make an error, but the students suffered. I think exceptions to the rules were, literally, great exceptions. When I began to make certain ones, I began to feel the ground under me beginning to quake.

Lage: Because of the reaction that you sensed?

Elberg: Yes, on the part of the ladies, because it upset their pattern of action. I can understand that. They felt that they could never, then, predict or count on anything, but we worked that out. We had some times when it was necessary to prevail, and, by that, I introduced certain new principles: that exceptions to the rules could be made if they were, in my view, well-based.

Lage: What kinds of rules would we be talking about?

Elberg: Well, these might be rules regarding units, requirements, whether students could take a shorter load, or a bigger load, whether

they could take more than one degree at a time. Anything you want. There was always a student ready to ask for an exception, and, of course, that couldn't be. You had to use a great deal of care, but there were, occasionally, times when student needs and desires were very legitimate. It was necessary to take that into account.

Lage: Was it difficult for a student to get through to see you personally?

Elberg: No, that I saw to at once--that I was available if the calendar permitted it, and if not at that time, then by appointment. There was no problem at all.

Relationship to the Graduate Council

Elberg: The other big world of the Graduate Division, in its organization, was its relationship to the Graduate Council, the principal committee of the Academic Senate. I learned, eventually, that the Graduate Council set all the policies that we ran by. These were all printed. These were all approved by the Academic Senate as a whole, and, once printed, they were in effect. It was my job to administer those policies.

From that sense of the word, I served very much as an executive officer of the council. On the other hand, I was not an employee of the council, or of the senate. I had a degree of independence, but the secret there was to operate with the council in every way--to insure that it knew what was going on--and to present problems to it in a timely fashion and argue them out and gain the council's agreement about whatever it was that we were talking about.

Lage: Were there particularly strong people on the council who had certain points of view they wanted to see prevail?

Elberg: The council? No, they were strong, independently minded people, most of them, with a degree of continuity on the council, which was very helpful--two or three years, at least--and widely representative of the disciplines. On the other hand, their loyalty was to the council and to the Graduate Division, and they worked just marvelously over the seventeen years. There was never a major disagreement between us. If there was, they never let me know, and I, in my blissful ignorance, assumed there wasn't. I never sensed any rankling. I always felt that the

relationships that I had with the Graduate Council were extremely helpful and extremely supportive, in both directions.

Lage: Would you set the agenda for their meetings?

Elberg: Yes. There was an agenda committee. I may have my memory of the committees not completely correct, but the Administrative Committee of the council, which ran things in the absence of the council, such as on the long summer vacations and so on, was my main working subcommittee. With the chairman of that committee, we set the agenda, although most of the time it worked out that, as the business developed, I set the agenda and submitted it to them. There was no problem. We had so much business, all the time, that it was just a question of calendaring it in order of importance.

Lage: Would you take an issue, such as how flexible can the Graduate Division be to them, or was that in your own discretion?

Elberg: No. Well, there was a limit. How flexible was my own decision. Since they would have an annual report, they would be free to express any fears that things were getting out of hand, or too flexible. That never occurred, because we always erred on the conservative side of consultation.

The Foreign Language Requirement, an Ongoing Struggle

Elberg: The one area, which I think was one of the most humorous, is the item, as I mentioned earlier, known as the foreign language requirement for the Ph.D., which, for most departments, was French and German. The Department of English had four different foreign languages that they required, and when the Department of Comparative Literature was created, Alain Renoir and company decided their students had to have five foreign languages, which was an immense thing, but they managed it. The foreign language requirement over the rest of the campus, outside of the humanities, was a source of constant struggle--to get rid of it entirely versus my feeling, which was to exercise some degree of flexibility and leniency but never to get rid of it.

Lage: Two languages?

Elberg: At least two, but we did get down to one. In certain specific instances, in which the departments could petition the council, there might have been approval to substitute, in a rare case, something other than the foreign language, you might say,

something that could serve as a language in that discipline. Statistics, for example, was always brought up, and something else like that, but there were very few. These were few and far between, and I think the reason that the foreign language item appears almost weekly over the seventeen years of my deanship is that the departments were constantly trying to change it, and those items simply reflected the council's action and strong support that it must not be an emasculated requirement.

Lage: Did they feel that it wasn't essential?

Elberg: For a long time, many of the science departments simply ignored the requirement, except as a formality. They really felt that their students, in the sciences, found the entire literature that they needed to be in English, no matter what country. Over the subsequent years, though, I found that the sciences became some of the strongest supporters of the foreign language requirement, and this was primarily because I constantly argued with them that I didn't think students at the graduate level, at the Ph.D., could be considered at all well educated without foreign language competence. I calculated that this view would always appeal to the humanities whose support I assumed but rarely found it forthcoming in general terms.

Secondly, I felt, in truth, that science students could never fully know the history of their subject unless they could read the original papers, when the subject matter had developed in Germany, Austria, France, or somewhere else. The great papers and research were in those foreign languages. I didn't have too much success, except the campus finally just agreed that Elberg was obsessed with this, and it was better to go along and gain his acquiescence in other matters, and not fuss about the foreign languages. [laughter]

Anyway, we maintained the requirements, and I'm glad to see to this day that it's showing a rebirth in the graduate area, so that the nation is coming around to it once again. Of course, with the development of the foreign language scholarships from one of the national foundations during '57 and '58, when the nation recognized the need for foreign language scholars and poured money in, we certainly had no trouble then, and that helped me. We had vigorous debate in the open senate one day, on the matter of the foreign language. They didn't actually reject my view, but they did permit certain departments in engineering to have a little more latitude.

The Dean's Authority: Persuasion, Cajoling, Nudging, and Screaming

Elberg: The authority of the graduate dean has always been raised in cocktail talk and others, I suppose, never to me directly. The fact of the matter was, and is, that the graduate dean has no real power. There was possibly a restlessness among the departments that the Graduate Division exercised considerable authority, which I felt was absolutely correct in certain limited respects. It was the one office on campus that was there to ensure some uniformity of standards at graduate levels. This was my great obsession and principle: that standards of quality should be uniform where possible, and that it was our role to foster that and not let departments run wild with autonomy.

My feeling was that we had given away, as most institutions had, a great deal of autonomy to the departments when we practically said that admissions to the graduate area would be recommended by the departments, with such recommendations normally binding on the dean. If quality was assured, the role of the Graduate Division would be to accept that recommendation. Only in the rarest cases would the Graduate Division reject a recommendation for admission, and that was always on the grounds of quality. We could negotiate, if they knew something about the student I didn't; they may have had interviews or something. We would come to a meeting of the minds on admissions, but I was not going to give the exceptional authority to the departments. The routine authority, yes.

Lage: But you were the last reviewer of the admissions, so--

Elberg: We were the last review of admissions. As the times became tougher and the population of the student body began to be criticized as being too high, and subsequent Chancellors wanted to reduce it, the Chancellors developed an idea, which we administered, that there should be departmental quotas. We administered those quotas. We calculated what they should be, department by department, in a very elaborate system, and spent a great deal of our resources and effort, with an associate dean specially employed to watch over these quotas across the campus, to see that they were equitable and fair. We did enter in, once again, more and more into the admissions process, in that sense. Dean Eugene Hammel was the author of our system of quotas and their modifications by department. It was a remarkable computer-assisted system.

Lage: When did that occur?

Elberg: We set the quotas.

Lage: What time period did that occur?

Elberg: Oh, that must have occurred somewhere in Roger Heyns's administration, around 1970, or '69. Associate Dean Hammel developed the entire quota-calculating system. He was succeeded by Associate Dean [William] Geoghegan, who did that to a fine degree.

So let's return for a moment, about the council. The council, I think, is one of the great committees of the senate, comparable to the budget committee, because it exercised its authority in a very, very wise way, and with great openness. It was always open to discussion with any department. It was an exciting committee. There was nothing routine, and it was peopled by a remarkable collection of faculty on the whole.

So, the Graduate Council, it seems to me, won the respect of the senate, and, indeed, it would be only right, under certain circumstances, for the council members to think that they were being overrun by the dean. That could happen, and it was very important not to do that, or not to be perceived to be doing it. Relations with the dean and the chairman of the council were absolutely and necessarily on a very close basis, so that the chairman of the council was completely aware of the problems the dean was facing, and vice-versa.

Lage: Were these subtle relationships between the chairman of the council and the dean verbalized?

Elberg: Oh, the chairman and I met repeatedly.

Lage: With discussions about what the dean's authority was?

Elberg: No. Only once. I think it was the dean at the medical center in San Francisco that fussed up a tremendous stew about what his authority was. Well, of course, he could do that, because he had none over there. I think he had two hundred students, at the most.

Lage: He was dean of the Graduate Division there?

Elberg: Yes, he was dean of the Graduate Division. As a result of the reorganization, every campus was its own czar of graduate affairs, within the coordinating committee, statewide, on graduate matters. I think that what happened was that the medical school had little or no regard, in the early years of the reorganization, for what a graduate dean was responsible for,

Elberg: because they didn't have that many graduate students taking the Ph.D.

Dean Harper, I think, had an awful time holding his head above water, because every time he tried to get a breath of air, they smacked him down. One day, he had the genius of an idea to lay out, according to the rules and traditions of the Berkeley division, which was the granddaddy of the northern section, what were the roles and the authorities of the graduate dean. Well, he opened up a Pandora's box because, having done that, every graduate dean in the state began to think, "What have I missed? What have I missed? What have I been sat upon by?"

Eventually, we all summarized what we thought were our authorities, and we had one great hearing, I believe, as I remember, at the statewide committee. The Graduate Council at Berkeley couldn't have been less interested, because it was simply no problem. I think they chuckled along with me about this thing. We had this one great discussion at, possibly, Los Angeles, where all the "have-not" deans told of their calvaries that they walked with their senates and their departments, and the "have" deans kind of listened and let them have it all out. The whole thing, then, dissolved into nothing.

It was a great catharsis, but it was the only time I ever remember that the deans were concerned with their authority. Of course, they had none, when you come right down to it. The graduate dean had no authority except that exercised in the name of the Graduate Council. Some of them had gotten the idea that they inherently had authority. Well, of course, they didn't. We had no budget power. We had no money to distribute to departments in the instructional budget.

My own personal thoughts on that, I think, agreed with many of the L&S deans that it was not right, but that's the way it was. We learned to live with it, the lack of budgetary authority, the lack of this or that. In the long run, we wouldn't dare exercise the real power of admission that the academic manual said we had. The academic manual said that the final authority in admissions was the graduate dean--not the Chancellor and not the President. Nobody was more surprised than some of the new Chancellors. Of course, I didn't mention that, and they never raised the issue but once, in a joking way, or else someone of their associates informed them. They had learned where they had been before that you just didn't interfere or ask to have certain individual students admitted as a favor to people.

Even President Kerr used to say to me, "For heaven's sakes, try to save one or two admissions for me, because there are certain times when this is absolutely essential." We never said that we would, but, on the other hand, we understood the problem. When it was possible to do so, without aggravating the department, it was done, and it was done probably quite agreeably. It raised the question, you see, of the inherent authority of the dean, which was zero. The dean of the Graduate Division operated, in my view, entirely by persuasion, cajoling, nudging, screaming, and rational argument. Everybody understood, and in order to get some of the good things that the Graduate Division could send the departments, it was just a mutual reinforcement, in the sense that it was the way everybody understood the division had to work. You worked with their understanding and with their good will.

Lage: And then in the departments, which seemed to have a lot of authority, I've also heard that the department chairman really didn't have authority.

Elberg: The department chairman has zilch.

Lage: So where's the authority?

Elberg: There is no authority. The University does not work from authority, except at the decanal level, the dean's level, who has the budget, and the Chancellor's.

Lage: What was the word you used?

Elberg: Decanal, the adjective for dean. The decanal level was the dean's level, and only the deans, or provost, later, that have the budget handed over from the Chancellor, have the authority to distribute that budget, as they saw fit, to the department. That is authority. That is power.

Lage: The dean of L&S, for example?

Elberg: The dean of L&S is probably the most powerful, in that sense, figure on the campus. Well, he is the provost, and there is no vice-chancellor over him, except the vice-chancellor, who does not distribute the money. So, in that sense, it comes from the Chancellor to the dean of L&S and to the provosts. They distribute to the colleges and the schools.

Graduate Dean Elberg and Chancellors Heyns and Bowker

Lage: It's interesting, because I had told you I was just looking at Roger Heyns's oral history, and he commented that the Chancellor really has no authority.

Elberg: That is right. The Chancellor is bound by many things, and I will never forget a meeting with Heyns, when he finally must have gotten desperate about his lack of any wherewithal. His vice-chancellor for research, at that time, Alan Searcy, had discussed with him, and with Mr. Mauchlan, the budget officer, getting some relief for the Chancellor's perennial poverty, so he could have something he could call his own to distribute as he wanted.

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The idea was that the Chancellor might pluck, from the graduate dean, some of the funds that an earlier Chancellor had given to the graduate dean to be his own from the research income. Alan Searcy came to me one day and said that the Chancellor would like to relieve me of certain monies, to which I nearly had a heart attack, because I felt that every penny was precious. But, he said, the Chancellor needed and would like to talk to me.

So I went to see Roger, and I shall never forget. Roger proposed this, and, of course, I had no argument. That was what he wanted. That's what was going to happen. I said, "But it is a pity, Roger, that I really don't have anything. I'm not a budget dean, et cetera, and Chancellor Strong had given me these funds, and I've administered them." "But," he said, "Sandy, I have to have some money, too." At that, I dissolved in laughter. We both did. "Oh, of course. Take what you want," and that was it. [laughter] He did!

I thought to myself over the years, "One of the greatest campuses in the world, and here are the two impoverished people." The world thinks the graduate dean is so authoritative and powerful. Everybody would think that the Chancellor could do as he wanted, and there he was, pleading with his non-budgetary officer, the graduate dean, for a few thousand dollars. Well, it was just marvelous, but it did show the wonderful relationships there were, that you could do things like this and nothing would come of it, except good feeling. That illustrates our, I think, constant relation with the Chancellors.

Lage: Did the Chancellor have much to say about what you were doing in your field? Did you meet with him regularly?

Elberg: As to what I was doing? Oh, yes, the Chancellor could say, or call me in, or do anything he wanted, but he never did. I had absolutely complete freedom to operate the Graduate Division, as long as I did it in some degree of sense, and, not only that, I had a remarkable, cordial relations and helpfulness from Errol Mauchlan, who made life as graduate dean possible. I mean, I could never have functioned as graduate dean without the support of the Chancellor's budget officer, Assistant Chancellor Mauchlan.

Mauchlan's influence was remarkable, first, because he was a very bright and wise person. He was a Scotsman, with a great feeling for the money. Yet, he was the greatest support the Graduate Division ever had. In terms of programs, we, together, very often worked out new ideas for programs. On an intellectual basis, I would talk over everything with Mauchlan. Very often, he had a way to suggest that this could be done. It's just that the Chancellors, and the budget officers, and the vice-chancellors, were tremendously supportive, in terms of giving the dean of the Graduate Division, I thought, complete freedom. It's possible that, under Bowker, I may have misread the degree of freedom I should have used, or should have not used, but he never said anything. He never raised, really, any issues that would have given me the slightest suspicion that he was not happy.

On the other hand, it was the greatest surprise of my life to wake up one day and have Dean Chernin, of the School of Social Welfare, and the dean of the College of Letters and Science, William Fretter, tell me that I had better attend a certain special committee meeting, to which I had not been invited or even knew about, that the vice-chancellor, Mark Christensen, had convened in order to discuss whether the Graduate Division should be dissolved.

Lage: Oh, my goodness! And you had not been told of it?

Elberg: I had not the slightest inkling that such thoughts had even existed. Obviously, there had been no inquiry, or notice, to me, and I went to this meeting. I couldn't understand why Mark Christensen, with whom I had the most friendly and good relations, had never mentioned it to me. I went to the meeting, and the item never appeared, although the members of the committee said it was on their agenda, and it was to be decided.

Lage: Did you bring it up or just wait?

Elberg: I sat there, certainly, silent, simply prepared to raise the question, "Why, and how?" To this day, no one ever has been able to tell me the origin of that, but I do know that Vice-Chancellor

Christensen could never have originated such an item. After my retirement, occasionally Bowker joked with me about how we really didn't need a Graduate Division. It never occurred to me to take that seriously or to relate that with this event, until later years, when it suddenly struck me, and I nearly had a heart attack in retrospect, to realize that all that time, there may have been some smoldering resentment, apparently, about the Graduate Division, or about me. I never knew.

Lage: Did you have a sense of what caused it?

Elberg: I have no sense.

Lage: There weren't issues where you disagreed with Bowker?

Elberg: No, that's the whole point. We never had a moment's disagreement. In fact, he never raised an item about the Graduate Division. Anything I brought to him, we discussed, and he expressed what he wanted, or didn't, and that was that. I was never so amazed, and the only thing I can think of is that the Graduate Division had won the respect, so thoroughly, of these deans, who were on this study committee, that such an idea was not appropriate at that time, on this campus. To this day, it's the great mystery of my career, to know why, and what were the issues. I have decided, long ago, never to pursue the matter, because it could only make me unhappy, and there would be no way I could handle it.

Years later, I was puzzled by the fact that they gave deans, and janitors, and most professors--and always a dean--the Berkeley Citation at retirement. When I retired, I didn't receive it on the day of the Graduate Division retirement party, nor when the vice-chancellor, Mr. Heyman, organized a reception and cocktail party for me and the chairmen of departments of the whole campus.

There was no award of the Berkeley Citation. The absence of it never occurred to me at that time. The Chancellor gave a grand dinner for me with the administration and certain chairs, and I sat next to Chancellor Bowker. We kept up a gracious conversation, and although everybody spoke kindly, there was no Berkeley Citation.

It wasn't until Charter Day following my retirement that Assistant Chancellor Glen Grant called me one day. He said, "I want you to be sure to be at Charter Day, because you're going to be given the Berkeley Citation." I said, "Oh!" It was the most wonderful thing I could think of. "Oh," he said, "don't be silly. It should have been done long ago." I never really

thought of it in those terms. "Well," I said, "I'll certainly be there."

It worked out beautifully, as I received it in front of about eight or ten thousand people. I received it in company with the U.S. ambassador to England and former president of Yale, Kingman Brewster, who was an old friend, and with the Britannic ambassador to the United States, David Owen, the physician ambassador. We all received the citations given by Vice-Chancellor Heyman, who read a most wonderful citation of my work.

Lage: If the Chancellor had been bent on doing away with the Graduate Division, would that have been possible? Did he have that kind of authority? It seemed like it was a statewide structure as well.

Elberg: No, he couldn't have done that without the approval of the President and the Regents, since they had created it. Certainly, I don't think he could ever have done it without the approval of essential committees of the Academic Senate, in the sense that we were not unknown on this campus. It was very strange, one of those mysteries that you see in life. An administrative mystery that was never explained, certainly never justified.

Lage: And you didn't see fit to call it to his attention.

Elberg: No. You see, the interesting thing was he had that idea floated by his vice-chancellor. Why, in my relations with that vice-chancellor, he never indicated anything, has always puzzled me. I felt a sense of betrayal--not that it wasn't right to disestablish the Graduate Division, but not to do it in that way. It's one of those things that have never quite made me feel that our work was, in some areas, appreciated.

In that regard, I wrote two multi-year reports of the Graduate Division, the Report of the dean to the Chancellor. They really were years filled with tremendous growth and activity. The first one went to Heyns, and the second one went to Bowker. There were all kinds of responses to the first, within the campus. To the second one, which really brought my term somewhat to an end, there was no response. It was a report to the campus, and I'm sure that in departments, there were areas, in each of those reports, that were important, that they knew about. We summarized all the activities of the council and the division and the state of graduate education at Berkeley.

Relations with President Kerr and the Statewide Coordinating Committee

- Elberg: As to the relations with the President, I had none, in a sense, just my personal relations. The dean did not deal with the President, except through the Chancellor. The President could certainly call me down for a discussion on some item, where he was interested in the Berkeley opinion of the graduate matters, and Kerr did that repeatedly. We were on the phone very frequently on matters.
- Lage: Can you think of any particular types of things he would consult with you on?
- Elberg: Well, of course, during the Free Speech Movement, was one time when Kerr asked me if I could sense for him the position of the faculty. What was the Berkeley faculty feeling about him and his actions in the Free Speech Movement?
- Lage: Was this in the height of the crisis?
- Elberg: Yes. I think he was taking soundings and wanted to know what various people sensed within their constellation of faculty contacts. I told him what I thought. I was not that kind of an advisor, in which one could count on me to be politically astute. I just didn't think in those terms, and I wasn't used very often in that. It was a personal request of Kerr's. When I had problems as a graduate dean that were statewide in nature, not campuswide, such as statewide approval of some new program that had gone through locally, I might talk to him about certain things and get his feelings about it.

There are plenty of times when that happened and not only with Kerr, but subsequent Presidents, on the question of the health and medical sciences unit that we'll take up later. I did have to consult, or was called down by the President and given certain strongly-worded recommendations as to how far he was prepared to go, and how far they were not prepared to go in supporting this or that program. This came in the times of President Hitch, and I could understand the bind he was in, and so forth. I also knew where he was getting his advice, and that some of it was prejudiced against the Berkeley position. I was glad to have an opportunity to tell him what we weren't asking for, and what we were, and that he had no worries.

You asked also about the relations vis-a-vis the various schools and colleges: I always found them to be tremendously mutually interesting. Since we were responsible for reviewing

those units, we had difficult times, occasionally. We'll come to that with the School of Criminology. On the whole, I thought that the deans of the schools and colleges found the Graduate Division to be supportive and that they had only to come to me and discuss what their needs were. We would try to find a way of solving that, and I didn't feel that there was any other reason for existence, except to try to be, first, a steward of the quality of graduate work, and, secondly, some kind of an office that was supportive, in whatever way possible, of the units that offered the graduate work. They were the graduate education on this campus, the departments and schools and colleges. What we were trying to do was maintain a kind of uniformity of quality, so that there weren't great discrepancies from one to another. And that's about it.

The statewide coordinating committee was a very interesting thing; it was a result of the reorganization of the senate.

Lage: When you came in--

Elberg: It had already been formed. I had nothing to do with the reorganization.

Lage: You had nothing to do with the decentralization of the Graduate Division?

Elberg: It had all taken place in Dean Morris Stewart's time.

Lage: So this was the existing set-up.

Elberg: I came into the existing set-up, decentralized, campus by campus, with autonomous deans. The one thing that I did after I got my feet on the ground and saw what was happening: I organized all of the deans into a council of graduate deans and hosted them, and asked them to set themselves up together, so that we would have an opportunity to discuss common problems, separate from the Coordinating Committee for Graduate Affairs [CCGA]. The coordinating committee was never a very helpful thing, except to statewide.

Lage: Did it represent the Graduate Councils on all the campuses? Were there members of the Graduate Councils on there?

Elberg: Oh, yes. Every Graduate Council was represented on it originally, and so was every dean. I think, every dean. It was enormous.

Lage: And what was its power?

Elberg: Each campus had to submit all new programs for degrees to the statewide committee for final approval and transmission to the President. Its function was to coordinate, and, very often, they turned them down, because, rightly so, they felt, "Well, this campus has no business going into this field. It's better handled where it is, on another campus," et cetera. They coordinated things that way. They coordinated many operations, such as the reviews of programs.

Lage: When you were reviewing things like the School of Criminology, would they take an interest?

Elberg: No, they had nothing to do with that. That was a local campus matter. You see, they were the statewide Graduate Council, in a the sense. Whatever Graduate Councils dealt with went to them for final approval, if it couldn't be final on the campus level.

Lage: Was that a good relationship, or was there a sense of Berkeley being disadvantaged?

Elberg: There were the normal tensions there. That was where anti-Berkeley and anti-UCLA feeling could erupt, with good humor possibly, not always.

Lage: So the newer campuses, who were very new--

Elberg: The newer campuses, that were very new, had a good thing with the statewide committee. They had someone to speak for them, and I think they profited by it. The older campuses--well, they felt that it was expendable or dispensable, that it wasn't any great thing for them. It was just another line to the President, et cetera. My own conclusion was that the CCGA was a very important and useful senate operation, and very, very constructive and helpful. Not always, but most of the time.

Complexities of Initiating a Medical Education Program at Berkeley

Elberg: Now, I think the best illustration of the CCGA and the role of different campuses, especially vis-a-vis Berkeley, is in the history of the development of the idea that Berkeley would offer the first two years of medical education, to be designated the Health and Medical Sciences Program. This plan was a favorite idea of Roger Heyns's and carried on to completion by Albert Bowker. It was especially favored by certain state legislators, for the reason that the proposal was to offer a new kind of

education to medical students during the first two years--one that would socialize them more with their patients, that would make them more sensitive to the patients' non-medical problems and needs, that would open up the medical students' sensitivities to racial and ethnic problems and how racial and ethnic cultures sometimes interfered with traditional medical procedures and communication, how the doctors had to be aware of this and gear their recommendations to the patients with some sense of the fact that there was a different cultural background.

This, in the sixties, was just the thing for the state legislators, who were liberally affirmative action-oriented. We had great support. We had great support, also, from private donors, who helped fund the program to get started. The state eventually gave quite a good number of FTE faculty slots towards this. Well, the proposal to begin medical education at Berkeley began, of course, with a proposal coming from a group of interested faculty. We were not to offer the M.D. degree. It was the first two years.

Lage: But it was all graduate work.

Elberg: It was. Since there was no medical school at Berkeley to be created, the program came under the jurisdiction of the Graduate Division, as a graduate degree (M.S.) operation. The idea was that the students, at the conclusion of two years, in which they received the regular pre-clinical courses, would transfer to a medical school, preferably to UCSF, and finish their education. The idea also was that in the two years at Berkeley, they would be given instruction and orientation in social and cultural areas of thought--among other things, ethics, bioethics, medical ethics, et cetera. Racial relations. Many things.

Lage: Would they also take a lot of biology, or that type of--

Elberg: Oh, they would take the standard courses that any first two-year medical school offered. There was no compromise there. The unique thing about Berkeley was that we were not setting up special medical courses. The idea was they would take existing courses in the biological sciences that were known to be acceptable, in our view--not necessarily in organized medical education's view. We learned a lot along the way, that certain of those courses weren't so helpful and that there would be other necessary courses added.

The interesting thing was, no special organization would be created--no great need for new buildings. We weren't building a medical school. Most significant, the medical side of the education, the preclinical introduction to physical diagnosis and

other such subjects would be given by practicing physicians of the East Bay, who would be given special appointments to the Berkeley faculty for medical education after review by the budget committee. There was no great establishment of an expensive medical faculty at the usual medical faculty salaries.

Lage: Were you going to have a coordinating person?

Elberg: There was to be a director. That comes a little bit later. We must not jump too fast. First, the idea for the program came to the Graduate Council. The Graduate Council discussed it fully because it was definitely not the exciting idea that the Berkeley faculty had always wanted. They did not want a medical school on this campus, and they were afraid this was the opening wedge. The faculty was never all that supportive, but many individuals were.

The Graduate Council ultimately approved the idea. The students would be given a master's degree in medical sciences, after the two years of study, and then would apply for transfer to medical school. The proposal then went to the CCGA, at which all hell burst loose. It seems that the whole idea was anathema to certain professors of medicine at Irvine and, of course, at San Francisco. They wanted no such thing, nor did they like the educational philosophy being proposed.

Lage: Just academically.

Elberg: No, they did not like this plan at all. I presented it to the CCGA. The consideration went on for meeting after meeting, so strong were the views. You see, the CCGA members were bringing to the meeting the views of their medical colleagues on two campuses, so some strong dissents were being presented. Interestingly, UCLA had no objection to the proposal whatsoever.

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Finally, after months of discussion, I said, "Well, can we have a vote?" I was nearly thrown off my seat by the fact that it hardly passed. But, worst of all, my good friend, an old friend and colleague, the graduate dean of San Francisco, voted no. I just felt betrayed because he had given me no prior suggestion of his situation.

Lage: You expected him to approve it.

Elberg: Oh, I did.

Lage: I could see where there would be a little institutional jealousy there.

Elberg: Oh, there was more than that. What had happened was, Dean Harper had been instructed by the dean of his medical school to vote no. He later told me that he was nearly in tears, because this caused a rupture in our relations. I just couldn't believe it possible that he would go along, knowing what he knew of our plan and his forthright ways. He was forced to vote no. He had to vote no throughout the different hearings. Each time the committee met, I was asked to come back the next time with answers to more questions. Dean Harper also faced an additional difficulty--he knew that powerful members of his faculty were opposed, but equally powerful and statesmanlike faculty members approved our proposal.

Lage: Were you a strong proponent of this?

Elberg: I was the proponent "up front" as the saying goes, backed by a united administration.

Lage: But, personally, did you feel strongly?

Elberg: Personally, I had to act as dean. No, I cannot say I was 100 percent assured of its success on the Berkeley campus. I saw all of the merits, but I saw terribly clearly the demerits and the academic difficulties. I carried it through, and I don't think, except to this day, I've ever faced the question, as I just have, that I wasn't all that keen on it, academically speaking, because I knew enough of the content of many of the courses intended to serve the first two years to realize they would need voluntarily much modification. I was not sure of the pertinent faculty's willingness to go this far. My own educational preference was to strive for separate sections in the course for medical students.

So, each time I would go back, reinforced with the new arguments to answer the questions. Finally, it passed, but it was not a strong vote. There were uncomfortably too many dissents. Of course, that point, I'm sure, must have alarmed President Hitch, because from the CCGA it went to the President. I think it bothered Mr. Hitch very much and correctly so that it didn't have a greater degree of support, and, no doubt, in the records of the CCGA, all the arguments against were very clearly laid out, even though I thought I'd answered them very well. Anyway, it was approved, and it got underway. Much of the pressure for approval I am certain came from supportive and influential legislators in Sacramento on very sound cross-cultural bases of thought.

There were several months' leeway between this action of the CCGA and when the program was to start officially. It meant that if it was going to start officially the next July, one had to get

quickly into the business of announcing it and having applicants to admit. It had been decided that no more than twelve students would even be admitted in any class, and so that added to the fire, because everyone said, "What in the world is Elberg bringing to us?" Such a tendentious issue, for twelve students, and eventually twenty-four, when the second year class began, and finally thirty-six, when a third year was introduced.

We began to get this program specifically planned and underway, and the horrible thought finally reached me. I don't know when it occurred, but I think I could have died at that very moment. The participating faculty had been gathered, the application forms sent out after the proper announcements had been published when I suddenly realized that we possessed no means of offering accreditation to these two years, which every student had to have, in order to transfer to another medical school. According to the rules of the American Medical Colleges these two years had to be accredited, to allow transfer to the remaining years for the M.D. degree. They had to count.

Lage: You had to have medical schools that would accept them after two years.

Elberg: Exactly, and they were not going to accept them if they were not accredited students. Well, I thought and I thought. I made the greatest mistake, administratively, of my career. I sent a message, a conversation, over to Dean Harper and said, "How would you like to consider admitting these students nominally to the San Francisco campus after we admit them to the Berkeley campus, and entering with us into a joint admission, in order to give them your accreditation overview?" That's where I gave the store away, because, to this day, the bitter price paid for that accreditation was practically to hand over the control of the program, ultimately, to the UC San Francisco campus. They could threaten to withdraw that accreditation on any issue they didn't like and at any time. On more than one occasion in the stormy beginning years of the relationship that implied threat was voiced.

Most importantly, the professor and chairman of the Department of Medicine was adamantly opposed to the program from the beginning. Many of his faculty were opposed. But, on the other hand, some of his greatest faculty were in favor.

Thus, the question of the accreditation opened up a hornet's nest in the faculty at San Francisco, and the faculty had to have meetings to consider whether they would agree. Finally, one of their greatest research professors got up and said, "Look, we do not tell Harvard what to do in their medical school, and nobody

Elberg: tells us. We have no right to tell Berkeley what to do. This is an approved program. It follows the requirements of the accreditation board, and we should adopt it as accepted." He won the day, but it was a bitter victory, because they constantly reopened the issue. Secondly, they insisted, in San Francisco, that someone with an M.D. degree from their campus should come over and direct the program--Catastrophe Number Two! Some of the directors were very inadequate to what was a most demanding task diplomatically and educationally. Eventually Harrison Sadler took over and reconciliation began, despite the very dictatorial nature of the medical dean, under whom Dr. Sadler had to administer our program. But under Sadler's influence, enormous healing and reconciliations with the most influential of UCSF faculty, especially, bless his heart, L.H. Smith, chair of Medicine. We owe them both a tremendous debt at Berkeley.

Well, it went on. They learned, and we learned, over the years. It must have taken fifteen years, until, finally, it jelled together, because, mainly, they underwent certain changes in attitudes as a result of this argument. They saw some of their educational deficiencies in a different light. Secondly, by having given us accreditation, the next stage was, and it came about, was that they agreed to take all of our graduates. Our graduates didn't have to apply across the nation, finally. They took them all into UCSF. In taking them all, I think they learned something from our crowd of students, who were often quite unique in comparison to the normal medical school students.

Medical education in the country has recently shown that they are adopting as new principles many of the things we at Berkeley pioneered. Now, the result has been a wonderful coming-together. They cooperate, now, and have for the last several years, in a joint process of admissions. People on their campus and our campus work together on the admissions. It has become a productive mutual relationship. Still, however, the direction has always come, and remains, from San Francisco. I know that eventually one of our own Berkeley faculty, with a Ph.D., will prove perfectly capable of being director of our program.

Because after realizing that Berkeley could never command the kind of M.D. director we needed, because of the Berkeley salary scales (the Academic Senate Budget Committee having earlier decided there will be no separate medical school faculty salaries) which meant that recruitment of M.D.'s would be impossible on our academic salary levels. I said from the beginning, "For the first two years, why can't a Ph.D. run the program? It's practically a Ph.D. subject area." Well, for the first many years, the idea was rejected, but in the last years,

after Dr. Sadler retired, UCSF sent Dr. Donald Heyneman, a parasitology specialist holding the Ph.D. degree.

So, I kind of feel vindicated, all down the line, but at a heavy price. My personal relations healed with Harold Harper, of course, and he retired, eventually. So did I. But it revealed to me some of the problems in the CCGA, where a graduate dean could be dictated to by a higher official administrator on his campus, to vote the "party line" and not his own intellectual judgment. I'm sure Harper would have voted yes, and that's one of the sad tales, I think, of the UC system.

Now, all that opened up a relationship with President Hitch, because when all the dust settled, and after many things happened, Hitch called me down one day. He said, "Sandy, you know I'm not prepared to build a new medical school at Berkeley." And I said, "Nor are we intending to ask for that." He said, "I am not prepared to recommend to the Regents that the Berkeley campus be authorized to grant the M.D. degree." And I said, "No, that was never the intention. Never." He said, "Will you promise me that you will not ask for the M.D. degree?" and I said, "Yes, we will never ask for that, nor was it ever our intention, Mr. Hitch." And that was it. So, that finally launched it. It was a very embarrassing thing for us with the state legislature, for them to see the interminable delays while they had shown so much goodwill and good faith in providing the positions and general support.

Lage: Who had approached the state legislature?

Elberg: The Chancellor.

Lage: I thought all that was usually done through the President's office.

Elberg: Oh, yes, that's true, but, you see--

Lage: --once it got approved--

Elberg: --once it got approved, there was no problem. In this case, it was a new program, and the Chancellors felt they had to inform the state of what was coming, in order to get their preliminary support. That is true, but nothing was ever done off-line in the communications. I think the President was delighted to have the Berkeley Chancellor carry the ball in Sacramento, because they were only asking for enough money to support this little program. It was to be an add-on to the UC statewide budget. It was not to compete.

To this day, if I'm not mistaken, the various FTE slots that were given have never been used as such, which indicates that there is, in the higher levels of this campus, a hesitation about this program, not to bring anyone new into that program, who might gain tenure in the program. The campus's idea was to bring our own people with tenure to the participating departments, and that's how it won the agreement of the campus--that it would not be competing with the department's own academic planning and staffing. Appointments would be made in the teaching departments; no new departments would be created.

Lage: It would enrich those departments.

Elberg: It would enrich those departments and not compete with their normal requests. It is a story in itself.

Lage: Have the students from that program, do you know, gone on to show more social concern? Have they gone on to be clinical doctors?

Elberg: Yes, they certainly are out in practice and in other medical activities, but as to their social commitments, I have no knowledge of that. The history of the program, I believe, is now being written. Those studies will take some time, because one would have to allow those students to be out in practice for five to ten years and then interview them to know what has been their subsequent history, after the "awareness" they were given. Dr. Lillian Cartwright is carrying out such a study now.

Minority Retention Decision: Personal Costs

Elberg: The medical program cost me dearly, in terms of personal finance and emotional upset. There was the case of a black student by the name of James Hamilton, who should never have been admitted to the program in the first place. That, in turn, was one of the things that aggravated San Francisco from the beginning. The earliest admissions were often weak. The recommendations were weak, and the Graduate Division did not, at that time, have the guts to step in and say no, because of this heavy emphasis on social affirmative action-type of direction by the program staff and some faculty. We should have looked hard at those admissions much earlier, and more strongly, but we used the same policy as with other departments. We accepted the departmental recommendation.

This James Hamilton was not one of the weak applicants at first glance, but he failed constantly along the road.

Lage: Academically.

Elberg: Academically. The group faculty and fellow students did everything they could to help him along, but he was a difficult personality, and he interpreted everything racially. One of his Stanford faculty evaluators said Hamilton was "filled with rage." He could not pass the critical examinations in the important courses. After four times approving probation for another term for him, I finally said, "He's finished," and terminated him as a student. Well, I thought the earth would open up. Mr. Hamilton, after a certain length of time, filed suit in federal court against me, the Chancellor, the President, and the Regents, for racial discrimination. The case opened.

Lage: Do you have a date on this, approximately?

Elberg: I can give you the dates. The case ended, finally, in the Ninth Circuit Court of Appeals, in August of 1983, having then been some seven years in process in the federal courts. The procedure in the University of California is that when a dean or professor is sued, the Regents' general counsel agrees to take the defense over. I rested secure in that belief that everything would be handled, and they told me I didn't even have to come to the first court hearing. I was in Geneva at the World Health Organization, I think, that summer.

I received a letter from the general counsel stating that Judge Orrick in the federal court, at the first hearing, had decided that I, among others, would be liable not only for damages, but Mr. Hamilton, if he won the case, would be entitled to punitive damages as well. That was directed against me personally, because it meant that I exercised personal prejudice against Mr. Hamilton. This, the judge decided, had to be examined by a jury.

Lage: Wouldn't the University still cover you on that?

Elberg: The general counsel wrote to me in Geneva, told me that they were perfectly willing to conduct the case in my defense, but that since the judge had declared that punitive damages would be considered, the University did not protect me against an award for punitive damages. Therefore, the counsel was obligated to let me know that since this was such a personal risk, I might wish to consider having my own personal counsel, and not letting them handle it. I said, of course, I thought they could handle it and came back. I began to watch how it was being handled.

I was aghast at how little attention was being paid by the counsel assigned to my case. The attorney that was first

Elberg: assigned to me called me on the phone one day. I, again, couldn't believe what she was telling me. I asked question after question and got no satisfactory response. I finally said I was going to talk to the general counsel. I wouldn't have her as an attorney. I had no confidence in her. She amazingly wasn't willing to answer any of my questions that were simple and procedural. She said she would only talk on these matters to the Chancellor. I wrote a letter to the general counsel himself and got back a very nasty response, in which he completely defended his associate counsel and said I was completely wrong, at which point, I said, "That finishes you and me. I can't go on with this danger."

I obtained my own private counsel in San Francisco, and they handled the case. They were remarkable. They found, towards the end of the time period, new findings of the Supreme Court of the United States that bore entirely on my case. They developed a brief for the judge that showed that, according to the new Supreme Court principles, I had acted entirely properly.

I must go back a moment to say that the first judge, William Orrick, interfered so much, personally, in behalf of Mr. Hamilton--by asking me, personally, to find another medical school that would take Mr. Hamilton, and then going and asking someone whom he knew at the UC Medical School to give him an opinion of our action, which opinion completely justified my action--that the judge said he had now to disqualify himself from any further role. He had prejudiced the case. He had entered into it too personally. Back to square one.

The whole thing had to begin again in front of a new judge, and, finally, after a number of years, a young associate counsel there wrote me and said he felt my case could be handled more aggressively than had been done by my other lawyer. He was doing thus and so in presenting the case. He did, and the judge declared it in my favor. Well, Mr. Hamilton was furious, and he appealed to the Ninth Court of Appeals. They took their time. Meanwhile, the expenses rolled on, and, finally, on the day we were giving a home wedding for my daughter, in the afternoon mail there came the letter from the court of appeals confirming the decision in my favor.

I had paid \$12,700 for this defense out of my own funds and had never had an inquiry from the administration, locally or otherwise, as to whether there was anything that might be helpful. Eventually my own attorneys said that to continue for me would be prohibitively expensive so they recommended the University counsel to take over at the appeal stage, which they did.

- Lage: I've never heard of the University not defending you for something you had done in the course of your job.
- Elberg: I thought it was a scandal, and to this day. Many faculty members were utterly enraged that this happened, but that was it.
- Lage: It's a stress to everybody who might be in the position to make such decisions, not just to you.
- Elberg: I understand that the then general counsel persuaded the Regents that, in such unusual cases, the Regents should agree to protect the faculty and administration from punitive damage awards. Fortunately, that was not needed in my case, but I always felt I had not been given much in the way of aggressive defense.
- Lage: But they didn't take up your case.
- Elberg: They didn't take mine up. They might have done so ultimately.
- Lage: Did you think to have your attorney petition for reimbursement of your legal expenses from the University?
- Elberg: Well, I decided no. That was the end of it.
- Lage: Did the suit continue against other University people?
- Elberg: No, they were all let off, excused from it, because it was my decision to terminate him. They had all done all they could, and, finally, I stood alone.
- Lage: Did the others want to keep him?
- Elberg: The weakness in some quarters was deplorable, but I would not budge. I could see the involved faculty and staff couldn't stand Hamilton's threats any further, and I was the only one left. They had to count on me to be the buffer and to say, "No more." That was it.

Strains of Decentralizing the Division and the Academic Senate##

- Lage: Now, last time we talked about the Graduate Division, the dean, and his responsibilities and relationships throughout the University.
- Elberg: Today we'll start off with the decentralizing the Graduate Division and its roles, or how it was related to decentralizing

the senate. I think I can answer that fairly quickly. First of all, I took no role in that controversy about the senate. I was never very conscious that there were any strains in the decentralization of the Graduate Division, so that the different campuses had their own divisions. Quite the contrary, I think they found it a great relief. We saw it as the beginning of one of those periods where it was always going to be worse before it got better. That's indeed the way it worked out.

Eventually, those graduate divisions of Davis and San Francisco were very good organizations, and we had no problem with that at all. I think, in the long run, it helped the educational system, because it brought faculty of the two campuses together. They now had to collaborate voluntarily if they were going to have degrees, and a lot of the degrees which were centered at Berkeley eventually seceded and became separate campus degrees.

Lage: I'm not understanding.

Elberg: There were certain degrees which were group degrees, in which faculty from the three campuses collaborated in offering the Ph.D.

Lage: Oh, I see. San Francisco, Davis, and--

Elberg: --and Berkeley. But, the hitch was that the degree was always a Berkeley degree when it was offered. The ceremony was at Berkeley. That rubbed a bit, and I think it didn't take long. It was recognized, to start with, that they couldn't initiate a degree, but they could grow with it and eventually become separate. Even though we were separate, there still were several degrees that were grouped. As those campuses' graduate divisions matured, they said, "Well, we'll offer our own degree now." That was perfectly okay.

Lage: Were the reasons that Berkeley, kind of, held on to some of these joint degrees because the facilities weren't strong enough on the other campuses, or was there a question of wanting to maintain control?

Elberg: Yes, there was a lack of facilities and faculty strength on some campuses to go it alone. There was a lack of faculty to direct graduate student research. There was a lack of financial support, possibly. Mainly, the lack of faculty. The three campuses made up a good grouping, when they were working together. Indeed, when some of those degrees separated off, it wasn't long before some floundered, because they didn't have adequate faculty or adequate support on the separate campuses to

support that program. Those programs got into trouble, some of them.

Lage: Were they in the sciences, do you remember?

Elberg: Yes. There were no joint degrees in anything but the sciences in that time. So, the decentralization of the senate--

Lage: Let me just refresh your memory by what I found out in my research on that. Chancellor Strong is being interviewed, and it is his recollection that a group of five deans, including yourself, had wanted to defer action on decentralizing the Academic Senate. This put President Kerr off and caused a problem. Do you remember that?

Elberg: That's right. I do remember that there were deans here that were opposed to this decentralized senate, but it was hopeless against the Kerr pressure. He was determined that it should happen, I think.

Lage: What was the objection?

Elberg: Oh. The objection was, just as I'm saying, that those campuses were not ready. They were too small in terms of the numbers of faculty in any program. In some programs, it was perfectly all right, but we felt that there would be a great loss of muscle tone. It proved to be the case in many areas, but it recovered itself. It was just one of those growing pains.

Lage: Did it cause animosity? It's sometimes mentioned as one of the things that created faculty-administration tension.

Elberg: Oh, I'm sure that there was a great deal of animosity at Berkeley. First off, the Berkeley senate didn't feel at all strongly in favor of the decentralization, not at all. They could see no reason for it. But the Berkeley senate quickly saw the degree of animosity on the other campuses, especially at Davis, towards the Berkeley faculty, and so, when there were issues that Berkeley wanted to have approved, often the Davis group would vote against. This was a source of considerable disturbance to me.

Lage: This was when it was all one Academic Senate, the northern section.

Elberg: Yes.

Lage: Did you work with that Davis group?

Elberg: Oh, we worked with the Davis group from the word "go." It's just that the Davis faculty was very much determined to have its own senate, and in anything that Berkeley really wanted, they voted against it. I remember that. It was obvious that it was done.

VIII GRADUATE STUDENTS IN THE TURBULENT SIXTIES

Anomie of Social Science Students

Elberg: It wasn't long after I became dean that student strains began to be felt in the Graduate Division. I suspected, for quite some time, that there was something going on among the social sciences students that was wrong. Nothing seemed to be right as I examined the procedures and the progress of students. As I got to know students in those departments, it was clear that there was an awful lot of discontent and anomie.

Lage: Are we talking about prior to the FSM that you recognized this?

Elberg: Yes, oh, yes.

Lage: Would they bring complaints to you, or was it more subtle?

Elberg: Yes. There were many complaints brought from department after department by graduate students. This was all prior to FSM. This was between the time of January '62 and September of '64. I knew that we had problems, but I wasn't quite sure of the validity of the claims of faculty disinterest in the graduate degree process.

Lage: What kind of problems would be brought up?

Elberg: The problems were student discontent with their experience with the Ph.D., their programs. They were obviously left hanging out to dry; they weren't getting faculty counsel. The faculty, I think, took it too much for granted that these were very mature people and should be left alone. They were not mature, and a lot of them shouldn't have been left so adrift. As a result, they took far too long to get their degrees, and sometimes--very often--they never did. So there was a lot of wasted manpower.

When you look into what was going on, each department had its own problems. For example, in some of the social sciences, there had been a flight of the faculty to the research institutes, away from the departmental premises. They worked in their research centers, and they entered their departments to pick up their mail and occasionally, perhaps, to have student office hours. But their life was in the institutes and centers with their graduate students, and those graduate students who were fortunate enough to be picked to work in a center had tremendous advantage. They had the contact; they also had financial support, in many respects, and they had certain services from the secretarial staff. There was a dichotomy within the graduate student populations in certain departments between those who were not in the centers, and therefore were not being cultivated and groomed, and those who were in the centers. I wrote about that and talked about it at various deans meetings, nationally, but there was not much response.

Lage: What about within the campus? Did you talk to department heads?

Elberg: I talked about it constantly with individual faculty. They admitted this, but they said that what was happening was that there was developing a degree of incivility in conversation that threw them off. They were not willing to expose themselves to a large number of departmental students. They were more comfortable in their centers, doing their research and conferring with students professionally. Sociology was one of those departments where relations between students and faculty deteriorated.

It was at that time I began to wonder when the explosion would take place, if any. Well, it wasn't long. The Free Speech--the beginnings of it with the card table at Sather Gate, and all that sort of thing--that whole movement began with undergraduates, and as I've mentioned in these recollections, it wasn't long before the whole graduate student discontent boiled over. The graduate students were very much in charge, eventually, of the student movement.

Origins of the Graduate Student Assembly

Elberg: This caused us in the Graduate Division to examine the situation with students in these departments. I began, then, to have the feeling that we would have to do something in the way of a graduate student council that would advise the graduate dean. So I invited some departments to send me students who would be

interested in serving in this way. It started with a little group of four or five around the table in my office. As the ferment grew on the campus, and as things overtook us, first the teaching assistants were disaffected as a group, and we had the great open meeting in the Pauley Ballroom with the TAs [teaching assistants], during the midst of the Free Speech Movement.

Lage: Do you want to tell about that? Was that when a strike was threatened?

Elberg: No, not at that time. The events in Sproul Plaza and the emergence of the Free Speech Movement led to the formation of a Deans' Council, of all the campus academic deans, which convened almost daily to give advice to [Vice Chancellor] Lincoln Constance, and [Chancellor] Ed Strong, and [Vice Chancellor] Alex Sherriffs. There was a clear understanding, even after the December, 1964 business, that we would have to do something about having an open meeting with the TAs to explain the campus positions. Professor Arthur Ross, now deceased, helped me greatly with the text of my remarks.

Lage: It took a certain amount of bravery to think about having an open meeting with the TAs.

Elberg: It certainly was stressful, and the Pauley Ballroom was absolutely filled to standing room. I presided at that meeting. Some of the faculty were with me. I read a statement to the TAs about the importance of their work and the teaching assistantships, and that we wanted to hear their thoughts. A tremendous dispute arose between some of the leaders of the FSM and the TAs, so that I lost some degree of control, for a while, over that meeting. Many had their say, and I just remember it as a very scarring afternoon, but temporarily a very helpful one.

Lage: Were you asked to answer their--

Elberg: No, we asked them to tell us what was bothering them, and those of us who could provided information about what was going on and what was intended. From that time on, I saw the graduate students taking over the movement, and I realized that my little advisory group was too minuscule, so that as the years went on, I tried to enlarge it. We finally had another open meeting on the possibility of a formal graduate student association. We had that in Dwinelle.

Lage: Do you remember the year of that?

Elberg: That must have been '65 or '66. We had this open meeting of graduate students, at which I was trying to get them to think

about some form of organization. It wasn't very decisive. Later, with Gene Hammel, who was my associate dean, we ultimately proposed a kind of representative assembly of graduate students, which would be called the Graduate Student Assembly and which would have proportional department representation. Depending on the number of graduate students in each department, there would be so many representatives. That meeting was in Stephens Union in the graduate student lounge--there Hammel and I proposed a formal graduate assembly, and we were really taken to the cleaners, in the beginning, by some of the sociology graduate students, who felt that this would be nothing but a "company union." But we pursued it, and we had enough other graduate students who supported the idea.

So the idea came into being, and Hammel was instrumental in implementing the idea. We formed a representative graduate assembly. A lot of that also came about through antipathy to the ASUC and membership in that. Graduate students had been in and out of the ASUC, and they were tired of the way the ASUC was ignoring graduate students, and yet collecting student fees. I think that was one of the driving forces they saw, that this could lead to an independence. It was my hope that they would leave the ASUC and have their own graduate ASUC. Oh, it went on and on, then, this evolution.

Lage: Did the assembly serve a good purpose?

Elberg: The assembly served an excellent purpose. First of all, it was a safety valve for discussions of hard points. Secondly, it was more than that. It gave us issues in the Graduate Division that were of great concern. We learned what was of concern and what was troubling. We were able to use that information in our subsequent review of graduate programs. A great deal came out of the assembly, and it was very helpful, because it started with a very high quality, dedicated student group.

Lage: You got students that were committed.

Elberg: Very committed to trying to make the thing work. Of course, it wasn't long before I suggested to the chairman of the Graduate Council that an informal invitation to the assembly might be offered, for one to two of them to sit with the Graduate Council and give the council the benefit of their points of view. They were not necessarily to have a vote, and the whole thing evolved that way. They did come on as guests, and, later, as regular members of the council. So, we were one of the earliest senate committees, without being ordered to, to bring students formally on to the functioning of the committee. It grew.

Lage: How did these students fit into those committees? I've always had the impression that faculty had a tradition of conferring with one another and give-and-take--

Elberg: Yes, but it's amazing how the faculty adapted to the principle that the students were there and were now serving with them. I don't know that every student might have had a wonderful experience out of this, with some of those faculty, yet it grew, and the students persevered. The faculty were very receptive. They knew, as a result of the whole upheaval, that this was something that had to come.

Problems in Graduate Education

Elberg: The whole thing helped my study of the graduate student educational experience, where I found out what the variances were on the campus, from humanities to social sciences to sciences and how the microcultures in those departments affected the whole operation of their Ph.D. programs. They were as different as day and night, these departments, when you compared the way they acted and exercised their stewardship over their graduate students.

Lage: Can you give some examples of extremes, maybe?

Elberg: Well, science students were an integral part of a professor's own research, and, in that respect, that meant that the science student's Ph.D. research was of interest to the professor. There was constant interaction in the laboratory. The student, therefore, was not left to his own devices. He may not have had the professor looking over his shoulder, but there was an accountability there that was healthy.

Whereas, in some of the other units, the social sciences and the humanities, I found that the students were left far too much to themselves to get their work done, because the student was not contributing very much to the professor's research. As one dean from Stanford said when I proposed that the humanities faculties should be given research assistants, as the sciences had developed that system from their grants--he was a professor of English--"I wouldn't know what to do with a research assistant. It's not the way we work." To this day, there's probably no solution to that attitude. It's just a different world that students in the sciences and humanities inhabit.

Lage: Was there a particular problem in sociology?

Elberg: Well, there, yes. That department was a very good microcosm of all the things that were going wrong, and it took years for it to heal. I think, in the long run, the healing came about with an increasing number, or proportion, of graduate students working with faculty in their centers and institutes. That's my guess. At the time my attention was drawn to sociology, students and faculty were hardly on speaking terms, there was incivility, and the faculty in that department in some cases was extremely depressed by the student relations that had become so infectious.

Lage: The idea of students and faculty working in centers and institutes corresponds more to the science model.

Elberg: Yes. I think that the centers and institutes have been a tremendous factor in the later success of graduate education in the social sciences. Now, the humanities never had these centers and institutes, to any great extent, and, as a result, they have lagged.

Lage: This was also a period, as I recall it, when the Ph.D. candidates couldn't look forward to as good a job market as previously.

Elberg: That's right. It was still early for that, but we certainly were approaching paralysis of the job market.

Lage: That makes you consider your education differently.

Elberg: Oh, yes, but that was in the seventies and had a great deal to do with attitudes within the students and faculty.

I've already gone over my concerns about the students' graduate education and life, in the sense that they didn't feel they were participating very much in the life of the University. These were the strains before the FSM exploded. I talked a lot to departments about improving the conditions, but without student support to offer, which didn't come until later, there wasn't much the departments could do. The teaching assistantship was the main thing, and the occasional University Fellowship. They didn't have much to work with, in order to help students from spending a lot of their time on the search for financial aid and employment.

Training Teaching Assistants

Lage: One way of having contact with the graduate student would be through the teaching assistant role.

- Elberg: That's right. The teaching assistant role was tremendously important both to the individual student and in many ways to the department when it was wisely used.
- Lage: But was it utilized?
- Elberg: Well, no, not really. It was a very variable thing across the campus. There were some professors with large courses who organized the teaching assistantships they had beautifully. They were teaching experiences for the graduate students, but they were also well-organized to improve their functioning as teaching assistants. Now, this was greatly enhanced when the campus started a movement to improve the teaching experiences of teaching assistants and their teaching abilities. This was later in the seventies and is probably still going on. There were, even in my day, certain workshops at the beginning of the terms, for TAs, as to how to teach and how to handle a class, because these kids hadn't ever experienced anything like it. They were new TAs.
- Lage: Yet they had a very important role.
- Elberg: They had a very important role, and that was the wrong thing. They were given too much responsibility, and they weren't being properly supervised or instructed themselves in how to carry out their responsibilities.
- Lage: When you would bring these things up, did the faculty, in various departments, show an interest?
- Elberg: Several did, especially mathematics, if I recall correctly. They tried to accommodate, but it needed a centralized, campuswide movement. Eventually, that's what happened. We did have TA fairs, or TA experience days, for new TAs when they first came on the scene.
- Lage: The Graduate Division sponsored this?
- Elberg: The Graduate Division joined with other sections of the campus. The Graduate Assembly was especially active in promoting their orientation days, and certain departments made very great efforts. We collaborated with them in helping to put on this day, so that any TA could come and see examples of how things could be taught. It was very slow but very steady. Again, we had people in charge of the events who just ran away with the idea, spending money out of control, and we had to make changes in personnel who began to make a career of this business.

They were very interested people who thought this was the opening for them, to take charge of this kind of effort, but the campus wasn't ready to give that kind of responsibility to any particular person. The departments thought they knew best how to train their own TAs, and, therefore, they weren't regarding a centralized TA training idea as any great, hot idea. No. There was a lot of resistance, because the campus represented a spectrum all the way from zero to a hundred on the quality of the training of TAs. Some of the great faculty members were famous for the way they trained their TAs.

Lage: Do you remember any in particular?

Elberg: Well, Richard Eakin and Alden Miller were famous, and so were their predecessors, in zoology. The zoology department was unique in training and having a first-class TA operation. Chemistry, bacteriology, and botany were also active and highly successful in this type of student improvement. There were other departments where this was done under great and careful supervision, and many where it wasn't adequate at all.

Reflections on the Free Speech Movement

Lage: Should we go further into FSM itself?

Elberg: Well, there's not much I can give you on FSM itself, since I was not particularly involved, except as the graduate student sector was involved and then through the Association of Graduate Students.

Lage: Would you say more about this advisory committee to the Chancellor, which you chaired as sort of a representative of the Chancellor's Administrative and Academic Advisory Councils?

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Elberg: That was an informal, confidential group of senior deans of schools and colleges, and some faculty, who gathered frequently during the FSM, to give its advice quietly to then Vice-Chancellor Constance for him to use as he saw fit to give to Chancellor Strong. That advice was not taken.

Lage: Let's talk about that.

Elberg: Well, I can't remember particulars, but I do remember that the whole situation worsened, no matter what we were advising. It

was quite clear that whatever we were suggesting just wasn't effective. Maybe it wasn't even helpful.

Lage: Do you have any sense of why your advice wasn't being taken?

Elberg: No. I had the feeling that the operation in Dwinelle Hall, the Chancellor's suite, was too much under the control of Alex Sherriffs [Vice Chancellor, Student Affairs] and a couple of the Chancellor's administrative assistants, and that the philosophy of what should be done was completely different--much more "hard line." The idea that ultimately the massive dissent could bring about major changes in education, I think, was not really understood. Unfortunately, one of the outcomes was a terrible weakening of the educational fiber at the undergraduate level, loosening of grading standards and a form of educational existentialism that was a disgrace in its softness and lack of quality standards.

Lage: At the time, did you see it as a chance to make change? Is this what you're saying?

Elberg: No, but I think that eventually, as we saw our own participation, to some of us it was obvious that great changes were needed in our own sectors of education, mine the graduate. The realization that this might upend the campus, educationally, with all of the softening that did take place, didn't get through, because there were so many faculty supporting these students and their slack ideas. I think that no one really anticipated the changes that were going to be made in the students' role in the Academic Senate, and, consequently, in the Graduate Division and the Graduate Council, and in all the activities of the Graduate Division where students were involved.

Lage: And the things that came later after--

Elberg: The things that came later. No, I think we were very much limited in our view, to the upset on the campus--the crisis kind of mentality.

Lage: I read, maybe in Chancellor Strong's interview, about one of the early meetings in Strong's office, where you were present. I think it was October 12th [1964] with the FSM steering committee. Do you remember the nature of that? What did you think of the students at that meeting?

Elberg: Well, it was just unbelievably uncivil, and dreadful. The students were foul-mouthed, deliberately, to upset the Chancellor and everyone else. This, I thought, was the lowest point of the undergraduate leadership of that whole movement. There simply

could be no coming together. These were the beginnings of "demands." These were the beginnings of incivility, words that had never been used toward a University administrator, demands for an abdication of responsibility for the welfare of university education.

It was an impossible thing to accept, and I don't think that anyone, really, was prepared. Later, Acting Chancellor Meyerson began to just talk of it as the "Foul Speech Movement," which it was. Then they hung signs outside of Pauley Ballroom, with all the four-letter words. The events just disintegrated later into violence, lack of any productivity, and splintering of issues.

Lage: Now, your office was in Sproul Hall.

Elberg: Oh, we were right on the front. Yes. There was nothing we missed.

Lage: Was your work disrupted?

Elberg: Yes, it was very disrupting, and, well--

Lage: That must have affected your perceptions.

Elberg: Well, it was all so large and so strange, that you were sort of meeting each moment as it came, without much plan. It's not the thing I remember most clearly, because I seem to see myself as an onlooker, rather than a participant. The graduate office was not a participant, really, in all of that problem. It was the Chancellor's office, and it was a dreadful problem for him.

I think that this background to the Free Speech Movement [referred to in the interview outline] is very wise. There had been a rift. As you say, the things that were causing the faculty to lose confidence in the administration were the decentralization of the senate and the way in which Clark Kerr expected all of the administration to back him up in this. When they didn't, he was very forceful with some of the deans.

Lage: Did that happen to you?

Elberg: No, but it did happen to the Dean of the College of Letters and Science. It caused a rupture between them.

The Eli Katz case, I think, is overblown, because I was with Strong one afternoon, after the BCD committee, and he was talking about the current Katz case. It was clear that it was being built up far more than it was worth. He had it pegged pretty

clearly that the man [Katz] had not been honest and frank with him.

Then, as you point out, too, this was the time of the influx of a new generation of faculty, very young, and with whole new attitudes towards free speech, towards civil rights, and towards education, and receptive to the students' wishes for changes, so that so much of our education was diluted, lost its tone, very much the responsibility of some of these young new assistant professors, though by no means limited to that level, as several senior faculty who should have had more sense also lost their sense of balance in hysterical obeisances they made to student activists.

Lage: Was this after FSM, you think?

Elberg: Yes. It went on that way to the spring of 1970.

Lage: What kind of forms would that take?

Elberg: Well, this was what I always called the "touchy-feely" kind of experience of teaching and learning, that students were asking that they be given academic credit for all kinds of "life experiences" that had nothing to do with their college programs. If they went out and did something, they thought they should have credit. There were too many faculty across the campus who sponsored that kind of softness. It caused a great deal of discontent between and among the faculties.

Lage: Did you see a kind of a split between the older and younger faculty?

Elberg: Yes, not only the older, but the young, tougher ones. Again, this didn't happen in the sciences, and so the engineering, and the hard sciences, and the biological, used to look upon this thing with horror at what was taking place in some of the soft social areas and what was being given away.

Lage: Was there eventually a gradual tightening up?

Elberg: It took years for a tightening up, and it still is occurring that steps are being taken to reverse some of the damage done to higher education. Not an encouraging picture at all.

Lage: Was it done from above?

Elberg: No. Eventually, nationally, it became such a scandal that it was obvious something had to be done. The faculty itself began to tighten its own standards. This was not done from above, and it

couldn't have succeeded if it had been. It had to come from the ground again, as they saw that they were producing mediocre talents, in the long run, and that some of these professional schools had become very soft. It's a very amorphous kind of thing, for me, to try to separate out the different currents on this campus, of the weakening, and holding the line versus weakening.

Today, we have faculty who are outstanding in their intellectual contributions, who, at that time, I never expected anything to develop from--I thought they had sold their souls to these students, but they didn't. I was wrong on that, but I was never able to see that side. It's just a different kind of upbringing, and so on. Possibly, people from more radically-inclined families, who became faculties, could see this thing differently, like labor strife in the earlier days in their families, and so on. It was nothing so much new to them, but to me, in my ivory tower, this was not the way things were done.

Lage: Did it cause questioning of values, though, for you, personally?

Elberg: Oh, tremendous questioning. The consequences of that time are still being cured, or attempted to be cured. You still read an occasional comment, nationally, about the softness of much of the education, which started, a great deal, in those days.

Lage: I think of it more in the lower levels of education, but it was affected here, too?

Elberg: It certainly extended right up here, and some of the things that departments did were the cause for very negative reviews of their status by national agencies later. Some of the professional schools had given the store away, until they certainly found out what was happening to them and pulled things back. Others never succeeded, and they failed, as schools. They failed utterly and were ruined as effective educational units.

Lage: Do you want to mention--?

Elberg: Well, criminology was one of the best examples.

Lage: Was that a result of this softening of standards?

Elberg: Yes. It certainly died of softening of the intellectual brains and the lack of demand of quality work, plus a total loss of meaning of what academic grades were supposed to reflect.

Lage: I thought it was partly a distrust on the part of the campus towards a non-academic field.

Elberg: No. That, possibly, was always there, but it could never have been a fatal flaw. The fatal flaw was that they gave everything away to the students' demands, and they were pals, rather than professors. It was impossible to picture, to believe, the stuff that was going on. The grading system collapsed in the unit. There was nothing demanded. They did what they wanted, and so on.

Lage: Now, that school was reviewed.

Elberg: Was reviewed and disestablished [see page 210].

Lage: Was the Graduate Division one of the reviewers, or the sole reviewer?

Elberg: The Graduate Council did the review. That is, the Graduate Council reviewed all of these units and came to the conclusion that some of them couldn't go on.

Lage: What other ones were disestablished?

Elberg: Oh, that was probably the main one. The other one was disestablished because of internal faculty dissent, and that was demography. The classic example was the School of Criminology, which was a tragedy, because within the criminology school and faculty members, there were outstanding units of scientific talent. Despite the wreckage of the school, these persons were maintained and transferred to another professional school where they have carried out excellent teaching and research.

Lage: Which one?

Elberg: Public Health took on what was then known as the field of criminalistics, or scientific evidence--the gathering of evidence. I mean, they've done good things, but we had such confidence in that little crowd of two or three, that no matter that they didn't have tenure, they didn't deserve to be lost in the "terror" of that moment.

Lage: So you must have had a role in putting them in over in Public Health.

Elberg: Yes, indeed, but that's because I knew these people, and I knew the kind of work they were doing and capable of doing. I knew what they demanded of themselves and of their students, so there was absolutely no question in my mind. They had to be saved. You don't throw the baby out with the bathwater, I remember somebody saying. So there we are.

Lage: We talked about, under the topic of the background to the Free Speech Movement, the various things that created some conflict on the campus, before FSM, even. Did you have a sense that the faculty had lost its loyalty to Strong before FSM, or at some point during it?

Elberg: No, I never did. I do not think Strong would have been removed as Chancellor, except for Clark Kerr's feelings that Strong was responsible for some of the failures of the attempted solutions that possibly Kerr and others had proposed. When you look at Strong versus the presidents and chancellors at other universities similarly affected, he was no different. They all lost their positions, because this was a new world of student and faculty behavior. I'm sure that had Strong been allowed to continue and find his own solutions, he would have, but the Regents and governor [Edmund G. "Pat" Brown] were in a hurry. There was desperation. The governor had no sense of perspective for the occasion; he regarded it as he would have a prison riot. There were all kinds of pressures on Kerr, and thus on Strong, which I'll never know. Something had to give as the student-driven senate provided no support to the Chancellor and President.

They then put Meyerson in. In the long run, Meyerson did have a sense of how to get hold of the problem, but he had too little time. I don't know how he would have worked out as a long-term Chancellor. I thought of him in those terms, and I was disappointed when he had to leave. He thought of himself as a long-term Chancellor. He had ideas, and he was trying things out, constantly, but it took a person like Heyns to kind of bring a rein to chaos.

Lage: What did Heyns bring to it that the others hadn't?

Elberg: He brought a personality, and a kind of an administrative breadth and understanding, and a willingness to sit down and talk, but without being overturned. Clearly, he had his troubles with Reagan, because he didn't do things fast enough, and then, unfortunately, Heyns inherited the terrible Third World thing, with all its unprecedented campus violence. Now, there was no such violence of that caliber in the Free Speech Movement, so each of the Chancellors entered into a new period of escalation of the disturbance. They were pioneers.

Lage: It must have been quite a time to be on the campus.

Elberg: It was a dreadful time, in some respects. Absolutely dreadful. The behavior was unbelievable. It just ran riot. Then, of course, it attracted all the childish elements from the high

schools and the junior high schools to come on the campus and participate in these marches and whatever, along with wandering street know-nothings. These youngsters roamed through our offices as if they were students. It was absolutely unbelievable. I had to pick them up by the seat of their pants and push them out the door. These young girls, junior high school, tough as can be. It affected the high schools, terribly.

Lage: They were your next generation.

Elberg: They were the next generation, yes, but also subject to the aging process.

Leadership of the Graduate Assembly

Lage: While you had not too much respect for the radical activities going on, yet you were still trying to incorporate your graduate students into governance. Did this create a tension in your mind?

Elberg: Yes, it did. I felt, and I'm quite willing to admit it, that the future of student government lay with the graduate students and not the undergraduates.

Lage: You thought you needed the more mature student?

Elberg: Yes, and I was one who advised them to secede from the ASUC, that that was the only way they were going to get any support. That was just absolute rebellion on my part, that I could never have anything more to do with that sandbox ASUC that existed at the time, totally helpless and run by demagoguery. I thought that the future of student government on this campus would, for a long while, rest with the maturity of the graduate students.

Lage: Yet you did have a lot of graduate students leading the FSM.

Elberg: Absolutely, but when you did, the whole level of discourse and behavior changed. It changed, exactly the way I thought it might. I wasn't so sure in those days as I am twenty-five years later, but it did change. I felt we accomplished something. I didn't know what the Graduate Assembly would do, whether it would be a graduate sandbox or what, but I felt that they had the ball and the next thing they were going to do was demand a share of the income of the ASUC to keep them going. And surely enough, they did, and they got it.

For some reason or other, chancellors at that time seemed to be fearful of the graduate students leaving the ASUC, and I never could understand where that attitude came from. I never understood it. They seemed, to me, to feel that this was the worst thing that could happen in student government. I thought, "It's the best thing that might happen." It would bring what you might call an "upper house" into existence, if necessary--the lower house, the ASUC, the upper house, the Graduate Assembly, or whatever. I think that's the way it's been. From the time that assembly got started, they have been very constructive. Oh, they've upset us, but they've been constructive, and I think they were among the best products of the time.

Lage: That's good. That's a very positive--

Elberg: I'm very positive, always have been about them, but I don't like to see the law students monopolize the administrative positions in the Graduate Assembly.

Lage: Has that happened?

Elberg: Yes. I don't understand it, and I don't know if it's true today, but during my years observing them, I was fed to the teeth with the fact that every year there was another law student as chair of the assembly. You see, law students are not really graduate students, but they took this over. They interested themselves mostly, I suspect, as a way to force ethnic population changes in the student body.

Lage: When you say they're not really graduate students, what do you mean?

Elberg: You see, law students were, in a sense, only automatically, or mechanically, admitted by the Graduate Division. The Graduate Division never even saw the law student application. The law school admitted them, then sent their names down to us, and we just admitted them. I never felt, and I'm sure the law students were the last to ever think, that they were graduate students. They were professional school students, but less than that. They didn't have to really go through the Graduate Division scrutiny. I do not know the origin of this preferential treatment, but ultimately it was modified when the law school adopted a Ph.D. program in Jurisprudence and Social Policy.

Lage: They didn't act as teaching assistants.

Elberg: No. They didn't enter into any of the usual truck-and-bother of graduate student life. But there they were, constantly becoming

chairs of the assembly. That has, I believe, more recently stopped.

Lage: Well, there you are with your political people in law school.

Elberg: Oh, yes, I'm sure they saw that as the road to a political kind of a student life. Yes. Yet, they were good. They were perceptive and persistent, and, I think, on the whole, they listened.

Ford Foundation Fellowships: Reducing the Time for the Ph.D.

Lage: We've mentioned some positive things that came out of FSM, and then you mentioned the softening of standards. What did you think about the various educational reform attempts--the Tussman Plan, for instance. I know those were mainly undergraduate.

Elberg: You see, those were all undergraduate.

Lage: Was there anything comparable in the graduate?

Elberg: No, no. I shouldn't say there wasn't anything comparable. There was the Ford Foundation plan [the Special Career Fellowship Program] in which our focus was to stop the eternal life of a graduate student to the Ph.D. and to get it down to four to five years. The Ford money made that possible.

Lage: Tell a little bit more about that. When did this come about?

Elberg: It was somewhere in the mid-sixties. Mr. Mauchlan and I, before Ford, set up an idea of the reduction of the Ph.D. time, especially in the social sciences and humanities. We were in the midst of figuring out how to get money for those departments so that they could subsidize their students and not have to have them work as TAs forever.

Lage: Because that slowed down their progress.

Elberg: That slowed down, and that was, really, the only student aid they had--teaching assistantships. Of course, the students never wanted to give these up, because that was their livelihood. We had no way of providing research assistantships. We were in the midst of that thinking.

I think Mr. Mauchlan and I sent a proposal to the Ford Foundation, offering this as an example. Apparently, they had

been thinking along the same lines with Harvard, Yale, Princeton, and Stanford, and so on. They came back very interested, but with their own plan. It worked out. They were willing to make a grant of five or six million dollars to Berkeley--ten million to Harvard, which I have never got over--to provide fellowships and research assistantships to the students in those departments of the humanities and social sciences who would agree that, in return for this aid, they would see to it that, on paper, the Ph.D. degree in those fields only needed four to five years to complete.

Well, the effect was electrifying on this campus. I can remember the graduate advisors in History and English just in ecstasy--at last, a pot of money that would help. We went to every one of the departments, and we said, "If you can show us that your Ph.D. program can be accomplished in a four-to-five-year period, we will make a provision of certain thousands of dollars." And they would agree to make certain that the appointees on the Ford money would have the experience of a TAship; then, having their qualifying examinations over, they would go on to some kind of research assistantship or something, or just free fellowship, and that in the long run, it shouldn't take that student any longer than four or five years.

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So we went, in the Graduate Division, to each of the departments. I think there were ten departments in the humanities and social sciences. Ford was interested in certain departments also. It worked out, and we entered the Ford plan with our other University colleagues. The problem was the inability of the faculty to insist, somehow, with supervision and everything else, that these students had to make it in that length of time. They didn't succeed in doing it.

Lage: It sounds like they lacked some kind of administrative sensibility.

Elberg: They lacked something. Yet, on the other hand, some students who were on the plan told me that it was too luxurious for them. They were fine when they were TAs, but when they got to full free fellowship money, they didn't know what to do with the free time. They tired of studying all day. They didn't have any other outlet. They were doing other things. They weren't working on that degree. The faculty was not there to really watch over them and to see to it that they might have had some other assignments.

There were many things that we suggested to departments. History finally said, "Well, we just have given up in the long run. We can't do it, but we want that money. It's all right.

We can't guarantee it to you." That attitude didn't change much, until, some years later, the departments were all put on a normative time to the Ph.D. degree across the University, with certain financial penalties for exceeding the normative time to the degree.

Lage: Statewide?

Elberg: Statewide.

Lage: Was that imposed by the Graduate Coordinating Committee?

Elberg: No, that was imposed by the President's Office.

Lage: And was it statewide across all the different departments?

Elberg: Oh, yes. This normative time took on the concepts that the Ford fellowship program had but had a lot of teeth in it, because, the department's success with the normative time determined the number of new graduate students permitted to be admitted in those departments. If they didn't produce the degrees, the quotas were reduced.

Lage: You hadn't thought of anything that clever.

Elberg: Hmm, yes, we did. That was the Graduate Division's action here under Dean Hammel and Dean Geoghegan, who persuaded the Chancellor and the upper authorities that this was one way that we could exert control. If we can't control the output, we certainly can control the input and cut those departments back until they did begin to put some Ph.D.s out at the other end.

Lage: So this was a suggestion from Berkeley up to the President's office?

Elberg: No. As the graduate deans met, and we talked about these things, it gradually became common procedure, so that it took place in the CCGA, I guess, and on up. The whole idea was to reduce the population of this campus and hold it to a certain target. In order to do that, some departments could have new graduate students, and some departments obviously could not have. The basis on which they could have was their success in producing degrees at the outside end. I think that brought the departments around, not completely successfully; it didn't necessarily bring the degree to four to five years. I don't think that has succeeded yet, but it did succeed in putting students out at the other end, eventually--not failures, but degree recipients, even if delayed.

That's the argument I never could make successfully with the higher-ups here--that, true, the Ford plan did not cut the time down, but if you look at the students who were in it, more left this place with their degrees, eventually, than ever did before. I thought, you know, if that's what you get, that's what you get. It's a little positive, but I couldn't make that point very successfully. I thought it should have been.

Some Successful New Degree Programs

Elberg: Now, I do want to get into one point, and that is, with all of our study of different degree programs, and with our study of research institutes, I think we had some notable successful new programs in my time. The first one, which I think is a landmark, is Jurisprudence and Social Policy, which was the successor discipline to the School of Criminology and the Center for the Study of Law and Society. The new program of Jurisprudence and Social Policy was originally begun and called Law and Society, and that term gave way to JSP.

The uniqueness of that program was that we persuaded the law faculty to sponsor this Ph.D. program, never done before. That faculty debated this very thoroughly. They had only been involved, all their lives, in the jurisprudence doctorate, the law degree. They finally agreed to sponsor, and to participate in the teaching and everything else for the Ph.D. in Jurisprudence and Social Policy, a program that was, really, mostly conceived by Professor Philip Selznick of the Center for the Study of Law and Society and the Sociology department. He was the leading light and the creator of the concept. The interesting thing was that as this graduate program came into existence, and it needed new faculty, these new faculty, the law school agreed, could belong to the law school.

As a result, they enriched themselves without loss of professional faculty, but they enriched the campus, because of that éclat--that spirit--that existed. I said to the Graduate Council and to the CCGA that it is absolutely essential for the law school to take possession of the sponsorship of this degree. No other department could do it. I hope that would work with them, that they would read that and agree. It's been a great success.

Lage: Is it a program of--?

Elberg: It's an interdepartmental program with the law school faculty and schools and departments and faculty of the rest of the campus.

Lage: Do the students that get that degree tend to be lawyers also?

Elberg: Not necessarily, no. They go into social science jobs in those fields. They also could be lawyers. If they are lawyers, they might be much better lawyers, in the sense of intellectual content of the whole area. I wouldn't expect them to be out practicing law. They might be professors or something, but I think it is a great, great contribution to interdepartmental education.

The second one was most interesting--Ancient History and Mediterranean Archaeology. That came about when some of the members of the classics department, who were archaeologists of the ancient world, were beginning to take their Ph.D. students on summer archaeological expeditions with them. The idea came up that this archaeological field experience, I thought, should be a regular part of the education in Ancient History and Mediterranean Archaeology.

When the degree was proposed by the classics department faculty, it was very soundly conceived. Professor Erich Gruen, in history, was one of the founders--so was Jack Anderson, and others. But Gruen in history, and some of the greatest of the classicists, Professor Kendrick Pritchett, and so on, all got behind this. It went through the Graduate Council and the CCGA with flying colors.

There was one very humorous, but uncomfortable, moment for me. Professor Pritchett didn't quite understand that my idea, and thus the council's and the CCGA's, was that the field experience in the archaeological side was a requirement. He thought that it might be loose, and I said, "No, that's not what the council and the CCGA have agreed to." He was very hesitant. He didn't think it would work, but he agreed to support it. He's just been an absolute gem, in his way, because he is so respected. With his cooperation and support, along with Gruen's, last year it celebrated its twentieth year and has become one of the most distinguished degree programs, I think, on the campus.

The other area where we affected education was in two programs--one not so successful, one highly. I'll deal with the best one. The Institute of International Studies, under Carl Rosberg--that had a very stormy history. I think Chancellor Kerr probably created it, and it was a kind of an umbrella organization having responsibilities, intellectually, for a lot

of separate centers--the center for this and the center for that, in international work. They never got along.

Finally, Rosberg began to develop the institute itself. We had a reconciliation meeting with the centers, and it ended, really, in my agreeing that the centers should go their own way, not feel tied anymore to the institute. If the institute could help them, it would, but they were kind of independent. Rosberg developed the institute in a most wonderful way. It's now being considered to be a School of International Studies. I gave him my space in old Stephens that we were using for the graduate student commons room. I transferred that space for his students' international library. We moved up the next floor for our commons room.

Then I was able to persuade Mark Christensen, the vice-chancellor, to really look at Carl Rosberg's budget and to give him some of the funds he really needed. Christensen was wonderful and must have persuaded Bowker. I think the two of them made a very significant increase in Rosberg's budget, and the thing just took off. Now, with the genius of Rosberg as to how to work with people, he began to use some of his funds to help graduate students with research assistantships in these centers. Thus, slowly, the centers are showing immense improvement in their own identities and fundraising and have come back with much stronger affiliation with the institute. I think the whole thing makes a remarkable potential for the campus. I'm delighted with that, and I felt that was my foray into international relations graduate education.

Lage: Didn't they name a lecture series after you?

Elberg: Yes, last year, and they just had the second lecture, which was marvelous, by the warden of St. Anthony's College, a former director of the London School of Economics, Sir Ralf Dahremberg. He gave the lecture last week. The first lecture had been given a year ago by Professor Victor Weisskopf of MIT.

Lage: How did these programs catch your ear? I mean, there are so many things that you could sponsor.

Elberg: Yes, well, I just simply worked with the faculty as they came to propose things. Since I was the dean, with responsibility for a certain set of twenty-two centers and institutes, naturally, I was in contact with them, and I knew what they needed. We had conversations all the time as to how things might be.

Lage: And this particular one, you felt was--

Elberg: And this particular one, I felt, was an opening to a big, successful venture in graduate education in international studies, and it has proven to be.

Now, the one that I was thinking of, that was not so successful, was another graduate degree thing. When I first became dean, the Ph.D. in Romance Languages and Literature faculties came to me. Well, I automatically was chairman of the committee for that degree because my predecessor had found it in disarray and had put himself in as chairman, and so I inherited that. When we had the first meeting, there was complete disarray and discontent with the degree. We had two or three meetings, and I couldn't bring them to reaffirm their faith in the romance language grouping--one group degree. The French wanted their French degree. The Italians wanted an Italian degree, et cetera.

Lage: You couldn't get a Ph.D. degree in Italian language?

Elberg: There was nothing at that time. That was the thing, so we went that way. I encouraged them. Eventually, the French, I think, were the first to come in with a proposal for a French Ph.D., the greatest mistake, I suppose, I made, because it should have been broader in its concept. Anyway, it went through. That was the first break in the romance languages, and then another department, and another. Italian came in. Spanish languages and Portuguese, and so on--they all finally came out with their own degrees.

Lage: They had separate departments.

Elberg: They were all separate departments, and they felt that, as a department, they should have their own doctorate. They didn't want to be in this group. The group had not shown itself to be very broad-minded, you see. They were, in my view, a reflection of some of the complaints of the student discontent. And later, the French Ph.D. program proved to have many shortcomings, but let's save that story for another time [see page 205].



IX MINORITY CONCERNS, VIETNAM WAR, FOREIGN STUDENTS

The Graduate Minority Program: Origins and Personnel##

Lage: We were going to start with the Graduate Minority Program this time.

Elberg: The origin of the Graduate Minority Program was very simple. We were, of course, aware of the tremendous pressure on civil rights and affirmative action, and I don't think anyone in the United States in higher education could have been unaware that we had to do something about increasing the number of minorities at the graduate level. All the major preoccupation was increasing them at the undergraduate level, and, of course, that was true. I thought at the time that we had better not wait for them to just filter up. It would take years. One day, a young black graduate student in education came to see me, and I thought we could start with him as our first candidate for support.

Lage: Did he come about something related?

Elberg: He came about something with his degree work. He was really asking for funds, and I thought we could help him. I had no idea what we were getting in for, but I did set aside some money for him, for stipends and fees. His name was Clark, and he got through. He went out and became an administrator in the state university system. I don't know what's become of him, but he was a credit to the campus and our first supported student in the program-to-be.

Lage: Do you remember when this first--

Elberg: I can't remember dates, but it must have been in the mid-sixties, before the Third World tempest. We were well in advance of that. I had been thinking and talking over, with many people, how to manage a larger minority population at the graduate level. I

remember talking with Regent McLaughlin. He said, "You've got to go down into the high schools, and even into the grade schools, and begin to mark them. See if you can't find the promising ones and groom them."

I tried, and I got in touch with the high school counselors in Oakland and Berkeley. I didn't have much success in response. They didn't take me up much. I wanted to develop something whereby they would bring to my attention promising minorities. Either I didn't present the thing right, or they thought it was just a fly-by-night idea and that they couldn't trust the University to carry on, so I said, "Well, we'll forget the high schools. I'll see what I can do right with the undergraduate population here." In the meantime, we began to set some money aside.

Lage: Out of your regular budget?

Elberg: Out of my regular budget, and then I realized I needed more than just my own informal wishes and goals. I needed concerted, planned efforts. I appointed a woman who had come to see me about matters of that sort and was available, and I said, "Why don't you join the Graduate Division as an AA [administrative assistant] and help us begin to attract minorities to come to us and to apply for aid, and apply for admission, and so on. Let it be known that we have limited amounts of money that we would give." She took the job, and it was very interesting, because it wasn't long before the President and the Regents decided to make money available to the Graduate Divisions.

Lage: Did you have to apply for that, or did they develop the idea?

Elberg: No, they gave it to the Chancellors, and the Chancellors were supposed to assign it, as they wanted, for minority recruitment. I always saw to it that our chancellors were aware of our interest, and we got, through Assistant Chancellor Mauchlan, our share of the pie. That money started coming in, and I widely advertised in the papers and the Daily Cal. The populations began to come in, and gradually, my assistant there began to have a job of work to do. It was very slow.

We began, also, to stimulate the departments, and the graduate advisors, and the chairs of departments, to get with it, because that's where admissions are. We can't admit students in the Graduate Division except by recommendation. I knew, as well as I was sitting here, that anytime I went to a department and proposed a certain student, that would be the kiss of death.

Lage: They resented that?

Elberg: Oh, they resented anything like that. They wanted to pick their own people, and I understood that. It was only right, because if they hadn't picked them, then it would be death. Anyway, some of the departments responded wonderfully. For instance, in zoology, Professor Eakin was so engaged in minority education that he went to one of the southern black universities on a sabbatical to teach and to teach the faculty how to teach embryology and zoology. Those were the days when those southern black colleges wanted to be upgraded. Howard Bern in zoology did everything he could to increase applications to the zoology department, and so on. It was very spotty, but it began, and, finally, it was going along very well. As those things happen, the lady began to get a little too arrogant and self-confident, and before I knew it, she had turned off a lot of the minority students.

Lage: What kind of--?

Elberg: She didn't treat them well when they came in.

Lage: Was she a minority herself?

Elberg: Yes. She got to be just a little too big for her boots in the Graduate Division, and I decided to make a change. It shows you how a thought could lead to something you never expect. I thought the way to handle dissatisfaction among the minority graduate students would be to appoint an associate dean for them. It was my intention either to assign myself or one of my deans. At that, the minority graduate student group blew up.

Lage: Did you have an organized group of minority graduate students?

Elberg: No, but they just coalesced in disagreement with the idea that a non-minority would be the associate dean for them.

Lage: By this time, have we gotten up to the time of the Third World liberation activity?

Elberg: Yes, and, of course, that triggered a lot of people coming in. A segment of the minority students, very active in Third World activities at the graduate level, objected strenuously. They took the matter to the Chancellor, who assigned Vice-Chancellor Connick to have a meeting of reconciliation between these students and me.

Lage: Had you had a meeting with them previously?

Elberg: No, they had just gone directly, as I recall. They may have met with me, but I said, "I don't have the funds to bring in new deans. I was just going to add this as a responsibility to my

existing deans." I didn't realize the depth of feeling of color and minorityness. So, Connick called a meeting one afternoon, about four o'clock. Everyone concerned--all these students from law and everywhere else on the campus who were up in arms about the graduate minority problem--and I went. I listened to them, and Bob Connick listened to them. I said, "We are going to get rid of the woman."

Lage: They agreed with that?

Elberg: Yes. They didn't like her. "And we're going to have an associate dean." So Connick, in a way, was very good at negotiating, and he said, "Well, let's consider. Maybe there are a couple of minority faculty you could think of." I said, "Yes, I would certainly not object."

A couple of the young men, one in economics and one in law, said, "Well, we've got a name for you: [O'Neil] Ray Collins in botany,"--poor Ray just died--and another one said, "Well, there's a Juan Martinez, who ran the Third World problem and strife at San Francisco State, and he's available." Connick and I agreed: I'll appoint them.

Lage: Both of them?

Elberg: Both of them. I said, "We'll appoint both of them and divide the responsibilities. One thing I don't want is that this be just black. There are Chicanos, and Martinez will represent those interests, and Collins will represent the blacks. Between the two of them, they can all represent the Indians and whoever else there are." Well, they accepted this fine.

I must say, these students were wonderful. It just turned the corner, and they became such helps and supporters. I got Collins in, and Martinez. They agreed to. That really was the turning point. That's the day when the real division program got started, because with two men of great ability, they just took on themselves how to develop the thing from beginning to end. I could just let that go, then, in their hands, and just give them every support. They didn't hesitate to ask, and we poured money into it. It was good, because they had ideas about what they wanted to have.

Encouraging Recruitment and Retention of Minorities

Lage: What could they do, given all the strength in the departments?

Elberg: Oh, they could do a lot of things. For instance, one of them could begin to work at the national level, with the Educational Testing Services minority program. The big problem always was, how do you find minority applicants? They're not applying here. Secondly, since it's a departmental thing, you have to get a wide range of applicants so that all the departments will have some people applying.

The Educational Testing Service, of which I was chairman of the board, created the minority thing, and what they did was a wonderful thing. They took the entire national list of students who were applying to take the Graduate Record Examination, and in those applications, always, race was listed. The students were asked to list their first, second, and third choices of where they would like to be admitted, and whether they needed money, and what their background was. This was a printout from the computer.

A tremendous amount of information came out of the ETS, and what they did was to design that in such a form that they could send this printout of the whole national application list for the GRE to anyone who wanted it. Eventually, what you did was to subscribe, because it was enormous. There were ten thousand, twenty thousand names, and then they were divided into disciplines.

I subscribed, and what I did was to instruct Collins and Martinez to go through this and cut out, for example, all those wanting to be for political science, all those wanting to be for department x for their Ph.D.--cut those in pieces and send those to the department graduate advisors and say, "Here is a ready-made wish list of minority students. See if you can attract them to apply to Berkeley. You don't have to leave your desk. Here's their name, and address, and everything."

Lage: Were there support systems, then, for the departments to prepare brochures and things, or other expenses?

Elberg: We eventually helped the departments, in any way they wanted, to recruit, whether it was brochures, whether a department wanted to send a graduate advisor on a trip around the country for recruitment and interviews. I then finally said, "The only way to work this is at the department level." I said, "Look. Don't go out there, building up hopes and then turning these applicants down. If you go so far as to send a recruiter out, then give that recruiter carte blanche to offer admission on the spot to your department."

Well. Such an idea was a revolution. They nearly had a heart attack. I said, "Well, what's going to happen? You'll probably give admission to a couple of people. It's not going to bother you." Finally, some of them said, "Yes. It's really not all that much of a deal." I said, "If you're going to go to the trouble of helping your advisor finance a trip, and we're helping support that, then have him empowered by your department faculty to offer admission and offer aid. We will give you the aid that you can offer. You can offer it on the spot." Very few had the energy to do it. Some did.

Lage: Which ones did? Can you recall?

Elberg: No, I can't recall who actually recruited that way, but some very few did. What I'm getting at, really, is how we tried and how so often our pleas fell on deaf ears at the departmental level.

Lage: Now, what do you attribute it to?

Elberg: Inertia, the lack of sensitivity and drive to meet the national problem, the lack of commitment, personally.

Lage: There was so much unrest on campus, with the Third World strike and all, that you'd think the faculty would have been motivated.

Elberg: Well, you see, that is exactly what I'm driving at. There needn't have been all that unrest if they had met some sensitivities and responses, positively, from the faculty. But they got one excuse and stonewall after another, so, of course, they were driven. A lot of that was undergraduate. The Third World strike was undergraduate. All I can say is that as the water washed over the rock of our efforts, we never stopped. Collins never stopped, and Martinez never stopped, and their secretary, Ellen Schelstraeter, who, to this day, was the rock of that whole Graduate Minority Program, the most wonderful administrative assistant you could imagine--she was the one that kept everything together and kept Collins and Martinez in line. It gradually built up.

Lage: So you did have some increase, but just not what you--

Elberg: Oh, we got quite a few. The numbers were basically small, but they were growing, and it would be foolish to use percents, because an increase from one to two is a hundred percent. Anything like that is nonsense. We did begin to see the effects, and we knew that would take a generation. It took less time than I expected.

Now, Collins and Martinez, on the other hand, began, at the other end, to stimulate national interest by holding a conference at Berkeley on graduate minority educational problems and increasing minority graduate students. We brought them together--schools sent their representatives. There was a wonderful conference in the Lipman Room of Barrows Hall for a weekend, or something--two or three days. Wonderful talks on how to do it, what the issues were, and so on, and Collins and Martinez were the major supporting structures of the conference.

The Educational Testing Service began to coordinate efforts, the great subscription list, et cetera, helped. The individual faculty members began to get involved, and it was just like the weeds spreading in the garden. Everywhere you looked, there was a little minority activity.

Now, the easiest thing was to get them in. The worst and the hardest was to keep them in. I don't mean financially. We didn't always have enough, but we had enough for them to support themselves and pay their fees. But there was the ability needed to pass the courses. They needed remedial stuff.

Lage: What colleges had they come from?

Elberg: They were coming from the state colleges. They were coming from colleges around the country, other universities, and so on. They came from everywhere. There weren't all that many, but they were coming.

Lage: So did you offer remedial work?

Elberg: We began to arrange for remedial work to keep them in. We began to encourage departments to provide some coaching. The last thing we wanted was dropouts, after all the effort for dropping in. Every loss was a terrible thing--just awful, because the numbers were small. We had problems. Some of them just weren't fit for graduate work. What we were having was this. We had a terrible imbalance in the areas in which they were interested. They were flocking to law school. They were going to social welfare. They were going to education and some of the social sciences. So few of them were going to the sciences or math, and hardly any to the humanities.

Lage: Because they had to have that in their background. They can't just--

Elberg: That's right, but some did have, and had a hard time. They had a hard time. I had one in bacteriology, and we worked heaven and earth to see to it that he stayed in. The faculty helped him,

and he got through. Then there were those who were not making it, and what do you do then? We tried all sorts of things, and remedial wasn't the answer then. It was beyond that. It was just their ability to grasp the advanced stuff. Some could do it.

Then I found another problem, and that was they had selected the wrong fields, very often, for their talents. I got some to change from, maybe, the sciences or whatever, into the humanities or social sciences--rarely the humanities, but the social sciences. It killed me to see them all in these social sciences, where there wasn't anything for them. I wanted them in the professional schools, where I knew there would be a job.

Lage: You'd think they would have trouble getting employed after a degree in the social sciences?

Elberg: Yes. The nation wasn't quick to pick up the few that were coming out. Oh, corporate America made a great talk of it, and some of the corporations did wonders. AT&T, for instance, and PG&E, and some of the banks, had training programs.

Lage: But you don't usually get a Ph.D. to do that.

Elberg: Oh, yes, you do. You get the Ph.D., but then you get special training in the particular jobs, you see, to learn about how to work in the bank, or how that bank worked. There were all kinds of ways that the corporations helped, but the point was that the corporations were also looking for any minorities. Those going through the professional schools, like law and social welfare, didn't have much worry. If they made it, they were placed. Those going through sociology, and there were far too many, that was a waste. Political science was a waste for them.

Lage: What about going on to be professors?

Elberg: Oh, no, they weren't ready for that.

Lage: Were you taking them through the Ph.D. or the master's?

Elberg: Well, there are Ph.D's and Ph.D.'s. Recruitment of new faculty was almost a personal network proposition. To be recruited as a professor was very much like getting your Ph.D. with great honors. Professors, in those days, recommended to other professors, and they were only going to recommend the best, in our network of cooperating institutions.

I noticed it was hard for some of them with their degrees. Some never did get placed, and it killed me. Maybe it was

personality on their part, or presenting themselves, but I couldn't go into that. I wanted them to be sure they were getting through, and some did. Some did beautifully, but we did not have them in math, we did not have them in engineering. We didn't have many in chemistry or physics--maybe one occasionally, as I recall, in those years. Oh, it's different now, probably, but in those years, each one was like a giant orchid, visible and so on.

Then, there was another problem. I don't know how correct I am, but with affirmative action I always had the feeling that the success in getting the women in was outstripping the minority successes. The women were getting in in good numbers. We had legal test after legal test, and legal action brought from the civil rights office of the Department of Justice against us, and we beat them every time by showing that the women were getting in as well as you could possibly expect. They were, maybe, forty percent of the graduate enrollments, and so on. I think what was happening was it was more attractive, possibly, to bet on a winner. The women were the winners in this case. Besides which, they were their own affirmative action area.

Associate Dean Wiktorina Winnicka

Lage: Did you have a special representative for women?

Elberg: No, I didn't. I wouldn't go that far. I absolutely wouldn't. I felt that any dean was adequate. That was not the problem. I did appoint, however, a woman associate dean with that in mind--an M.D., former Deputy Minister of Health of Poland, a resistance fighter in World War II, the chief of the Division of Maternal and Child Health, after she left Poland, in the World Health Organization in Geneva. I knew her from my World Health visits--Wiktorina Winnicka, a legendary figure in maternal and child health. I brought her over to the School of Public Health when she retired from WHO.

Lage: Was she part of the University system?

Elberg: Let me tell you.

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I met Wiktorina Winnicka on my visits to the World Health Organization each summer. We got to be fast friends, and we grew to love each other, and Sylvia and our family. I suddenly decided that she was what the School of Public Health needed to

represent, in the international field, the area of maternal and child health. They were wonderfully placed in the school for the domestic, the American, but they had, really, very little in the way of personnel who represented the field of international health. Wiktorina did, because of her work. She had been all over the world, consulting in every country on MCH, as we called it--maternal and child health.

I thought, my goodness, I think I will suggest to my dean, Charles Smith, that if he would like--and I had an ulterior motive--I would settle some money on the school to bring her over as a professor and, at the same time, make her an associate dean of the Graduate Division for the general care of graduate students as a whole, but especially for minorities and women. There was no problem with Collins and Martinez on that, but she, being an M.D., could talk to students in a different way. Many of them came to her for personal problems and advice.

She became famous. Not only that, but when it came to dealing with these Third World firebrands running around the campus and making their demands, some of their demands infringed on the Graduate Division, and, for some reason or another, when they had to see the Graduate Division, I saw to it that they saw Winnicka. What a revelation that turned out to be. People who had, in a sense, intimidated some of our higher administration by their incivilities, Third Worlders, she sat them down and read the riot act to them, and they were eating out of her hand. I never saw anything like it--some of the very worst people who had been employed in departments and who were creating havoc.

Lage: Were these graduate students?

Elberg: Yes, oh, yes. She got them in and, on one pretext or another, got them in for a consultation. My golly, she either got them fired or found the ammunition to clear out the mess they were making, because they were destroying what they were building.

Lage: So she didn't turn them around but just didn't put up with their behavior?

Elberg: She turned some of them around. She told them how a resistance movement can work and how their tactics were all wrong. That was an era of ten years. She came in '66 and retired in '76. It was a wonderful period for the Graduate Minority Program, and the Graduate Division, and Winnicka. The other thing she was able to do was to advise me quietly on how to keep a handle on Ray Collins and Juan Martinez, because--bless them--there was no holding them. There was no end to what they wanted, and we just couldn't do everything. Finally--I know it was a painful thing--

but I think, one year, Collins realized when I said, "No, I just can't go along with this request." He finally gave up and resigned, after several years. Martinez kept on, but they were not working together well.

Lage: What kind of a request?

Elberg: Oh, he wanted expansion of all the graduate minority efforts, and fundings, and things that we couldn't give him. They weren't in our power, and the departments just weren't ready. He resigned when he finally saw that his ideas had become too grandiose. It was a tragedy, but that's the way it goes. He had made a tremendous contribution.

Lage: Did he go on into the Chancellor's office?

Elberg: No, he went back to botany. I think he wanted to be a vice-chancellor or a dean, and it just didn't come about.

Anyway, there was Winnicka, trying to heal some of the Third World issues, and personnel and employment problems, in her little way, being very successful. Not only that, but we used her as a kind of judicial agency. In other words, when there were complaints about minority students or personnel employees, and they were somehow in my jurisdiction, I would have Wiktoria analyze the problem and make a recommendation on the solution. She never failed.

Lage: Had she been in a university before this?

Elberg: No.

Lage: That's interesting that she came from a different culture in every way.

Elberg: She came from a different culture in every way. She knew universities all over the world, because that's where maternal and child health, in medical schools, and schools of public health, was taught. She knew how they were organized. In other words, she was a comparative person because of her knowledge of the breadth of the world's institutions. She had been a visiting professor all over the country. She was always, in the ten years here, a guest professor at Stanford for a certain number of weeks or months of the year. She was always a guest consultant at the National Institute for Maternal and Child Health in Bethesda and for public health departments around the country and the world. She just was the most unique kind of an appointee you could possibly imagine. I don't know how I ever had the sense to think of her for this.

Once my fund to the School of Public Health, to help them employ her, and thus get her here in the division, was exhausted, then, of course, she came right on into the regular budget of the University as a professor and associate dean; the state budget to the University simply blanketed her in.

She was a very interesting character, but her early life had been a tragic one in Poland during World War II. She tended to suffer from acute depression, and she died, in an acute depression, by suicide, in Geneva a few years ago. She couldn't bring herself out of it.

Lage: Had that been a problem while she was here?

Elberg: She was always on the verge, but the thing that kept her was her social life. It was the retirement that killed her. She became an American citizen. I insisted on that, for her safety. She could not be stateless anymore. Since she had left the World Health Organization and the United Nations, who had always provided the safety net for her citizenship, I said, "Now, Wiktorina, you're going to be here, and you're going to become an American citizen. It's like social security or Medicare. You do it, and it's in your back pocket. Wherever you go, you're protected."

So she did, and my motive was that she would eventually remain here permanently. She was a professor and dean here six months of the year. Then she would go back to Geneva and consult for six months with the World Health again, until she retired. You have to retire at sixty in WHO, so eventually, she was retired. When she went back, each six months, she just went to live in her apartment. She always maintained her apartment. The point that I'm getting at is that she had a big social life here, and that protected her from depression. Back there, her colleagues were all retiring, going back to their countries. Gradually, her network of friends and companions decreased to one or two. As she became more depressed, her disposition became more morose. People didn't want to be with her, except a few.

So I said to her one day, "Look. Stop going back there. Get rid of that apartment and settle here in America." Oh! Never! No, Switzerland was her world of culture, and gentility, and civility. She loved America for certain things, but she couldn't take the give-and-take of American culture, so she said, "No, when I retire, I'm going back." I think that was the problem. She inwardly brooded, and it got to intractability, and so she took her life one day. Very sad. She was a great contributor to the Graduate Minority Program. I've probably given it too much here.

- Lage: I don't think so, because we probably don't have any other recollections of her. Let me ask you just one thing. I ran across Winthrop Jordan's name.
- Elberg: Oh, gracious! Winthrop Jordan was the first one. You're right! I had forgotten all about him. He was the first associate dean in charge.
- Lage: Was he the one that they complained about?
- Elberg: Wait a minute, I don't think so. He was the one who helped find this AA. That was his responsibility. When Win won the Pulitzer Prize for his great book, White Over Black, he began to be known nationally. He and Mae Dyson--she was the black AA--treasured each other. Finally, his term as associate dean came to an end. You didn't have associate deans too long, and it was then that I was going to appoint one of our present associate deans, but the thing blew up. They were getting a little, as I said, unsettled about Win and Mae Dyson and the nature of decisions, because Win, being a professor of history, had very high standards. The office outgrew him. That's the problem. It became too big. Win Jordan was the first to open the office, and he started it beautifully, just great.
- Lage: He seemed to have a lot of empathy with minority problems.
- Elberg: Oh, yes, he did. That was his professional interest in history, absolutely. Then, of course, eventually, he resigned. He took a job at Mississippi. I think that covers enough of the Graduate Minority Program. It's just one of those things that finally took off on its own.
- Lage: But there are still complaints, all the time, about, "we don't have enough minorities in graduate school."
- Elberg: Well! They complain that we don't go out and recruit enough. Oh, yes, now here's another thing, Ann. In the beginning, there were mainly two minorities, the blacks and the Chicanos. Oh, there may have been one or two American Indians. We never considered the Japanese as minorities, in the sense of a Graduate Minority Program, because our Japanese graduate students were fully competitive with the whites.
- Lage: And the Chinese, too?
- Elberg: And the Chinese, too, so we didn't consider the Orientals as subjects of concern. They were getting in in numbers that were perfectly normal. In fact, in some departments they were the majority. You see, that began to bother them, that the Graduate

Minority Program was not willing to give them money, because we said, "You can compete for the other monies." I didn't think they were really disadvantaged. That was my point.

Well, long after I left, it really boiled up with the Asians, and they certainly are a minority that has to be considered now, and that's another matter. But in the beginning, it was a question of relative disadvantage, and I took the position they were not that disadvantaged to warrant such emergency assistance.

Contributions of Budget Officer Errol Mauchlan

Lage: I get the impression that at this time there wasn't the amount of direction from the Chancellor, say, that there is today--that you were kind of on your own. Is that right?

Elberg: Oh, absolutely. There was no direction at all. We created this. We ran it. We reported to the Graduate Council and to departments. We had our core graduate advisors throughout the campus. No, I think the Chancellors were delighted at whatever we could do and were supportive.

Lage: But they didn't give you--

Elberg: No direction. No, no, no.

Lage: Were they helpful if you needed extra money?

Elberg: Oh, I should say so. They gave everything they could, and if I had a special case, they always found it. I used to call the Assistant Chancellor Mauchlan "Deep Pockets." Without that office, there would have been no Graduate Division. In all the issues that I've discussed through these weeks, that's the office that made things happen.

Lage: The budget office?

Elberg: The budget officer--that made things possible for me.

Lage: Is that because you had an especially close relationship with Mr. Mauchlan?

Elberg: No, I think Mr. Mauchlan recognized genius when he saw it. [laughter] We did have a special relationship. Oh, yes. I

consulted with him, and he had ideas. We shared them, and we batted them back and forth.

Lage: He sounds like more than just a budget officer.

Elberg: Oh, he is. He's the most unrecognized oasis of quality.

Lage: He should be a subject of an oral history interview. He served under so many chancellors.

Elberg: I should say so. I mean, he would make a marvelous oral history because he has the capacity to see things from the broadest points of view. You see, he was permanent undersecretary in the British civil service for the Scottish Department of Education. He went with his minister to Parliament every day. He had that unique British permanent civil servant quality, that we never see, and the breadth of vision. Besides, an honors graduate of Edinburgh University in English and literature.

Lage: How close is he to retiring?

Elberg: I guess two or three years, maybe. He is the most underhonored person I know.

Lage: I think we should work on undertaking an oral history with Mr. Mauchlan.

Elberg: I think you're quite right, because he would represent an area of personnel that's not always considered eligible. I mean, the Graduate Division was only a small pittance of the range of problems he had to consider. He dealt with all the colleges and schools--and the division. The campus could never honor Mauchlan enough. There has to be a special place in heaven for Errol, in my view. During the FSM, he and I worked together closely, developing position papers, even, for one of the Regents, on a famous weekend, Regent Meyer.

Lage: So he's been actively involved in policy.

Elberg: Oh, yes. They depend on him for his truly statesmanlike quality, and he writes exquisitely--writes sharply, and concisely, and to the point. He gets the issues down in a sentence. Mauchlan is one of the campus's great figures that's never been adequately honored or represented. I couldn't say more. Without him, there would have been no eighteen years of me. No.

Increasing Representation of Women in the Graduate Division

Lage: Now, let's see, we talked about women a little bit.

Elberg: We talked about women. I think that the one who deserves the special mention in the Graduate Division for how he handled the women's problem was Associate Dean Eugene Hammel. Now, Hammel really had his own special genius, in being able to set up a record system that was instantly retrievable, so that we could tell, in a minute, what we were doing on women and what departments were doing and were not doing.

It was Hammel the administration depended upon to really prepare the specific items of defense when this civil rights office in the Department of Justice used to bother the hell out of the University, as a result of a complaint, you see, by some woman or her mother. Her child had not been properly treated. Now, you'll see my prejudices. My wife was always kicking me under the table. She never thought I was really honest about the women's segment.

Anyway, Hammel and his assistant, Geoghegan, also in anthropology and his successor, really did more than anyone in the division to see to it that the women were coming along in the numbers needed.

Lage: Now, you said increasing the representation of women wasn't as much of a problem as minorities.

Elberg: No, because women, in my view, were very quick to get on with the matter, and apply, and be accepted.

Lage: The question it brings to my mind is why they were not coming before?

Elberg: Because the hue and cry was missing, nationally--because the departments were not seeking women. The departments were very resistant, in the beginning, to women Ph.D.'s. It took ages for them to get into engineering, chemistry, physics. I think chemistry has some now. There may be one or two--I don't know--in engineering. Women were looked on as the social workers, as the professors of English, and literature, and languages, and so on. Lord knows, they were in bacteriology as the laboratory technologists of the nation, and so on.

Lage: What about getting the Ph.D. in bacteriology?

Elberg: It was slow, but then it took off. There were always women. From my beginning days as a professor, I always had women candidates for the Ph.D. working with me. Always. So there wasn't that problem. Of course, public health was a great women's area. In certain areas, they were well-represented. It was just, again, the old story of getting them in and breaking the ice in fields in which they weren't.

Lage: Did you ever have to call some of these departments in and talk to them?

Elberg: Oh, my, not only call, but Hammel and Geoghegan would yell and scream over the phone with them, and threaten to cut their enrollments if we didn't see a better distribution. I must say, when it came to the women, we showed no mercy, because we, in turn, were shown no mercy by the civil rights division, and we were not about to be bothered constantly by a lot of nonsensical cases that should never have happened to women here--having to file complaints. In many of these cases, the women were right. Oh, that came with glacial speed, unfortunately, in the beginning, yes. Very interesting, the question of women.

Lage: Did the male professors have all kinds of excuses?

Elberg: Oh, yes. "They're not applying." "We don't know any." "None are ever recommended by our colleagues around." "They're not in the pool," and so on. We said to them, "Look at the ETS applications for graduate studies, and you'll find women, all you need." Oh, but no.

You know, you really can see repeating itself the issue of women's suffrage of 1918-20, getting the vote. This repeated in the affirmative action for women in the universities. They're not on the faculty in any numbers, but among those most prominent were [Professor of Statistics] Elizabeth Scott and [Professor of Anthropology] Elizabeth Colson and [Professor of Psychology] Susan Ervin-Tripp and others. They stimulated and built the fires, and so on, but it was women's suffrage all over.

Lage: Now why did your wife have to kick you sometimes?

Elberg: She didn't think I was vigorous enough in behalf of the women. She was right.

Advising Students on the Selective Service Law

Elberg: Now, the Graduate Division and the Vietnam War. Well, here we played very little role. We had no role in responding to student strikes. We had no role with TAs and faculties who didn't meet their class. That became a budget issue with their salaries. That was, therefore, the dean over the departments that hired them, and then the vice-chancellor himself. I had nothing to do with that. The Graduate Division's role in the war was confined, mainly, to helping students understand the terms of the selective service law. We made an enormous effort as the draft began to build up and our graduate students were being invited to serve.

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I felt it was my personal obligation, since I insisted on seeing all graduate students who wanted advice about withdrawing or what to do about the draft. I shared that with my other colleague deans in the country, and I began to be terribly worried about both sides of the ethics of the question. I felt that the best thing I could do, rather than feel I was being unethical in pointing out how they could evade the draft--which I felt was intolerable--I felt I could, personally, develop a crusade to gather all the existing data on the selective service law and make it into a form that was, first, absolutely accurate, and, second, understandable.

So I worked with the director of the California State Selective Service, who turned out to be most cooperative. He would review every paragraph that we would write, to make sure we hadn't misrepresented, or were not inaccurate. Finally, the whole thing was done. I had the selective service law and its comments, every section, explained.

I had that all prepared, and I thought; "How am I going to get this to the students?" Suddenly I thought, "My goodness! The *Daily Californian* has never been overly gracious to us, and maybe I can solve a bit of that." I consulted with the *Daily Californian* business office. I said, "I want to have the *Daily Californian* print the Graduate Division analysis of the selective service law. We will pay for it as an ad." So he said, "Send it over." We did. He called back. He said, "It will take about eight pages." I said, "All right. Put it in the middle as an insert, separate from that day's paper, and run it for a week or so, so that the student has only to take it out and keep it at home. There's his Bible."

By golly, it worked. I don't know what we paid. But it was worth every cent.

Lage: Did you get good feedback on that?

Elberg: We got marvelous feedback. Marvelous. The students commented on it repeatedly, and I think there was some editorial comment on the day it appeared, kind of a gracious acknowledgement of what we had done. That, I think, was it for me. There was the data. If they wanted to apply for a deferral, we would help them. We'd do whatever the law said the institution had to do, if they were students, because being a graduate student did give certain deferments in certain fields.

Lage: Just in certain fields?

Elberg: Yes, in certain fields, I believe.

Lage: Did this give pressure to the professors not to flunk people out? If they knew when they flunked them out, they'd be called up to the draft, did that ever--

Elberg: Flunking out of the Graduate Division was relatively unheard of, at best, even in peacetime. There wasn't enough of it, in my opinion. As a result, they kept some of the deadwood for years. One man came to me one day on the street, and he said, "Dean Elberg, I know who you are, but you don't know me. I've been one of your graduate students. I've been a graduate student for nineteen years." And I said, "My God! What field?" I forgot what field, and he said, "Yes. I'm about to finish." "Well," I said, "if you're not out soon, you're going to be put out."

Lage: He was sorry he got in touch with you, probably.

Elberg: Anyway, it began to have its own life. They did what they had to do, and I did what I was supposed to do as a dean, as the institutional representative. We didn't tell any lies or anything, but we provided all the data the Selective Service Agency, or the draft board, needed, and that was that.

Lage: Was there some pressure to withhold information from the draft boards? I can't remember the details. I mean, were the students asking the University not to participate?

Elberg: Oh, I don't remember anything like that. We would never have agreed to such a thing. We were completely law-abiding, and, as I said, I was of mixed feelings.

Lage: What was the dilemma for you?

Elberg: I had been in the army, myself. I had been almost drafted during my first year as an instructor and then received a commission.

But I had to leave. The dilemma for me was that I saw the smart, white graduate students laying the responsibility on those who were less well-educated, other colors. It just didn't seem democratic. It wasn't a citizen's army as it was supposed to be. I think it's one of the great shames of the United States, and will always be, how that generation decamped to Canada--got out, somehow, of the draft--and created a class system of those who were chosen and those who avoided.

I feel that this is one of the black periods. I'm not talking about the war itself--that is another matter; I was utterly opposed to that--but the way in which staffing the war was done. And I remembered how, in '41, masses of students were leaving all the time, and so on. That was supposed to be the "just war," and all that, but I was confused, badly, by the ethics of deciding what this war was about and had more faith, I guess, in the administration, or the presidency, and the government than, perhaps, was warranted, because, ultimately, even they changed.

I found my role as dean in the Vietnam War terribly distasteful, and I'd rather never have had to think about it again, and that's why I put so much effort into that thing, which is the only thing I could think of that might be of some concrete help: It at least allowed them to make their own decision based on precise facts, and that was it. We played little or no role. We were gassed, along with everyone else, in the seventies. We couldn't use the Regents' room for the Graduate Council. We had to rush over across the street to Barrows Hall. Oh, it was dreadful.

Lage: It was quite a time.

The Committee on Student Conduct

Elberg: It was dreadful. I guess I should just amend one point I made earlier. I did have another role with regard to the Free Speech Movement, and then the Third World, and the Vietnam War. I had the role as a very active member of the Faculty-Student Committee on Student Conduct. I participated in all the trials of all these students who were arrested and who were facing University discipline. Dan Siegel, and Arthur Goldberg, and all the crowd. I never had the chance to have Mike Lerner on trial, because he always got out the window. [laughter] Scratch that.

Anyway, that was my big contribution. I spent, with others, hours on these trials.

Lage: Do you have any comments on those?

Elberg: Oh, they were marvelous. They were marvelous revelations, especially when students would serve as other students' advocates or lawyers. Others had lawyers, and then there was the University attorney, Mr. Milton Gordon, who always represented the University and who was a great person. He had a very difficult and distasteful job, because he often had to deal with inadequate presentation of the cases by the police departments.

Lage: It wasn't a formal court procedure.

Elberg: No, it was a very formal hearing, the Committee on Conduct, but it did not go according to the court rules of evidence. It was much more informal, so the opposing counsel had more leeway. We didn't know the rules of evidence and all that. We said, "That would never work out. You just present your cases, both of you, and argue it out in front of us." Some of these cases were just harrowing. They took all day and into the night. Then we would have to come to a decision and write the report to the Chancellor. It was always under the greatest of pressure. The students knew that the ASUC President Siegel was being heard, and the hallway of Sproul Hall, outside the Regents' room, was jammed with them all.

Lage: Would the decisions be whether to expel or suspend?

Elberg: Oh, we had complete freedom to recommend. However, the Chancellor was limited. The recommendation for expulsion from the University could not even be made by the Chancellor. It had to be made by the President of the University, recommended by the Chancellor. Anything less than that--suspension and so on, for any length of time--that was up to the Chancellor. We had the list of things we could do or impose, and those were the things we tried. I don't know, but maybe one case of expulsion was ever recommended. I don't remember, but there were some terribly violent people in the Third World hearings. That was so violent, on Sproul Plaza, and some of those people should have been treated much more firmly than they were.

Lage: You must have had some concern about what kind of a reaction your sentences would set off.

Elberg: Yes, we knew that anything other than a tap on the wrist was going to set off a reaction, but all of us, I think, just closed our minds to that. We argued with each other, like a jury, at

the end of the trial, and we called them back for more evidence and answers to questions. We had to be very firm with the campus police to beef up their precision in their records and their statements, because the civilian attorneys would make mincemeat of their evidence. It was embarrassing.

Lage: Who all was on the committee?

Elberg: Oh. It was a committee that lasted, you see, several years, so there were generations. Who was on it? The chairman of the committee was a law professor who not too long ago died, a wonderful professor of law. Then there were law students. Among them, the best one I remember was Ronald Rosen. Ron was a tremendous help. There were other students. I don't remember who, and there were other faculty, and me.

Lage: You were on it for quite a while.

Elberg: Yes, yes, I was. So that was my activity in the conduct committee and trying to bring some measure of equity. And so we come to foreign students.

Foreign Graduate Students: Contributions and Problems

Elberg: The matter of foreign students in the Graduate Division is a very mixed matter. They were our pride and joy. That's point one. This campus prided itself on its international flavor with its graduate students.

Lage: Was there a history to that?

Elberg: Oh, yes. You see, way back, even in the thirties, and the twenties, because of the nature of the climate, we were a target for graduate students from the Middle East, for agriculture. The climate was so similar that people from Egypt and Palestine, then, and Israel, now, Iraq, and so on--all over the Middle East--came here especially for agriculture. They came for other things, but a lot of them were in agriculture.

Then, of course, we had our International House. The Graduate Division dean was a member of the board of I-House and a member of the scholarship committee, and so I met with the committee monthly to consider requests, et cetera. We tried to enhance the resources because there was so little available to give to foreign students. They were not eligible for tuition wavers. The state legislature was particularly worried about

them politically, and they were always niggling away at the non-resident tuition fee, and raising it. They were also, some of them, very anti-foreign, thinking that this place should be for the California students.

Anyway, the foreign graduate student was, secondly, a source of pride, because only the very best came from their countries.

Lage: So you found they were well-prepared.

Elberg: On the whole, they were. As it turned out, in the seventies and the eighties, gradually, the foreign students began to predominate in mathematics, statistics, and engineering, because there was a falling off of applicants for graduate study in those departments among American students. The reason was that industry was more attractive. The jobs were there at the bachelor's level. They were hard-pressed to keep their graduate student quotas up, and so they were admitting more and more foreigners. It's become a national problem in statistics, and math, and engineering, discussed in journals.

Lage: Did you see it coming when you were still dean?

Elberg: No, I didn't. I didn't realize that matter until 1985, when I became a member, or chairman, of the Committee on Long-Range Academic Planning. Then, as I was reviewing the problems of the departments, I began to find out, in the literature and our own statistics, that this problem existed. I hadn't ever been aware of the numbers. We took that up in one of the chapters of my report.

Special problems occurred, occasionally, when they would get here without really an adequate knowledge of English, despite the fact that they may have passed the English examination given by the State Department or ETS. Some of those students were appointed to be TAs, and they couldn't make themselves understood. That was a scandal. I mean, departments just--

Lage: How was that dealt with?

Elberg: Well, we began to make it rather embarrassing, when the complaints came to us. I quietly brought it to the attention of departments. Just said, "For heaven's sakes, you can't put a non-English speaking person in front of your sections. Get on with it a bit." Just quietly. It was a rare event.

They contributed to the general culture, and they contributed so much to the life of I-House. Thirdly, they were tremendous ambassadors of the University of California at

Berkeley when they got home. My goodness, yes. In fact, one of the Department of Bacteriology's Ph.D.'s was Abdul Majid, from Afghanistan, one of Professor Krueger's Ph.D.'s. Abdul and I were great friends. When the war with Japan in China and Asia got to be so bad, his country told him to come home early. He would have liked to have stayed another year or so. He had his degree, all right, but he was told to come home at once. I remember going with him to the Japanese steamship at San Francisco, at the Embarcadero, saying good-bye to him.

Abdul was never one to keep in touch, but when he did keep in touch, it was to land the blockbuster on me. The first time he kept in touch, somewhat after the war, when he wrote to me from Afghanistan, he was Minister of Education. He wanted the rules and regulations of the Berkeley Academic Senate. Sent that to him. Never a word, never anything back. Next, telephone call one day. Abdul's on the phone, calling from Washington. "Sandy, I'm the ambassador to Mr. Kennedy, to the United States, and I'm escorting the King of Afghanistan on a national tour. We will be in San Francisco, and that afternoon I'm coming in the limousine over to see you in your office." He said, "We're guests of the San Francisco Opera that evening, so I can't stay too long."

Lage: Did he bring the king with him?

Elberg: No, no. The king was tied up with all the social events in San Francisco, but about three o'clock in the afternoon, alongside the Life Sciences Building, I'm looking out there, and here's this block-long limousine. This fellow, shorter than I, steps out, and there's Abdul. We had a wonderful visit, and then he went to see Dr. Krueger, and so on. We had a good visit, and then he said he had to go back. He had to be in the box with the king. He was a great confidant of the king.

The next thing I knew, Abdul was ambassador to Great Britain. He had left the U.S.A. And then the next thing I knew, he had gone back to Afghanistan as rector of the University of Kabul, dean of the School of Public Health and Medicine. Later I heard that he had had to send his family to flee to Pakistan in the revolution. He had been caught. He had escaped the assassination of the prime minister, because he was in another room looking up something. They had come through--the previous government--come through and murdered everyone they could get their hands on in that building. He escaped. He got home that night, arranged for his wife and children to get out, to walk to Pakistan during the night and hole up in the daytime--I learned this later. And then, he got out. Possibly a year ago, I had a call. Abdul Majid, again. "I'm out here visiting my daughter.

I'm living in Washington, and I want to come over to see you." So we had another wonderful visit, and that was the last.

Now, Abdul received the first Elise and Walter Haas Award for a distinguished foreign graduate student, and I was the one to present it to him, or announce him, at the I-House. There he was, our Ph.D. in bacteriology.

Lage: And he's just one of many, I'm sure.

Elberg: And he's just one of so many who became productive people in their countries. We fought, and would always fight, like steers against the state and any effort to limit the range of foreign students. It is as valuable as any other component, and in so many cases, they made out as wonderful TAs.

Lage: Was there a problem, sometimes, with their being reluctant to return home?

Elberg: [laughing] Oh, was there!

Lage: Some were sent by their governments, I thought.

Elberg: That's right.

Lage: Did the Graduate Division get involved in any of that?

Elberg: No, we saw to it they got their degree. What they did after that was their own life. Some just didn't want to and didn't return. They somehow managed to get what was called "post-doctoral training" in something, and that gave them time to become citizens. The great majority went back, and some went back with heavy heart. My own graduate student went back in 1950, as the Communists took over from Chiang Kai-shek. Mr. Ho. He didn't have to go back, but he was called, and he said he was going. It was where he belonged.

Lage: Have you heard from him?

Elberg: I didn't hear from him for thirty-five years, and only after Nixon opened up, about two or four years ago, we got our first Christmas card and message from him. He kept on his work. He was non-political, but loyal, and he went back into that. I never knew if he was ever caught up in the cultural revolution. He's never mentioned it, but he is the old Mandarin, courtly gentleman. He was an elderly student at the time, and that marvelous English they learned! Wonderful. Oh, dear, how we missed Mr. Ho!

Remarks on the TA Strike of 1989##

Lage: Does the current graduate assistants' strike bring back any memories?

Elberg: Yes. History repeating itself. I used to put that out of my mind, and I do remember a strike. It's not clear in my memory. I don't understand it, why they feel they have to organize to get what they want.

Lage: What about the issue of whether TAs are employees or on scholarship?

Elberg: I think for me, that's absolutely clear. They're not employees. This is giving them a stipend for some work, but the main thing is graduate student support.

Lage: And yet they do have a pretty essential function.

Elberg: They do have an essential function.

Lage: As graduate teaching assistants.

Elberg: Yes. I saw so many of them, and from my point of view, it was a way to help them--get them money. They did some light work. They've been too professionalized in every way.

Lage: They don't see it as a kind of an apprenticeship anymore.

Elberg: They don't, no. That's all it is. That's all it was ever intended to be. But they should have some of the necessities of life that are now mandatory--one is health and medical insurance. That is a must!

X MAINTAINING EXCELLENCE AT BERKELEY

A Quality Faculty: Vision and Peer Review

Lage: Well, let's get on with our historical reflections. We were going to start with the process of reviewing graduate programs.

Elberg: Yes, but we were going to comment, I thought, on why Berkeley has been so successful.

Lage: Yes, let's start with that.

Elberg: Well, I think that's a phenomenon I noticed when I was dean--how thoroughly respected, at least the Berkeley Graduate Division was, and I think there was no question that this applied to the whole University. But I was dealing with graduate programs, and there was no question about the reputation for quality of the University of California at Berkeley.

Now, I think that that is a consequence of the way in which Benjamin Ide Wheeler and Robert Gordon Sproul tried to select faculty on a very personal basis, at times, and had in mind the best of the quality they could get. I think that having done that, and having brought such superb people here, it became, simply, a way of life that those who came after would have to live up to the standards set by those who were here. Those departments that excelled certainly excelled because of the quality of their faculty, and that, then, always spreads down to the student. The students are imbued without even knowing it with the necessity for performing at a very high level.

Lage: So there's sort of an aura, it seems.

Elberg: Yes, there's an aura, but there's also an ongoing tradition, an actively engaged-in tradition, which then has been the greatest accomplishment of the budget committee [Committee on Budget and

Interdepartmental Relations] of the Academic Senate, in watching the quality of appointments and promotions, because without the senate involvement on that, this wouldn't have happened, at a big place like this. It might happen at Harvard, where the deans and the president are much more directly involved in appointments, but here, this system is unique. The budget committee is responsible for the maintenance of quality.

Despite all their efforts, some places do begin to lag, because some departments get into a position where they don't seem to be able to exercise the kind of judgment and toughness, either to clear out the deadwood or bring in the best. They compromise on who's here and promote them, and they don't seem to know. This is when the department faculty itself is beginning to slacken; they have lost their view, if they ever had one, of what is potentially excellent faculty material.

I think that the fact that our peers do the judging is maintained by the budget committee, and, in the long run, is successful. Then, I think, the Chancellor and the vice chancellor exercise a great deal of influence by sometimes refusing to accept an appointment as not in the best quality. Even the Graduate Council, and Letters and Science, and the budget committee--they all participate, because each one attacks the quality at a different level--the Graduate Council attacking the quality of graduate student performance, as well as programs; the College of Letters and Science, and the other colleges, attacking it from the point of view of the best kinds of faculty appointments; and the Chancellor and the vice chancellor, sort of, watching over that.

I think it's hard for mediocrity to slip through. So what happens is that the places where it's happening begin to be somewhat ashamed. They recognize it, and they sometimes ask for help, without realizing it, but they do.

Lage: So they'll ask for a review of their--

Elberg: They'll ask for a review, but then the other telltale sign is when high-quality graduate students fail to apply for admission from across the country. It isn't long before the reputation gets abroad. Now, it's true that an excellent reputation very often outlasts the fact, and a department can slip before, nationally, it's known. But within certain professions, it's known within the group, and this affects, then, the graduate student applications, the quality of them. It's very interesting to watch that.

Lage: You've actually had the experience of monitoring that?

- Elberg: Oh, we monitored that all the time, and we could see that some departments were beginning to admit very mediocre graduate students, compared to other departments.
- Lage: Based on their grades or their--
- Elberg: Based on grades, and based on the school from which they came, which were not all that hot. So, it's interesting to watch the departments who had the pick of Harvard graduates--and Princeton, Yale, and Michigan, and Minnesota, and Wisconsin, and Illinois, and the great schools--those students applying and coming here. It's not that they apply. That's not the answer, because students play it safe. They apply multiply, but when they accept the offer of admission, that's when it counts. That's when you know, and you know that Berkeley's wasn't, most likely, the most lucrative offer they might have received. In some places--I would say, in chemistry and physics--many students, in a sense, figuratively, would pay to come here, to be accepted here, figuratively speaking. When you have a department like that, then you're really sailing well.
- Lage: When you mentioned the outstanding schools for sending graduate students, you didn't mention any small liberal arts colleges.
- Elberg: Oh, well, I should have. Of course, Oberlin, and Swarthmore, and Haverford. Oh, yes, and the same for overseas. When you begin to get applicants from overseas, it's very interesting to see that. You watch the quality of the institutions over there who are applying. It's a revealing thing. But oh, yes, the first-rate small colleges are a tremendous source. So often, though, they do not apply here, because they are afraid of the size, and I can understand that so well. They go to the smaller greats. However, it's a departmentally-based thing. Music, for instance, would attract them from anywhere, small or large, and so forth. Anyway, I think that's one way of looking at the dynamics of maintaining the quality.
- Lage: It seems it takes a certain amount of pride, or maybe even a little sense of superiority, among the faculty.
- Elberg: It takes a lot of hubris, yes. It goes with the reputation, and it is self-expanding, and so on. The research productivity and the quality of those people here is nationally known. There's a price we pay for that.
- Lage: What kind of price?
- Elberg: I think there's a price we pay for these great young stars. Well, my suspicion, and it's only based on that--I noticed the

phenomenon when I was leaving the deanship--it was getting harder to attract the brilliant youngsters to serve on committees. And I think it was right that it was hard, because I think it was only right for their chairpeople to dissuade them from losing themselves until they were well established. Of course, a dean can just taste this good material on committees that he has to appoint but should understand that it's not always in the best interest. I often laid very low in bringing those people, or inviting them, to serve, until they had been seasoned enough here. A lot of the youngsters go through their careers, nowadays, without really being of much service outside their departments.

Lage: So the tradition of service to the University is--

Elberg: And, you know, I know this is very naughty, but it has now extended to the wives of faculty, who do not run to serve on the faculty wives' organizations, as they did before. The old guard is still very much in view there, but they are disappearing. It's hard to get replacements. I think that that makes for certain ambience, because the wives took care of much of the social needs of, say, foreign graduate students. They watched over them and their children, their families. Also, the wives were very influential in watching over the wives of graduate students, and their families, and their emergencies. There was a very dedicated group, a large group of faculty wives, who devoted years and years to this kind of service, which, I think, added to the quality of the institution. It's not to be denied, and I think the one group that's been neglected in recognition are the wives of faculty, who serve quietly. Enough said.

Lage: I had that same response from Henry Vaux.

Elberg: Is that so? Isn't that interesting? Yes. They're unrecognized.

Lage: Their role may have to become a staff function. The wives just aren't available.

Elberg: Maybe. It'll lose some of the flavor, because the joy of the other was that students got into the homes of faculty. Now, there's nothing wrong with getting into the homes of staff, but that's different. Different.

Departmental Reviews by the Graduate Division: French and Chemistry

Elberg: So we go now to the review of graduate programs.

Lage: Which is related I would think, to this question of how Berkeley maintained its excellence.

Elberg: It definitely is, because that's one of the foundations of excellence.

Lage: Was the process of formal reviews of departments instituted under your deanship?

Elberg: Yes. There were no regular, recurring reviews before my deanship that I know of. There were, when a department apparently was in great distress, and the Chancellor--or President Sproul, when there were no Chancellors--would, I guess, order some kind of outside extradepartmental review. That I was not aware of. I simply decided, one day, with my associate deans, that we ought to review every graduate program at least once in five years. We knew we'd never get it done, and if we reviewed once in ten years, we would be lucky, but those were in the beginning days, before it was so organized. Now you can do them better, but we decided to do it. We started very innocently, but not so innocently. Naturally, the reasons for reviewing were reputations that things were not as they should be.

Lage: So you picked on the ones that seemed to be weak.

Elberg: I think we were influenced to go after the problem areas. Who wanted to review chemistry or history? You know, who needed to? I'll never forget one of the comments by the chemists, which I'll tell later, which was really quite true. We needed to review those that are apparently in difficulty, and I won't mention the names of all of them.

I have a feeling that the first one I did, and I think I did it myself, was agricultural economics. For some reason or other, that came to me as a department in considerable faculty relations difficulty, or whatever it was. I've forgotten now the reasons. They were perfectly valid. I looked into them, and we had a meeting with the faculty. I wrote my little report and talked to the council, but then I realized this is not the way to do it. Faculty must review faculty, not deans, and faculty committees must report to the dean.

I guess we didn't have a big one until I felt the ground shaking under my feet, as a result of the distress in the Department of French. Students would come to me, graduate students, complaining about the difficulties in that department: faculty not speaking to each other; excessive requirements, possibly; a reputation for not forcing students or instructing

students to study the best works of the best authors, et cetera. There were a number of reasons. I said to the students, finally--they came in a group one day, a delegation--"The best thing you can do is make the review yourselves, and here are some of the subjects I would like you to comment on." Well, we received a review from the graduate students in French that was as good as any faculty review I would, in the future, ever receive. The analysis was utterly amazing for its perception.

I appointed a committee, and I thought, "This is so serious. I'll do something quite different." I visited the Dean of the College of Letters and Science, Walter Knight, and I said, "Walter, how about joining together with L&S and the Graduate Division reviewing the department and the program?" Now, there is the key to the differences. You notice I said "reviewing the department" and "reviewing the program." He was the one that had to review the department, because he was budgetarily responsible for their appointments and promotions. I would be in charge of the programs, but there were two problems to be solved. He had to look at them as a department.

Lage: Was he willing to cooperate with you?

Elberg: He did, personally. I remember, we went to visit the department faculty, and I can well imagine the terror in that faculty, as the two deans came that afternoon to discuss affairs with them. There was not much discussion, and we went on.

Lage: They didn't have much to say on the problems?

Elberg: No, which was very, very puzzling. They were very much alarmed, and they had simply drawn the covered wagons in a circle. Anyway, we did the review.

Lage: With the help of a faculty committee?

Elberg: The committee system, now, was fully in vogue, and it doesn't matter who was on the committee of the Graduate Council, but we drew widely. It was a very, very serious review. What it led to was a replacement of the chairman of the department. It led to the voluntary retirement of certain faculty. I lost a good many friendships there.

Lage: That must be difficult, when you're coming up against friends.

Elberg: Very difficult, because some of them, who were not to be criticized--they were themselves quite impeccable--felt that the department was being unfairly maligned. Anyway, we simply went ahead with it, with a new chair and new appointments available.

The department slowly turned itself around and, I think, has become an excellent department, especially under Professor [R. Howard] Bloch, who, incidentally, also has a marvelous sense of humor. That must carry him through many a day there.

Lage: Is there still, to your knowledge, this tension between faculty? Has that been taken care of?

Elberg: No, no. I think that's all taken care of. First, the department has practically been renewed, so that I don't see any of the old names anymore.

Lage: Was there anything done to help the graduate students who were here? Probably changes weren't made fast enough to benefit them.

Elberg: Well, apparently they did. That is, once they saw the changes being made, they seemed to settle down. There was nothing further heard. I assume they were satisfied because the requirements of the graduate program were changed. Secondly, I believe, the content of many courses was changed--upgraded, updated, and so on. One of the persons on that student study committee is now an associate professor in the department. She never gives any sign of remembering me. [laughter] But I remember her. So it might be a little embarrassing, but nevertheless, that was one.

Well, now, what did we do about these reviews? How did we do it? We gradually worked out quite a procedure, and we developed a format which would guide the committee--what things to look for. As the time went on, we knew good people to appoint, to review them, and then we had the committee report orally to the Graduate Council, and the Graduate Council would discuss the report. Then the department faculty was invited to attend. The chairman and the graduate advisor first, alone, were invited to attend the next meeting of the council and be informed of the findings, so that they could rebut, or whatever. Then, at some point, the whole department and graduate students were invited to hear it and to comment. This all evolved as we learned what we should be doing.

Once you began to involve the graduate students, a lot of things happened in the departments. Their lives improved. Now, I was surprised. You'd think that with a great department, all is well, but it isn't until you review them and hear the students--who are separated in the hearing from the faculty, but they can speak--you begin, then, to learn what are the things that need correcting. When the committee, then, hears that and recommends things in that regard, the students' confidence in the

process is greatly increased, especially when the department faculty accepts these recommendations.

That was one of the things that happened in chemistry. That was a great experience, in the sense that here was an excellent department, and we thought we'd review one of the excellent ones just for the taste of it. And we did. All went well, and at the first meeting I had Associate Dean [Ian] Carmichael chair the committee. They met in the evening, in one of the chemistry lecture halls. The committee, I guess, was behind the big demonstration table up in the front, and the department faculty were in the first two rows. Here were all these Nobel laureates being reviewed, as it were, and I think one of them said to Carmichael, "Well, what do you turkeys think you're going to find out?" [laughter] Well, that's a remark that's never left me, and I think Carmichael just nearly burst out laughing. But anyway, they did find out. They found out a lot more than I ever expected would be true in chemistry, and a lot of things were corrected.

Lage: What kinds of things?

Elberg: They weren't major, but they were nagging things for students. Oh, there was nothing professionally, or in course content, but it was the way students were handled, apparently.

Lage: This really benefited the students.

Elberg: They benefited, and I think the department benefited. I think they were absolutely thunderstruck that there would be valid things that had been discovered. They hadn't even thought of them or ignored them.

Lage: In most cases, did you operate alone, rather than with the College of L&S?

Elberg: From that French time on, we operated alone. It didn't prove out. The college simply did not work with us. They had their own agenda for reviewing departments.

Lage: I know that they reviewed departments, too.

Elberg: Yes. They reviewed their departments.

Lage: So you were basically looking at programs for graduate students.

Elberg: We were looking at the programs, the effectiveness for the student, and students' sense of satisfaction with the program. The college was looking at, I guess, how the department was run. It was not the result that I wanted, because I thought the two

reviews should be conducted simultaneously and together. That was not to be.

Lage: Especially if you needed major changes, as you had in French. You'd have to have the college involved.

Elberg: Exactly. It was very difficult to get that. Very difficult. It shouldn't have been, but it was.

Developing the Review Process

Elberg: Now, the process was very complicated, because once the Graduate Council settled on its report, and once the department had been informed, and the faculty and the students all were informed and had their chance to rebut, or whatever, then our report was sent to the Chancellor and to the chairman of the Committee on Educational Policy, who, I thought, should review it.

I'm sure that we developed the process as we went on. We decided that there were committees of the senate that ought to see these reports. Certainly, for me, the most important committee would be the Committee on Educational Policy. Then we thought the Committee on Research. There may have been other committees, but those were two major ones. Gradually, those poor committees began to be overwhelmed because they were getting what we had finished.

As we began to do it, we developed greater expertise, and we could mount more committees, all doing this. It was just like sending divisions into war. These committees were simply marvelous, most of them. Oh, of course, we always sent our report to the appropriate provost, if there was a provost at that time. There wasn't, up to a point. And we'd send it to the Chancellor.

Lage: Did you get response, or was this just information?

Elberg: I won't say never, but maybe, once in a while, something would hit them, upstairs, and then one of them would call me and for some reason, we'd have a talk about it. Or I would feel that it was important enough to seek them out and tell them what I thought was needed. It went on very informally but, I always felt, very effectively and sufficiently. Both [Dean of the College of Letters and Science Roderic] Park and [Vice Chancellor Ira Michael] Heyman were great persons to lend an ear and a corrective hand. I was blessed in having to work with those two.

Lage: You didn't have power to make change.

Elberg: No, no, no. The Graduate Council had just the authority of the senate to recommend changes to them, but we couldn't. They were the ones teaching the field, and we would not presume to do anything in that. It's just the way authority is accepted. It's nothing threatening.

Lage: Did most of them make changes?

Elberg: They all made changes. They didn't accept everything, but that was to be expected. They all made important changes, and the thing just grew like topsy. In my memory, the next thing I'm conscious of is that swirling around my head is all this antlike activity on reviews by statewide. They got into the act, you see. I can't remember how, but reviews of graduate programs became the national hue and cry, all over the country.

Lage: It started here?

Elberg: Well, I don't know that it started here. I'm sure other institutions had their own ways, but it suddenly became "the thing."

Lage: What period would this have been? The seventies?

Elberg: This was in the sixties, the mid-sixties. First thing I realized then, the reports of the review needed to be sent to statewide, and statewide then began to see what was needed and got this going on all the other campuses, in their Graduate Divisions. Finally, as far as the statewide coordinating committee for graduate affairs, there was a period when we simply were besieged with review--the concept of reviews and how to do it, and so on.

Anyway, we went on our simple way here, one department after another. We found amazing things in some and nothing remarkable in others. We finally got to the stage where there weren't any more problem departments to look at. So we began to go, then, at the very best, so we'd get a sense of perspective of what was good. We did most of them. Some we never got to. There were reasons for that. I simply knew some were in a difficult time or emerging from another era, and they hadn't had time to make their own changes. So, illegally, I just delayed the reviews of certain departments until I felt they had a chance to get themselves on their feet. I didn't think, to this day, that anything was harmed that way. They simply had more time to hear what was needed in a review and to get themselves in shape for it. That's what happened in some of them. I'm not sure if some of them have ever yet been reviewed.

Lage: Is this ongoing, do you know?

Elberg: Oh, sure.

Lage: Now it's sort of an institutionalized thing.

Elberg: Oh, sure. It's institutionalized, and I believe there are many more pathways for the reports to go, and many more people involved, all having their say. As usual, in a place like this, it's gotten very complicated, from what was essentially a rather simple, direct examination of a unit. It's now gotten into all sorts of formats and criteria, and thousands of items. Bureaucratic.

Lage: Would you have trouble recruiting faculty to serve on these review committees? It sounds very time-consuming.

Elberg: It was very time-consuming, and it wasn't easy. Faculty were remarkable in their willingness to serve, in the early days. It was when we began to go back after the same faculty, for further review, they began to hedge. I didn't blame them. There are just so many faculty here who are qualified to do this. This is a wisdom and a judgmental thing. This takes a certain age group, seasoned and so on. Well, you just can't wear them out. There are other things they have to do. But, it got done.

Disestablishing the School of Criminology

Elberg: You asked about criminology. I had heard that nobody was allowed to get much of a grade other than the highest. There were many, many things that were coming to me about the School of Criminology, especially since they had lost their founding dean and were completely enmeshed in Third World and civil rights problems. They didn't seem to coalesce together again. It was quite obvious that a review was needed, and that was carried out under the chairmanship of Allan Sandler, who did a heroic job with his committee.

Lage: What department was he in?

Elberg: He originally was in political science, and then he joined Aaron Wildavsky in the School of Public Policy and eventually was dean. Allan did a super job on criminology. There was nothing left to the imagination, and it was thorough. I remember taking the report, after it had been sent about, to Chancellor Bowker. He said, "Well, what do you propose?" I said, "I think we should

end the school." He didn't argue the point at all, and he took the steps necessary. It was, politically, a terribly tight thing to do, because criminology was represented all over the state in different law enforcement agencies--the sheriffs, and the police, and all that. They all had their political power.

Lage: They had graduates from this department?

Elberg: Oh, yes. Anyway, the review itself was utterly painful, and the worst came after the review was over. The school was notified that it would be discontinued. Then started the process of what to do, to allow students to continue to their degrees or change programs, reassign tenured faculty and some non-tenured, and let others go. That was a terrible task for Provost Maslach, but he carried it all through magnificently.

It was in that time when I felt that were people here who were interested in jurisprudence and social policy. That had been suggested to me by certain sociologists and others, that that might be a solution--a new graduate group. It was while our study committee was examining that question that the student movement--I think it was the Third World segment--was in full force. Somehow or other, somebody told me that the committee room had been bugged by the students. Well, I thought that was the funniest thing I had ever heard, except that I was absolutely indignant and aghast that anything like that happened. As the thought occurred to me, I thought it was just the funniest thing I had ever heard, but I was furious at them. Simply furious.

Lage: What were they trying to get?

Elberg: Oh, I don't know. I think they were trying to build up their own argument, you see, and know what the arguments had to be. I don't know, and it only was a one-time thing. I made such a to-do about it, and I let it be known all around that I thought it was the most awful thing that had ever happened. I'm not sure if that had any effect, but I do think it did cause them to stop and think again about repeating that.

Anyway, we moved the hearings off-campus, to the Marriott Inn, and had the organizational meeting, which formed the group in jurisprudence and social policy, which the law school agreed to underwrite and to have faculty in the law school who were not necessarily lawyers.

Lage: That must have been a big step for the law school.

Elberg: Oh, it was a revolutionary thing for the law school, and for us, and, I thought, one of the greatest things that could have

happened to the Graduate Division, having the law people themselves become vitally interested in a Ph.D. program. They had never refrained from accepting the invitation to serve on the Graduate Council, even though they didn't have much to do with graduate things, in that sense. Here they were. They argued and debated, and they finally agreed to take responsibility. Dean [Sanford] Kadish was the jewel in that crown that led to JSP.

Lage: This was a certain segment of faculty from criminology that went over there?

Elberg: No, I should say not. Maybe one or two of the super-good faculty were appointed, but mainly, it was sociology, and political science, and so on, who worked with the law school. Then the law school, I think, were given FTE faculty slots for the program. In other words, it was in the law school. It was a program of the law school, a group program, interdepartmental. That was one of the best, as I think I mentioned last week.

So, that was a very difficult thing. Some of the faculty, of course, the non-tenured faculty in criminology, were, in most cases, terminated. The tenured faculty were looked after as best possible, which was not easy. A couple of the non-tenured faculty were kept, because they were in the scientific end of crime detection, and they were taken on to the School of Public Health, where they still are and have done handsomely for the school.

XI THE GRADUATE DEAN'S RESPONSIBILITY FOR CAMPUS RESEARCH

The Campus Research Office

Lage: We wanted to look at your responsibilities for campus research, both the Campus Research Office and the organized research units. It sounds like almost another completely different responsibility for the graduate dean.

Elberg: It was a completely new world for us. The research office had to do with reviewing grants and contracts, and since it had to have the signature of an associate dean on those grants and contracts, it did seem to me that that's where the research office should be. It was agreed to immediately.

Lage: It was your idea to put it under the Graduate Division?

Elberg: I can't remember. I recall hiring David Jones and August Manza originally, not both at once, but the work increased so fast we needed to build the section. I think I certainly had a part in it, but I don't want to take credit unnecessarily. It grew. In fact, it grew so much and became so complicated after several years that it became clear to me the Campus Research Office was leading a life of its own. I wasn't very much involved, except for the associate dean reviewing the grants. There were many other things that the office was doing that we didn't know about. I said, finally, "It doesn't belong any longer. It's outgrown us and should go to the vice-chancellor for research and constitute his staff." That was accepted, only some years later to be returned, when they did away with the vice-chancellor for research.

Lage: So is it back in the Graduate Division now?

Elberg: No. It's now known as the Office of Sponsored Projects. It's not back in the Graduate--well, wait a minute, it must be,

because the graduate dean, when Dean Cerny took over, became provost for research and recalled Ian Carmichael to watch over that side as associate dean. So it came back, or stayed there. Yes. I think Dean Carmichael exercises most of the supervision over the Sponsored Projects Office.

Lage: But that was not something that you had day-to-day concern with.

Elberg: No. You mean when it was in the Graduate Division?

Lage: Right.

Elberg: No.

Lage: It had kind of a life of its own?

Elberg: It was developing a life of its own, and that's why I thought it was just inappropriate to be under my supervision.

Protection of Human and Animal Research Subjects

Elberg: We didn't have much to do with the Office for the Protection of Human Subjects, except that the Graduate Council was supposed to be in charge of that. That was never a very satisfactory arrangement. We had some legal responsibility for them and responsibility for staffing the office, but I'm vague on my memory of that, since it obviously wasn't very close to me.

Lage: Okay. Was that federally mandated or something the University felt was appropriate?

Elberg: Oh, it was, really, a federally mandated operation and committee on human subjects. Yes, the University had to begin a very elaborate kind of system for the protection of human subjects and the review of protocols for research involving human subjects. It became a full-time job for certain people, and it was needed because certain faculty just didn't understand the growing complexity of the ethics of such situations, and went off on their own, and managed to get the University in some very hot water with the federal agencies. That was not very healthy. Right along with the protection of human subjects, then came the movement for the protection of animals.

Lage: Did that date back to your days as dean?

Elberg: Dates back, but it did not come out of the Graduate Division. No. That was a separate office.

Lage: Oh, there was an office for protection of animals?

Elberg: Oh, yes. There was a person in charge of that. The campus veterinarian was supposed to be, but it didn't work out very successfully, and faculty people had to take that over. Of course, over the years, it's mushroomed, with the movement. I would think that the protection of animals has become even larger, in importance, than human subjects.

Lage: With your background in your research field, do you feel that that's been a problem here, that there hasn't been sufficient protection of animals?

Elberg: Yes, in some departments, the care given to animals was very minimal, very amateurish, very much on the cheap. They didn't wish to spend money in hiring properly trained animal caretakers, nor would some put themselves under the central authority of the campus veterinarian, who was assigned to help them. It's a very messy story, until it was just hauled to its feet and cleaned out, I think, by Chancellor Heyman. It was a case where every animal researcher felt he knew best but didn't. They often didn't have the funds to properly care for animals, and they shouldn't have been working with them under those conditions. It really was a dreadful situation, so varied, from good care to miserable care. So one of the best things that's happened was the push to improve that pressure from outside the campus. An earlier example of the futility of departmental control over animal colonies was the inability of departments in LSB to agree to spray for cockroaches on the same day of the week. The result was we did it on different days and merely drove the cockroaches from department to department along the LSB fifth floor!

Lage: What about the question of whether some of the research done on these animals, or physical tampering with the animals, is necessary research?

Elberg: Oh, well, I wouldn't dare comment. I don't know. My impression, of course, is that what has been done has been legitimate. While it may not have been to the liking of external people, and it has been reviewed time and again, as being, in its time, a completely normal procedure. I don't know. My work on animals was not of that kind and caused them very little discomfort, as opposed to those who worked on them anatomically, and so forth, and studied various organ systems. I don't know much about that, but I do know there were enough cases to lead me to think that it was a general problem, where the animals were not adequately cared for.

Overseeing Twenty-two Organized Research Units--Increasing
Involvement in Graduate Education

Lage: Now, the responsibility for the twenty-two organized research units. How did that happen?

Elberg: Yes. Well, that happened with Chancellor Strong and part of the reorganization. When Strong was thinking about the campus, and others were thinking about it, they developed a principle that research units whose membership, or participants, were all drawn from the same college or department, should report to the dean of that unit. But where there were units that crossed school or college lines--in the affiliation of their research workers--they felt, then, that those units should be under the Graduate Division, which does cover the campus. So these were units which fitted that definition. They were very intercollegial and interdepartmental. I must say, we had quite a time with our twenty-two units.

Lage: Did you have an associate dean to look over them?

Elberg: Oh, yes. Oh, I should say so. Well, excuse me, no. I did that myself. That was mine. I was thinking of the research grants. When they sent through grants and contracts, I had a dean for that, an associate dean. But on the matter of their personnel, and their promotions and their budgets, I had given to me the total amount of the research budget that they all possessed. I had no additional monies to give, so that whenever I had to make some changes in a unit's budget, because I thought they were having too much or too little, then I had to take from one and give to the others.

Lage: So you did have budgetary authority then.

Elberg: That was my budgetary authority, and it was very useful.

Lage: You must have gotten a lot of squawks about that.

Elberg: Well, naturally, when you starve Peter to pay Paul, but I did it with the full understanding of the director, or the chairman--explained to him what I thought were his problems and what I thought should be the solution. I really had no static. They lived with it, and I did it as gently and as generously as I could.

Lage: Did a lot of them raise their money from the outside?

Elberg: Oh, they all did. They had some small degree of state funding. Very little. I think \$375,000 for all twenty-two, maybe, was the extent of the budget. It was very little. Things would come in, that we could sometimes apportion out to them. Federal funds, in certain years, were coming in, which they were eligible to receive just as departments could, because the whole point of my being in charge was to push the concept that they should be much more involved in graduate education and training, and that if they weren't, we didn't see why they should stay in existence. It was a very great change for some of them.

Lage: Where did the idea develop that they should be more involved in graduate education?

Elberg: I think that the concept developed within the Graduate Council; also it developed within some sectors of the Chancellor's administration and the senate itself, especially in the Committee on Research. But with graduate students needing support, and with it clear that some departments' graduate students had it very well when they went with their professors and worked in an institute, as against those who worked with professors that didn't belong to any center or institute, it gradually dawned on us that one of the major purposes of these places should be to help the support of graduate students and their training.

Lage: By hiring research assistants?

Elberg: Yes, exactly. So, with that as one of the *raison d'être* of the centers and institutes, we were able to exercise a moral authority that they accepted immediately, because they were already doing it, most of them. Those who weren't, we encouraged to do more of.

Lage: Did you use the power of the purse to encourage?

Elberg: Yes. I had certain federal funds that chancellors had allowed me to utilize, and I could make an assignment of so many dollars to them for the support of graduate students. That helped their budget. There was always that *quid pro quo*. I always had a little money for the support of graduate students, and it was just the question of where to put it to get the greatest influence. Some of these centers and institutes began to realize that it was not all bad to be part of the Graduate Division, because you could get a little cushion of support for the students.

That's a very interesting sector of our work with the centers--how we fashioned the concepts of the Graduate Council and Division into their work. Of course, the problem institutes

were those which had allowed an original, non-faculty staff to remain forever with them, growing and growing in budget, and in salary, and in seniority, to the point where the center or institute wasn't able to attract new people. It didn't have any money. All the money was tied up in this cadre of old-timers.

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Those were part of the non-faculty specialists series, the research specialists, or whatever. They were the research category, but they were not faculty. They had long since earned moral tenure, if nothing else, and they were still effective. But some weren't as original and active as they had been, and they were slowing down certain units. I just simply had to take one unit and say, "Now, I'm going to cut your budget over the next few years by a total of 25 percent, say, ten, ten, and five over the next few years. You will have to do something about these people--asking them to retire, possibly, or to leave."

Lage: How were you able to become aware of the problems in all these different fields?

Elberg: Oh, ORUs [organized research units] were reviewed just as departments were. There was a whole system for reviewing ORUs.

Lage: So this would be after a review. Then you would--

Elberg: Oh, yes, exactly. Not only the review, but all the ORUs had individual advisory committees of the faculty, which I appointed. The composition of the advisory committee of the ORU was usually given to me on the recommendation of the Committee on Committees of the Academic Senate. They would send a panel of names for these ORU committees, and I would select which ones and ask them if they would serve. Now, those committees were obligated to report once a year to me, and that's where I learned of the discontent, and the feeling that all was not well, and that something needed to be done.

Lage: Did you try to get more people placed in these institutes who were faculty and were teaching?

Elberg: Oh, yes, that was our push. Usually, the directors themselves saw the problem but felt they were stuck. Here were all these positions filled by these people, and there was nothing he could do until they retired. Well, the only thing you could do was to encourage faculty to join; their salaries did not have to be paid by the ORUs. And that's, in a sense, how we began to move these people.

Also, a director may have felt that maybe it was time to downgrade the nature of a long-term study, and that new things should be done. If you've studied an issue for fifty years, year after year for fifty years, well, there isn't much more. It could go to a hundred. They had gotten into very important longitudinal studies when they were in the beginning and brand new. Fifty years elapsed, and research of such a center was being held back by the predominance of this sort of thing and no latitude to take the research into new directions.

Revitalizing Two Long-term Institutes

Lage: Were there particular ones you want to mention? This sounds like a particular example.

Elberg: Well, the Institute of Human Development was the greatest example, and they had a set of very wonderful women, who were long-term associates of Harold Jones, the founder of the center, I think. Many good faculty had come along, since then, as directors, but none of them could really change this problem, until I burst on the scene.

Lage: Almost giving them an excuse by lowering their budget.

Elberg: Yes. You just had to do something.

Lage: Were those institutes--were they, or are they, ever used as kind of plums to attract faculty? Is that a legitimate function?

Elberg: Yes. Oh, yes, that's a very legitimate thing, if you were looking for certain faculty, especially if you were looking for a director, then you wanted that institute or center to be in the best possible shape, to appeal to someone from the outside to come and use it as his research garden. Definitely, yes.

Lage: Is that director, then, allowed to completely shape the research?

Elberg: Yes, theoretically. Yes, within the limits of his budget and commitments on it. Of course, you couldn't attract a director whose hands were completely tied by not having any personnel positions to fill. All of them, that we tried to get, always had someone they wanted to bring with them, that had worked with them. You had to make room for that, if you wanted those persons. Many a time we lost them, because we didn't have the extra positions available.

Elberg: The Center for Research in Higher Education was another very interesting unit that eventually needed to be changed in direction, from preoccupation with budgeting higher education and things of that sort, to more substantive, qualitative topics in education. It wasn't until Dr. [Thomas R.] McConnell retired--I wouldn't have dreamed of trying to alter his center while he was still active. It was when he retired and we began to look for a replacement, that eventually I realized, and others realized, we had to make a fundamental change in the direction of that center. And we did by inviting someone to take it on and to recast it completely.

I did something that mortgaged future deans a bit. You see, centers and institutes are supposed to go after their own extramural funds, but in order to get the kind of person I wanted--Martin Trow--to head the Center for Research and Development in Higher Education, he would only take it if he didn't have to spend all his time seeking funds from the outside. I said, "All right, Martin. I'll guarantee your budget. You don't have to. You won't grow that much, but--" He said, "But I don't want to. I want a small center. These are the things I want to do." And I thought, "This is wonderful. This will be of campuswide interest, and faculty from all social sciences will want to come and partake." So I said, "Yes. I won't expect you to do that. We will give you enough of a budget to start with, but you have to live within that, and whatever you can get on the outside, so much the better." In addition to that, I persuaded Professor Sheldon Rothblatt to serve as his associate director, and that was a good team. That helped the center turn the work around.

They started, and I think they did very well. Now, to some people on the campus, it wasn't the earthshaking development that they expected--that there needed to be--but from my point of view, the subject area didn't permit it anyway. There was not that much in the subject. "If you handled the best themes that there were," I thought, "this is fine, and you'll bring in students, and they'll be supported. Bring in visiting people from overseas and give them some wherewithal," and the thing went along for all these years. Everybody seemed to respect that concept until recently, when the graduate deans felt that that institute shouldn't be let by itself to live entirely on intramural funds.

Lage: Was that the only one that was supported by the Graduate Division in that way, kind of guaranteed?

Elberg: Yes.

Lage: That's interesting how these things come about.

Elberg: Yes, but--

Lage: So did their funding then get cut, under a new deanship?

Elberg: Yes, just as you would predict, and then the directorship fell vacant. They kind of temporize, but Lord knows what's happening.

Declining Federal Support for Graduate Student Research

Elberg: The declining levels of campus support for research came in about that time, in the mid-seventies also.

Lage: Would this be federal government?

Elberg: Yes, these were federal funds that we had been used to receiving for various purposes, and they were cut back. As a result, the campus was heavily cut back, and I, in turn, so I had to pull in my horns. Things that we had routinely distributed to the departments each year, as these funds became available, had to be cut back. It was very painful.

Lage: Was this money to support graduate students?

Elberg: Yes, and in some cases, to support the work of faculty temporarily in financial straits, but, mainly, graduate student support.

Lage: What effect did that have?

Elberg: Well, that cut out a lot of the graduate students who could be brought into the research centers, and that was a very bad thing. We also had other funds and other monies that helped those centers and institutes. They would come sporadically. Often the Regents stepped in to make special funds available. Sometime the patent committee would pour some money in, and so on. There was always a little treasure chest coming through, and as it came through, we simply distributed it where we thought it could be best used.

Lage: Did you take an active role in trying to get some of this money?

Elberg: Oh, yes, I should say so.

Lage: Then how did you--did you lobby the Regents?

Elberg: No, I never lobbied Regents. Oh my God, no! I simply lobbied the Chancellor and the assistant chancellor for budget. I didn't have to do much lobbying. They all knew that the money was well spent and went to good purposes, and whenever they could, they tossed me some. Sometimes, they received a gift, and they would assign it to the Graduate Division. Those were wonderful days, with the Chancellors and the vice-chancellors, and so on. They obtained money that was unrestricted, and where better can you give it but to the graduate students, and here's the office that can see to a sensible distribution.

XII ACTIVITIES IN NATIONAL AND REGIONAL ASSOCIATIONS OF GRADUATE SCHOOLS

Accreditation and Maintenance of Degree Standards##

Lage: We're starting with your activities in national associations.

Elberg: These associations--the Western Association of Graduate Schools, the Association of Graduate Schools in the AAU [Association of American Universities], and the Council of Graduate Schools of the U.S. and Canada had a very common purpose. The Western Association represents the regional viewpoints about issues that the other two deal with. They're all concerned with accreditation. The Council of Graduate Schools and the Western Association are much more concerned with accreditation and quality review of institutions and departments and their degree programs, minority issues, federal funding and legislation, and computerization of records, et cetera. The Association of Graduate Schools is much more elitist and is concerned, mainly, with the problems of a great research university, which is not the concern of the other two.

Lage: Is its membership more restricted?

Elberg: The membership in the Association of Graduate Schools, which I'll refer to as the AGS, is restricted entirely to those institutions which are members of the AAU. As a result of that, it's always been a question how much clout the AGS has, because those are the deans of the graduate schools in the AAU, and the AAU itself is composed of the presidents. We used to find that the presidents were not always so happy that we met at all. They have changed, I think, but in my time, we always felt that we were there at their sufferance.

For some years, one afternoon meeting was always shared between the deans and their presidents. The two associations met

at the same time in the same city, and it was the custom, in alternate years, for the AGS to host the presidents, and in the intervening years, the presidents hosted the deans at a lovely dinner, with comradeship and so on. But they met together for business matters in one afternoon. I never could see that the AGS had much influence on the presidents. I think each one felt a little strange sitting there with his or her president sitting in the audience and knowing that, well, if they didn't like it, they weren't going to pay any attention to what the dean said anyway. Apart from that, the purpose was to keep up on current matters in higher education--what the problems were of that year or what the status of the schools was in the accreditation process, and how much about national graduate matters we could relay to the presidents for that brief time.

Lage: Did all schools go through the accreditation process periodically?

Elberg: They all do. All are subjected to the accreditation process. It's a big job, and it takes a good year to prepare the documents for the association, and a week for the process to occur.

Lage: Is it mainly paperwork, or does it involve a visit?

Elberg: Oh, a large committee visits, and they spend several days on the visit. The committee that's appointed for a particular university to review it and write up the report--they spend three or four days interviewing people on the campus. Not every area is covered, only the areas which the institutional self-study report suggests need attention.

Lage: Is it taken very seriously?

Elberg: Very much so. After all, we do take it seriously in the sense of setting an example, but we know we're not going to be disaccredited. We know we're going to get our ten-year full-length accreditation. The smaller schools that might be in trouble may very well face it with some trepidation and have a lot to do afterwards, to correct.

Lage: Did you serve on any of those teams for other schools?

Elberg: Oh, yes, yes. I served on several, among them Notre Dame, Chapel Hill, USC, San Diego State University, San Jose State, Naval Postgraduate School in Monterey, and some others that I've probably forgotten now--several of the Catholic seminary schools. They always put me on these questionable psychology degree-granting, fly-by-night things that they wanted to get rid of. We

used to go and raise holy Ned, but that was always a kind of a joke, because they have to accredit everything.

Lage: They do?

Elberg: Yes, it's ridiculous. They admit almost everybody into the regional associations really, and then you have the problem of accrediting. Some of them shouldn't be there at all.

Lage: Were there any instances where one was disaccredited?

Elberg: Oh, yes, yes. We had a psychology degree-granting thing somewhere down in San Mateo or Palo Alto, and it was a terrible waste of their money and the students' money. And then Antioch University--the famous Antioch from Ohio--had a branch in San Francisco. Well, they had good ideas, but they were so flaky that they had a terrible time getting accredited. I was even on the one accrediting the Ohio home office, and they were in the midst of collapse at that time. That was a dreadfully painful accreditation visit for all parties, embarrassing and tragic because the goals of the school were so admirable and worthy of respect. It was just that some of the procedures were so strange.

Lage: They have a long tradition.

Elberg: They have a long and well-deserved tradition, and they went so far off the main line about individual instruction and students teaching themselves that it just couldn't fit into any kind of format. I think they eventually worked it out. At any rate, accreditation and the maintenance of degree standards is the main thing that these three associations are concerned with.

The AGS, the Council of Graduate Schools, and the Sloping Deans

Elberg: Now, the Council of Graduate Schools, which is the third one I mentioned, was formed because of the elitism of the AAU and therefore, the AGS, almost exclusively concerned with academic and professional doctorates and research.

Lage: Tell me a little bit more about elitism.

Elberg: Well, you see, your graduate school could only be in the AGS if the institution to which you belonged was a member of the AAU. The great bulk of the colleges and schools in the United States

are principally master's degree-granting institutions, thus ineligible for AAU membership.

Lage: What's required to belong to the AAU?

Elberg: Oh, that began in around 1906 or 1907, and that is the association of the major research universities. So what it requires is a research capacity in the institution. There are only about forty or forty-five schools in the United States that belong, and when I say that the membership in the Council of Graduate Schools is probably now over three hundred, you can see how unrepresentative the AGS was. The whole thing is that the AGS included the top-drawer doctoral-granting institutions from 1910 onwards, and that meant research was paramount in their make-up.

The master's degree-granting colleges and schools were unrepresented. The graduate dean at UCLA, Gustave Arlt, professor of Germanic philology and longtime graduate dean, formed the Council of Graduate Schools around 1962 or '61. It has flourished because it has all of the master's degree-granting schools, probably, that are worth anything at all in the United States, and, of course, all the AGS schools feel morally obligated to be members as an aspect of cooperation and collegiality--a bit of *noblesse oblige* here.

Lage: Now, what would be the interest of an institution like UCLA, or Berkeley, in fostering that, when they obviously fit into the AAU?

Elberg: Well, their interest is an adoptive one. You try to lend a helping hand, to help and to urge schools to reach as high a standard as they're capable of, setting them examples to meet, by fellow membership in that group. It's a parental kind of thing. Berkeley gets, you might say, by being in the Western Association or the Council of Graduate Schools, a number of valued contacts, and it accepts an obligation to join, to be of help and to lend itself to anything that may be in its power to do, in advice and assisting the health of the CGS and so forth. The other aspect of these graduate school associations is that they have liaison with the federal agencies, like the NSF and the NIH, and then there are lobbying activities in Congress for higher education at the associations' home offices. And these lobbies advise federal agencies just what is needed for higher education each year.

Lage: Are they listened to?

Elberg: They're listened to very much. I should say so. Oh, yes, because if they're not listened to, the agencies know that

they'll go to Congress and lobby. The other three things that these groups are interested in, especially the Western Association and possibly the Council of Graduate Schools, is international education. That is, the exchanges and receipt of foreign students. The other is "education abroad" programs for their undergraduate students in different countries, and finally, the general welfare of foreign students in the U.S.A.

Lage: Let me mention one other group, if I'm not interrupting. The Graduate Deans of the Pacific Slope was another group I've seen reference to.

Elberg: That died. That died, yes. [laughing] Ha! The "sloping deans" was my terminology. Well, that was just the coastal deans, and it was ridiculous. You see, in the sixties, everybody had a penchant for meetings, and they always wanted to go and visit each other and have a wonderful banquet on somebody else's money. The Deans of the Pacific Slope--they saw, after two or three years, that the Western Association was quite adequate. They had no unique problems that the WAS didn't have. So these things come, and they go sometimes.

Now, I know it was years before the northeastern schools had anything like our Western Association. They invited me to come to their little organizational meeting of the various colleges and universities of the northeast. They wanted to organize, and they did. They organized themselves into a regional association. It's important to have these regional groups, because the regions have unique problems, sometimes. They inherit peculiar kinds of institutions that are strong in themselves but may have no counterpart in another region.

The Association of Graduate Schools had about forty-five members, which was, I think, at the time the membership of the AAU. It was very difficult to break into the AAU.

Berkeley and the Dwarfs: Discussing Common Problems of the Elite Graduate Schools

Lage: It seems as if they would have similar problems.

Elberg: They have some similar problems, and then there are smaller clusters within that had more common problems. That's where the Dwarfs came in, that I mentioned earlier, a subgroup of the AGS.

Lage: Does that stand for something?

Elberg: Well, it's not an acronym or anything like that. I'm not so sure that it's still in existence. It might be, but it included in my day Harvard, Yale, Princeton, Chicago, Cornell, Columbia, Berkeley, Stanford, MIT; that's about it. There were about eight.

Lage: Any other public universities besides Berkeley?

Elberg: No, Berkeley was the only public institution that was invited to join. Now, the idea was that those that I mentioned--this crowd of eight or nine--had very common problems in the quality of applicants for admission to graduate school. They wanted to coordinate the dates at which they would send letters of admission, so as not to let one school send the letter early and grab a person who was anxious and not confident in waiting for other letters. They also wanted to coordinate the dates and the amounts of financial aid they would give, so that they couldn't buy students from each other in the applications. That was a very real problem.

Lage: Were there certain schools that were notorious for doing this?

Elberg: Oh, yes. Oh, yes, there were, that offered enormous sums to get the best students. They were in the build-up phase, but the Dwarfs--that was a name given to this little group by the Harvard dean's secretary. I think it was very ironic, you see, to call those huge, powerful institutions "dwarfs." I think that was the whole point of it. They said, "Look, Elberg, we know that Berkeley's problems are similar to ours, and that's why we've invited you to come." They didn't invite UCLA, you see, or any other institutions. Our problems were similar. Our competition for faculty and graduate students was similar. People we wanted and didn't come went to one of them, and likewise, they would come to us. We were never in the same league with them when it came to student aid. They had much more to give. They were more organized.

Lage: The costs here weren't as high, either.

Elberg: Oh, the costs here were very low, at that time. Yes. But we didn't go anywhere to meeting the costs, whereas they met the costs, and that was the problem. I think, by being with them, I was able to constantly improve our situation, by bringing to the attention of the administration here, what our colleague schools were doing.

Lage: The Berkeley administration listened?

Elberg: They listened, because they wanted to be in that set. That was it. We always compared ourselves with Harvard and Yale and so on--Princeton. We had to be similar, I felt, mainly in the area of student support. I used to just lose my mind at those meetings, when I heard what they were offering and what their tuitions were, which was so high. They used to increase by 5 percent a year, in both tuition and aid, and yet we still couldn't meet our simple requirements to that extent.

Lage: Well, did it improve? Did the situation of student support improve during this period?

Elberg: Yes. It did improve then, and it's continued to improve here. Of course, inflation has had its role, too, so that the amount Berkeley gives in a graduate fellowship, today, is much greater than we ever would have thought.

Lage: But the cost of living must be twice as much.

Elberg: The cost of living--housing is so terrible here. Exactly. Slowly, the place has begun to realize that, but they were dealing with just a fraction of the numbers of graduate students we dealt with. I mean, I think Princeton had fifteen hundred. We had seven, eight, nine thousand. They all had relatively small populations that they had to contend with. Then, of course, the undergraduate populations, back in those schools, were so small, too. Those were the problems.

Lage: Was there any tension between these private schools and Berkeley?

Elberg: There was tension every once in a while, between Harvard and Princeton. It depended not so much on the institution, but it depended on the personality of the deans who were in power at the time. Some of them were much more get-up-and-go than others and were more competitive. They didn't understand the gentlemanly points that were expected of them.

Lage: How about their attitudes towards Berkeley? Was there snobbishness?

Elberg: Oh, the attitude towards Berkeley was most paternal and respectful. We just had wonderful relations with all of them. One thing is, they loved to come out here. They loved to come out here when it was Berkeley's turn to host. We rotated, you see, as hosts of the Dwarfs, especially--and of the AGS. But the Dwarfs, especially, loved to make a special trip out, because we always had the meeting in San Francisco. I didn't bring them to Berkeley or around here. We housed them in one of the hotels, and we had our dinners or our lunches at one, so it was always

very good. For them, sometimes, they made it part of their vacation.

When the big association came--the whole AGS--which it did, then the dean at Stanford and I joined forces as hosts. It was a wonderful meeting, and we even hired Greyhound buses to bring them over to meet. The Chancellor, Dr. Heyns, gave a reception for the deans at University House. It was a wonderful party, practically a dinner.

Lage: Were you encouraged, in all this involvement, by the UC administration? Was this something that was required?

Elberg: The administration did expect the dean to become involved with these matters, to participate in these national things. It was a custom from previous deans, and I just carried on.

Lage: You served as president, at one time or other, of all three of those organizations.

Elberg: Oh, yes. Yes. I felt the duty, and they liked to have Berkeley participate. Berkeley's position was so esteemed that you weren't in the organization very long before they tapped you to start the road up the committees, and on to the executive council, and then to be chair or president. It was just one of those things, and that was true for even the Graduate Record Examination Board--same principle. The GRE board is, of course, run by the AGS and the CGS, the Council and the Association of Graduate Schools.

The AGS's interests were not necessarily unique, as the CGS would read the minutes and the transactions of the AGS. Then they, too, would target in on those topics. Such new things, in those days, when I was in it, was the role of computer retrieval of data, establishing retrieval systems in the graduate offices which could provide the Chancellor, or anyone else, almost any data wanted on graduate students and graduate matters. That spread nationally and was taken up by the AGS. There were other major common interests--minority affairs, the representation in the student body of minorities, the supervision of, well, student morale problems.

Of course, during the sixties, since we were the first to undergo the problems, you can imagine at the annual meetings the excitement when the time came for Berkeley to report on the events of the year. The auditorium would just simply fill up. Everybody that had been out drinking coffee or doing anything--you know, talking in the halls--they all came in. There was standing-room only, I remember, on the meeting for 1964, which

took place in December, and I reported on the fall term disturbances.

Lage: That was right in the midst of all the unrest and the Sproul Hall sit-in.

Elberg: Why, yes! We had gone through some of the worst.

Lage: And did you report?

Elberg: Yes. Oh, yes. And then, again in '65. They would have special sessions devoted to student problems--morale and so on--and try to analyze what was causing this and how they should react. It was clear some of them had completely failed. They were just taken by surprise, and they didn't seem to know so well how to handle it, either, any better than Berkeley had. Presidents were being replaced, as at Berkeley and Columbia.

The first ones that really seemed to know how to handle them were Heyns and then Bowker. But before that, it was a question of being very, very giving towards them and not just taking a stand to say no, and listening to all these things and demands, and so forth. That was one of the functions of these annual meetings--to exchange and to get ideas of how one would handle this. Also, the great problem of degree quality. And then liaison with the federal agencies. That was true for all of those institutions, and it extended to political lobbying for Congressional action on the budget for education.

As I said, the Council of Graduate Schools added the master's degree-granting institutions. They had the same problems but in a much lower intensity. Then, too, the AGS had the big problem of research administration--how you administer it, how you handle institutes and centers and bureaus, and prepare and/or process grant requests. These were rather unique problems. The CGS, you might say, was concerned with a much wider constituency than the AGS, which was so, relatively, limited.

In the meantime, then, we were always concerned with our relations with the Land Grant College Association and whatever national associations there were. You could, you know, go to meetings all the time because there's nothing like meetings in education.

Lage: Meetings and committees.

Elberg: Meetings and committees.

Lage: Now, did you feel that you brought home ideas from these meetings, say, on student unrest and research administration?

Elberg: Occasionally, yes. But when it was possible to sit down with the Dwarfs, then you could bring home very concrete ideas about attitudes and experiences. In the larger meetings, such as the Council of Graduate Schools--well, you see, they never could have a session that covered everybody. They admitted that, and their sessions and problem-solvings were dedicated to certain kinds of institutions. If other institutions were there, not covered, they had their own organizations to go to.

The Graduate Record Exam Board

Elberg: And so we come to the Graduate Record Examination, which is an outgrowth of all this. The Educational Testing Service at Princeton ran that and were very professional.

Lage: And they had no connection with Princeton University?

Elberg: None at all. That's just in the town of Princeton. It bordered the Princeton campus, probably, but the ETS was a beautiful outfit, physically--architecturally. The concern there was to make sure that the examinations were fair, were secure and there was no hanky-panky in giving out the questions. Security for GRE is a major thing, because they give it all around the world.

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One of the major interests the ETS had--the Educational Testing Service for the GRE--was to make sure that the examinations were not biased against minorities. That was Ralph Nader's big point. They battled for years with the testing service, insisting that the examination questions should be more relevant to the culture of the minorities that were taking them. They went to great effort to test this, and they, I think, very satisfactorily solved it. They were willing to modify. They certainly did. They set out to study, and they found things that they needed to change.

They also established a minority master roster. Of course, everybody takes the GRE who wants to get into a graduate school. Therefore, they have the names of every applicant possible, actual, and potential. What they did with that was to collect information from those applicants, as always--but particularly here for the minorities. They established that they were minorities, and then they had the information: where the student

had gone to school and what his record had been, what schools he or she wanted to go to, and what fields of interest.

Lage: Did they do this just for minorities?

Elberg: Yes, just minorities. So the roster of minorities must have been about ten thousand names. Then, you could subscribe to that entire annual list of ten thousand, if you wanted to stimulate your department chairs to go out and recruit. The problem was, especially at Berkeley, it would have been laughable for the graduate office to try to recruit minorities into departments, because the departments made the admissions decisions.

What we had to do was interest departments to become active in one way or another. As I think we discussed in an earlier interview, what we did do was to subscribe to the list and then cut it up in pieces, depending upon the graduate program. Every graduate program was sent the names, for that year, of all the minority students who were taking the GRE and where they wanted to go, what their quality was, and what they wanted to study. It was the idea, then, that if the departments were interested, they could make contact themselves. Some did, and most didn't.

Departmental Foot-Dragging on Minority Recruitment at Berkeley

Lage: Did you find--

Elberg: I found it very depressing.

Lage: Most faculty at Berkeley are very supportive of the departmental system and think it adds great strength. But did you ever become frustrated with it, because it does seem a very conservative--

Elberg: Frustrated? Oh! How often! How often I became frustrated.

Lage: It seems like a conservative thrust.

Elberg: Well, it's not only conservative, but it is an inbred attitude that if people want to come, they'll apply. If they don't apply, then we assume they don't want to come, which couldn't be further from the truth, because that's not the way it works in life. We saw that with our competitors, as it were. They were going out, and they were sending teams around to interest students from different schools in their institution and signing them up. My argument with our departments was, "Set aside two or three slots, or whatever, and send someone out with the power to admit right

on the spot, when he saw the quality." Oh! You couldn't get that done for anything. There were so many ways that we missed that we could have--

Lage: Now, why was there all this foot-dragging with this?

Elberg: They just weren't interested.

Lage: They didn't have a concern about minority enrollment?

Elberg: No. They really were not that interested to pick up and go. They had all kinds of excuses--"Well, who will pay for the trip?" and "Who will do this?" and "How will we charge it?" and "Will the College of Letters and Science and Mr. Feder give us more money?" And I used to say to them, "No! L&S is not going to give you a penny, but we'll help." [laughter] Oh! I could just have had apoplectic strokes on that issue, and so could my associate deans in charge of the minority program here.

Lage: But you had no power to go ahead and just enroll somebody?

Elberg: No. Oh, no. Absolutely none. I had no power of any sort, for anything. I just did certain things, and that was that. I couldn't admit students to a department without the full knowledge of the department faculty or whoever was concerned. No. That was never possible. So we had to try to encourage, and I think a few did. Among the notable successes was the Department of Zoology, through the activities of Professor Howard Bern and Richard Eakin. There were notable other ones. I think political science and sociology did certain things that were very good, and social welfare. Certainly, public health.

Value and Uses of the Graduate Record Exam

Lage: Anything else on the Graduate Record Exams Board? Was this a board that was part of the Educational Testing Service or part of one of these graduate associations?

Elberg: Oh, the Graduate Record Examination Board was a board of the Educational Testing Service, manned or staffed entirely by the deans' organizations. So you were appointed to it as a representative of the AGS or the CGS. Yes. That's how it was.

Lage: And you chaired it in '76.

Elberg: I chaired it, yes, and that, as well as my membership for the years before and afterwards, was a very interesting experience. I found that organization to be extremely responsive. They knew how to do things. They had a marvelous staff of these people who knew how to make up questions, who were experts in testing and measurement. That was it--in psychology and other fields, test and measurement specialists. We also, at that time, developed the advanced test. There was the general examination on all usual four subjects, but then every student was required to take an advanced test either in his major or in any other field he wanted to take it in. That was added prestige for his examination, and that we developed. That has been a great success.

Lage: Have these tests been found to predict well the success of the graduate student?

Elberg: No. They don't predict the success, no.

Lage: Then what good are they?

Elberg: Well, they are of great value, because they eliminate so much chaff from the wheat, you see. Now, you mustn't use the GRE to admit, but it's one of the criteria. It's only one, and it only has value when it's one of several. It doesn't predict success. There are too many other things contributing to the success of a student that take place after that student is under way. What they do predict, possibly, I always felt, was that whoever came would probably finish. But I wouldn't know how well they would finish. They would do better in finishing. There would be fewer dropouts from that crowd, which is one of the main things you want.

We always, you see, left it to the departments to say how they wished to use it. We merely required it. Now, a department had the right to ignore it, but on the other hand, to have a student's application considered at all, and that meant filter through the Graduate Division and then out to the department, that student had to make a certain test rank--a certain score.

Lage: So there was a cutoff point.

Elberg: Oh, there was a cutoff point, and we were not concerned at all with the departments at that point, because we weren't encouraging departments to be heroic and show that they could take a sow's ear and make a silk purse out of it. That was not the point. So, many a time, the application came, and we said, "That's the end of that one," just on that basis. The departments would want to know, "Well, what happened? We know

Elberg: you received it." And we would say, "Well, it just simply wasn't of Berkeley quality, and we wouldn't even think of letting you tamper with that application." But that was very rare. That was rare.

The reputation of Berkeley had a great deal to do with informing the great mass: should you apply or shouldn't you? So there was self-elimination. I felt that the thing was very important, especially the advanced test, because that would give the department a chance to see how well the student was prepared to go to graduate level work.

So, I think I've covered most of the thing. For some years, all during my time on GRE, we were concerned with the social issues--the issues of bias, the issues of how to counter the minority population problem in the schools--and what we could do. We tried one thing after another. Some worked, and some didn't, but the main thing was, the message got back through the members of the board to their schools, to the CGS as a whole, and the AGS. Slowly, things began to happen. There were such different points of view on these matters among the various schools, too, and the regions.

The Role of the Graduate Dean in Admissions

Lage: How did Berkeley rank, say, in its commitment to minority--

Elberg: Not very high, in terms of actual accomplishment. They all knew that we were prayerful, and we had all these paper plans. But nobody could quite see where the energy was happening. It was an embarrassment.

Lage: In other schools, because of the way they're set up, were the central administrators more able to bring in--

Elberg: The deans were more able to launch public relations activities. They just took it as one of their functions.

Lage: Is it unique to Berkeley, though, that the departments have so much say?

Elberg: No, it's not unique to Berkeley. It's true of the whole AGS. Harvard's dean, Peter Elder, used to say, "I consider the departments' recommendations for admission as binding upon me, and I would never think of doing anything." "Well," I said, "I'm not that liberal, Peter. I'm not that liberal. There are many a

time when I send it back and say that is not an acceptable standard for admission, and that student will not be admitted. There was a lot of huffing and puffing, but it stood." Peter said, "I could never get by with that." "Well," I said, "maybe I couldn't, if I only dealt with Letters and Science, as you do, but since I deal with all the schools and the colleges, perhaps I have a little more influence with the professional areas. I don't know how well I could have done with classics or history on a questionable case, admittedly a situation that would never occur."

Certainly, any of our very top departments--it would have been unthinkable for me to have tampered in any way, but the lower-ranking departments here had to be watched, those who would overadmit--who crowded the lists. Some of the schools did that. They would not conform to our recommendations as to numbers.

Lage: Now, what was their purpose in overenrolling?

Elberg: The larger the enrollment, the larger the budget. It's an enrollment-driven budget, and, with some of these professional schools, they were utterly heartless in admitting. They took up numbers that should have gone to other units. But we worked it out and had our times.

Lage: What particular schools did you have the most trouble with?

Elberg: Business Administration would never stay within its quota, even though it was a generous quota. I think my relations, on the surface, were fine. I'm quite sure that their dean used to think, "Oh! If we could only get out from under that Graduate Division!"

Lage: Were they trying to admit students you thought were unqualified?

Elberg: They were just trying to be too large. They were trying to be too large, and they couldn't handle it. There was a kind of rule of thumb of so many graduate students per faculty. Now, it wasn't absolute, but it was a general rule. They were so far away from it. At certain times, the conditions in that school were not all that academically good. But we gave them a very generous allotment, and, still, they suffered under it. Well, they were going out for great growth and expansion. We had our problems there, but we managed to hold the line. Dean Geoghegan and Dean Hammel were the great Horatios at the bridge and held the line.

Lage: Who was the dean of the business school at that time?

Elberg: I think it was Earl Cheit. No, it wasn't Cheit. Well, it was in part of Cheit's era, but it was prior to Cheit, too, and I've forgotten his name. It wasn't so much the dean as it was the graduate advisor in the school, who would not conform. We finally removed that graduate advisor. We told the dean that he was not workable. You had occasionally to remove a graduate advisor--you see, they were the representative of the Graduate Division in the department. They were not the representative of the department to the Graduate Division. That was the dean of the school. The graduate advisor was my deputy, and a few forgot that, very often. They completely forgot it. Oh, we had some times trying to explain the great confidence we had to be able to place in our graduate advisors.

XIII RETIREMENT YEARS, 1978-1989

The UC Education Abroad Program

Lage: Shall we move on to your retirement?

Elberg: Well, the retirement is very short and sweet.

Lage: Do you have to retire at a certain age, or do you have some leeway?

Elberg: You're supposed to retire--well, it's been changing so. When I was dean, you had to retire at sixty-seven. Then, a few years after I left, the federal law made it seventy or something. Now the federal law says there's no retirement age, and so how they're going to work with that, I don't know. They decided here, I think, that a person at seventy could be brought back on a year-to-year basis, provided they could show, or have evidence from their department colleagues, that they were still competent.

Lage: That could be a very touchy situation.

Elberg: It's a very delicate situation, and no one wants to face that. I retired at sixty-five [in 1978], because I felt that I had done what I could, and I was somewhat tired. So I did, and nothing happened. I served on a few committees--nothing much in those early years. Then, in 1982, I saw an ad in the President's circular, that an opening in the Education Abroad station in London, for all the United Kingdom schools, was available the coming July, and they wanted applications. I decided, "My goodness! I'm going to apply." I applied, and I was appointed.

Lage: Was that a UC program?

Elberg: That's the University of California Education Abroad Program, which is headquartered at Santa Barbara. So you're employed, then, by Santa Barbara. What they do--I've forgotten how they do it--they like to have retired people, because they can take advantage of the retirement and then supplement that back to what the salary of their professorship was at retirement. So that's what they did, and I think that's what they still do. I was interviewed, and Sylvia was interviewed. They brought us down there for interviews, and we were selected. Then we had an orientation down there, and off we went in June of '82, to be the chief mogul for all UC students abroad who were in the United Kingdom.

Lage: Now, how many were there?

Elberg: You mean students or schools?

Lage: Students and schools both.

Elberg: I think I had about a hundred and thirty students.

Lage: And how many schools?

Elberg: There must have been about twelve universities in the United Kingdom, where they all scattered to. There was an office in London. You kept track of them and their programs, because what they did abroad had to be academically equivalent to what they would have done at their home campus. So we had to make sure that was all approved by the home campus for each of those programs and that they took what they said they were going to take. You were supposed to go and visit everyone, and so on. It didn't work out for us. I was there too short a time, because of Sylvia's illness, but it was going to be great fun.

Lage: How long had you planned to stay?

Elberg: Well, it was a two-year appointment.

Lage: And you stayed one year?

Elberg: I stayed only four months, and then, when we had to quit it, they said, "Well, don't go back to Berkeley. Finish out your year or two down here at Santa Barbara in the office, and we'll send someone from the office over to take your place." So I finished the year 1982-83, from October on, at Santa Barbara as associate director and had a good time--very interesting.

It was a hard lesson for Santa Barbara's faculty, to learn how different the educational systems--in England, especially--

were, because in England, a student could sign up for one course, and that was his entire course for the year. "Well," they thought, "that should only be worth three units." They were thinking of how many times the class met a week. The student was working eight hours a day, five days a week. Many of the faculty at Santa Barbara couldn't understand how this could be--the breadth of it all--and so we had some times when I was back at Santa Barbara to try to explain. There were difficult times there. But, it's prospered, and so that was a very good thing.

Acting Provost for the Professional Schools, 1984

Elberg: When I came back, then committee assignments began to be offered, and I took whatever came by. Then, in 1984, the Chancellor called and asked if I would do the acting provostship.

Lage: Who was Chancellor at that time?

Elberg: Heyman, and I said I would. It was from January to June, when Provost Doris Calloway went on sabbatical.

Lage: What were you provost of?

Elberg: The professional schools and colleges--all of them. That was quite an experience, as I had never had any budgetary responsibilities. Here I was kind of the final line officer. I learned a great deal.

Lage: Did you have a budget officer under you?

Elberg: I had an assistant. I had, yes--not under me, but the academic personnel office was on the same floor of California Hall. They were like my staff and would advise me on things. Then there was the Academic Senate Budget Committee, to whom I would report; I might have to make appearances before them to plead cases, and so on, and persuade them. So I learned a little about that. That was the term in which the salary scales for engineering were being changed, so there was a lot of transfer of funds there. It was a very interesting responsibility, and I learned a lot about that level of administration.

You asked [on interview outline] if the faculty has lost authority to the administration. In retrospect, I do not think the faculty has lost authority to administration.

Lage: There seem to be a lot more administrators.

Elberg: There are a lot more, and it's a lot more complex to administer a place of this kind today. Faculty simply do not want to give the time that's necessary in committees, so the committee system, most of the time, works, but sometimes it does not. It's in those times, when the ball is dropped, that the administration picks it up because it has to. I don't think there's been anything evil or by design. It's just been because of a vacuum, because certain problems do not get solved; it's more and more difficult to get faculty to serve on committees. They're busy with their work and so on.

So, the world of Berkeley's academic administration has changed in the last ten or fifteen years. I do believe that the administration has had to take on more responsibility. I know they do it, however, with senate consultation, but when dates have to be met, they have to meet them.

The Controversial Elberg Report, 1985-1986

Elberg: The various committees you asked about--there's not much to say. The Committee on Academic Planning, of course, was the one which I worked so hard on.

Lage: Tell me about that. That was '84 to '87, and was that an Academic Senate committee?

Elberg: Yes. The Committee on Academic Planning is a senate committee. The immediate problem was that that committee was supposed to come up with the next five-year plan. I guess that would have been 1985 to 1990. But it was not a well-arranged thing, in the sense that, when I served in 1958 to '61 on the Building and Campus Development Committee, which was a committee of about twenty-nine members, physical planning on the campus went hand in hand with academic planning.

The Building and Campus Development Committee was done away with at some point. Then they started some other kind of physical development planning, and they used to meet without any reference to any academic planning. So they were planning buildings and everything, and we were trying to think out the academic future--what would be the important areas to be supported, and what were the problems. We never came together. I think it's very difficult to do academic planning in the absence of physical. I think it's impossible to do physical in the absence of academic, but they did it because they had to, in a sense; we were so slow in coming up with an academic plan.

Lage: Your résumé shows your membership on the Physical Development Planning Committee the same years--'84 to '87.

Elberg: Well, that committee I was on--it wasn't very productive, and what little I could bring back to the academic planning committee, I did. It should have been in the opposite direction, and it wasn't.

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Lage: Now, when did you become chair?

Elberg: On the first two years of my service on the academic planning committee, I was at my wit's end trying to figure out what we were supposed to be doing. We did not get good guidance. Something happened when the chairman of the committee reported to the senate. I was put in as chairman, and so I started, then, to try to bring some plan to the thing. We had a new committee, and I gave everyone assignments. They could suggest their own, or they could accept what others suggested. We covered the range of what we thought should be covered in the planning.

Lage: Thinking of future program size of different schools and colleges? Is that the kind of thing?

Elberg: Not that. Not size. No, we were more concerned with how undergraduate admissions to the campus was carried out--how the predictions were made on the sizes of student bodies. We were concerned with every aspect, even to Extension, but we were concerned with--oh, I should have brought the old report. My memory is so poor, but there wasn't any area of academia and education that we were not involved in and didn't have a chapter on. The report had about twelve chapters.¹

Lage: Was it controversial when it came out?

Elberg: Oh, my God, it was controversial, because the big thing in the report was that I recommended a complete remodeling of the administrative structure of the campus--the academic structure--to some extent, the dissolution of the College of Letters and Science and the addition of new provosts, smaller groupings of related departments, things that would bring faculty of like interests together.

Lage: Like biological science. Was this the report that recommended biological science be reconstituted?

¹Committee on Academic Planning, Report, 1985-86 (Academic Planning 1985-1990).

Elberg: No, that was the work of another committee, the Koshland Committee.

Lage: Did your whole committee agree on this restructuring?

Elberg: Yes, and that got lost sight of. They thought it was just mine, but that was lost sight of. Unfortunately, that was the target of all the discussion--the reorganization of the campus--instead of all the other things. Now, the other things, I think, were taken care of quietly, because what the chairman of the Academic Senate did was to have two or three large senate meetings to discuss the Elberg Report. Gradually, the various senate committees that had responsibility for certain sections of our discussion took that section on and worked it over. I wouldn't be surprised if some of those things, that never really saw much of the light of day, have been acted upon quietly and put into effect.

Lage: Can you recall some of them?

Elberg: One in particular was the reorganization, for instance, of the senate committee on planning, itself, and how it should be staffed. Another was our recommendation about the committee on research, which we thought, because of its responsibilities, should be much more analogous to the budget committee in its staffing. Well, they not only did something like that, but they merged two very large committees together to accomplish this. So there were things that have been done.

Now that the biological sciences have been reorganized I don't think it's too far in the future that someone is going to look at the social sciences and the humanities to see if they are properly arranged in the best long-range interests of the disciplines, faculty contacts, and students' outreach in taking more courses than usual in other than the major plan. Much of this reform may indeed already have been accomplished.

Lage: Was biology rearranged without breaking up the College of Letters and Sciences?

Elberg: Well, it's hard to answer that question. It wasn't broken up, but, on the other hand, it's quite obvious the college doesn't have the responsibility for the departments that it had. On the other hand, some are still in the college, and it's my guess that there's going to be a College of Biological Sciences with its own dean, eventually. It can't go on in L&S the way it is.

Lage: It's not well-administered, do you think?

Elberg: No, no. It's just not organized properly. It's not the right place. The way they've reorganized the biological sciences, it's, logically, its own college. So, the associate dean in L&S for the biological sciences is an anachronism today. It's one of the sad things. I think the whole reorganization has created certain tragic arrangements for many faculty, who have seen their departments disappear--my own, for instance, too, and in some cases with no provision made to insure the continuity of important courses and disciplines.

Lage: So your department was--

Elberg: Bacteriology is no more. Zoology and botany are no more. Physiology is no more, and so on.

Lage: Was that recommended by your committee?

Elberg: No, no. We had nothing to do with any of that. We didn't enter biological sciences at all, because that was well in hand. No, our target, really, was the humanities and the social sciences, both in L&S as well as the graduate schools that concern themselves with the social sciences and related professional school areas.

Lage: What kind of an administrative setup did you encourage?

Elberg: What we wanted to do was to bring some of the professional schools right with some of the departments of Letters and Science. For instance, you take social welfare, public health, business administration. There are certain departments in L&S like economics, sociology, and so on, that have a lot of ties and cross-fertilizations with these professional schools, or with law. All those we wanted to bring together under one provost and foster the interdepartmental, intercollege relationships of the faculty. Engineering--we wanted to bring engineering out from its isolation into chemistry and physics and mathematics. It was so startling that it frightened the hell out of deans, I think. They knew what their budgetary role and responsibilities and pathways were. They had no idea what they would be facing. They were afraid of it. Not all, however.

Lage: Isn't there a lot of tension between the professional schools and the academic departments?

Elberg: Yes, yes. I was trying to bridge that a little, because if you get to work with people and know them, you don't fear them. Their goals could be very common. I mean, we have them working informally together. You have the wonderful program in jurisprudence and social policy in law, working with all the

social sciences. I said to the law dean, "It's not going to hurt you one bit if you're allied with some of the social science departments and you have your own social science provost, something like that." He said, "It doesn't frighten me at all." But it did his faculty, I guess. It was thoroughly trounced. Thoroughly.

Lage: Now, was that disturbing to you?

Elberg: No. My own dean in public health, Joyce Lashof, said, "I don't know what got into you. What made you think of such a thing? We could never work that way!" "Oh," I said, "Joyce, of course you could, but we won't argue about it now. It's past the time." But I could see. You see, it was so foreign.

Lage: Does it interrupt personal relationships when something controversial like this happens?

Elberg: No, I should say not. We're all screwballs at heart. [laughing] I noticed, though, that it was quite a while before I was appointed to another senate committee. [laughing] And that one turns out to be Memorial Resolutions.

Lage: One of these radical professors.

Elberg: Yes, they put me on the Memorial Resolutions Committee this year, to write obituaries. [laughing] Isn't that marvelous?!

Graduate Theological Union Board Member and Acting President

Elberg: We have the Graduate Theological Union. Well, that was a side issue. I had been on the board for many years.

Lage: Why were you on the board?

Elberg: Because the Graduate Theological Union and the Graduate Division at Berkeley had a joint graduate program, and they thought it would be courteous--since their students had to be admitted to Berkeley, and our students who want to take courses up at the union have to be admitted up there--that the deans should be part of the structure of the board, to keep the board from going off on things that would be impossible.

So I represented the university to the board, and that was a very pleasant association over all the years. I served on the president's search committee for that recent president--the late

one, Michael Blecker--and grew terribly fond of Michael. He was only here four years, and he recently died. Before he became so very ill--he resigned, because he knew he couldn't carry on--he recommended to the board that I be appointed acting president, because being an academician he thought I would be able to hold things together until a regular president came in. Well, the problem was, of course, you needed someone that could work with the nine seminary presidents, but primarily he wanted me to be acting president during the crucial ten-year reaccreditation review by the Western Association of Schools and Colleges and the American Theological Schools Association simultaneously.

The Graduate Theological Union is a union of nine seminaries of different denominations.

Lage: And it provides the graduate level work [Ph.D. and Th.D.] for all nine of them?

Elberg: Yes. That is, they help pay for it. The union does provide the graduate level work, but it's done through faculty, as they say in England, seconded to the graduate union from the seminary to do the graduate teaching. It's not paid for. It's a contribution of the seminary to the union, to give the time of that faculty member for the year or two. It's a very complex and, therefore, very difficult organization to keep together, because the seminaries have a hard time financially.

They committed themselves to jointly funding the building of a common library, which is what binds them all together. The GTU library. They therefore contributed their own seminary libraries, separately, to the union library, and it's being melded in and so on. Then the union board undertook the responsibility of raising the money for the building, which was eight to nine million dollars. It's just been completed. The project is finished. So the union library is the glue that holds them, and beyond that, they have their academic commitments to provide faculty to give the graduate instruction to those who want the Ph.D.

It's not been an easy union, but it's been successful, and it's stronger, I think, now than ever. I had eight months as acting president, which were very difficult months, but we went through a very successful reaccreditation review which saw the good things as well as those matters needing change.

Lage: What were your main problems?

Elberg: My main problem was to try to keep the support of the seminaries and the presidents in the face of failing income of their own.

And, at the same time, I couldn't let the level of support for the union drop, because we had our expenses, too. It was a touch-and-go time there.

Lage: Was fundraising part of your responsibilities?

Elberg: Fundraising was not part of mine for that eight months. That was not my ticket. They have a development office--very successful. All the seminaries had their own fundraising development offices, and so to try to keep that all coordinated was a thing to do.

We had two or three major problems during my time as acting president--how to staff and fund the graduate program in the union. There was the question of whether we should go out for money for the union and give it to the seminaries to buy the services of faculty, or whether this should be an honest-to-goodness commitment of the seminaries to the union for their own good. It came to that final decision, not to buy them but instead to provide those faculty members who were teaching in the union with additional research support and funds for meetings and maybe some secretarial help, but not salaries. Very much like they handle the endowed professorships here. They don't take care of the salary, particularly. They take care of the add-ons. This has been worked out, I think, finally.

The next thing was the minority program and the great disaffection of what few minorities there were. That was a nagging program in the GTU--the minority program. I finally made a dent in it by just taking it in hand a little--part of it by encouraging the black seminary students to become active and bring the national meeting of the black seminarians to the GTU, which they did last March, and it was a great success. It was costly. We had to subsidize some of that, but the meeting was a great success. It kind of showed our own black students that we were with them. We were willing to commit our own slender resources and do whatever we could to help them.

Lage: Why were they disaffected?

Elberg: They never saw enough ethnic faculty. That was the problem. They thought it was a token arrangement, and so did the ethnic faculty. They've tried a lot of angles, none of which worked, and it's still being experimented with. I left in July '88, and that was it. I was glad to leave. I had done all I could. My main task while president was to see the GTU through its national accreditation, so I hosted the national committee.

Lage: Who accredited it?

Elberg: The Western Association, but, mainly, the National Association of Theological Schools. So it was doubly accredited, and that was a great week--that accreditation week. The committee was delighted with the arrangements. They were very, very interested to get the details. The accrediting report of the union had been very carefully put together by the faculty and administration, as usual. We took great care of the visitors, so it was a week of very major activity for them and for the union. All the GTU faculty and students, of course, were involved. We received the reaccreditation okay, with certain recommendations, and they'll be back in '93. So that was my GTU experience. I recently resigned from the board and all contacts. My health began to give way, what with my wife's terrible illness.

Lage: Is the GTU basically Christian, or do they have other--

Elberg: Well, yes, the original seminaries are all Christian, to which it has added the Institute of Buddhist Studies and the Center for Jewish Studies. Arrangements are being completed for a Center for Shinto Studies and a Center or Institute for the Greek Orthodox. It's become very, very ecumenical beyond the Christian.

Lage: Who supports those areas, if the seminaries provide the professors?

Elberg: The centers--those are all self-supporting, except the Center for Jewish Studies, which is supported, of course, by gifts. But its expenses are covered because it is the main graduate teaching unit that the union itself supports. None of the other seminaries hire or pay for any faculty in Jewish studies. The union has hired, on its own budget, the three professors of Jewish studies.

Lage: Is there any tension between these different religious groups?

Elberg: No. They get along beautifully. They'd better.

Honors, Awards, and Other Activities

Lage: I have a question, rather quickly. You received an honorary degree from Hebrew Union College, in 1967. Was there a special reason for that?

- Elberg: A special reason? No, I think it's just that as a Jewish member of the faculty and dean, I had become fairly well-established in my work and well-known.
- Lage: There's not a particular tie with that institution? That's what I wanted to know.
- Elberg: No, none at all. It came out of the blue--completely out of the blue. I think Heyman got it last year.
- Lage: Now, just a couple of other little things. We should mention your receiving the Kerr Award.
- Elberg: Yes, the Clark Kerr Award. I've forgotten the year, but you have it there.
- Lage: 1984.
- Elberg: '84, yes. And, more recently, the Sanford Elberg Lectureship in International Studies was established in the Institute of International Studies--I think, as a thank-you for all that we did for the institute Yes, that. I don't think anything else.
- Lage: Well, I think we've finished up here. One other small thing. The International Textbook of Medicine in 1978.
- Elberg: Yes. The chapter.
- Lage: Well, I had you down as co-author.
- Elberg: Oh, my Lord! I was only co-author of a chapter among hundreds. Yes, they got that wrong. Dr. Chin was the principal author of the chapter on bubonic plague, and he was foolish enough to put my name down.
- Lage: What is the History of Science Dinner Club?
- Elberg: Oh, that was started by Herbert Evans in Anatomy, when he was here. It was an evening a month among people interested in the history of science, who would gather for dinner and cigars at the club. One of the members would give a talk on some aspect of the history of their field--that went on for many years. The present history of science faculty were good members of it, and, from that, took off and started their own efforts academically.
- Lage: You mean, they were members before we had a history of science program here?

Elberg: Oh, yes. They were members before we had the history of science program. The History of Science Dinner Club must be very old--or was. I don't know if it's even in existence.

Lage: What is the Kosmos Club in Berkeley?

Elberg: Well, that's an organization of persons who gather once a month, very similarly. There is a speaker. It's just a way for the faculty to gather and meet other colleagues, whom you wouldn't normally meet, once a month and to expand one's intellectual horizons.

Lage: Is that still an active organization?

Elberg: Oh, yes.

Lage: But it doesn't have a particular focus.

Elberg: No. No, it's just a social gathering, and, of course, the older faculty--well, the new ones are beginning to filter in, as they're being invited by older members. A person has to be introduced by a member.

Lage: You were president of The Faculty Club.

Elberg: Now.

Lage: You are now.

Elberg: Yes.

Lage: What does that entail?

Elberg: Why, just being my beautiful self. The board of directors of The Faculty Club is elected--staggered terms, every year for a two-year period. Then the board elects its own president, and so I was elected a year ago--now two years ago this November. It runs The Faculty Club, with the manager of the club. It's responsible for all the policies of the club--the dining policies and the building expansions and improvements. It just runs the club, and it's a very good organization to belong to--that is, the club. We're trying to get more and more new, younger members in. We have about eighteen hundred members of the faculty and administration--or staff, I should say.

Lage: Do younger faculty members--are they not as interested in joining?

Elberg: Oh, some are. It depends on their colleagues in their departments. There are some that are very active attendees of the club--chairs and professors, and they'll bring the new, young ones with them. Other departments--there's no activity with regard to the club, so the young members don't ever get a chance to. That's our target--to try to find a way to learn who they are, offer them six months' free membership, and lasso them in.

I think that should cover any space devoted to S.S.E.
Enough is enough.

Transcriber: Noreen Yamada
Final Typist: Noreen Yamada

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CURRICULUM VITAE

Sanford Samuel Elberg

b. San Francisco, California, December 1, 1913
 s. Solomon and Elizabeth (Levene) Elberg
 m. Sylvia Marans, July 11, 1943
 children: Cassandra, Graeme

Graduate, Lowell High School, San Francisco, California
 A.B. (Bacteriology), University of California, Berkeley, 1934
 Ph.D. (Microbiology), University of California, Berkeley, 1938
 Dissertation: The proteolytic enzymes of *Clostridium*
parabotulinum, Type A, and their relation to toxin production
 L.H.D., h.c. (Doctor of Humane Letters, Honoris Causa), Hebrew
 Union College and Jewish Institute of Religion, Los Angeles,
 California, 1967

Instructor, Washington State College and San Francisco City College,
 1940-1941

Instructor to Associate Professor, University of California, Berkeley,
 1941-1952

Professor, Bacteriology, University of California, Berkeley, 1952-1966

Dean of the Graduate Division, University of California, Berkeley,
 1961-1978

Professor, Immunology and Medical Microbiology, Department of Biomedical
 and Environmental Health Sciences, School of Public Health, University
 of California, Berkeley, 1966-1978

Professor Emeritus, University of California, Berkeley, 1978-

Dean Emeritus, Graduate Division, University of California, Berkeley,
 1978-

Director, University of California Education Abroad Program (EAP) Study
 Center in the United Kingdom and Ireland, July 1982-September 1982

Associate Director, Education Abroad Program, UC Santa Barbara,
 October 1982-July 1983

Major Research Interest:

Immunity at cellular level as revealed by antimicrobial action of
 microphages. Immunity in brucellosis and plague.

Diplomate, American Academy of Microbiology, 1952
 Fellow, A.A.A.S., 1954
 John Simon Guggenheim Fellow, 1957-1958
 Novy Lecturer, University of Michigan, 1964
 Berkeley Citation, University of California, Berkeley, April 5, 1979
 Herzberg Memorial Lecturer, University of Hawaii, 1980
 Sanford S. Elberg Distinguished Lectureship in Comparative and
 International Studies established by the Institute of International
 Studies, University of California, Berkeley, 1982
 K.F. Meyer Gold-headed Cane Award, 1987
 Honorary Diplomate, Veterinary Epidemiology Society USA, 1987

Campus representative to
 Western Association of Graduate Schools
 Council of Graduate Schools in the United States
 Western College Association
 Association of Graduate Schools in the Association of American
 Universities
 Graduate Deans of the Pacific Slope
 Graduate Record Examination Board, 1972-1976 (Chairman, 1976)

Member, Chancellor's Advisory Committees
 Naval Biological Laboratory (Chairman, 1963-1968; Acting Director,
 1956-1959)
 National Institutes of Health Institutional Grant for Biomedical
 Sciences (Program Director, 1974-1978)
 Medical Education
 Buildings and Campus Development (Chairman, 1959-1961)
 Naming of Buildings Subcommittee (1966-1978)
 Northside Student Center Subcommittee (1965-1966)
 School of Library and Information Studies (1978-1981)
 Council of Deans
 Cabinet
 Provosts/Vice Chancellor Group
 Community
 Center for Studies in Higher Education (1980-) (Chairman, 1980-)
 Berkeley Campus Development and Centennial Fund
 Foreign Students (1968-1978)
 Student Conduct (1964-1976)
 Student Affirmative Action (1974-1978)
 Physical Development Planning Committee (1984-1987)

Member, President's Advisory Committees
 Co-Chairman for the University, Joint Graduate Board, University of
 California and California State Universities (1964-1978)
 German Academic Exchange Scholarship Program
 Ehrman Studentship

Member, Academic Senate Committees

Graduate Council (*ex officio*) (1961-1978)

Administrative Committee

Courses

Agenda

Fellowships and Graduate Scholarships

Committee to Consult with Graduate Student Advisory Committee

Hitchcock Professorship

Forms of Theses and Dissertations

Coordinating Committee on Graduate Affairs (1961-1971)

Committee on the Nature of Graduate Studies

Committee for Review of University of California Campus (1981-)

(Chairman, Statewide Academic Senate)

Clark Kerr Award Committee (1981-1987)(Chairman, 1984-1987)

Committee on Academic Planning, 1984-1987

**Member, Advisory Council, UCB-Stanford Research Library Program
(1976-1978)**

**Liaison Coordinator for Berkeley Chancellor on programs with Santa Cruz
Campus (1979-1981)**

**Chairman, Search Committee for Dean of School of Public Health, Berkeley
(1981)**

**Vice-Chairman (1949-1952), Chairman (1952-1957), Department of
Bacteriology, UC Berkeley**

Acting Director, Naval Biological Laboratory (1956-1957)

Institutional administrator

Ford Foundation Program in Graduate Education

National Institutes of Health Fellowship Program

National Science Foundation Fellowship Program

U.S. Office of Education (National Defense Education Act Fellowship
Program)

National Aeronautics and Space Administration Fellowship Program

Member, Board of Graduate Theological Union, Berkeley (1968-)

Acting President, November 1987-July 1988

Member, Board of Directors, International House (1961-1978)

Chairman, Committee on Fellowships and Scholarships (1961-1978)

Committee on Residence and Membership (1967-1978)

Member

Faculty of the School of Social Welfare (1961-1978)

Faculty of the School of Journalism (1976-1978)

Academic Executive Committee of the School of Public Health

Group in Microbiology (Ph.D.)
 Group in Immunology (Ph.D.)

Representative, Bay Area Conference on Innovation in the Teaching of
 East Asian Studies in the Undergraduate Curriculum (June 20, 1975)

Member

Advisory Board, Lehrhaus Judaica
 Board of Trustees, Alta Bates Hospital (Advisory Trustee, 1967)
 Special Fundraising Committee, Frente Foundation (1975)
 California Alumni Foundation Board of Delegates (1974-1978)
 Member, Board of College Preparatory School, Berkeley (1980-1982)

Delegate, Danforth Foundation Conference for New Fellows (1975)

Member, Bureau of Social Science Research Consultant Panel on the Study
 of Acceptability and Negotiability of External Degrees (National
 Institute on Education, American Council on Education Office on
 Educational Credit)

Consultant, Naval Radiological Defense Laboratory, San Francisco
 (1951-1962)

Member, Review Committee, National Institutes of Health International
 Fellowships (1966-)

Consultant, National Institutes of Health (1958-)

Chairman, Subcommittee on Brucellosis Research of the Committee on
 Animal Health, Commission on Natural Resources, Board on Agriculture
 and Renewable Resources, National Research Council (1976-1977)

Member, Committee on Animal Health (CNR-BARR-NRC) (1977-1980)

Member, Research Review Panel on Brucellosis, U.S. Department of
 Agriculture (1981)

Member, Advisory Panel for Regulatory Biology, National Science
 Foundation (-1967)

Member, Personnel for Research Scientific Advisory Committee, American
 Cancer Society (1972-1974)

Member and Chairman, Expert Panel on Brucellosis, World Health
 Organization/Food and Agriculture Organization, United Nations (1956-
 1985)

Member, Scientific Advisory Committee for the Pan American Zoonoses
 Center, Pan American Health Organization (World Health Organization)
 (1967-1976)

President-Elect (1972-1973) and President (1973-1974), Western Association of Graduate Schools

Vice President (1964-1965) and President (1965-1966), Association of Graduate Schools in the Association of American Universities
 Chairman (1966-1967), Member (1968-1970), Committee on Nominations
 Chairman, Committee on Policies in Graduate Education, 1967-1968
 Member, Committee on Doctoral Degrees, 1964-1965
 Member, Committee on International Education, 1962-1963
 Member, *ad hoc* Committee on the Ph.D. Pattern, 1962-1963

Chairman-Elect (1974-1975) and Chairman (1975-1976), Council of Graduate Schools in the United States

Chairman, *ad hoc* Committee to Study Causes and Effects of Student Unrest, 1967

Member, Committee on Financial Aid for Graduate Students, 1969

Member, Committee on Accreditation and Evaluation of Graduate Work, 1964-1969

Member, Executive Committee, 1972-1977

Chairman, Program for Annual Meeting, 1975

Member, Council of Graduate Schools and the Council on Post-secondary Accreditation: Joint Task Force on Accreditation and Graduate Education

Member, Council of Graduate Schools and Institute of International Education: Advisory Committee on Trends in Graduate Education, 1977-1979

Member, Commission on Accreditation of Senior Colleges and Universities, Western Association of Schools and Colleges (Western College Association), 1963-1966

Vice-Chairman (1974-1975) and Chairman (1975-1976), Graduate Record Examinations Board

Member, Undergraduate Assessment Program Council, Educational Testing Service

Chairman, *ad hoc* Committee on review of Data/Publications, Graduate Record Examinations Board

Member and Chairman, Minority Graduate Student Locator Service, Policy Committee (Graduate Record Examinations Board/Educational Testing Service)

Member (*ex officio*, as Chairman, Council of Graduate Schools), Board of Directors, American Council on Education, 1976

Fellow

American Academy of Microbiology

Examiner, The National Registry of Microbiologists

American Association for the Advancement of Science

Member

American Association of Immunologists
 Society of American Bacteriologists
 Biochemical Society of Great Britain
 Reticuloendothelial Society
 Society of Experimental Biology and Medicine
 New York Academy of Sciences
 American Society for Microbiology
 Commission on Epidemiological Survey of the Armed Forces
 Epidemiological Board
 American Society for Microbiology Committee Advisory to the Chief of
 the Chemical Corps
 Conference of Research Workers in Animal Diseases

Referee

American Journal of Epidemiology
Infection and Immunity
Journal of Bacteriology
Journal of Immunology
Journal of Infectious Diseases

Member

Cosmos Club, Washington, D.C., 1976-1989
 Delta Omega
 History of Science Dinner Club, UC Berkeley
 Kosmos Club (Berkeley)
 Order of the Golden Bear, UC Berkeley
 Phi Beta Kappa (President, Alpha of California)
 Phi Sigma
 Sigma Xi

Listed in

Who's Who in America
American Men of Science

First Lieutenant to Major, Lieutenant Colonel (Inactive Reserve), Army
 of the United States, 1942-1946

Travel: Argentina, Austria, Brazil, Czechoslovakia, Denmark, England,
 France, Germany, Hungary, Iran, Israel, Italy, Malta, Peru, Poland,
 Russia, Spain, Switzerland, Yugoslavia

Interviews on the History of The University of California

Documenting the history of the University of California has been a responsibility of the Regional Oral History Office since the Office was established in 1954. Oral history memoirs with University-related persons are listed below. They have been underwritten by the UC Berkeley Foundation, the Chancellor's Office, University departments, or by extramural funding for special projects. The oral histories, both tapes and transcripts, are open to scholarly use in The Bancroft Library. Bound, indexed copies of the transcripts are available at cost to manuscript libraries.

- Adams, Frank, "Irrigation, Reclamation, and Water Administration," 1956, 491 p.
- Amerine, Maynard A., "The University of California and the State's Wine Industry," 1971, 142 p.
- Amerine, Maynard A., "Wine Bibliographies and Taste Perception Studies," 1988, 91 p.
- Bennett, Mary Woods, "A Career in Higher Education: Mills College 1935-1974," 1987, 278 p.
- Bierman, Jessie, "Maternal and Child Health in Montana, California, the U.S. Children's Bureau and WHO, 1926-1967," 1987, 246 p.
- Bird, Grace, "Leader in Junior College Education at Bakersfield and the University of California," two volumes, 1978, 342 p.
- Birge, Raymond Thayer, "Raymond Thayer Birge, Physicist," 1960, 395 p.
- Blaisdell, Allen C., "Foreign Students and the Berkeley International House, 1928-1961," 1968, 419 p.
- Blaisdell, Thomas C., Jr. (in process), Professor Emeritus of Political Science
- Chaney, Ralph Works, "Paleobotanist, Conservationist," 1960, 277 p.
- Chao, Yuen Ren, "Chinese Linguist, Phonologist, Composer, and Author," 1977, 242 p.
- Constance, Lincoln, "Versatile Berkeley Botanist: Plant Taxonomy and University Governance," 1987, 362 p.
- Corley, James V., "Serving the University in Sacramento," 1969, 143 p.

- Cross, Ira Brown, "Portrait of an Economics Professor," 1967, 128 p.
- Cruess, William V., "A Half Century in Food and Wine Technology, 1967
122 p.
- Davidson, Mary Blossom, "The Dean of Women and the Importance of
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