Chesney R. Moe, Ph.D., 1931-1972
Professor of Physics, SDSU
Oral History Transcription
Chesney Moe
Interviewer: Michael Milligan
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SDSU Faculty Emeritus Oral History
John and Jane Adams Humanities Minigrant

Michael Milligan (MM): Today is March 3, 1993. The following is an interview with Dr. Chesney Moe, SDSU Emeritus Professor of Physics. This interview is being conducted in the Love Library on the campus of San Diego State University. The interviewer is Michael Milligan for the San Diego State University Emeritus Faculty Oral History Project, supported by a John and Jane Adams Humanities Minigrant.

Chesney Moe (CM): I'm Chesney R. Moe, Professor of Physics, Emeritus, San Diego State University. I am going to review first the background that lead up to my coming to San Diego State as a student in 1925.

I was born in Indian country around Lake of the Woods (?), in Western Ontario, just north of the Minnesota border, in 1908. My parents were of hearty stock; my father was a full-blooded Norwegian; my mother is of a Scotch-Irish clan, and their families both came to this continent by way of steamer in the 1850's, I believe, or sometime before the Civil War. The Moe clan came over from mid-Norway, not too far from Lillehammer. And the name Moe stems from a Norwegian word which I believe means "farmland." So when they came to this country a great many families took the name Moe because they all came from [that same] area. In fact I think it's now a town in Norway called Moelv, I
believe it is.

I had a sister who was born in 1906 and she passed away in infancy. I was born in 1908, and my brother who is still alive in Chula Vista, was born in 1911. In 1911, my dad had come west and landed in San Diego, where my grandfather Ole, Jr., had settled and bought a lot of houses around San Diego. Some of them in Logan Heights on Main Street, mind you. And my father came, and he decided that this was where he was going to retire although he was only about 35 years old. He bought two lots in Coronado which face North Island now, and the main drag going into North Island, two lots there, which he held for twenty years or so. He later sold them when he was living in Chula Vista.

Now San Diego was a very small town, maybe twenty-five or thirty thousand. And they were just deciding to, in 1911, to go into the exposition business in competition with San Francisco [upon] the completion of the Panama Canal in 1915, and they did a good job. The San Diego Exposition, the remnants of which, the residue of which has been transformed into a tremendous asset to the City here. While San Francisco's was leveled to the ground.

My mother brought us to San Diego in 1914--the beginning of World War I. My dad had brought us from Rainy River [on border between Minnesota and Canada] down to Minneapolis, to Kansas City, and then he got off the train there and went back to Rainy River because his brothers were being inducted into the army. So my mother brought my brother and myself on the Santa Fe Railroad, out to San Diego. We moved to Logan Heights where my grandfather
had a house; we moved into that house and stayed there for three years. My dad came back and forth periodically from Rainy River.

I went to the school there two or three years. And then my dad decided we'd better take the family back, temporarily, at least until the end of the War. So, we had to go back, and we stayed there until 1920 in which case then, my mother and my brother, myself, and her sister and father came out on a Canadian railroad to Vancouver and down to Chula Vista. We moved to Chula Vista in 1920 and bought a house there, and my dad came down later on. He retained the store up there, and did very well, but he turned it over to his brothers and got out of the business.

MM: So he retired early?

CM: Oh yeah. He retired. He didn't do very much work after he was 45. Oh, he dabbled around in real estate. He was pretty innovative, more so than I thought at the time.

But we lived very frugally. My mother came from very tough stock and she brought into our home in Chula Vista the rudiments of a frontier home that she'd been used to. We lived in Chula Vista--my mother died there just four years ago, in Fredericka Manor--and I grew up there in the middle of town. Small town, 1600 people at most. And it was full of lemon orchards. Streets and the houses were a quarter mile apart.

I went to Chula Vista Elementary School, graduated from there in 1921. And during my last year in grammar school, two of us carried all of the eighty papers in Chula Vista on bicycle, it was that small. But we did have to go a quarter mile between
Then I went to high school. Chula Vista didn't have a high school, and National City had a fairly old but very small National City High School on Eighth Street, across from the church. And in 1920 when we were graduating from grammar school, the Chula Vista Elementary School and the National City Elementary School were the only two [elementary schools] south of San Diego. And, the school district decided to form what is now called the Sweetwater Union High School District [Sweetwater Unified School District?]. It was a big deal. The same year Grossmont formed theirs, and they were two innovative areas in San Diego County that formed union districts. There was a high school, a small one in Ramona, there was a small one in Fallbrook, there was a medium sized one in Escondido, and a medium sized one in Oceanside. And if I'm not incorrect, there was a small one in La Jolla which was part of the San Diego City Schools, but it was rather small, and more like a private school.

Anyhow, they passed the bond issue, they built the building in 1920-21, at 30th and Highland in National City which is the boundary line between Chula Vista and National City. We felt it was really a classy building. It was nice for that time, it was a very classy set of three buildings. And they had a football field and all that.

To make a long story short on that--I entered, but the building wasn't finished, so we had to take the old street car which ran from the middle of Chula Vista, down to the Bay,
crossed the trestle at the Sweetwater River, into old National City, where the old area was with the Santa Fe Depot, and it moved right up to the middle of National City and came right into San Diego to Logan Heights. So the first year it was the Sweetwater Union High School District, but we met in the old National City High School, and we were looking forward, of course, to going to the new school. I graduated with the first class that was a four year class in the Sweetwater Union High School in 1925. It was a class of only about 35.

But I was amazed, and am still amazed at the percentage of students who went on to college. Contrast it to what it is now, in spite of the junior colleges. And if you could afford it you either went east or you went to Berkeley. And if you couldn't afford it or you didn't do it you went to San Diego State Teachers' College.

Now, I could prattle off about the history of San Diego State, but I'll go on with this other. I entered as a freshman at San Diego State in a two year engineering program, and stayed a third year. I was one of the few students who took three years that wasn't teacher training. And then my classmates, the two year ones, went away to Berkeley to engineering. One of them went to Yale, and another went to MIT, and another went to Stanford. But most of them went to Berkeley which was the only State-supported engineering school in the State. And as a consequence, I stayed on a third year and professor [Oscar] Baird who was teaching the lower division physics, which was all they
had at the time, offered to give three or four of us a couple of upper division courses. And I decided I would go into teaching at the high school level. So I stayed on along with Francis Whelan who became one of the most prominent judges of Southern California, number one judge of the Southern district, he just passed away not over a month or two ago. But, two others, McClease [?], whose father was a recorder or something, and another person, we took these courses from Professor Baird, advanced physics, and I took some teacher training courses. Then I applied to go to Stanford and was admitted as a senior, the first senior from a junior college, technically. I went up the summer before to get ready for it, and I graduated with my class in four years, the class of '29 at Stanford in physics. Which was quite remarkable, because I graduated the same year as those people who went to Berkeley, or Yale or any of the others. So I was in the class of '29.

I had taken teacher training and had decided that I was going to be a high school teacher, that was really my objective ... and I decided that I would go on to graduate work for a fifth year, but I didn't have enough French and German to take the languages that were required at the time--scientific French and German. So I decided to ask Professor Baird if he had a half-time job for me ... they were going to do a little expanding, and he said yes. He talked to Dr. Hardy and they got me a half-time job as an assistant instructor, I guess they call them TAs, now. And I was to teach the lab work for the courses.
I took some teacher training and I took a course in French from Professor Leslie Brown who was an old-timer, and some German. So when I went back to Stanford, I went back as a first year graduate student and signed up in their masters degree program. I passed my language exams as soon as I could. I took the course work and worked my way through that year. Got my masters degree in '31.

But in the meantime they'd had some trouble at the Palo Alto High School when the science teacher passed away. And that was perhaps the most prestigious high school in California at the time; it was next to Stanford of course. So when I was practice teaching I was given the opportunity to go down there and teach. And I guess I did a pretty good job because they offered me a job, and I damn near took it. It was 1931 and things were looking a little shady on the Depression-side.

Well again, I wrote to Professor Baird, and he said "Well I'll talk to Dr. Hardy, and maybe we can bring you on as instructor. We're going to be adding some instructors next year." So they added four people: Baylor Brooks in Geology, Curtis Walling in Engineering, and Paul Pfaff in Drama—all from Stanford—the four horsemen of Stanford they called us. We were all young, and I was the youngest, only 22 or 23 at the most. I was offered this job and as a consequence that's when I started my teaching at San Diego State. But I was still at Stanford. During Christmas vacation [December '30?] we had a month off, and they were moving to the new campus then. So when I came home for
vacation I worked for the State Teachers College and helped them move. And then when I came in '31, the place was brand new, just three or four months old, and I came as a young instructor. It was a two-man department, Professor Baird and myself.

When I was a student there at San Diego State in the late '20s, they had decided they wanted to move the campus. And they wanted to move it to Balboa Park at first. George Marston rebelled about that, and I think it was a wise move, but it damn nearly passed. So they went around and asked people to donate land; five or six people offered. And then Bell-Lloyd offered the one here, 160 acres out in the God-forsaken country out here.

They built the campus here. They built four buildings right in the middle of the adobe--the inner quad. But it wasn't completed: the original Library Tower, but not the extension; there was a science building which is Life Science now; where the Physical Sciences Building is now was the Training School, and where Hepner Hall is with Little Theatre was the Humanities. Those four buildings. They built a field house out of leftover wood, where the East Commons is. And where the new building is, the brand new one which I walked through this morning [Student Services Building, phase II], was the Training School [Campus Lab School] later on, but then it was the football field and track. And that was the campus. There was a power plant down below, and I can tell you a couple of things about the campus later on.

I stayed on the whole time, except for the War years and the Korean thing which I was involved in. I was here and retired in
1972. I was a founding father of the State employees' association, and I was a charter member of the State retirement system. I was on the Board of Directors of that for many years.

MM: Weren't you also one of the founders of the Faculty Senate? [1960]

CM: I was one of the founders of the Faculty Senate. Malcolm Love asked several of us to join it. Jack Adams, I've forgotten who was in Social Science--I don't think it was Abe Nasatir, he never got involved, but it might have been. Ned Joy. Andy [Ambrose] Nichols, who became president of Sonoma State was on it. I think Gulick may have been involved with the genesis of it. Charlie Lamden was on it. And there were about eight or ten of us. I remember Love was pushing it very hard. At that time, there were no faculty senates in the State. And I remember him, at our initial meeting saying that he wanted us to have the eight or ten formation meetings, to come up with the by-laws, at each of our departments. So I put one on in Physics. I went with Love and several others, Daryl Holmes and the rest, when they formed the State-wide senate [1963]. And I was in on that.

TAPE ONE, SIDE II

CM: El Cajon Blvd. was pretty new [in 1931]. University was the way to go to La Mesa, and the street car ran quite a distance out. The street car ran down Park Boulevard to Mission Cliff Gardens which is the park at the end of Park Blvd. and Adams, and ultimately turned and went down Adams toward where I live now in
Kensington. But 42nd and Adams was where the turn-around was for the street car. It's bus line number eleven now. And Adams was partially built up, pretty sparse, but partially built up from Park Blvd. to down to about 35th Street where the post office is now. Maybe a little more, but not much more. And there were scattered houses around, but Kensington wasn't built at that time, there were only a few scattered houses.

When they laid out El Cajon Blvd., it started at Park Blvd. and was a dirt road down to about 30th, with a center piece down the middle. It was to be a thoroughfare which it ultimately became. 30th and El Cajon was the terminus, really, of anything on El Cajon.

I remember it so well because in 1921 when we first moved to Chula Vista, I joined the Boy Scouts. And an [inaudible] came with a shirttail full of musical instruments and formed a Boy Scout band, precursor to the [inaudible--sounds like Bottom Boys Band] that was so famous later on. Those of us who didn't have instruments, why he furnished them [by rental]. And we played around Chula Vista, parades . . . the biggest parade I was ever in, was the day that East San Diego became San Diego, in 1921 or '22. The Chula Vista Boy Scout band led the parade which ran down University Avenue; it started about Texas Street and ended up down on Fairmount where they had built a building which is still there, called the Tower of Euclid, or whatever.

At the 160 acres that were here [for the College, before building] there was a sign that said "future site of San Diego
State College." People called it the State College although it was the State Teachers College. It was nothing but adobe. And it came down to a street that was to become College. I remember it so well because my dad and Harry Warburton who was a City Councilman--he lived in East San Diego, I think the first City Councilman from the new section of East San Diego, North Park or City Heights--he and my dad put some money together and they bought the corner lot where the Home Federal is, at the corner of College and El Cajon Blvd. There wasn't any College Avenue yet, they just bought that land because they thought it would eventually be a thoroughfare. It was many years before it ever became one.

But, I remember in 1928, my dad took me up to UCLA shortly after they had decided to built the campus here. He took me up there because UCLA was just two years in advance of this institution in building out at Westwood. And the corner out there at Wilshire and Hilgarde, a very prominent street that UCLA uses still as its street address, anyhow, at that corner there was a building that the Bell Lloyd people had--they had given the land for UCLA. That's where Bell Aire started, by the way. They were just laying out UCLA, just about finishing the first buildings. They had four buildings around the quadrangle just like San Diego State, except they were brick. And the buildings are still the classic buildings up there on the campus, in mid-campus. They were about a mile from the corner, and he said "Chesney, College and El Cajon are going to be Wilshire and
Hilgarde some day." I remember that because we walked around in the mud up to where they were building.

Well, they started to lay out College Avenue starting at El Cajon. There was nothing south of El Cajon, nothing at all. Started to build north, laid out a street. My first house, in '35, and I married four years later, I bought a house right there, Soria, right behind the fire station and the library. The fire station was built about 1940. College--sidewalks were put in, street was paved, and then they went down the dip, and there was a slaughter house right at the dip. And they say it was Kosher, a Jewish slaughter house. But the people just raised Cain about it because it smelled to high heaven, and there were a lot of squeels and the like. Wasn't much anybody could do about it, so the slaughter house stayed there for years. And down the hill and up over, and they built to the entrance to the campus, not Campanille, but College Avenue. And it curved around and fronted the arches [now Hepner Hall]. Parking was over there. And there was a canyon of course; it's all been partially filled in pretty well, later on. Nothing across, south, or where Campanille and the mall is. Where the library is there was nothing, and nothing where the gym is.

Two or three asides about the new campus--the City was quite delighted to have this campus. It was quite a nice thing. And it was to be a show case, and besides it was a potential real estate development for Talmadge and Kensington, which kind of fizzled out during the Depression. But nobody had thought about
the sewer system. How are you gonna flush the toilets on the new campus? There were no city sewers for miles. I haven't been down there where the parking lot is for a while, where the West Commons is, but down below, that canyon went down to where I-8 is. So the City and County had to build a big septic tank, a big concrete thing. That was the sewage disposal plant.

The second thing was this was all adobe. Nothing would grow. They tried to do some lawn, and it wouldn't go. The first gift was a hundred palm trees [which were planted along the College Avenue curve to in front of Hepner Hall]. The Chamber of Commerce gave those trees. And that was the only vegetation on campus, all the rest was cactus.

Irving Outcalt was an old friend of mine, ultimately became Vice President under Dr. Hardy. He'd been a physics teacher in South Dakota and he was a friend of Professor Baird's and I. He was kind of a professor-godfather for me in education here when I was doing my teacher training work here at one time. I remember at a meeting, somebody was complaining about the adobe. He said "It's too bad they didn't raise the buildings eighteen inches higher on the foundation, and then fill it in." Oh, it was terrible, muddy. So when we moved to the new campus that Christmas they hired tractors to pull cars and trucks out of the mud. It rained to high heaven; everything got wet. And the tractors stayed around till after the rainy season to haul students' cars out. Charge them a couple of bucks or a buck or so to haul them out, otherwise students had to get off College
Ave. and walk in the mud.

When they moved the stuff out College Avenue wasn't through yet so they had to go down about two or three blocks to the first signal, way down on College, I think that is called Seminole or Saranac, or something . . . They built kind of a dirt road where Montezuma is now, and ended up in what would ultimately be where the entrance to the campus is.

Bell Lloyd built the building on [the corner of College and Lindo Paseo] . . . [the Bell Lloyd Building, later Quetzal Hall] which had a couple of stores down below and some apartments up above, one block south of the campus. That was the only building. That was to be the forerunner to the entrance.

A few, five houses were built beyond Campanille--Jimmy Crouch had one, Cliff Smith in Astronomy had one. And there were some built over on College. But there weren't more than ten houses this side of that slaughter house. The first house that I bought, I lived on Soria, right next to the basketball coach. I lived in a two-bedroom, beautiful little home.

MM: Was that Coach Peterson?

CM: No, this was [Morris H.] Gross. Peterson, I can tell you about him because he lived next to me over in El Cerrito for years. We called him "Dean," or "Coach."

But, I bought this house. I had just been married. I had lived in a house up the street for $30 a month, which is still there. And, I bought this house which was a drug [sounds like] on the market, beautiful little home with a big lot. Brand new,
fireplace, tile, one bath, two bedrooms which was standard at the time. $3800. I parlayed it into where we are now, through two or three deals ultimately. At the end of the street was a guy they brought in from USC to kind of help out in Athletics. Gross was the basketball coach; Peterson was the football coach, the track coach, and Charlie Smith was the baseball coach. Charlie Smith from Coronado. And he was a student assistant then. They eventually named Smith Field after him.

But if you ask me, there were two or three houses along there. That street [College?] finally filled in, and of course the whole area filled in ultimately. And then, of course, fraternity and sorority houses built all around around. Montezuma ultimately came in, Campanille ultimately came in. I remember well when Campanille was extended. I used to ride my bicycle from my house on Soria, go down the street then go down the canyon to that gulch, up to the dirt road which ultimately became Campanille. Park my bicycle behind the physics lab over near the science building at the time.

Well, that gets us to that point. A lot of things. I knew a lot of the people here. Peterson, C.E. Peterson, came in 1921 along with Oscar Baird and several others when the Junior College came here. It was an interesting situation. It was a very interesting thing there.

**MM:** How did you become a physics teacher--what brought you into physics?

**CM:** Well, Professor Baird. I started in engineering, they had
just two years of engineering here, and then you went to Berkeley, as I told you. Some of them went to Stanford, Chapwell, and some of the others. I decided to stay my third year, and the only way I could stay, if I was going to be of any use, I was to take some physics so we talked Baird into teaching this course. Other departments were doing quite similarly, chemistry, biology, english—they were teaching more, but physics was a little slower. And so, that's when I went to Stanford, to be very frank about it . . . And I look back, one of the reasons I went into physics up at Stanford and stayed there rather than go into engineering, engineering was starting to boom, and they were having a hard time placing [graduates]. My class in physics in 1939 had four people, and I was one of them. The other three are dead. One of them was the inventor of the Claistron [?]) Bill Hansen [?], after whom the big laboratories are named, William Woodster Hansen. Varhian, of the Varhian Industries, he was one of them. Bjorn Eaton [?] was the other one. And there was a fifth person who went to San Jose and then came up like I did, Cecil Burbank, he died in San Diego not over three months ago.

Well, I got interested. And then of course my jobs fell in line with this very nicely. I got this job here, I helped develop the physics department here, had a pretty strong hand in the later years in it.

I was going to go take a few years off and get my Ph.D. when Hepner came. He got his Ed.D. degree from U.S.C. and he decided
that he wasn't going to hire anybody more without a Ph.D., and that was where San Diego State College came into being, instead of a teachers college, much to his credit. And he called us all in, those of us who were young--I was one of them, Jim Crouch was another, Jack Adams, Cliff Baker, Walter Phillips of Spanish was another. I could name a half a dozen or more, Dudley Robinson, my closest friend here was another--he [Hepner] came in and told us each individually that we wouldn't be promoted without the Ph.D. I made Assistant Professor in due time, in the proper time, four years. They bring them in as Assistant Professor now. We all made it in four years, us four from Stanford. And he called us in, called Curtis Walling in too but he didn't go on--he was in engineering, and he decided he wasn't going to do it. But he said you're not going to get promoted beyond that if you don't go ahead and get a doctorate. Two or three of them quit, other people went on to other places, took time off.

But USC was starting its graduate school in earnest. It was very strong in pharmacy and dentistry at the time, and it was just starting out in law and starting out in medicine, this was in the mid-'30s. And they had just acquired this new library building, Doheny Library, and the departments there were starting to expand. So Hepner got acquainted with von Kleinsmid, the [5th] president up there, and they decided that they would tackle this thing. They got a lot of people from Los Angeles too, the same way. They gave us an opportunity to get a doctorate degree, part-time. It was really full time for me because we commuted;
some semesters I'd go up evenings twice a week. But they set courses for us. I had more courses than the minimum requirement from Stanford. And I was teaching upper division courses here; taught a couple of courses at USC while I had it too, taught a couple of courses at the school of optometry. But I took my work up there; I did my Ph.D. thesis here, I mean my experimental work down here. They allowed us to do this. But there must have been ten or twelve of us there [who] got it. And the interval--we all ended up about 1940. I started in '37 and ended up in '40.

So I stayed in physics, and I was promoted along with the rest of us who did that. And the rest of them that didn't do it lagged behind in promotion. Baylor Brooks wouldn't do it, so he lagged behind in promotion although he was well deserving of it.

TAPE 2, SIDE A

CM: . . . The original Physics Department was two rooms plus some smaller rooms in the original life sciences building, downstairs. Upstairs was chemistry and geography. And downstairs in a little alcove was biology and astronomy. That was the science wing, if you want to call it that. And that was what we had. Then they built a little chemistry wing down beyond biology, but physics was still pretty crowded.

And then the War came, and to my credit, I have to admit, I talked to Oscar Baird about this, we decided what we would like to see in a physics expansion. There was going to be expansion with the G.I. Bill coming; there was going to be money faster
than they had plans. So Oscar Baird and I sat down and designed what we wanted. So we told them how many labs we wanted, how many offices we wanted. What we wanted in the labs was a big store room, and a basement in which we could store stuff. A big battery room. A lecture hall. But I said, you know, we'd be very wise if we took a department with us. So I talked to Cliff Smith who was professor of astronomy at the time, and I said "Cliff, you know here's a golden opportunity. You've got just one room . . . We're thinking about expanding in Physics, let's see what to do about this. You know, we ought to go in as another department, why then there would be a hell of a lot of students." Astronomy had a lot of students, for teacher training particularly. And we had a lot of students coming in. So we laid it out.

That's where the three domes originated. I'll never forget the night that Smith and I talked. He came over to my house. We laid it out, not necessarily the way the building was to be laid out, but essentially like that--the buildings were all about alike at the time, cracker boxes. I said "Why don't you put in a real laboratory, not just a lecture hall, but a laboratory, why don't you put in a planetarium, and put in a dome up above." But when doing it why Cliff said "Well you know, it would be nice to have two telescopes." The College already had two telescopes. And I said "What the hell, let's ask for three. Let's ask for a telescope as well."

They did a beautiful job on that building, Physics-
Astronomy. Beyond that it was a Training School, before the one they just tore down. They put this little curve around Physics-Astronomy where you walk around because you had to have access to it; it was pretty cramped, and we weren't very happy with it, but they wanted to put it there.

And then Physics grew; we didn't have an engineering degree, we had a physics degree, a master's as well at the time. Pretty strong ones. Strong in electronics. The G.I. Bill just blossomed into it. So we had at one time 25 instructors in physics in our early days; I guess they've got about twelve or fourteen over there now. Just blossomed.

[The new buildings] weren't very good looking, they were cracker boxes. I can tell you a story about the Administration Building. We used to have open house on May 1. They had just built the Administration Building which is right up against the Physics Building, hardly room for a car to go through. And it was nothing but a cracker box. And they were going to dedicate it that day. The night before, I don't know who did it, well I think I know but that's neither here nor there--in the dead of night they had painted on the back side of it "Baked by Nabisco."

MM: I noticed in researching, in the 1947 catalog, there is definite change in the Physics Department. And I always attributed it to the explosion of the atomic bomb. All of a sudden we have a big upsurge of people who are going into it.

CM: Well we didn't have engineering. That was one of the things we were laggard in, and that was because of the University of
California at Berkeley. They didn't have engineering at UCLA until 1947. But we couldn't get [teach] any more than two years, legally because the only accreditation [for public schools] that was admitted was at Berkeley. Stanford, of course, was accredited. Santa Clara had accreditation, it was a small school. USC was just starting with accreditation. UCLA came down and formed a general [engineering] education under Dean Belter [?] and they got accredited in that. They never got accredited in civil or electrical or mechanical. They never wanted to, they did it in general engineering. But they didn't seem to push it. But we were able to push physics because they didn't have any control over physics, and we had master's degrees. We were able to blossom in the electronics boom.

Well at one time, I may be mistaken, but in the heyday, and I would say the heyday was about the time I went into the Korean mess, about '50 or '52, about when we built the new building, we brought in several instructors who were in electronics. And at one time we had over, if I'm not mistaken, somewhere over 150 majors. At the end of the year, we might graduate 40 in physics, with bachelors and masters degrees. And then when engineering finally became stabilized and was able to give degrees and became a school, the glamor of physics kind of waned, and I left. And as a consequence, why it became more traditional, quantum physics and theoretical physics. I don't know how big it is now. Well, I was over there just today, and I looked at the roster. It's a very credible size, it'd be the size of any institution that
doesn't give a doctoral degree, but they told me that enrollment's going down. It's not like the heyday, they said.

Well, I knew a number of people on the faculty when I was a student. Dr. Hardy brought C.E. Peterson in as a coach in 1921 and became Dean of Men later [Peterson started 1915/16, became permanent 1921, Dean 1928]. They named Peterson gym after him. He lived next to me. From the Soria house which I told you I got so cheap, I took a couple of thousand dollars more and bought a three bedroom house-- when we had our first child in '37--right next door to Peterson. I lived next door to him until my first wife passed away and I moved. In '50 or '51 I remarried and moved up to Kensington where I live now. Been there 42 years.

I never got too close to Jack Adams in socializing. In the earlier days Dudley Robinson and I were practically like brothers, particularly when we went to USC together. He was in chemistry. Dudley and I were very close friends, and his first wife and my first wife were quite close. We lived close together as well. He went parallel with me--he wasn't my mentor, he was about three years older than I was--but he went on to Louisiana State to get his degree, and he went to Iowa State to get his masters degree. He went with me, day for day practically, semester for semester, and summer for summer, and he finally got his degree the year after I did. But we spent a year at USC along with Jack Adams.

Dudley and I talked an awful lot about the growth patterns of the department. [Moe doesn't say which.] He was chairman,
Hepner made him chairman in due time, at the proper time, much earlier than I was made chairman. Well, Oscar Baird was chairman until he practically retired. Dudley was a very kind, very nice fellow, but he needed a little push once in a while for a little vision.

In 1935, getting back again, to some of the history of San Diego State, when Hepner came there was a strong move among institutions to form general education. And although he was a teacher training protégé himself, he was a great proponent of that. He decided, starting in '35 that they were going to reform the curriculum, from a teacher's college curriculum, to a traditional four-year one. One of the things he was to do was to bring in a more liberal faculty, more liberal arts faculty, and also to bring a more liberal arts background to the people who didn't take teacher training. And that was to be a prominent part of the program here, he maybe thought it was to be the dominant one among many. But he pushed this quite a bit, to form a general education curriculum, which was a forerunner of the 1946 general education upheaval which he formed here too, and for which I was on the committee for two years along with Abe Nasatir, Sue Earnest, Jack Adams, and all of the others.

But in that processin in '35, there was a great trend to get away from physics and chemistry and geology and astronomy and the physical sciences, and get into a general physical science course. The same thing was true in biology and botany, to make a general lower division course that would be applied toward the
general education requirement. Whereas up to that time students had to take a physics course, or chemistry, or biology course—they could choose, but they were traditional courses from a [distinct] department. I had just made Assistant Professor, and Hepner asked me if I would help him with that development. The other departments in the physical sciences didn't like it at all, so I cooled off and I stayed in physics. So he brought in several people, not in physical science—there was too much against it there—but he brought in some people in the social sciences, I won't mention their names directly. I guess. But A.G. Peterson, had grown up through the Hardy days and became Dean of Liberal Arts, had become imbued with this attitude of general education. So A.G. Peterson taught a course of twelve units over two years, three units each semester, that every student had to take if he hadn't taken a previous core course. This gave them some liberality. Peterson was really kind of drafted into this. I got drafted into it in the late '30s, to give a series of lectures along with Jim Crouch in biological science. Between the two of us we gave one quarter of that two-year course one semester. We were to put in history and the like, and that's why I became intrigued with the history of science and the like. There was a similar semester course in the social sciences, Peterson gave part of that.

In 1939, I was still working on my doctorate but pretty well winding it up, and came up for Associate Professor then, and I got it. I think maybe it was because I accepted something then
[general education]. But anyhow there was a move on foot here which Hepner was pushing. He wanted to form a broader physical sciences course, not just a part of a course but a full course or maybe two courses. Same with social sciences and all that. So he called me in first and wanted to see what I thought and asked me about text books and the like. Would I take it? Well I wasn't very hot about it because I was very interested in physics, here I was getting my Ph.D. in strictly physics instead of teacher training or anything like that. And I had future plans, and besides the War was coming. He called a meeting of all the senior people from the sciences at Scripps Cottage: Baylor Brooks, Dudley Robinson, Cliff Smith, Oscar Baird and the rest. We had a coffee clatch. He laid it out. He kind of implied that night that I would take it over. Well I wasn't very hot about it and I may have engendered some hard feeling, but I didn't like it too well. Peculiarly and fortuitiously enough that semester a fellow about four or five years older than I walked into the Physics Building one day--he was getting his Ed.D. degree from USC which they were just starting to give and was writing his dissertation on education and the physical sciences of all things! And he had taught physics. This was Don Watson, who became Vice President here. Well, he came in looking for a job in physics. We were getting ready to hire, in fact when Don Watson walked in. I said to Oscar Baird, "here's our man, Oscar!" I took him over to meet Hepner, and Hepner hired him on the spot, right then and there. Told us to find a place
for him, and he was to teach a course in physics and a couple of courses in physical science. Gave him an office along with another physics guy in a little dinky office. So we had two people assigned to the Physics Department. There was no Physical Science Department then, that came later when they decided that it would be better to do it that way.

Don walked into it there. He taught physical science and I gave it up, God I was relieved. I liked physical science but one year . . . we had a new lecture hall on the Quad, seated about 150. And I was teaching two sections of that, which was half my load, and I found I was giving up physics. I said to hell with that, and that's when Watson walked in.

Then the War came and everything went to pot. Don stayed and became Registrar. About a dozen of us from the faculty went into the Navy: Dudley Robinson, Leo Calland the football coach, Morris Gross the basketball coach, Terry another football coach, there were a lot of us. And the institution went down to less than a thousand students I'll guess, maybe two thousand, mostly women. We had a strong contingent of men that went into the armed forces. So Watson went into the Registrar's office temporarily, and then at the end of the War when things started to boom he became Dean of Arts and Sciences, and that's how he became Vice President later on when they formed two vice president's jobs; O'Byrne came first.

Later on when physics started to boom with electronics and the like, teacher training became a very less dominant factor as
you might expect. Jack Smith who was a graduate of ours went and
got his Ph.D. at the University of Washington but came back and
taught with us. He retired a couple of years ago, but he stayed
with us the whole time. He took over most of the teacher
training areas of the physical sciences, and they formed a
Physical Sciences Department, although he stayed in Physics.

END OF INTERVIEW