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Pejack, Edwin Oral History Interview

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Pejack, Edwin (1982-2007)
Professor of Mechanical Engineering, Department Chair

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By Dale Dunmire

Transcription by Mark Linden, University of the Pacific, Department of Special Collections, Library

Subjects: Initiation of the Dept. of Mechanical Engineering at UOP; first graduating class and first accreditation of Mechanical Engineering program; organizing of nonprofit NGO, Solar Cookers Int.; first world conference on Solar Cooking, held at UOP.
DUNMIRE: I’m Dale Dunmire. I am asking the questions and I’m asking them of Ed Pejack. Today’s date is the 31st of January of 2013. The interview is being conducted in the Fluids lounge in the School of Engineering. Okay Ed, what year did you serve the University and what were you official titles?

PEJACK: I came to UOP in summer of 1982 as the first professor and chairman of the new mechanical engineering department. I served as chair for ten years and then I stepped down as chair, and then returned later as chair for a few years when the then-chairman Said Shakerin took medical leave. I finally retired in 2007.

DUNMIRE: What circumstances brought you to Pacific?

PEJACK: It was quite an interesting series of events. In 1981 or so I was in the Bay Area working at NASA Ames Space Center where there are often visiting scientists and professors. I noticed among the group of visitors one day that this one fellow had on a heavy wool tweed jacket, and everybody else was in short sleeves. So I asked this fellow... why is that? He said, “Well, I’m from UOP in Stockton, where it is quite warm, and it’s cold over here!” Turned out that was Dick Perry from the physics department of UOP, and that was the first time that I had ever heard about the University of the Pacific. In the following year or so I noticed in my mechanical engineering magazine that there was an advertisement and it said, in essence,... searching for somebody to initiate a mechanical engineering department. I mentioned that to my wife, however at that time I was pretty happy where I was. Then about a year later I saw the same add saying we’re still looking for a new department chairman in mechanical engineering, so I decided to drive over to Stockton and see what they had here.

DUNMIRE: If you had to relocate to come to Pacific, what were your first impressions of the city and the people of Stockton?

PEJACK: I drove over to Stockton from Sunnyvale where we lived. First trip I was alone, and I came over to look at the University and had an interview with Bob Hamernik who was head of Civil Engineering at the time. He gave me a very nice impression of the UOP. Shortly after that my wife and I came over for a visit, and she hadn’t been to Stockton before. I made the mistake of exiting the freeway on Charter Way and stopping for gas and going downtown. My wife was not impressed with the city of Stockton at the time. Anyway, when we went a little further
north and visited the campus she was pleased and things brightened up a little bit. A short time after that I got a call from UOP, and they want me to come over for another interview. So I drove over, and this time the purpose of that trip was that Vice President (or Provost?) Cliff Hand wanted to meet me. I had a meeting with Cliff, a delightful person. Shortly after that UOP made me an offer to come and work for UOP as the head of the new Department of Mechanical Engineering.

DUNMIRE: Was there someone at Pacific that you found to be especially helpful in your initial orientation to Pacific?

PEJACK: Actually, a lot of people. The engineering professors and the Engineering Department chairs and staff people were friendly and welcoming. It was really pleasant to come here to a new place. Particularly I mention Professor Ed Evans in Civil Engineering. He had a background toward the mechanical engineering side and he especially welcomed me... gave me valuable advice about setting up a curriculum and laboratories and many things connected to mechanical engineering. Years later Evans was officially transferred from Civil to Mechanical, but unfortunately soon after that passed away from a serious medical issue. The day of Evan’s memorial service was the one and only time I painted the “Engineering Rock” by Khoury Hall. It was midnight. I had just finished painting it black with gold letters (E², as he signed his memos), and said to my wife Carmen, beside me, “What would Ed say about this?” At that instant a blast of cold water hit me square in the middle of my back, which I quickly realized was the automatic sprinkler that had come on. Ed was a delightful humorist and prankster at times.

DUNMIRE: Okay, Ed, we’ll go on to curriculum and programs. Describe the changes that you observed in the curriculum during the years you were at Pacific.

PEJACK: When I came to UOP in the summer of 1982 there was no Mechanical Engineering Department yet, as I was assigned to develop the curriculum and start offering a program in the fall. Actually I was given a full teaching load that summer in addition to preparing the new program, so that summer was one of the busiest I ever had. Ed Evans was particularly helpful then.

DUNMIRE: Describe course or innovative programs that you helped to develop at Pacific. I guess your whole program was innovative.

PEJACK: Yes, just getting the program started was innovative. The big thing that was emphasized to me by Dean Heyborne at the time was ... that we had to look forward to accreditation by the accrediting board for engineering and technology (called ABET). Everything I did for the program had to look ahead to what ABET would want for accreditation. A department could be accredited only after it had a graduating class. As it eventually happened,
we did have a graduating class of fifteen graduates three years later, and ABET gave us the maximum accreditation, a year or more in advance than that anticipated back in 1982.

Another somewhat new development was the strong use and influence of computers in the curriculum. In the early 80’s I contacted the company Autodesk about graphics software, and they gave me one of the first Autocad versions, 2.0 or so. In our drafting lab at the time we had the conventional drafting tables with paper and pencil and “T” squares. I put the Autocad in the back of the room on one computer. Then one day Dean Heyborne said that Ted Baun (a 1927 graduate of UOP) wanted to give the engineering school a hundred thousand dollars or so to upgrade our operation. One day Ted wandered into the drafting class, and saw the one computer in the back of the room, and asked what that was for. I showed him a little of Autocad, and he was pleasantly fascinated, and said, “That’s what I want for UOP.” So with Ted’s gift we got 24 computers with Autocad for the drafting lab, and “surplused out” the drawing tables. I might be wrong, but I believe that was the first computer lab in the school. Soon computers became more and more of a factor in the engineering curriculum.

DUNMIRE: What was your perception of your task to enhance the educational academic programs and the mission of the University? What were the primary challenges?

PEJACK: In the summer of 1982 there were only a few students that had expressed interest in the new mechanical engineering program. In the Fall of 1982 word soon got out that we now had a new mechanical engineering program, and more students expressed interest, and there were a few that came from junior colleges. We were fortunate in the new mechanical department to have a new building. When I first came to UOP, Khoury Hall had just opened only a few weeks earlier. It had a new smell to it, and it was referred to as the new engineering building. There was only one professor in the offices there; it might have been Wayne Smith, a civil engineering professor. We soon began to search for and hire faculty to support the new department. The first one added was Michael Ward who started in the fall of 82. He came from Lockheed in the Bay Area. In the following year Steve Howell joined (and over two decades later returned here as Dean). Then over the years we hired about one faculty a year until we had a so-called full complement of five professors in mechanical engineering, which was the minimum required for ABET accreditation.

DUNMIRE: Ed, what was your administrative position? To whom did you report and who reported to you?

PEJACK: As a department chairman I reported to the Dean Heyborne who would call weekly meetings with the department chairs. In my department we had regular meetings in Khoury Hall on many and various mechanical engineering issues. My style of management was that I
was managing professional people who had their energies and talents, and I tried not to stay in their way and let them develop their area of expertise and programs.

DUNMIRE: What procedures did you use to communicate?

PEJACK: At the end of each academic year all the faculty had to write a report on what we had done, what we intended to do, and problems and issues that came into our work at Pacific. Of course, short term issues were dealt with in weekly department meetings.

DUNMIRE: Which ways were you accessible to the community, and which of your administrative activities were the most or least enjoyable?

PEJACK: UOP does have a committee structure where people volunteer or get elected to various University-wide committees, and I served on quite a few of those. I must say that I never gave those my primary attention, being that I was in the middle of developing a new program at the University in Engineering. Although I found it very enjoyable and productive to be on various committees, mainly for the opportunity to meet faculty outside engineering and become aware of issues facing the larger view of the University.

DUNMIRE: Do you think that the committee structure of the University produces effective governance?

PEJACK: I think that it does. The committee structure does absorb some time and energy of the faculty who could be otherwise engaged in teaching and scholarly work. However, the committee structure is important. I think it has to be kept in bounds so it doesn’t become an excessive drain on time. I would say that an individual faculty member should not get so enamored of the committee structure that it becomes the primary source of attention. The administrative side of the university sometimes gets a bit removed from the issues involving students, teaching and laboratories, and so the committee structure, which includes faculty, is necessary to bring balance and sometimes reality to the university operations.

DUNMIRE: How did the structure affect your productivity?

PEJACK: As a department chair, you’re stretched three ways. The department chairs here had to carry a teaching load, and sometimes it was a full load for a young department. Also being a department chair you have the School of Engineering activities and management and interaction with the Dean. So we are pulled in those two directions, teaching and administrative. The third direction is the University-wide committee structure. Balancing those three areas, all of which are vying for your attention does affect what gets done, and how fast and how tired you get by the end of the day.
DUNMIRE: Okay, we’re going to talk about the people here at the University. Who are the individuals at Pacific that you consider the most memorable or helpful, and why?

PEJACK: One of the programs that engineering has was the co-op program. That means that all of our students were required to go out and work in industry twice during their program for five or seven months of work in industry. Their academic program had to be woven around this co-op assignment; the co-op department at that time was Larry Hill and Tom Cheney and shortly after also with Gary Martin. I had to do a lot of interaction with those gentlemen in scheduling and employment, and making sure that students would graduate on time. That’s the advising aspect of the job, and it took quite a lot of effort to move courses and co-ops around and have the students graduate on schedule. In the beginning of my tenure engineering had only one technician, David Parker, and a few years later Bob Pollard also joined as a technician. These two did extremely valuable work for our program, especially laboratories.

I mentioned earlier professor Evans, the civil engineering professor. He was extremely supportive and a good friend. He had been around engineering for many years and was savvy.

DUNMIRE: Were there individuals who were not supportive?

PEJACK: It’s hard to say somebody was not supportive because if you need support, you seek it where it’s available, not worry too much about where it’s not. A few things I wanted for the school didn’t materialize as I envisaged. For example, there was a program at Lawrence Livermore laboratory, in which they were willing to send professionals from the Lab to UOP, and they would teach a course in some special area, and do this at no, or essentially little, cost to UOP. I thought this was very attractive offer, almost too good to be true, as we needed a teacher in the field of manufacturing, and a Livermore Lab professional was willing and able to teach as an adjunct, for no salary, as the Lab would keep him on full salary. But Dean Heyborne didn’t want to have any part of that arrangement, instead he wanted us to rely on full time faculty. In those years Lawrence Livermore Lab had a lot of technicians on their staff whom the Lab wanted to get bachelor degrees in engineering. I invited some Livermore people over to UOP, and what they proposed was that they would send over a camera crew and video tape an engineering lecture. The video tape would be taken back to Livermore, and be shown only at Livermore Lab, and then the tape would be returned to us. They would pay full tuition for the students that watched it. I thought this would be a great source of revenue, however the Dean was not agreeable to video instruction. Now, year 2013, it is huge topic of discussion in academia.

DUNMIRE: During the years that you were involved with Pacific, how would you describe these groups: first the students.
PEJACK: I’ve taught in full time and part time in maybe several Universities. Students here at Pacific were exceptionally very dedicated, extremely friendly, and overall good hard working people.

DUNMIRE: And the faculty?

PEJACK: The same for the faculty. They were almost like family. Faculty seemed to have had little of the departmental academic rivalries that a lot of big Universities have. The rivalries that we had were friendly and supportive for the most part.

DUNMIRE: Administrators were... How would you describe them?

PEJACK: Administrators was a group that I didn’t interact with that much other than the other department chairs and the dean. I was seldom called to have a discussion with, for example, the provost and hardly met the president. Some administrators stood out in my view as being supportive; for example Les Medford and his people in Admissions.

DUNMIRE: Say something about the staff, regents, alumni or university donors?

PEJACK: Yes, in the staff area I think School of Engineering was really fortunate in having staff that took their jobs seriously. Bess Ayers was the secretary of Dean Heyborne, and did... as they say, yeoman service in the School of Engineering. In the co-op office Olive Bannon began her career when I was here in the 80’s and also Gail Johnson who helped students find co-op assignments.

DUNMIRE: How would you describe the working relationships between faculty and administrators during your years at Pacific?

PEJACK: There were some times when the relationships were a little bit controversial. Especially when enrollment got low, some administrators would go to the dean and ask, “Why is this class being offered? It only has five students in it. We should cancel it.” ... or statements to that effect. Our Dean did a lot of justifying and convincing to the administration. My thinking was... If we cancel a small class then that assigned professor would have even less student credit production. There was a lot of discussion about work load, but we were constrained with the number of students we had, and all of our faculty were full time and not adjunct faculty, so we could add and subtract instructors at will. Laboratory courses were an issue at times. I don’t think administration fully realized that labs were essential for engineering, and they take a much more commitment of time and money than say, one credit of a lecture course. The other issue that came up over the years had to do with this idea of the teaching scholar. UOP was traditionally sold as a teaching institution. As time went on, administrators started to push for things like peer-reviewed publication, and establishing criteria along those lines for promotion
and tenure. This took a lot of effort and energy in meetings and work load discussions of what kinds of “work” are to be accepted as valid work load for promotion or tenure. It’s still an ongoing subject of discussion.

DUNMIRE: You sort of described the program since you started the whole thing out and you sort of disused what were successful. Were there programs which were not as successful as you expected?

PEJACK: One thing that I wanted to be more successful was interaction with industry, such as collaborative engineering design projects and research at UOP with industry supporting equipment and salaries of students. We had a lot of industrial contacts from the co-op program but we didn’t move enough in that direction. I inquired of a few corporations about having short courses taught by faculty at UOP where engineers from corporate world would come for a workshop for several days or a week. I wasn’t successful with that, and finally one corporate person said, “If Pacific were near the airport in San Francisco it would be all different. Our people could fly in, have some days of a workshop and fly out. But in Stockton you’re a day over and a day back and out of the mainstream.” That is one area where I would say was not successful as I envisaged.

DUNMIRE: I would agree with you.

DUNMIRE: Stockton is just far enough away that it didn’t make it convenient for that kind of thing. Describe the most significant achievement during your tenure to enhance Pacific. Such as: new programs, buildings, libraries, laboratories, new technologies.

PEJACK: That would be an easy one to address and that has to do with solar cooking. Around 1986 or so, some UOP people and local citizens, including myself and Bev Blum, wife of history professor George Blum, Professor Clark Shimeal and others had a meeting at UOP; and there was a similar meeting at Sacramento State. We decided to start a new non-profit corporation called Solar Cookers International, (called SCI) to promote the concept of using the sun to cook food, particularly in fuel-scarce regions of the world where forests were being depleted for firewood. We did start the non-profit, become organized, and raised money and operated projects in Africa. I had the opportunity to promote, demonstrate and teach solar cooking in Zimbabwe, Kenya, Ethiopia, and India. I was on the board of directors for ten years, and for many years did research work on solar cooking here at UOP. Many students cooked food on the grass in front of Khoury Hall. We had a course on solar energy engineering that included solar cooking. The highlight of that effort was that in 1987 I proposed to the board of SCI, that we host an international conference on solar cooking, which had never been done before, anywhere. The board was skeptical at first: What if we didn’t succeed; this could ruin the name, and there was a lot of negatives. Finally the board decided okay let’s give it a try as long as I
would head up the conference and do it at UOP. In 1987 we sent out flyers and put out some publications announcing the first world conference on solar cooking, at the University of the Pacific. We spread the word and kept our fingers crossed. As it turned out, a hundred and fifteen people came to the conference representing fifteen different countries in Asia, Europe, and South America and gave papers and demonstrations on solar cooking. The grass in front of Khoury Hall and Anderson Hall was just loaded with solar cooking demonstrations; people gave papers, and of course we published our proceedings. Two years later SCI organized another world conference in Costa Rica and later one in India and then more around the world. Groups around the world started forming organizations to promote solar cooking. Also at SCI we developed our own solar cooker, which was inexpensive and worked well, and now there is over a million of these in use in Africa and all around the world. As it turned out, that first conference at Pacific served as a catalyst for an important international movement which gathered momentum, and it spread the word of UOP quite a bit.

DUNMIRE: Yeah, I attended that conference and I thought that it was a great success too.

PEJACK: One thing I’ll mention is it really pleased me when I saw a postage stamp from the country of Tanzania. They actually have an image of our solar cooker on their stamp. I have a blow up view of it on my wall.

DUNMIRE: Ed, why don’t you describe your contact with students as an administrator.

PEJACK: As department chair I was also a teacher and an administrator, so students came to me for changing a schedule, resolving difficulties, and a host of issues. We had to post office hours of course, but I told students I’m here most of the day, all day. My office is always open. So I had very nice friendly contact with students. All the ME faculty advised students, including myself as chair, and that’s quite an intensive activity. Planning a student’s program one, two years, three years into the future and incorporating co-op is almost like a puzzle, fitting in the requirements to satisfy graduation.

DUNMIRE: Do you think your teaching and advising had an effect on your perspective as an administrator and in what way?

PEJACK: For one thing my teaching and advising made me realize how much the teaching faculty in my department had to spend advising, planning a program and planning courses. It’s a simple thing to say that we’ll offer this particular course or not, or drop that course, but it has a big effect on the students’ program because of prerequisites and trying to graduate in a certain time.

DUNMIRE: What do you remember about students and their activities in their years at Pacific?
PEJACK: Certainly a highlight of my time here was the graduation of my son Patrick receiving the Electrical Engineering degree, followed by another in Management Engineering. And another highlight was son Andrew receiving his degree in Mechanical Engineering. Some of the students were married and had small children; I remember Kelly Barnett would bring in her son and daughter and they would be in Khoury Hall while she was taking a class. They sort of became family. Many times I had students and their wives and kids and friends at our house, in our swimming pool.

A special place in my recollections is for the students who joined the Mechanical program in the first years, before accreditation, and also had the faith that after they graduated, that the program would become accredited. I would like to mention here those first fifteen students, pioneers of the new Mechanical Engineering Program, who comprised the first mechanical engineering graduating class in 1985. They are: Deanna June Kawelo Aui, Geraldo Avila Roa, Marwan Nabiah Awad, MaryAnn Canevari, Rachel Teruko Honjo, Paul Martin Jerland, Guy Lester, Debra L. Motas, William C. Pierce, Jr., Diana Murray Reichmuth, Ricardo Reyes Sanchez, Scott Thompson Schafer, Daniel Stone, and Gavino Miguel Villa Martinez. To those and all the students that followed, I wish well.

DUNMIRE: How did you see changes to students and how did you adapt?

PEJACK: It’s interesting... you encounter some students when they’re out of high school when they come into the University. You can see their attitudes and a little bit of uncertainty and insecurity and in a few years becoming engineering professionals and develop a confidence. It’s interesting to see that change in a person. I’d say that was one of the big assets of being in the kind of position that I had.

DUNMIRE: What issues where you involved in that stood out in your mind as important to the growth and development at Pacific?

PEJACK: One big issue was... is the expectation of the faculty in the areas of research, publication, and so-called scholarly work in relation to teaching. In the early 80’s UOP was promoted as a teaching institution. In fact when the ABET committee came here and evaluated our program, one evaluator said to me... you don’t realize what you have here. The faculty was not required to generate sponsored research that would pay their salary as in the so-called research schools. So we focused our attention on teaching students, which actually was what set UOP apart.

DUNMIRE: Where do you think the energy came from for the progress and evolution at Pacific?
PEJACK: It comes from having faculty who are energetic and interested to do things... and administrators that allow them enough free rein and encouragement to go ahead and accomplish it, and raise enough finances to carry on.

DUNMIRE: Has Pacific met your expectations?

PEJACK: My expectation was to be a part of an academic institution that has integrity in its internal operation, concern for people, and well recognized by graduates, parents, corporations, and our peer institutions. In that regard, I was well satisfied.

DUNMIRE: Has the external perception of the academic quality changed while you were here?

PEJACK: I’m not sure if it has changed. I hope it has because in the early years of my career, if I would talk to somebody in the Bay Area or another part of California, they actually didn’t know of the existence of Pacific. So we were, as one administrator said, a best kept secret. The perception was that if you did know about us, it was in a positive way. One negative was the crime of Stockton. I’ve heard many times from students and parents that the crime rate of Stockton is something they were concerned about.

DUNMIRE: What contributions do you feel Pacific has made to the local community? What... Do you think the community’s response has reflected UOP... What UOP has done?

PEJACK: The communication between Pacific and the community has improved a lot in recent years. Particularly in the last five years, I would say. But for most of my career at UOP, I’d say UOP and the local community were not communicating too much. I’m so glad to see an outreach effect in the UOP-community arena because UOP needs a good community to survive and prosper, and the city of Stockton needs Pacific. President Eibeck agreed with that community outreach, and more power to her along those lines.

Dale, thanks for taking in my recollections of my time at Pacific.