# The Hottest Team in Town

**Bringing together geosciences and engineering to create the Energy Center requires expertise, experience and mutual respect.**

**OU Deans Stehli and Jischke**

**By CAROL J. BURR**

The hottest team in town isn't on Sooner playing fields these days; it's in the offices of the colleges of engineering and geosciences, where the University's two newest deans have formed a unique alliance.

Far from the roar of the crowd, Martin C. Jischke and Francis G. Stehli are using a blend of personal talent, professional expertise and mutual respect to achieve a three-fold purpose: revitalize an established college, create a completely new one and bring both together in the academic programs of OU's new Energy Center.

Jischke's appointment in 1981 at the age of 39 as the fifth dean of the 74-year-old College of Engineering came as no surprise to University insiders. Even in a national search that brought together an unusually strong field of prospective deans, Jischke clearly was the top candidate.

For most of his 15 years as one of OU's bright young faculty members, Jischke has been a comer. He was chairman of the faculty senate at 33, recipient of the Regents superior teaching award and a prestigious White House fellowship at 34, department chairman for aerospace, mechanical and nuclear engineering at 35.

The recruitment of 57-year-old Frank Stehli as first dean of the brand new College of Geosciences was a different situation. For more than a year, as the University searched for just the right scientist/educator/administrator, Stehli's name kept resurfacing. However, Stehli wasn't looking for a job.

Stehli was in his second year as dean of graduate studies and research at the University of Florida, where he and his wife Irene had moved after 20 years at Case Western Reserve University in Cleveland. At Case he had been professor of earth sciences, geology chairman and dean of science and engineering. He also had taught at California Institute of Technology, worked in the oil and gas industry and was a consultant to three major oil companies.

"I was on my way to do some consulting up in Montana," Stehli recalls, "and J. R. Morris (Norman campus provost) asked me to stop by and see what they were planning out here."

Stehli was intrigued by plans for the new Energy Center and the geosciences college, which would be one of its principal occupants. He also was impressed with Martin Jischke, who as the new dean of engineering would be his closest colleague if the Energy Center concept were to succeed.

As chairman of the task force then in charge of Energy Center planning, Jischke concluded immediately that Stehli was "far and away the best candidate . . . in a class by himself."

"I was scared to death that they weren't going to be able to hire him," Jischke says. "He had excellent academic credentials, terrific administrative experience. He was a geologist with experience in the oil and gas industry, and he had high standards. He was strong in his commitment to research and academic quality. He was straightforward, and he knew how to get things done."

Jischke also liked the idea that Stehli was coming off a job as a graduate dean, where he had been in

the business of getting colleges to work together.

"Frank understands that you can't work together if there isn't something in it for everybody," Jischke explains. "If you're out to get your counterpart, or take advantage of him, it may work once or twice, but that's no basis upon which to build a lasting relationship. Frank also has a better understanding of an engineering college than most geoscientists."

Stehli finds it easy to work with engineers in general, and Martin Jischke in particular. "Strip away everything else," he contends, "and engineers are basically problem-solvers. They like to find out what's wrong and get it fixed. That's very healthy in a university — to quit fooling around with a lot of nonessentials and figure out what needs to be done and do it.

"That's very much Martin's mode of doing things. He's efficient; he's very receptive to ideas. He's ambitious, and so he sees anything that contributes to the advancement of the college or department or school within his jurisdiction as a plus. The only real way that people work together is when they see some personal benefit in doing so, and in this case, it's there for both of us, so it's a natural."

While both Jischke and Stehli are pursuing individual goals for their colleges and common goals in Energy Center programs, they do so from different perspectives. Stehli's many years as a dean on other campuses gives him the administrative edge and an expertise that strengthens their partnership. On the other hand, Jischke's years of service to the institution, his overt loyalty and commitment to OU, give him an understanding of what's possible that Stehli finds an invaluable orientation short-cut.

Dealing with what's possible while keeping the dreams intact is the area that is testing the determination and ingenuity of the two new deans as plans for the new Energy Center progress.

During Jischke's first year as dean, when Stehli made his decision to come to Oklahoma, the University still was enveloped in the euphoria which had accompanied oilman Bill Saxon's announced intention to contribute $30 million to the project. With other public and private matching funds, the center became the largest partnership venture in the history of Oklahoma higher education. Then the downturn in the oil and gas industry caused a severe crisis in Saxon's company and put the gift on indefinite hold.

Jischke was pleased that the reaction within the University, with the persons directly affected by the loss of the Saxon gift, was more realistic and generous than the public's reaction.

"My own personal opinion is that if Bill Saxon's fortunes are such that he's never able to deliver on that commitment — and I know that he wants to desperately — he still will have given us something terribly important — a vision. We would never have tried for what we're now attempting if it hadn't been for him. Saxon allowed us to plan a center that's essentially sized by programs and academic concerns and not by a fund-raising goal. Our original goal was developed on the basis of how much money we could raise, not what we needed."

Jischke is emphatic about his faith in the inevitability of the Energy Center project. "The logic is pretty compelling," he says, "and like most things that are important and significant, it's going to have its ups and downs. The Energy Center is right for Oklahoma, and it's right for this University."

Jischke gives all the credit for the initial re-emphasis on energy education to the alumni advisory committee in the School of Geology and Geophysics.

"They took an active interest in that school over a period of years," he explains. "They were worried about the quality of the program, and they came to the judgment that it wasn't as strong as it could be or should be. Now that's tough for a group of alumni to admit, but it's even harder for the people in the program to say, 'We're not as good as we should be' — but they did.

"Second, they were willing to make a commitment of their money to improve the school—the Monnett Chair, the Klabzuba Professorship, the Schultz Professorship. That was the indication that there were resources you could draw on from outside the University. Then it took Bill Banowsky to be the catalyst, to put the pieces together."

Some early discussion was given to pulling petroleum engineering out of the College of Engineering and combining it with the School of Geology and Geophysics in a College of Energy, but the interdependency of the seven engineering schools through core courses, shared research, teaching interests and established professional networks mitigated against that idea. On the other hand, to ask the College of Engineering to absorb geology and geophysics would have been equally unacceptable.

The solution was an Energy Center which would house a new College of Geosciences with its own dean, composed of the School of Geology and Geophysics and the Department of Geography, formerly parts of the College of Arts and Sciences, and the Department of Meteorology, formerly part of the College of Engineering. Co-tenants in the Center would be the School of Petroleum and Geological Engineering and the School of Chemical Engineering and Materials Science, which would remain administratively parts of the College of Engineering.

But the key to the solution was the location of the Energy Center, just east of Carson Engineering Center.

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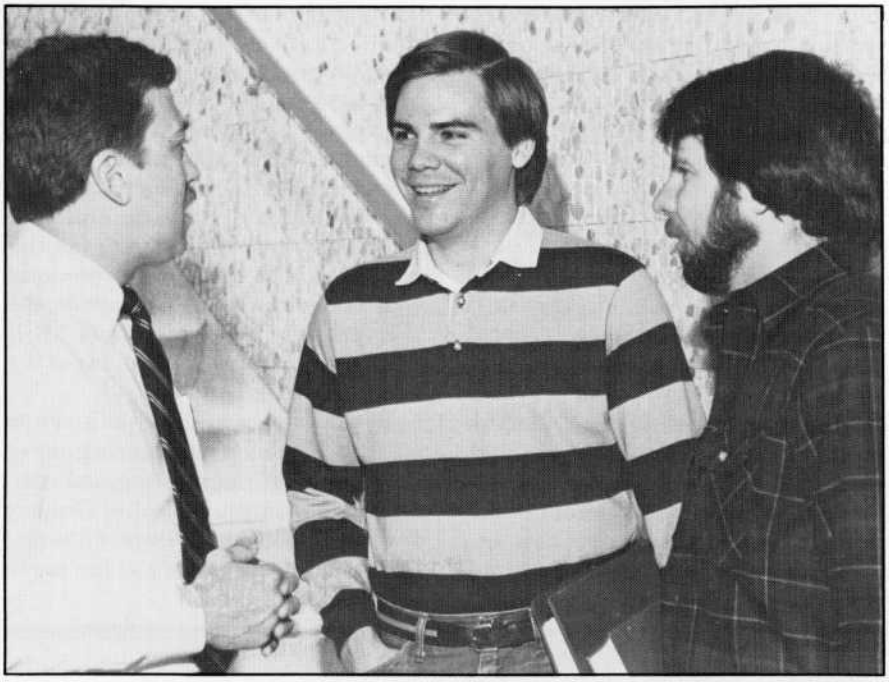

*Jischke welcomes the challenge of a deanship but still misses classroom teaching. Here he talks with students Keven Stellner, center, and Bruce Roberts.*

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"The site selection was recognition that you couldn't have an Energy Center without involving the entire College of Engineering," Jischke says. "It said to everybody in the college, 'You've got a stake in this thing.' It had always been a foregone conclusion that even if the Energy Center were reduced to a tent in the middle of a field, the tent would have geologists and petroleum engineers in it. Now we could see how the rest of the campus would relate to it."

Stehli had his own set of problems in the College of Geosciences when he arrived in September 1982 to take over from David W. Sterns, the Monnett Professor of Energy Resources, who had been doubling as interim dean during the search. Molding three separate disciplines into a cohesive academic unit is a complicated process.

"You inherit a certain amount of history," Stehli explains. "It would be nice if you didn't — if you just started from basic principles — but you can't do that because each group has some traditions. Change, after all, is a very threatening thing to most people."

The tradition which Stehli found in geology and geophysics, where the impetus for the Energy Center had begun, was very strong. Once the premier school of its kind in the country, geology and geophysics had suffered from the fluctuations in the oil and gas industry over the past 20 years and now found itself with 800 to 900 majors and faculty for about 200.

"There was no energy left over for research," Stehli says, "and research is really what gives an institution its national or international reputation. We're looking at increasing our entrance requirements, so we won't have such mobs of students. We need a good population of students we can cater to — really turn out a first-rate product — and the energy freed up by reducing the numbers can go into research."

The research picture Stehli found in meteorology, on the other hand, was much brighter. "We added two very good people in meteorology last year, but we can do things in meteorology without a big infusion of people. The research tradition is already there."

Stehli has a number of cooperative proposals in the works for meteorology which will greatly strengthen the department at very little cost. "I don't think it's all dreaming," he says, "to suggest that we can be the strongest meteorological outfit in the country."

The geographers face a much different adjustment in coming into the new geosciences college. "They naturally feel sort of nervous at being thrust into what is basically a physical science college," Stehli explains. "Some of the faculty are fundamentally humanists and more akin to history, for instance, than to physical science. But there's a real place for that, because discoveries and new knowledge of physical science are not of any use unless they begin to have an impact on society. You need people who can assess what that impact will be and whether a particular thing is worth doing or might even be harmful."

In engineering, meanwhile, Jischke's task is to shore up the resources of a college whose enrollment over the past few years has far outstripped its faculty, equipment and space. In his first year as dean, Jischke supervised the recruitment of 24 new engineering faculty members, a teaching commodity in short supply nationwide. He credits his college's interrelationship with the other elements in the Energy Center as a major hiring asset.

"There was an exciting thing going on at OU — the Energy Center — that wasn't going on anywhere else," Jischke says, "and practically every prospective engineering faculty member could relate to it in some way. That's an important lesson: if the sup-

*Above: Stehli, right, visits with geology director John Wickham, left, and geography's Neil Salisbury. At right: Stehli and Wickham check new equipment with Keith Egan.*

port is there, the University of Oklahoma can recruit against the best universities in the country. We can be as good as we want to be. Nothing in our traditions or in being in this part of the Southwest stops us from being very good."

Jischke himself claims to have come to the University by accident, the result of a chance meeting with OU Professor Tom Love at a professional meeting just after completing his graduate work at MIT. When he arrived in Norman, everything the aeronautical engineer owned was packed in his compact car. Two years later he married Patty Fowler, daughter of OU physics professor Richard Fowler. Opportunities to go elsewhere came along, but Jischke discovered that he had become thoroughly committed to the future of the University of Oklahoma.

"I believe that the people who make the difference in an institution are the people who hang in there," he explains. "Of course you have to be careful. You can substitute lack of ambition and call it loyalty.

"Initially I stayed at OU because of the freedom I enjoyed as a faculty member, to teach the courses I wanted, to do research in the areas I wanted to pursue. I feel strongly that you ought to be doing something you think is important, and I think teaching young people is very important."

Stehli had similar reasons for choosing education over industry. "People get into the academic game because they are fundamentally romantics," he theorizes. "They want to do what they want to do when they want to do it. The university is the only place where that's possible. If you are in industry, you still might be interested in a project, but the company decides that it's not interested, so it ends. I like to work at something until I'm satisfied myself that I know everything I need to know about it."

Stehli admits to some frustrations that the state's budgetary problems are slowing the development of his college and the Energy Center, but he doesn't dwell on disappointments.

"The potential is still there," he says, "and I wasn't counting on the proposed time schedule anyway. If someone had told me I could hire 15 geologists in the first year I was here, I couldn't have done so effectively. You can only add two or three a year and assimilate them into a single department without causing chaos. I'm not really upset that I can't hire the 15, but I am going to be upset if I can't hire the two or three, because that's what it takes to change things."

Stehli is hopeful that state revenues will pick up and make it possible to hire faculty again, and if not, he is prepared to "hit the trail harder" to find private funds. And he will push the faculty to seek grant support for their research.

Both Stehli and Jischke already are spending a good deal of their time on the road, looking for outside program and facility support that will enable them to make maximum use of the Energy Center. One of their strongest selling points is the interdisciplinary nature of many of their proposals.

"We're not locked up in big turf questions," Jischke says, citing a research proposal to a major oil company built around the whole problem of reservoir characterization. "It is headed up by David Sterns, a geologist, but draws on the faculty from the colleges of engineering, arts and sciences and geosciences."

Even more dramatic are the proposals which Stehli and Jischke have working for shared facilities and instrumentation in the new Energy Center.

"Frank and I have committed to contributing equally to a major analytical instrumentation facility," Jischke explains. "We'll try to buy

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very expensive pieces of equipment that we both need, which are certainly beyond the need of an individual faculty member or department and may be beyond the means of a college. This equipment is not only expensive to purchase, but expensive to maintain and operate."

"There's enough demand to operate these kinds of machines as much as 24 hours a day," Stehli adds. "Of course, everyone would like to have his own dedicated machine in the room next to him, but the price of instruments has escalated almost twice as fast as inflation. You're not going to have that machine unless you share it."

Stehli points out that so far as people and projects are concerned, the Energy Center already exists at the University. All that remains is to bring the many parts together in the building, and construction is scheduled to being this fall. Many of the instruments which will go into the shared facility are already in use, particularly in geosciences.

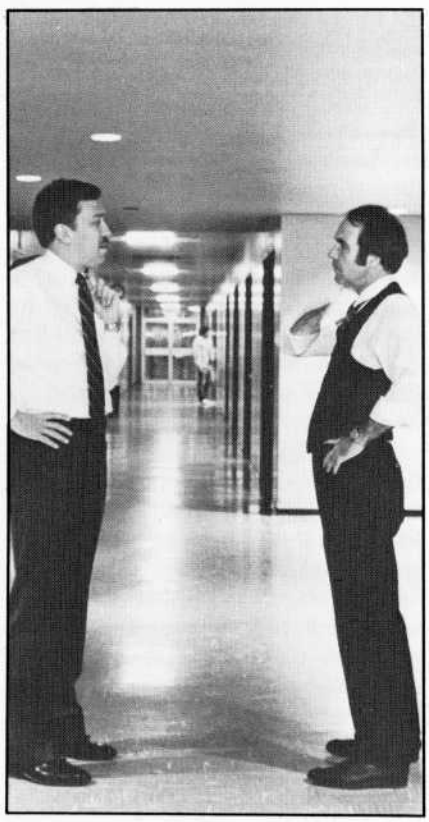
"When we move into the Energy Center, we can make them available to a number of departments," Stehli says, "the mass spectrometer and x-ray equipment especially. Chemistry, for instance, would benefit from some of these analytical machines, and physics from others, and possibly groups like microbiology.

"Industry may be interested in some of these instruments too, but the place where the university can be a real value to industry is in its tremendous web of people in all sorts of disciplines. When you get into interdisciplinary areas, industry has to weigh the time factor — that they could possibly do the research themselves faster — against the expense of hiring somebody in physics and chemistry and geology and electrical engineering. So they may decide to farm it out to the group that has those people and instruments already."

Both deans are aware of the tradition of competition, even rivalry, between the graduate geologists and petroleum engineers, but they discount its importance academically.

"Oh, it exists," Jischke admits, "but it's an artificial barrier that is more real outside the University."

He credits some of this feeling to the organization of most oil companies into exploration and production with geologists dominating exploration and the petroleum engineers dominating production. He also thinks that the interrelationship of geology and engineering at OU suffered when the geologists, formerly located in Carpenter Hall across the street from the engineering building, moved into Gould Hall at the other end of the campus in the 1950s.



*At the end of a long day, Jischke confers with chemical engineering director Carl Locke, whose school will move into the Energy Center.*

"We get along very well," Jischke claims. "We have a lot of common interests, academically and scientifically. One of the things we're trying to emphasize is that the Energy Center will give us the vehicle to bridge this gap between the engineers and the geologists."

Jischke is fond of pointing out that one of the most active members of the Engineering Board of Visitors, Jere McKenney of Kerr-McGee, has a bachelor's in geology and a master's in geological engineering, while one of the most influential members of the geology advisory group, Denny Bartell of Houston, earned his degree in geological engineering.

"When I became dean and found out that Denny was a geological engineer, I was flabbergasted," Jischke laughs. "It suggested to me the depth of the relationship between the two colleges. So I waited awhile, then I asked him to join the Engineering Dean's Council (a $500 per year support group) — and he did!"

In the late '40s and '50s, the University produced a great many outstanding geological engineers who are now leaders throughout the oil and gas industry. The curriculum, in which a student takes more geology than an engineer and more engineering than a geologist, declined dramatically when the geology school moved south. Both Jischke and Stehli are anxious to revitalize the interdisciplinary degree.

"It makes a lot of sense," Stehli reasons, "and we have enough personnel around here to make it a pretty good, accreditable program."

Jischke agrees. "When they get into the same building, with two deans who are interested in some collaboration, we can resurrect that program, because it really is an attractive degree."

Jischke and Stehli don't claim to have the patent on collaboration, but they do seem to be elevating it to a new art, one that is making the success of the Energy Center not only possible but inevitable.

Or as Stehli prefers to phrase it, "Obviously there's a lot more strength in having the wagon pulled by two horses than in having it pulled by one."