

**Transcription of Video History Interview with
CHARLES J. A. HALBERG, JR.**

July 8, 1998

Erickson: (tape was not started at this point) Professor Halberg, would you begin by telling us where you were born and a little about your family, please?

Halberg: (tape begins here) My mother, Anne Louise Hansen met my father in Oceanside in 1919. They were married in San Diego in 1920. His name was Charles John August Halberg, Sr.

Her parents were from Norway and Denmark. Her mother was Eda Jensen. She married my grandfather Niels Frederick Hansen, who was from Denmark.

They met in Chicago in the early 1870s and founded a Scandinavian publication there that went on for almost sixty years KVINDEN OG HJEMMET and KVINNAN OCH HEMMET. There was a Scandinavian and a Swedish version of the magazine. In English, this means Women and Home, and it had recipes and patterns for dresses and stories and cooking advice, that sort of thing. Sort of like Ladies Home Journal and Good Housekeeping.

Erickson: Do you still have some of those copies?

Halberg: Oh, I have bound copies and pictures. In 1900, they retired on their silver anniversary and moved to Oceanside. But they still kept busy. Their six ... well, the oldest of their sons became a doctor in Nebraska, but several of their sons continued the magazine. They had six sons and my mother.

And my little grandmother was editor and chief, a very uncommon thing in those days.

Erickson: I'll say.

Halberg: She was about 4' 11" and raised six big sons and my mother. In the 1901 issue, in April, I was very interested to see a picture of my great great grandmother (her grandmother). She's giving an obituary for my great great grandmother Anna Kjos, who was born in 1803, whom my grandmother knew very well. And of course, I knew my grandmother very well. So I find that amusing.

Erickson: That's wonderful, yes, that you have all that history. Do you have brothers and sisters?

Halberg: I have only one sibling—my sister, who's a little more than three years younger than I. She lives on Coronado Island. We saw them not too long ago at what they call the "sibling reunion,"—her husband's sister and I were the only siblings involved, but we had some younger people, too.

Erickson: You grew up in the Oceanside area?

Halberg: Well, I was born in Pasadena. We lived in southwest Los Angeles, so until the mid 30s, I lived in Los Angeles and went to public schools: Raymond Avenue Grammar School, Horace Mann Junior High and for one term, Washington High School way out on Western Avenue.

But then we moved to Carlsbad, and I entered the military academy there—The San Diego Army Navy Academy—and graduated from there in 1938. We had our sixtieth reunion this May.

Erickson: Is that right?

Halberg: A few weeks ago. There are only four of us left.

Erickson: Oh.

Halberg: Well, there were only nine to begin with.

Erickson: Oh, I see. And you were in the service then?

Halberg: Well, after graduating from the San Diego Army Navy Academy—they call it just Army Navy Academy now, I went to Berkeley for a year and had a rather disastrous year and was on probation and left. But then I went to work and was married five weeks before Pearl Harbor.

Erickson: Oh.

Halberg: And then we had two children. I was on active duty in the U.S. Army Air Force for about two years. After the war, I went back to Pomona College on a GI bill. I graduated from there in three years going two summer sessions.

Erickson: Um hmm.

Halberg: In fact, it was kind of amusing because I was teaching math courses the year after I graduated there. I was hired as an instructor in mathematics. Some of my colleagues who had started as freshmen with me took mathematics courses from me.

Erickson: Was that difficult?

Halberg: No, it was fun. They tested me, of course, but I guess I survived.

Erickson: You survived.

Halberg: I survived the testing, and we're all good friends. I think it was there that I really decided to become a mathematician. I really enjoyed it that much.

Erickson: I see. And then where did you do your graduate work?

Halberg: Well, from there I won the William Lincoln Honnold Fellowship. As a faculty member, I was asked to recommend students for the William Lincoln Honnold Fellowship, so I recommended myself.

(laughter)

Erickson: Well, why not.

Halberg: Rather humbly. But I said I hadn't been eligible the year before, because I was already hired to teach that year. But I was recommended by other faculty, too. So I spent my first year at UCLA as a William Lincoln Honnold Fellow and then three years as a teaching assistant. Then I was on the faculty there as an associate for a year, a non-ladder faculty position. I got my Ph.D. in 1955. I took a master's degree in 1953.

Erickson: Um hmm.

Halberg: At that time, you were required to have a Master's before you could go on to the Ph.D., which is not the case now. I took my Ph.D. under Angus Taylor, who was later Vice President of the University. I had my degree conferred on me by Robert Gordon Sproul ...

Erickson: How nice.

Halberg: whose hall, named for him, has been my office site for ... well, since the building was built. So I still have an office. I went up there and put my tie on before I came here.

(laughter)

Erickson: You were at UCLA. How did you get to Riverside?

Halberg: The year I taught at Pomona, my office was in the Chemistry Building, and Willis Conway Pierce, (W. C. Pierce), was Chairman of the Chemistry Department. He and some of the younger chemists always had a kaffee klatch in the late afternoon, and I was usually invited. We became good friends. In fact, Conway and I and his brother, who is a surgeon in Kentucky, were packed in to the High Sierras by his son ...

Erickson: Hmm.

Halberg: and spent, I think, ten days fishing and camping up in the High Sierras.

Erickson: How nice.

Halberg: So the year I was an associate in mathematics ... we had our offices at that time, in an auditorium in the big hall there at UCLA that's just been restored (pause) *Royce Hall*.

Erickson: I don't know.

Halberg: Well at any rate, they put up partitions so that they made little cubicles for offices. Conway had written and said that—~~Bancroft Hall—I think is the name~~. He was coming in and would like to see me.

Erickson: Um hmm.

Halberg: He came in and we were sitting there talking over old times fishing and so forth. Conway had a way when he wanted to have an interruption or break for time to think a little bit, he'd get his pipe out and clean it with his knife.

He looked over at me and said, "Doon," (which is my family nickname) "Why haven't you been out to hit me up for a job at Riverside?" I said, "Well, Conway, I've been waiting for you to come in and offer me one."

(laughter)

He said, "Well, I'll offer you one."

Erickson: Great.

Halberg: So I came out. That was the day before Thanksgiving, 1954. I came out after Thanksgiving very shortly and met Jim Pitts and Bob Wild and some of the early members of the faculty there.

Halberg: Thane McCollough, a fellow graduate from Pomona, was head of the Geology Department at that time. Not actually head of it since we didn't have any department heads, but he was the nominal head of it. We had only the physical sciences division at that time. Though we had the departments, we didn't have chairmen.

Erickson: Was there anybody else hired within the Math Department, or were you the very first person to come?

Halberg: No, there was an older man whose name I've forgotten and Vernon Kramer and a young fellow named Peterson, I think. The only one left after one year was Vernon Kramer, and after I came, Vernon and I were the two. They started teaching in '54. I came in the fall of '55. Vernon and I were essentially the department for several years.

I recruited Richard Gilbert, who was a student of Earl Coddington at UCLA. He hadn't quite finished his Ph.D. so we babied him along that year till he got it. He later went to Cal State Fullerton where he was a professor of some eminence and did considerable research and had a very fine career there.

Then Vernon and I together recruited Howard Tucker who, I think, is now a Professor Emeritus at UC Irvine.

We recruited lots of young people along the way who came and went. Dolly Koehler was an early one who taught some of the more elementary math classes. We couldn't keep her because she didn't have a doctor's degree. She went to the University of Hawaii.

Erickson: Did you get to establish the curriculum for the department?

Halberg: We wrote the course outlines and the course curriculum.

Erickson: You did it?

Halberg: We patterned it pretty much after the UCLA and the University of California standards. But we wrote all of the curricula, we

Halberg: taught all of the courses, we applied for NSF grants and got them, we sat on numerous committees and so forth. We were very active young people!

Erickson: Um hmm.

Halberg: We taught fifteen hours compared to six or three now.

Erickson: Oh you did? And still did your research?

Halberg: We were all young on the campus then. We were all in our thirties except for some of the older ones like Conway and Herman and Bob Nisbet. Nisbet wasn't too old then either. And then Arthur Turner, and the head of humanities was ...

Erickson: Was that Olmsted?

Halberg: Yes. Jack Olmsted was head of humanities. But the rest of the faculty were all in their thirties, so we had a feeling that we were building and we were making this campus, and we took great pride.

Erickson: Oh, yes.

Halberg: We were able to devote a lot of energy and effort into it.

Erickson: What did the campus look like when you first came?

Halberg: Many fewer buildings. There were only a few, and as a matter of fact, lots of mud and dirt out there. They hadn't landscaped the buildings, done the botanical landscaping at that time. This had been an olive grove—no, a walnut grove—the area where the campus is now.

Erickson: Hmm. I see.

Halberg: They just removed all the walnut trees, and I think some sort of pest invaded the olive trees in Southern California in the 1930s or '40s, and most of the production of walnuts moved north.

Halberg: But there are a few trees here around that are remnants of the black walnut root stock of that walnut grove. There were very few, and very few buildings. A little piece of the library we have now, and Watkins Hall was then the administration building.

My office was in the single story extension of Pierce Hall. Pierce Hall wasn't nearly the size that it is now.

We didn't have most of the student center or the current administration building or the humanities building. None of those was here then. It was a much smaller-looking campus.

I was interested seeing outside this Fiat Lux picture just at the entrance to Media Resources.
(Dr. Halberg was referring to a poster just made available and being displayed at the entrance to Media Resources).

Erickson: Yes. Of the campus.

Halberg: It shows the edge of the library there and it shows our tower. It shows the student center in the background. I remarked to Betty, "None of those was here when I came."

Erickson: Oh, they were all built later.

Halberg: The walkway part of the library wasn't part of it then.

Erickson: Hmm. How about the city of Riverside?

Halberg: Well, it was much smaller, too, of course. I've forgotten, but I think, it was something like 40,000 people, that was the extent of Riverside. It was an old city founded in the 1880s or something like that, 1870s perhaps.

Erickson: Did you find housing around the campus?

Halberg: We bought a very old house up at the end of what's now College. It was 7th Street then, I guess, right at the base of the mountain there.

Erickson: Mt. Rubidoux?

Halberg: Rubidoux. It had been built in 1911, a nice big old three story house. There's a book out called Historical Places in Riverside, in which the house and I are both listed. (chuckle)

Erickson: Oh, terrific.

Halberg: I'm becoming an historical item.

(laughter)

Halberg: When I was down at the military academy, I had been trying for years to locate ... I won the high scholarship medal at the academy my senior year. They have in the auditorium and a foyer, too, cabinets full of medals and awards. I looked for it there, and finally I asked the Commandant, and he said, "Have you thought of looking in the museum?" I went out and looked in the museum, which had been a little guard house when I was a student there. Sure enough, there it was.

Erickson: Oh, how nice. Well, back to campus, the Citrus Experiment Station was in existence, of course, because that was in 1907. What was the relationship like with the new faculty coming to the liberal arts college?

Halberg: Well, it varied a great deal. I think that a lot of the young faculty were a little pompous. They thought they were the dog, and they really were the tail of the Citrus Experiment Station. The Citrus Experiment Station was internationally known and a famous institution with very eminent scientists working there, whereas we were all young and pretty much unknown.

And our campus was hardly known even among the other campuses in the University of California until some years later. I remember when I was Chairman of the Board of Athletic Control, we had one of our first football teams. We won some—I think we beat Davis. Some of them said they didn't even know we had a campus down here until then.

Erickson: Oh dear.

(laughter)

Halberg: But as I said, this early group was George Zentmyer, Jim Kendrick, Herman Spieth, Van Gundy, Conway and so forth. There was quite a mixture there.. You had people from the Citrus Experiment Station at the university. We were early and close friends. We were all a lot younger then, too. We've remained friends all these years.

Erickson: Oh, that's wonderful. And you still see them?

Halberg: Oh, yes, the ones that are still left.

Erickson: Sure.

Halberg: I saw George and Dorothy just a very short time ago at a business meeting of the Emeriti Faculty.

Erickson: Sure. (pause) Well, the early classes. What were they like? What was the size?

Halberg: They weren't terribly small as you might think.

Erickson: I would have thought that.

Halberg: They were pretty good size, some of them. I don't know what our early enrollment was, but probably about 900 or 800 or something like that. As I recall, they weren't terribly small classes. We didn't have any very large classes.

Years later, I used to teach a course in the Humanities Building where I was hooked up with a microphone like this and had a sound man out there and huge blackboards and chalk this big (gesturing), and I taught a class of several hundred. But in the early days, we probably never had more than twenty five or thirty in what would seem a large class at that time.

Halberg: My recollection is a little hazy on that, but I have some old record books. I guess I could find out how many I had in those early classes.

Erickson: Let's talk about the recruiting, too. You did mention some of the earlier faculty, but what was your approach in getting the new faculty for the college?

Halberg: Well, I guess we did advertise some, but mostly it was done in meetings of the American Mathematical Society or the Mathematical Association of America, which were held locally, some at Cal Tech and on occasion some were held at Pomona College or Occidental College. Sometimes we'd go north to Stanford for meetings.

The Naval Post Graduate School at Monterey used to be a site and then at Berkeley, and it was at these meetings mostly that we met people and did our recruiting and even made offers pending approval by the administration here.

Erickson: Um hmm. It's quite different from today's search process, isn't it.

Halberg: Yes, well, I wouldn't say jobs were easily come by then, but I think there was somewhat more demand for faculty then. The university was expanding, and there was this effort to make a huge university out of it where size was important to some people.

I'm sorry that Gordon Watkins dream of a small liberal arts campus here fell by the wayside. I'm glad we did have graduate work, because I did enjoy teaching graduate courses for the challenge of it. But in the early days, most of us thought we were building another Pomona or another Reed College.

Erickson: When you first came?

Halberg: That changed and now size seems to be more important than anything else. I guess the more students, the more money. I don't think that always is the best goal.

Erickson: Um hmm. When we did establish the Graduate Division, what was the approach in the Math Department? Did you get involved in recruiting the graduate students?

Halberg: I remember that we did some advertising for students, but we had lots of applicants it seems in the early days. We brought in some older faculty that had more experience for developing a graduate program, of course.

Vern and I had the choice of either going on and hiring younger people and becoming the older ones or bringing in some older people to head up the department, so that we would have more time to develop our own careers and research.

Of course, we had tenure first staring us in the face. We had to get enough publications to get to be an Associate Professor and then go on to become a full professor. That requires lots of energy. You don't have as much time as you need to devote to a big graduate program, but we didn't teach several graduate courses. A couple graduate courses a year as I recall.

Erickson: I'm interested—how did you maintain that balance? Because as a UC professor you were obliged to what ... conduct research and teaching and also community service. Is that in equal amounts?

Halberg: Yes, well I was on the Board of Ushers at Calvary Presbyterian Church, and I was involved in a lot of things like that, too. I was on the Board of ... let's see what's the religious affairs? The university religious center? I was a board member there for a while.

Erickson: Watkins House?

Halberg: Yes! Dorothy *Dunbar* was President and I was Vice President. She was the one who laid out the botanical landscape for the university.

Erickson: Oh.

Halberg: Fantastic job. And then Town & Gown was one of our early things. I was President Elect of that when I went on sabbatical. I think George took over that year for me. I went off on sabbatical to Sweden.

Erickson: Where else did you go on your sabbaticals?

Halberg: I always went to Sweden.

Erickson: Oh, you always did.

Halberg: I had four different sabbaticals at the University of Gothenburg. In fact, I had a year leave of absence where I was on the faculty as a docent and a professor at Chalmers University and the University of Gothenburg.

Then I had two years at the University of Lund where I was Director of the University of California Scandinavian Study Center. That was a very interesting thing.

Through that I was on the Swedish Fulbright Commission for three years and represented Sweden at the international meeting in Berlin for Fulbright. Those were very lovely years.

Erickson: I'm sure.

Halberg: I had heard Scandinavian spoken at my cradle as they say, but in those years ... and then I married a Swedish woman. My first marriage ended in an amicable divorce after twenty six or seven years. I met Barbro Samuelsson in Sweden, and we were married for about nine wonderful years. She died of cancer in January of 1978, while I was Director of the Study Center.

Erickson: Oh.

Halberg: There in the hasarett in Lund. I have a wonderful memory of those years, and I have a stepson of whom I'm terribly proud, Ulf Eric Hjelm, who we've just been back visiting in New Jersey.

Erickson: Oh, good.

Halberg: He and his wife Stephanie and their twin daughters, Rita and Linnéa, who is named after my ... my Swedish wife's name was Barbro Linnéa. They had twins two years ago, and one is named for Stephanie's mother Rita and Linnéa for Ulf's mother. Then just about two weeks ago, they had another set of twins.

Erickson: Oh, my goodness.

(chuckle)

Halberg: Now they have four. These are grandchildren. We have other grandchildren, the oldest are 35 and 34. We had another great grandchild born three or four weeks ago—Rebecca. The oldest of our great grandchildren is 10, I think. How many great grandchildren do we have? (Professor Halberg was asking this question of his wife Betty, who was off camera). 14 or something like that and 27 grandchildren.

Erickson: Goodness. Well, you are married to Betty now. Tell us how you two met.

Halberg: Betty and I met ... (pause) After Barbro's death in Sweden, I remained in Sweden another year and a half and came back and had a very low period in my life. I had a cottage in Carlsbad that I called Aftermath.

Betty lived across the street and she lost her husband in 1980, I believe. I got to know Betty, and I had known Bill a little bit. But I hadn't known Betty until after Bill died. I went over to express my condolences and told her that I was sure people would tell her that they knew how she felt, but I really did because I had just lost my wife to cancer some years ago.

So, when I went off on sabbatical in '83 again to Sweden, we started corresponding, and when I got back, we started going

Halberg: out together and a year later we were married. We'll celebrate our thirteenth wedding anniversary the 27th of July.

Erickson: Oh, coming up very soon.

Halberg: Hard to believe. When we were married, we were in our mid sixties, so we said at our age, we don't know—maybe a year, maybe five years, maybe even ten. And we already have thirteen.

Erickson: And many more to go.

Halberg: That's how we have such a big family because I had four children, three children and my stepson. And Betty had three children, so that made a huge family. But we love to brag about it.

Erickson: Sure. I would too. Let's get back to the subject of math. It is within the College of Natural and Agricultural Sciences.

Halberg: Um hmm.

Erickson: How did that come about?

Halberg: Well, I'm not quite sure of the politics of that. That was during one of the periods I was gone. It's not that unnatural. Actually, the proper place for a Mathematics Department is in the Humanities Department. It is one of the basic humanities. In fact, I think it was Plato's Academy where over the entryway there are words to the effect that "no one ignorant of geometry shall enter here."

Erickson: (chuckle)

Halberg: I may have paraphrased it but something like that. It's proper place is in the humanities. But since applied mathematics is so very important to engineering and the physical sciences—physics, chemistry—and to the botanical and biological sciences as well, it can easily be associated with the Physics and Chemistry Departments as it was in the early days in the

Halberg: Division of Physical Sciences. But it could equally well have been in the Division of Life Sciences, because there's a very real need for it there.

Mathematics as a subject, the subject we study as mathematicians, only a very tiny fraction of that is of utilitarian or practical use. Something like 90% isn't, and it's that part that we mostly dote on.

I don't think we have many real applied mathematicians particularly here on campus. We have some who go into areas where applications would be more reasonable than otherwise. In my own particular field, there is no physical application that I know of.

Erickson: Would you talk a little about your area?

Halberg: Well, it isn't that esoteric either. My area of study was in analysis, and I worked under Angus Taylor, who later was a Vice President of the University, and I worked in functional analysis.

Functional analysis is basically the study of abstract spaces and operators on those spaces. But it utilizes elements of the three basic areas of mathematics: namely, analysis, algebra and geometry. Topology is part of geometry, too. So, I used all those fields in my study, but basically it's in analysis, functional analysis.

Erickson: Did you have graduate students working with you?

Halberg: Yes. I had only one Ph.D. candidate. It was a young woman, and she wrote her Ph.D. thesis under me many years ago and did a magnificent job. I did work with others, but some of them didn't quite fulfill and ended up with master's degrees.

In the early days, we required students to write papers just for their bachelor's degrees. I remember having many, many of those written by students.

Erickson: That was in the very first years, wasn't it?

Halberg: Yes. We required a senior paper on some subject. It was like a small research project.

Erickson: As I understand it, the other campuses did not require that. Is that true?

Halberg: That was something ... I won't say it was an innovation here. I am sure there must have been other schools that did that, but we decided early on that was something we wanted to do. And we did. It was a lot of work.

The student, I think, for the most part, enjoyed that and were kind of proud of the fact that they had written a paper and done some research. It wouldn't be termed research or publishable, most of it nowadays.

Erickson: But that was a good start.

Halberg: It was.

Erickson: Well, your department has an endowed chair. It's ... help me with the name. Is it the Burton F. Jones Chair in Topology?

Halberg: F. Burton Jones.

Erickson: Thank you.

Halberg: Burton and Madeleine left a very nice sum of money for a chair. That's very nice for the department. It ensures that we have representation in topology particularly, which is a field that isn't always supported as much as in the more basic fields of analysis and algebra.

Erickson: Now how does that work? Do you recruit nationally for that?

Halberg: Oh yes. We recruit internationally. In fact, I think the current holder of the chair is not of American origin.

Erickson: So, that is one of the good things for the department?

Halberg: Yes, it's a very good thing. I'd like to leave some money. I don't think I'd endow a chair, but I would like to endow some benches (chuckle) in our Botanical Gardens.

Erickson: Sure, uh huh.

Halberg: I think it's very grand when people can leave something to the university after spending their life, most of their life, as many of us have.

Erickson: Yes. And how many years did you mention?

Halberg: I go back with the university to 1938 and I have been actively engaged with the university since 1950.

Erickson: Um hmm. That's a long time. You held another position, didn't you Doon? That's when Chancellor Hinderaker was here?

Halberg: Oh yes. When Herman Spieth, as outgoing Chancellor before Ivan came, appointed me Vice Chancellor of Student Affairs. It was more of an administrator's job than anything else. I had student loans and welfare and student health and dormitories and the Dean of Students Office (Dean of Women, Dean of Men) and so forth. And though I found it interesting in a way, I found out that I really wasn't cut out to be an administrator, I guess.

Erickson: Um hmm.

Halberg: I wanted to get back to teaching and research, and so I did. But it was a nice year in a way. I'm kind of amused to find Ivan Hinderaker's building and Conway Pierce building, and Watkins Hall and Sproul Hall—all these halls named for these men I worked with over the years.

Erickson: What was going on when you were vice chancellor? The time period then?

Halberg: The time period, I think it was 1963 or '64-'65. There was a lot of student unrest, particularly on the Berkeley campus. They tried to spread it out to our campus, but we didn't have much of a problem down here. Some nominal protests.

Erickson: Did you hold meetings with the students to ...

Halberg: Oh yes. I remember once going off to lunch and the students were coming down the hall to protest. I greeted them and said just to wait around a bit and as soon as I got back from lunch, we'd have a meeting and talk about it.

When I came back, several of us went up to my office. They said they wanted free speech. I said let's figure out some place on campus where we can have a place for students to speak, places where they won't interfere with the normal traffic going between buildings and classes and won't upset the normal operation of the university. And I said, "How many places do you want?" They were a little taken aback by that. They wanted to have something to argue about, having one place. Finally, I insisted. I said, "We will build a place with a platform, a place for speakers."

So we built one out here where the Barn is now. It was sort of the main meeting place on campus, because we didn't have the restaurant and cafeterias and things we have now. In what was later the parking lot, we built a wooden platform with a railing around and set up for student orators that want to get up and comment on this or that. It was not greatly used.

Erickson: Well, but you made the effort to accommodate them.

Halberg: Oh yes. In fact, we didn't really have any thing that they were very upset about. It was one of those things that the Berkeley campus tried to spread some unrest and foment some unrest down here. We were on pretty good terms generally with the students and didn't have any real problems.

Erickson: So you mentioned that you did that for about a year?

Halberg: Did that for a year.

Erickson: And then you went back to your department.

Halberg: Back to teaching, yes.

Erickson: Are you still writing?

Halberg: Yes, I just finished a book which ... when we are through here, I'm going to see Kathleen Chapman in Printing and Reprographics, and she's going to do the final printing and binding of the book.

This has been an interesting thing. It started out as a lark when I first went on sabbatical and became a real project and after that, sort of an obsession. It's been going on for eight years, I think.

Erickson: Is that right?

Halberg: And as I said somewhere in the preface, I didn't write it, I produced the book. My earlier publishers, Scott Foresman and Prentice Hall and what have you, I wrote the book and they did all the editing and proofreading and things like the indices and table of contents. For the diagrams, they hired artists. I've done all the graphics, computer produced graphics.

Erickson: You did them all?

Halberg: I did all of the formatting and so forth using Latex, which is a standard mathematical formatting thing but in book form. So I've done all the typesetting, all the graphics, all of the editing, all of the arranging.

I've persuaded several dear friends to proof read, or review, I guess, is the word I had—two Swedish mathematicians, one Scottish. Here on campus Fred Metcalf has been ... well, he's the one who taught me enough on computers to be able to do things.

Erickson: Yes, that's wonderful.

Halberg: He's spent countless hours working on the software and hardware of our computer. Originally, I did it on my computer in my office here, but now I have a set up, and I can hook into the university here. Fred's been down I don't know how many times. Just before his hip replacement a while back, he came down and spent a whole day getting things set up so we could make sure nothing broke down while he was disabled.

Erickson: So a lot of people have been involved in this book.

Halberg: Oh yes, not the least of whom was Betty who's been so patient and kind to put up with all these years of all my work on the book. I'm sure she'd rather have been doing other things, but she has been the most fantastic proofreader and has also helped in formatting to the extent of adjusting more aesthetic details of the book.

Erickson: Who did you write the book for?

Halberg: The book is limited to a fairly small audience—well, that depends—it could be a fairly large audience. It's for beginning teachers of mathematics at the college level. This could conceivably include, of course, junior college teachers. It requires a fair amount of mathematics as an undergraduate. You wouldn't have to be a mathematics major, but it would be better if you were.

It includes a lot of ideas that I have about teaching and learning, which I've limited to a fairly small amount in the last chapter but a lot of which is explicit or implicit in the chapters preceding it.

Proofs that I consider exceptionally good proofs of basic theorems and different proofs from the standard ones given. Startling and exciting ideas about some aspects of mathematics that aren't so commonly known that could be used to interest

Halberg: students and to promote their interest in mathematics and possibly going into research.

Little anecdotes and ideas and helpful things that I garnered from my many professors over the years, a few of them I perhaps have developed myself, others I've gotten from books and articles.

For the most part, it's been a way of thanking people who gave me these ideas. I can't thank them—most of them are gone, but we can always pass on things as I've told my students. The ones that do come back and thank you, you know, I say, "Well, the thing you can do is pass some of these things on to your students. That's the best sort of gratitude."

Erickson: That's wonderful. That's a nice philosophy.

Halberg: It sounds a little pretentious but ...

Erickson: Not at all.

Halberg: That's basically my idea.

Erickson: As an early faculty member, you really had a special affinity for the campus, I think. Would you talk a little about that, please? Your sense of pride.

Halberg: Why we took such a pride?

Erickson: Um hmm.

Halberg: Well, as I said before, I think we were all very young.

Erickson: Um hmm.

Halberg: Most of us had had very little experience teaching at other institutions. I had the year at Pomona College and the year at UCLA, and others had limited experience. But we were pretty new to the game. Most of us thought teaching was a very important aspect and we enjoyed teaching and we reveled in it

Halberg: and told one another our ideas about teaching. We liked Gordon Watkins' project of having a small liberal arts college within the university.

Another part was that we were close enough to the students in age that we learned to know them well. I remember in the very early days, they were trying to get the intramural sports started.

Wayne Crawford and Lindy Lindeburg were younger members of the Athletic Department then. I forget which one, but they called up and asked me if I would be willing to organize a faculty volleyball team to play in the intramurals. I guess I looked somewhat athletic in those days, (chuckle) forty-some years ago.

The first year we just wiped the students out.

(laughter)

Erickson: You did?

Halberg: So they didn't let us play after one year. But we had ... oh, Vern Kramer, I and Jim Pitts and Homer Aschmann and Mike Murphy in Geology—a bunch of us. We had a good deal of fun working with the students and then playing volleyball. So we kept on even though they barred us from intramurals.

A very good student team grew up, and we met once a week and played volleyball for an evening. After that, we adjourned down to Frank's, which is a beer parlor down on Third Street. There was a lot of interaction.

The student team, of course, changed as the students graduated. Some others would come in and this went on for some years until the students were beating us pretty standardly.

Erickson: It turned around.

Halberg: Then we started mixing up the teams, part students and faculty, on both sides. That went on for many years. One of my

Halberg: proudest moments was as Vice Chancellor, Ivan was often sending me out to talk to some Rotary Club or Women's Club or something or other. The students got together a committee to go to him and ask him if I could be relieved of one of these duties because they wanted me to play in their semi finals of some intramural competition that was going on at the same time.

(laughter)

That was the peak of my athletic career—other than being on the freshman crew at Berkeley many, many years ago. 1938.

Erickson: Is there anything else, you know, that we haven't talked about that you would like to bring up today?

Halberg: Oh, I've talked about so much now. As I say, being garrulous is an attribute of older men, and when I get started I'm hard to shut off sometimes. I have enjoyed reminiscing about these things and thinking about these things. I can't think of anything in particular.

I think it was fun seeing some of the early things like Phi Beta Kappa. We had a Phi Beta Kappa chapter here before many of the other branches of the university—long before Santa Barbara and Irvine. I think we were the third chapter in the university, the Gamma Chapter in California. We started that here. I was one of the early persons in that.

We also got a Sigma Xi Society started here, which is a graduate honorary for physical scientists. We had the installation of that chapter at the Humanities Theatre—the first formal thing that took place in the Humanities Theatre.

Erickson: Oh, is that right?

Halberg: I had been President of our Sigma Xi club and Homer Aschmann was the President-elect of the new chapter that was

Halberg: being installed. I recall going out and saying the first formal words: “Mr. Chairman, The installation proceedings may now begin.” I turned it over to Homer, and he was suddenly speechless.

(laughter)

Halberg: But I later served a couple more years as President of Phi Beta Kappa. I think they’ve just been reorganizing when we lost John Phillips (of History). That was a tragedy. I served with him on that committee some years ago. Too bad.

Also Arthur Turner was one that we brought into the Society. Arthur Turner, who was not educated in a university that had a chapter, we brought into the Society some years ago. He’s been very active and interested.

Alice Huffman, one of our earliest graduates in mathematics here. Vern and I got her installed years after she graduated. Her daughter went on to become a member here. Alice taught over at Cal Poly in mathematics. She remarried, and her name is King now, and she’s a lawyer.

Erickson: Oh great.

Halberg: But she was a mathematics professor for a while. We had Town & Gown and the University Religious Center—those were all very interesting things over the years.

As I said to Betty, when it comes now to serving on that sort of thing, I usually say no thank you. We say in Swedish, “Jag har gjort mitt”—I’ve done mine.

Erickson: Well, you certainly have. Thank you very much for this interview.

Halberg: You're so welcome. It's been my pleasure.

Erickson: Well, it has for us, too. Thank you.

END OF INTERVIEW

Text in *italics* has been edited by Professor Halberg.