SM: This is an interview with Myron Bander who came to UCI in 1966 and later was Dean of the School of Physical Sciences. From what dates, Myron?

MB: Nineteen eighty to nineteen eighty-six.

SM: Nineteen eighty to nineteen eighty-six. And this is May 12. Now, when you came, what was your impression of the beginning program that was set up?

MB: Actually, although just before I came there were only nine faculty members, surprisingly enough, it was going to be a complete program. There were three within our four major areas of Physics who were already established and Ken Ford wrote up a superb undergraduate curriculum. So, surprisingly, as I said, it was a functioning on all levels: lower, upper division, and the starting of the graduate program.

SM: Now, are you interested in this, Myron, that there is a... there are reports from the beginning chairmen and so on, running between 1964 and 1966. And Ken would come out in his plane and he would confer with us and made plans and do some interviewing. His reports were very good, and they ended in 1966. And I got a very complete picture of what was planned. But I'm interested in your reaction to it.
You must have had . . . Did you have to teach a fair amount of courses starting out?

MB: No, it was the same as Physics has always had: basically, one course per quarter.

SM: Yes, yes.

MB: And the first courses I taught was an upper division course and a graduate course, which was ideal.

SM: Yes. Now, second question, Myron, did your Physics faculty change the program, say, you're running through ten years?

MB: No, I would say it expanded. As I said, we started with three basic areas: High Energy Physics, Theory/Experiment; Condensed Metaphysics Theory; and Experimental Plasma Physics. And, until around the early eighties when we had Industrial Physics, that remained . . . just those areas grew. So, there was no real basic change in the program.

There was one young person who was in Laser Physics and he did not get tenure and we did not pursue that area, I would say.

SM: And, of course, that was picked up later, was it? Or was it not?

MB: No, we just decided . . . we just dropped it.

SM: You just dropped it. How did your own research go, Myron?

MB: It was a good time. For instance, just . . . I didn't make in those times . . . made it all the way it up to Full
Professor and I had the Sloan Fellowship and always grants supports, so it has done well.

SM: Great. Well, I must say, the Physics Department has always had a very good record, a very good record. In the seventies, student growth and faculty additions were, as you remember, cut back. How were you and the Department affected?

MB: Again, we were hoping to grow faster in those areas. It was slow. We, since the currency of the realm of the university has been always students, the head count and so on, and it was also a time when sciences and physics were not very popular. And the School of Engineering was not providing us with the material to teach their lower division courses, which is where we get most of our bread and butter for the--except Physics 3 and Physics 5--they were not doing that well either.

One thing which I remember which we consciously did was institute a large number of sort of the middle division in courses to fulfill breadth requirements, to attract students. They were non-technical courses: Concepts of Physics; Physics of the Environment; Physics and Weapons Programs. Just to . . . Well, their own intellectual interest, but also just to bring up the student body to maintain our level and to keep the FTE that we had. But there was a very slow growth.
The only thing I can say is that I was involved in the early seventies, (inaudible) formed the committee to make a ten-year plan for the Department. Alex Maradudin chaired it and we put together a sort of a recruiting plan for ten years. I don't remember how many positions it was. It was a very well-thought out plan. When I look back, it took us longer than ten years. It took us almost fifteen years to do it, but we did it almost . . .

SM: What year did you draw it up, Myron?

MB: Nineteen seventy-one, nineteen seventy-two.

SM: Nineteen seventy-one, yes.

MB: Nineteen seventy-two, or something of that sort, and we stuck . . . It really went through, sort of surprisingly.

SM: Oh, yes. Now, let's take now your work as the Dean of the School of Physical Sciences. What were the problems you faced? What recruiting needed to be done? Were you involved in planning Physical Science II that's now almost, or half finished?

MB: The problems, I should say, which I faced, which when I was interviewed by various search committees which I indicated were two: space, just in general, and the Math Department. I think I had a positive affect on both of them. The Math Department . . . One thing which I started instantly was to form an Applied Mathematics group. Again, it always takes longer than you think. I started this in 1980, it's now
gotten viable. There are three people in it, three or four people in it.

**SM:** And they're all in the Physics Department?

**MB:** Oh, Math Department. This is the Mathematics Department, Applied Mathematics and Mathematics Department. And I think they have built a certain . . . raised, certainly, the quality of the Mathematics Department. They've all been quality people.

There's another group. Mathematics hired some good people and one of the proofs of the pudding is that the Graduate Review, which was in 1984—-I don't remember exactly—indicated or compared the Math Department (inaudible) earlier and they said there was no comparison. It had improved significantly.

**SM:** Yes, I was Chair of the Academic Senate in 1978 to 1980, and there was a math review in there. They were terrible.

**MB:** (inaudible) It's still . . . The department still has problems to this day, but I think it did improve itself. Some of the hirings were quite good, in fact, in those times.

The other problem was space and that was almost insoluble. We did build some annex—the trailers. And, until the possibility appeared of Physical Sciences II, it looked like . . . It was hurting recruiting. We just couldn't add new laboratories, especially in the Experimental Sciences and Chemistry, Experimental Physics.
And even just office problems. We'd have to go through, when we'd have a visitor, they'd sort of change offices every month, and somebody left.

I was involved in planning the Physical Sciences II, the whole thing through the design and so on, and then I stepped down being Dean just before the ground breaking.

SM: Say, can I ask you some questions about it? I'm just fascinated. I love to look at buildings. And, of course, when I came and I was interviewed for my job as Dean of Humanities, there wasn't a single building on the campus. We had this old north campus . . . one building. And so, I watched everything . . .

MB: Yes, I remember that. That's where I was interviewed.

SM: Yes, I'll bet. Well, I was . . . watched everything go up and, therefore, I'm very interested in what's going up now. Now, you've got two sections of it built. There's one section nearest the Physical Science I.

MB: Yes, that's correct.

SM: Now, what's the (inaudible).

MB: The one near Physical Science is going to be primarily Chemistry, (inaudible) Chemistry labs, and the other one parallel to the ring and so on is going to be the Physics. And the basement is going to be essentially all Physics. And, so Chemistry will stay, will be split between the two buildings.

SM: And Math stays in the old one?
MB: Math stays in the old building and Physics will have the . . . well, one half of the new building, plus the basement and a little bit of the first floor of this old building.

SM: Now, you say that the basement will be Physics.

MB: Right.

SM: Now, are you going to have . . . Now, Chemistry has still got that reactor there.

MB: Reactor. That part of the old building, half of the basement, will still be Chemistry, roughly half.

SM: Yes.

MB: And then some will be Physics and a little bit on the first floor will also be Physics. It's just too hard to move some of those.

SM: It's a very attractive building. It seems to me it's much better looking than the Physical Science I.

MB: Yes.

SM: And it seems that way to me, the way I watch it every day.

MB: Right. It's a fairly massive building. It will look a little bit mellower once it's finished up because it will have a blue tint to it, rather than this harsh concrete.

SM: Oh, good. Well, as you face it, on the left-hand side they've got some steel girders up and it looks as though it's going to be . . . it looks like sort of a little theater or something in the front.

MB: Oh, no. That's a high bay area which is going to be for
Plasma Physics. It's sort of an area to have major experimental equipments. You need the cranes and so on.

SM: Oh, I see.

MB: It's going to be basically just a big hall for experimental equipment.

SM: Tell me, what is Plasma Physics. Excuse my ignorance.

MB: Now, Plasma Physics ... Well, technically, say, it's the physics of fully ionized systems or gases. The interest in it is to control thermonuclear fusion for power, nothing to do with cold fusion. So, nothing with that.

SM: Cold fusion?

MB: With the cold fusion. You know, this controversy that's been going on?

SM: Yes, right.

MB: Nothing to ... But basically the same principle, to try to get power from it, and it's to study, say, ionized gases. They also occur in outer space and astrophysics, so this is a study of these things. And they do require fairly large pieces of equipment (inaudible).

SM: The reason why it's a little confusing to me--plasma I always think of ... .


SM: I always think of blood. I know. Now, what's ... All right, you already have answered seven, what is the Department's future now with the new building? Obviously,
you would answer, would you not, that you're going to recruit so many of the FTE and .....  

MB: The plan is ... Their justification for the building was that the whole School of Physical Sciences was going to grow—which when we started was around eighty FTE—to around 130 FTE, to be accommodated in the new building, with the (inaudible) buildings and so on. Now, with 130, it's going to be just as crowded as the old one was at eighty, so ...  

SM: Well, you can ...  

MB: It's a catch-up. The building is clearly ... To give you again, going back to old history, when we came in here, we were all in what's today Steinhaus Hall, all the sciences, Biology, Physics, Chemistry, and Mathematics.  

SM: Yes, right.  

MB: And then our building was built. It was going to be the Chemistry Building and then Ken Ford said, "Well, Biology is the first building. The Chemists, we'll get the best, the last building." Well, it took almost twenty years to get that building. It should have been here in the early seventies.  

SM: Of course, of course. Well, now, Myron, what you're saying is that when you were Dean of the Physical Sciences, under you, you worked out the whole plan of Physical Science II, justifying the FTE.  

MB: Right. Yes.
SM: Tell me, let me hear again, what are those figures, now, when you move in?
MB: Well, not when we move in.
SM: No, when you . . .
MB: When we move in, this building is supposed to accommodate, again, roughly around 130 FTE--from eighty to 130 or from eighty-five to 130 FTE.
SM: Okay. I know.
MB: It's also going to . . . For instance, now, which was not in the original plan, but it even started under me but it's maybe coming now to fruition, we're thinking of adding a new department: Geosciences.
SM: Oh, good.
MB: And that was not even in the plan for the building, so, again there will be a squeeze.
SM: That's interests me because I've interviewed Dan Aldrich. In fact, I had two sessions with him.
MB: Yes.
SM: One thing he was sorry [about], we had an original plan, as you know, for Geosciences and everything.
MB: Yes.
SM: And it all went down the tubes when they told us our demography was wrong and students weren't coming.
MB: Well, it's clearly Geosciences. We may have stumbled onto it, but it's going to be the sexy science of the nineties because I think the environmental problems are going to
outweigh even the arms problems in the next, say, the next millennium certainly. I shouldn't say next millennium, next century.

SM: Next century.

MB: And we are certainly in a position to start into it very well.

SM: That's exciting. That's very exciting.

MB: Yes. You remember last year in Time magazine had the "Planet of the Year," rather than "Man of the Year," the Earth.

SM: Yes, yes, yes. (chuckle) Now, moving into the future, you've told us what the plans are for that building, but it seems to me that it won't be too long before you'll have a building just back on the spokes. You know, we've now filled up the ring.

MB: Yes.

SM: So, you've got to go back that way, you know, back out and you'll probably have to have another building.

MB: Yes. Well, people are thinking. I don't know when it will it will come in but, certainly, people are beginning to think Physical Sciences III.

SM: (inaudible)

MB: A little relief will come maybe when the Library is built and there is Physical Sciences ... Library will move out of that space. (inaudible)
SM: How much of that space is there? You and I talked about that. I think when I was Chair of the Academic Senate, I was somewhat involved when you were concerned about some large Chair of a Senate Committee, and we were roaring about how they could get some space.

MB: Yes.

SM: Now, tell me, what square footage (inaudible).

MB: Oh, I don't remember. It's not very much, but it will certainly . . . It's a third of a floor.

SM: Have you or did your faculty have some input into the design of the Science Library?

MB: No. No.

SM: This Englishman is quite a very imaginative guy. Have you seen the plans?

MB: No, I have, Sam.

SM: Oh, they're terrific. They're really something. In fact, I wonder if they're aren't too expensive. His name is Sterling, I think.

Well, then, is there anything that you can tell me, Myron about your own experiences or what I would like to have for my history of UCI I plan to write? I've got my title: Instant University, because we started off, you'll remember with A.B., M.A. and then Ph.D., and I'm going to go all the way up to . . . I'll have a chapter on Peltason's administration. It seems to me we've gone off in a great .
We've had some tremendous good fortune in the last two or three years.

MB: Well, if I look back, sort of, again in the sixties, when . . . the sixties were tremendous expansion years, in higher education. One statistic says that there was a new institution of higher education that's from junior college all the way to a full university opened every ten days, from about the early sixties to the early seventies in the U. S. When I look at how many of them have—not a question of survived, most of them survived—but have made it into serious research establishments with graduate programs, a half a dozen would be, I think, the maximum, and fortunately we are one of them. And Stonybrook, San Diego, we . . .

SM: Santa Cruz.

MB: Santa Cruz. Again, don't quote me, but it's questionable how serious that is. But in some (inaudible) UC system, but I can look, for instance, Illinois, Chicago circle did not make it. All the other campuses of the New York University systems are sort of not taken too seriously.

SM: Buffalo wasn't (inaudible).

MB: Yes, but I don't think it's taken with the seriousness that UCI is.

SM: Yes, because we have a very well . . . a broad program.

MB: Broad program. We have the University of California.

SM: In California, and we've done well in all the fields.

MB: That's right.
SM: Whereas Buffalo is very strong in Literature and Humanities, but not in the other.

MB: Not in Science, not in Engineering, not any of the sciences. Not in Engineering, not in ... . So, we have made it broadly, as I say, Humanities, Sciences, Fine Arts, Social Sciences, so that it's ... . And half a dozen of these, from these 300 institutions that were created, I would say, was the maximum of the really ... .

SM: Well, we're going ... . What about as you look out now in the eighties and nineties, to the possible, say, 2005 when we should have around 26,000, 27,000 students? Someone was raising the question in a discussion: well, why don't you go beyond to, say, you know, Ohio State, say, and Minnesota. They've all gone to about 34,000.

MB: I see no reason why. If we have the space and we have the student demand, I see absolutely no reason. In fact, the best way that we could get from under the shadow of Berkeley, UCLA, is to have one student more than Berkeley or UCLA.

SM: True.

MB: So, I think that I would be ...

SM: That's very true.

MB: I don't think that 27,000 is a magic number which seems to be ...

SM: Well, I asked Clark Kerr once how we ever got ... . I can't remember his answer. I've got it written down, though.
(chuckle) I've got it in an interview. Well, have you thought about the administrative structure if we go to 27,000? That's the last question.

MB: Yes. I've thought about it. I've even thought about the structure that we have now. And, clearly, we're sort of changing structures—spasmodically, sort of, not continuously. For a long time, we had still the structure which sufficed for, say, 8,000 students, and we're now at 15,000 students. I think Tien is now coming in is changing this thing and clearly, probably, will sort of set something which will take us through some 20,000, 22,000 and probably will change again. Various changes I do . . . I think, sooner or later, when they do grow and with the planned growth in graduate professional schools, we made need Letters, Arts and Sciences and perhaps undergraduate programs separately somehow.

The other thing which I think we desperately need is something like an undergraduate college. Undergraduate education, I think, is getting somehow short-changed within the school structures. Deans—you were Dean, I was Dean—when your money is short, the last thing that you do is put them to the undergraduate education. So, I think perhaps a college with a strong dean who has resources . . . I hadn't thought out really how you then decide positions, so there clearly would be turf fights, but I think some kind of undergraduate college would be needed.
SM: Yes, that's all viable. No question, Myron.

MB: And I think by 27,000 students, also, we would need, I would say, a college, a school, whatever, a division of Letters, Arts and Sciences and a separate graduate, professional program.


MB: My prediction again is that Tien will take it part of the way, but you cannot . . . This thing will have to be somewhat evolutionary. It's very hard to make it revolutionary even though sometimes he'll take it to a certain step and I think the next step will be taken when they reach, say, 22,000, 23,000 students.

SM: Well, we're at 15,000 now.

MB: Fifteen thousand now . . .

SM: Or 16,000, I guess it is.

MB: And I think our administration is creaking, because it's still, to some extent, set up for 8,000.

SM: That's right. That's right. Well, I really don't have any more to ask you, Myron, except to say that if you do have any further thoughts, if you'd just drop me a note or if you want to be . . . have some more discussion on the tape, I'd like to talk with you.

MB: When do you think this . . . you're probably . . .

SM: Well, I will finish my sixty-five interviews by summer after next. I then will have done possibly enough. I've got
enough work done, really, to write up to 1966, really, when you came. I've got all that material, down all through the Chancellor's log, you know, his chron file, and I've been through reports. And I haven't been through the Senate material yet, which I must. That's very important. I remember Clark Kerr came down and I don't think you were here then. Maybe you were. He came down and he said, "Well, really, the way to organize is the way you've done it." The school was. If you have a College of Arts, Letters and Science, then that dean has too much, too many departments reporting to him. Well, do you remember an Academic Senate meeting where Clark Kerr dropped by. He as still president?

MB: I remember one meeting shortly before he was dismissed, but this was not the one probably when he discussed this thing.

SM: This might be. Just might be.

MB: He made one very prophetic statement when he said that clearly there was going to be a contraction in the University of California in general. It was obvious that there would be a shortage of jobs for faculty and so on, but he said there was going to be a large number of jobs for university presidents. (laughter) And he was dismissed a couple weeks after that.

SM: Yes. I rather think that he came by to talks to us.

MB: Yes.
SM: He talked to us about the College of Arts, Letters and Sciences.

But you remember he was here at a graduation [commencement], and it must have been only six years ago. Because he said--he came up to me afterwards--he made it [his address] short because the students were throwing up balloons and popping champagne bottles, and he said, "Sam, I can't give a serious talk with this going on." So, he gave a very good one. But he said Irvine has the best chance of the new campuses to make it into the big time. And he always said that, right from the beginning.

MB: Yes. I think it's true.

SM: Yes. Well, thank you very much, Myron.

MB: Okay, thanks, Sam.

END OF INTERVIEW