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Jekel, Eugene C (chemistry) Oral History Interview: Science Professors at Hope College

Brian Williams

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Interview with Dr. Eugene Jekel, Chemistry, '52 Grad
Interviewed by Brian Williams
July 17th, 1987

EJ: I took the first two years of chemistry with Ted Vander Ploeg. Ted Vander Ploeg and Harvey Kleinheksel taught sections of general chemistry. So I had Ted Vander Ploeg the first couple of years, and then in my junior and senior years I took courses under Harvey Kleinheksel. Of course, I had Doc Van Zyl for organic chemistry and P-chem, which he taught at that time. I think I had Kleinheksel in some lab instruction freshman year also. So that was good.

BW: What happened to Vander Ploeg?

EJ: He took a job in August of 1955. He resigned and took a job at Grand Rapids J.C. I came in and succeeded him in the fall of '55. I was a graduate student at Purdue at the time. I had completed my Masters Degree and was working on the Ph.D. Doc Van Zyl had told me that Vander Ploeg had resigned, and that they needed a one-year person. So I came in Sept. '55, and then it turned out that the one-year position sort of spread over six years. I returned to Purdue in 1961 and did two more years towards my Ph.D. and completed that at Purdue.

BW: There was a problem with deferment about that time when you first came here?

EJ: Oh yes, there was. You're thinking about my own deferment?

BW: Yes.

EJ: I made appeals to be deferred, and the rules kept changing a bit from year to year depending on the number of volunteers into the armed services.

BW: What was going on at that time? It was in between the wars, really.

EJ: That really was. The Korean conflict would have been in the early '50s. I graduated
from Hope in '52. So some of my classmates at Hope pulled out and volunteered at the time of the Korean conflict, because they didn't want to get drafted. So at the time that I was a college student, it was quite threatening for me to go into the service. But at the time, you could be deferred as a college student and complete your college work. Then I went on to Purdue, so I continued to be deferred. When I joined the faculty in '55, I don't think there was any great urgency for drafting at that time. So I guess I had to make an annual appeal, or write an annual letter for deferment. It was relatively routine. So being drafted was not a real threat in those teaching years to me.

BW: I saw a thing in the Archives that, when you accepted the teaching position, that that changed your student status. There were a couple of letters from Lubbers on a file about that.

EJ: Quite frankly, I don't remember that very well.

BW: First of all, what brought you to Hope?

EJ: As a student?

BW: Yes.

EJ: I grew up in a rural area outside of Holland, near Zeeland, actually the New Groningen area. It was an 80 acre farm, not a large income by any means. I could not have afforded to go to a college away from home, and live away from home. So for me, Hope fulfilled sort of a community college type situation. If I was to go to a college at all, it would be Hope. It is also the place where I would have wanted to go.
BW: Did you live at home?

EJ: Lived at home for the four years, correct.

BW: Did it have any reputation in the sciences at the time?

EJ: Yes it did. Kleinheksel and Van Zyl were known for their strengths as teachers, and had a very good placement record into graduate schools. You probably ran into articles which pointed out that Van Zyl took a real personal interest in students, was sort of a super advisor, saw talents in students, placed confidence in their abilities, and sort of had recommendations as to what graduate school the student could succeed in. I was sort of caught up in that environment. I thought I was interested in secondary school teaching of chemistry, but when my junior year rolled around in college, I decided to go to graduate school for more chemical training. In part it was the thing to do. Van Zyl made chemistry a very desirable profession. He was very enthusiastic about that. So I elected then to go to graduate school.

BW: So you came here intending to go into science?

EJ: Correct. Either biology or chemistry, I didn't know. It turned out that I sort of preferred chemistry.

BW: So you did get some biology in too?

EJ: Only a year.

BW: Who did you have for that?

EJ: Teunis Vergeer. Again, a very remarkable individual, excellent teacher, excellent storyteller. It was an interesting experience. I just enjoyed chemistry more.

BW: He ran into a problem at the end, didn't he?
EJ: Evidently. Did he leave Hope between '52 and '55?

BW: Yes.

EJ: He was not here as a teaching colleague.

BW: He was on leave for a little while, I gather, and then took some time off and went to a couple different schools.

EJ: Yes. I just saw him on one occasion, when he visited Hope, maybe 15 years ago or so. We chatted briefly.

BW: Was Thompson in biology then too?

EJ: Yes. I didn't have him, but Thompson did teach here while I was a teacher. Phil Crook was here. I think Phil Crook came to Hope in 1955, the same year I did, and then later became chairman. He was an extremely active person.

BW: Do you remember anything specific about Kleinheksel or Van Zyl?

EJ: Yes. Kleinheksel had a very formal teaching approach. One of his styles was to ask specific questions to a specific student in class. Often he would start out the class period that way just by directing a battery of questions to students. If the student didn't know the answer, he would try to rephrase the question, in order to sharpen the students' thinking. One thing unique about lab instruction under Kleinheksel, was that before you could launch into a given experiment, you had to sign up for an oral quiz. He would take a group of five or six students. You put your name on the blackboard when you were ready. As the lab period went along, you would be called in, in groups of five or six, and in a room roughly this size, sit in a circle. He would go from one student to the other and quiz about the experiment that we were to do. In
hindsight, I think it had a real teaching benefit because it caused students to orally articulate chemistry. In other words, it just wasn't understanding alone. In a sense you had to express it, and be comfortable in talking about new concepts. I think it was an excellent learning tool. Most of us, in succeeding years, used to do oral quizzes, too, because I was teaching along side of Kleinheksel. It was a very good teaching method, but it was time consuming. We've since given it up, but it was an excellent teaching device.

BW: So you had to be pretty well prepared.

EJ: Right. You had to be well read in the experiment, and able to express the concepts orally. This questioning approach, both in class and in lab, gave a certain formality to his teaching. You could feel the warmth of his personality also, in all of that, even though it was formal. He was a very sociable person once you got to know him. Some students really didn't get to know him well, because they felt, I suppose, a little awed by those questions and style. He was just a superb teacher. Very organized.

Van Zyl was a person who was extremely active in professional circles outside of Hope College. He went off to ACS conventions. He ended up getting outside grant monies for Hope College. By the time of his retirement, had even a few sizable government grants. But at first it was private grants from Standard Oil and Dupont, and other places. This started the summer research program at Hope. Van Zyl took a great interest in people and in the Chem Club, and would have outside speakers come into Chem Club each month. The group would go on tours of chemical industries. I can recall as a student going to Standard Oil in Whiting, Indiana, and to Dow
Chemical in Midland. I think we went to Upjohn, and maybe a few other places. This gave a broadening experience and it was all fun. Let's see, what else about Van Zyl.

BW: He ran a lot of other things on the side, didn't he? Some other businesses?

EJ: Yes. His wife I believe was the owner of the Juvenile Shop on 8th Street, which was a children's clothing store. He, himself, purchased houses and maintained them, and rented, and sold, so they did a fair amount of moving around.

BW: I think Dr. Brink mentioned something about a car wax he worked with?

EJ: Yes. He worked with chemist friends, in either local industries, or wherever, and developed some products with them, and had little business ventures of this sort. Generally these things weren't shared. You found out about these sort of second hand. Yes, he did do those kind of things which was interesting. His wife had a real interest in business as did he, because she essentially was the manager of the children's clothing store.

BW: Kleinheksel did something too, didn't he?

EJ: Yes, he had married a Dykstra, of the Dykstra Funeral Home family. He had involvement with that. That sort of varied from year to year a bit. There were some years where he was away from his office on the days he didn't teach. He would be busy with that. But then there were other years where he didn't do very much with that at all. This was a side interest, that sort of went in waves for him.

BW: Was it necessary to have side interests? Was the salary here adequate?

EJ: The salary was quite inadequate, so it was reasonable that they did have these side
interests.

BW: Have they caught up a little more now?

EJ: Yes. I would say so.

BW: So you went to Purdue. How well do you think Hope prepared you for grad school?

EJ: I think it was quite adequate. The teaching experience at Purdue was a good learning experience also because it caused me to review much of chemistry, in teaching freshman chem and qualitative analysis at Purdue. What I didn't learn at Hope, I certainly picked up. It was a good teaching experience.

BW: Was Van Zyl instrumental in getting you there at Purdue?

EJ: I would say so. Although probably Van Zyl and Kleinheksel too, had closer connections with some other graduate schools. Purdue was in the group of schools that I applied to. He and Kleinheksel wrote letters on my behalf. I don't know of any behind-the-scenes communication. I don't think there was. It was sort of just a routine application, and I got accepted to more than one place. I don't remember where.

BW: They had a lot of contacts with graduate schools, didn't they?

EJ: They did, right. There was an era in which Hope would try to send its best students to Illinois, because in terms of graduate training, it was a real powerhouse. Historically, U. of Illinois has made great contributions. Kleinheksel himself had graduated from there. So it was one of the top choices in Kleinheksel and Van Zyl's eyes. They were careful either to recommend or not recommend students to particular schools. Van Zyl would usually handle that in his office and would comment on
whether you could handle the graduate program at such-and-such schools. "Why
don't you read up about them?" he would say.

BW: So you came back to Hope in '55 then?

EJ: Correct.

BW: What was that like to join your former teachers?

EJ: Van Zyl was a very homespun person, you could really say, close friend, while I was
a student here. So that in terms of working with Van Zyl, it was just easy and
natural. I tended to want to call Harvey Kleinheksel, Dr. Kleinheksel, when I first
began teaching, and I think I did. I soon shifted to Harvey, and shared an office with
Harvey. When Irwin Brink came, we shared the office three ways, Brink, Jekel, and
Kleinheksel. For many years we had shared offices. We, in a sense, had such large
teaching assignments in terms of contact hours per week in the teaching of labs, that
we weren't in the office a lot.

BW: Van Zyl had a separate office?

EJ: He had a separate office, right. He was the head of the department, and I say head
instead of chairman. Your father (Don Williams) also makes that distinction, from
Kentucky that it was a headship thing. So that we did not have departmental meetings
on most decisions. Van Zyl handled the decisions, and handled them well with no
complaints. If he needed broader input, he would simply walk across the hall into our
office, or call us, and we would chat on an issue. We never had a full-fledged
meeting. It was just a hurried stand-up decision of one sort or another.

BW: This was all in Lubbers Hall?
EJ: Correct.

BW: And when you were here as a student...

EJ: It was also in Lubbers. I entered as a student in '48. Lubbers Hall was called the science building at the time. I guess it would have come along in 1940...

BW: '41 I think.

EJ: Actually, when I entered as a freshman, it was a relatively new building, which I don't think I appreciated at the time. Now when I look back, to think that that building was only seven or eight years old when I entered is quite surprising.

BW: It had been in Van Raalte. Was there anything in the way of science there still?

EJ: No. When I came in as a student, the sciences were entirely in Lubbers Hall, including physics.

BW: And math?

EJ: Math was in Van Raalte. Math was never in the science building. So it was physics, biology and chemistry. Physics pulled out when the physics math building was completed.

BW: You met your wife while you were at Purdue?

EJ: That's correct.

BW: And she taught here for awhile, part-time?

EJ: Yes. Actually, we didn't date at Purdue--I got to know her there, but we didn't date there. In 1955, she taught at her alma mater, Greenville College, for one year filling in as a sabbatical replacement there. Then in '56, she assumed a teaching position at Western Michigan University, and then we were married in 1960. That's when we
began to see each other.

BW: Was she the first woman to teach in chemistry?

EJ: No, well, she taught part-time. You may be right. I had never thought of it that way. You're probably right. She taught on a half-time basis in the school year 1960 and '61. In the summer of '61, we took off for Purdue and then returned here in '63. Then Lorraine Hellenga was my replacement in '61, and then she continued three years total, maybe. She stayed on a year or two after I returned.

BW: The summer institute, when did that all start?

EJ: The first institute was in 1964. Cal Vander Werf became our president in fall of '63, and in summer of '63 when I was still at Purdue, Cal wrote a proposal while he was still at the University of Kansas. It's a possibility that he would have wanted a program like that at Kansas, I don't know. When Cal knew he was coming to Hope, he decided it should be for Hope College, and they needed a person to serve as director for the program. So he telephoned me while I was a graduate student. The summer of '63 I was still at Purdue. So he telephoned me there and just asked if I would be director. I never saw the proposal. All I had to do was sign my name in different sizes on index cards, so then he was able to cut and paste in some way, and get that signature on the proposal. At that time, the xerox process was relatively new. I wasn't exactly sure how he could transcribe my signature onto that proposal, but I just signed some index cards and mailed them to Kansas. Then we were funded, so our first program was in 1964.

BW: That was NSF?
EJ: NSF-supported, correct.

BW: That's the same one that is continued now?

EJ: Yes, the names have changed. In that era, they were called Summer Institutes. Then in 1970, the name was changed to Implementation Projects. And then the name was changed to Workshops, and now it just tends to be Projects, but that's not a big deal. The term "Institute" is not the technical word for it right now. It should be called either a Workshop or a Project.

BW: When did Frank start with that?

EJ: '64, so he's been with us each summer.

BW: The math department did something similar to that?

EJ: Correct. So Hope's program in chemistry certainly was not the first NSF-supported program. Jay Folkert in Math served as the director of earlier institutes. By the way, Jay wrote a history of the program, did you run into his history?

BW: Yes, I interviewed him yesterday. He gave me a copy of that. I haven't looked at it yet though.

EJ: Okay, so he'll have the years. It was roughly '59ish or something in which he may have had his first one. I taught in one of Jay Folkert's institutes in summer of '60. Jay Folkert's first institutes were multi-disciplinary, so that they were in chemistry and biology and maybe physics and math. I'm not sure what disciplines were in each time. Then Folkert did them for A.P. math teachers, and we had programs side by side. There was even one year that there were three institutes on campus, including a geology one, which was done by a prof from Colgate, because Colgate didn't want to
host it on its campus. So he managed to do the program on Hope's campus. It was just one time in the 60's that we had three of them.

BW: And Hope's chemistry one has always been for high school teachers?

EJ: Correct, high school chemistry teachers. We've always had an emphasis toward teachers who were either teaching Advanced Placement or going to teach it.

BW: Do they ever repeat?

EJ: Teacher never repeats. On a few occasions, a person came back at their own expense, but they were counted as an extra person.

BW: You were under a number of presidents here.


BW: Do you remember anything about Lubbers? He wasn't a science person really.

EJ: No. A very capable person and administrator. A very confident person, very articulate, and he had good savvy. I'm not sure if this is the presidency so much, but the chemistry department itself always seemed to do pretty well with the administration in terms of funding. Finally Van Zyl started a so-called discretionary fund for chemistry where he could put little grant monies aside and hold them for purchase of equipment, or use them as matching funds for purchase of equipment, or use it for student salaries, or specialized chemicals, or supplies, or for travel. Van Zyl started this discretionary fund which we've maintained over the years. I think the total budget for chemistry has been higher at Hope over the years than most other four-year liberal arts colleges, so that all administrations in a sense were very supportive of Hope from the financial standpoint. I don't know to what extent the
president in each case had a direct involvement in that, or whether it was just sort of
an assumption that went from year to year that chemistry needs quite a bit of money.
The science library was a big deal, because of the high costs of chemical abstracts and
other journals.

(end of side A)

(start of side B)

BW: President Vander Werf did a lot for the sciences too.

EJ: That is correct. He really had good perception as to what the sciences needed at
Hope. So that was a real assistance.

BW: Was he fair to the other departments as well? Because sometimes he has been accused
of...

EJ: I think in reality he was, but their perception of it was that he was not fair. I think in
a sense, all departments grew during his administration, but there were tensions
involved.

BW: Do you know anything about his leaving? That was kind of a strange leaving, wasn't
it?

EJ: Well, a large number of faculty met, and in a sense were sort of opposed to his
leadership style, and what he was doing. But maybe they were mostly opposed to his
leadership style. It probably became apparent to him that he should accept a new
position, which he did.

BW: So he could have continued if he wanted to?

EJ: To my knowledge, he was not ousted.
BW: Van Wylen, did he carry on Vander Werf's policies, or did he come in with something real new?

EJ: I think he maintained the policies pretty well. I think he had to make decisions for the college that were appropriate for his particular time. I don't think he let down the sciences in any way. In a sense they were strengthened even more throughout his administration, so in a sense we've seen a constant increase. I don't think there was anything so radically different in what the two people stood for.

BW: Was Peale started under Vander Werf, or was it finished?

EJ: Actually Peale was dedicated in '73, so the building was on the way when Vander Werf left. No, I guess not. I guess the building actually started after he left. There was a two-year interim, wasn't there, between presidents?

BW: Yes.

EJ: And Van Wylen started in '72?

BW: I think so.

EJ: This building was dedicated in the fall of '73, so I guess it was in that interim two years when most of the construction took place. Cal Vander Werf had made arrangements for the loan and the grant for the building. Those were maintained almost beyond the deadline, or beyond the federal guidelines for that. But somehow they retained the possibility for loans and for grants for this building. That is to Vander Werf's credit, that he maintained that, and the building did take place.

BW: Was Lubbers no longer adequate, or just outdated?

EJ: Lack of space was really a primary concern. The ventilation system didn't really
work well. It seemed to have enough ventilation equipment, but it just didn't work right. The real problem with Lubbers Hall was that it was designed, at the time it was built, for a chemistry department of two people, a physics department probably of one or two, and a biology department of two or three. In the '60s, the chemistry department alone had grown to a staff of nine. The space was just completely inadequate. We were fortunate to have some large teaching labs that were quite adequate. But as new staff members came in needing their own research labs, we had difficulty finding space for offices and research labs for these people.

BW: I just remember a little bit about that, vaguely when my dad was in there. He had that outhouse built in there once, I remember. That's about all I can recall about Lubbers and the sciences. How was the move?

EJ: I have to say superb, because Jekel Moving and Storage did it (laughs). No, it came off quite well.

BW: Did the faculty take part in that?

EJ: Yes, they gave direction to it and helped tag things. Just as movers would expect.

BW: How about grants? Those have been pretty important to science here. They started coming under Van Zyl?

EJ: They did, right.

BW: Pretty close to the time you were here.

EJ: That's right. I think Van Zyl had gotten his first grants maybe in '54, that year sometime. I came along in '55. By the time I came here, there were students who were doing full-time summer research under Van Zyl.
BW: Do you still rely on those grants? Is it still pretty important?

EJ: Yes, and it has expanded. The chemistry majors at Hope who go on to grad school really should have that kind of experience as an undergraduate. These grants allowed that.

BW: So that's when research really started? About the time the grants came?

EJ: Yes, about the time Van Zyl got the grants.

BW: Are they still able to get grants today? Are they available?

EJ: Right. One program which was so very important to Hope was the so-called NSF Undergraduate Research Participation Program. When NSF scratched that program some years ago, that was a blow to the department. We had the students here who were wanting to do research in the summer, and yet we didn't have the funds then for all students. In the years that Doyle was with us, the fact that he would take on as many as fourteen students really was an asset to our majors program. We really served our own majors very well, because almost any student who wanted to do research in the summer, really could be fit in. Whereas now, we do have some students who cannot be accommodated. We could use some more summer grant money for research, because we do have some students, I think, who would work here in research if they could.

BW: Brink was going to ask you to work along with that a little bit on writing that research history for the council on undergraduates. A lot of that current thing about research. How about some of the other faculty that have been on here?

EJ: I think of some faculty that have really made a strong impact in the time that they
were here. Dwight Smith was one of those persons who was really a strong teacher and had generated a lot of his own written materials for labs and such. I think he made some changes in the teaching program that we have retained. He was an analytical chemist, a very fine person and teacher, and researcher. Doug Neckers really made a powerful impact. Jerry Mohrig stands out, who now teaches at Carleton. He was here maybe for just three years, but he was a person who really sort of turned things around. He and Neckers together were organic chemists, really developed a strong program in teaching and research. Dave Klein, whom you may remember, made a real impact on teaching.

BW: Good sense of humor. That's what I remember.

EJ: Right. I guess there are many others that I don't mean to overlook. It has been a staff that has worked well together over the years. I think that has been one of the strengths. There was a large range of professional involvements of all of the people. The efforts of your father in the environmental work over the years, as being an important contribution in that area. Doyle, of course, being sort of a unique person in the nation in what he was doing. He worked so much harder than most people would care to work, in doing what he was doing. So that was really very unusual. There's a wide range of professional contributions.

BW: You were here at the time of the Sloane grant. That really was a boost, wasn't it?

EJ: Yes, quite a bit of curriculum revision, a lot of instructional instrumentation, pH meters, Spec 20s and such arrived on the scene for freshman lab instruction. There was a certain cooperation among science departments in the curriculum which was
kind of interesting. We reverted back to some more traditional courses and such, but at least it was a stimulating thing for the department in the '60s.

BW: What are some of the other developments that you can think of during your time here?

Big equipment grants...

EJ: Well, the acquisition of some major equipment such as NMRs and Mass Specs. We're on our second NMR research instrument. We're on our second Mass Spec. All of these large instrument acquisitions certainly stand out.

BW: That's unusual for a small undergraduate school, isn't it?

EJ: Yes to have that equipment, sure.

BW: So that ranks us pretty high. How does the future look here?

EJ: One unique thing for Hope's chem department is the fact that over the years, freshman students have entered because they knew they wished to become chemists. Many small schools, and even large universities, don't have that drawing feature. This has really added strength to the department, the fact that we have people committed to chemistry. They know it in high school, and Hope College is the place where they want to study chemistry. They come from all over the nation. I think that this is kind of an unique strength. You ask about the future, but I think the future kind of depends on our students, and continuing to draw students who want to become chemists. I guess I can't really predict that, except at present, it looks good. Every year we have a large number of students who wish to become chem majors. But there are so many schools that sort of have to convince undergrads to become chemists, through the course work and such. In a sense, they come to us with those interests.
That's a real strength.

BW: So the science reputation has pretty well continued?

EJ: Yes, it has.

BW: That leads to a large number of placements in graduate school?

EJ: Yes.

BW: That has just about answered all of my questions.

EJ: One highlight over the years too, has been the start-up of the seminar series. We've had very professional people, very professional talks. These talks have assisted faculty. The interactions have been great, and it gives our students insight as to what graduate research is like. That program started in the '60s and has been maintained. That will continue on in the future for sure. That has added an excellent dimension to the department. Chemistry was one of the first departments to do this, and of course other science departments are doing it now as well. I don't think this is too boastful, but I think we have seen other science departments at Hope strengthen because in a sense over the years they observed some of the things that chemistry was doing. So there's been a recent upsurge in physics research and in biology research. I think some of these departments did indeed pattern themselves after what chemistry was doing. In a sense chemistry appears to be in a little slump now because the grant money isn't rolling in quite like it did some years ago. Some of these other departments are really hitting it off pretty well. So in a sense, all of the science departments now are a little bit more even in what they are doing professionally in research, and faculty giving papers, and faculty winning grants of that sort.
BW: Has it been possible to combine majors among the fields, like biochemistry?

EJ: It's more that a student would get a dual major. A student can do this in biology and chemistry. Perhaps students will not be as strong in the senior-level offerings in those two departments, but students can do it in biology and chemistry. So it's more of a dual major. It's a little bit more difficult to do a dual major between chemistry and physics because the math requirement is also high. It's just hard to fit in all of the advanced courses for those disciplines. But we do have some students who take that large complement of courses in both physics and chemistry.

BW: Is there still a pre-med advisor program?

EJ: Yes, I am the person. That has been going well. I think the numbers are maintained fairly well over the years. There may be a slight decrease right now. I can give you a recent record. I don't have those students isolated by departments, but at least that's a record for '86. I don't have our '87 record compiled yet, but it also stands up there.

BW: Is this a copy?

EJ: You can have it.

BW: They go here for the four years?

EJ: Yes. Pre-Dent students can go three years. But Pre-Meds go the four, for the most part.

BW: Is there an engineering program somewhere?

EJ: Yes, you can talk to them.

BW: When did this start?
EJ: Oh. Norm Rieck was the first Pre-Med advisor, and he arrived at Hope perhaps fall of '62, maybe. You can look up when he first arrived on the scene at Hope. Part of his appointment was to be Pre-Med advisor and also to teach biology. I took over for Rieck then in 1977.

BW: Okay. Can you think of anything else to add?

EJ: No. I appreciate your efforts in putting this together. Many of us are too busy to do the kind of assignment that you have taken on. I appreciate that.

BW: It has worked out pretty well. Thanks for your time.