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Peter R. Betzer : USF 50th (2006) Anniversary Oral History Project: interview by Lucy D. Jones

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Peter R. Betzer

Lucy D. Jones

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TOPICS OF DISCUSSION

Dr. Betzer came to USF as an assistant professor in 1971.

Arrival at USF
Dr. Betzer was selected while in Graduate School to give a lecture in Japan as the representative from the University of Rhode Island. Someone from the National Academy of Sciences found out what he was doing on the way over and asked him to speak. All the other speakers were experienced researchers while he was only a graduate student. Ken Carter came up to him afterwards and asked him to apply to the school because they were looking for people in his field. He didn't even know where the University of South Florida was. At the time, Marine Sciences employed only five people.

Campus upon arrival
He uses the term campus loosely; everything that USF had in St. Petersburg was compressed on a peninsula that juts out into the harbor. There were only two buildings at the time. One of them is still standing, the Merchant Marine building, which was built in 1941. They also had a wooden building that was deteriorated by termites by the mid-1980s. All the undergrad marine sciences programs were in these two buildings on this small peninsula. The groundbreaking for new facilities that would eventually become a part of the new campus would not take place until the mid-1970s.

Campus expansion
Governor Graham came for the groundbreaking and the dedication of the new facility. It was exciting to have the governor there. The city of St. Petersburg was able to help the campus expand. "St. Petersburg Progress," a community of businesses, paid for the property in order to allow the campus to grow. The harbor at the time was "a wreck." It was a very "down and out part of St. Petersburg" and the "transformation has been unbelievable." The state has never purchased expansion property, the business community in St. Pete has always done the purchasing that allowed the University to expand.

Involvement in business community initiatives
Dr. Betzer was involved in "St. Petersburg Progress" which is now called "St. Petersburg Downtown Partnership." They started working closely with John Lake, the former publisher of the St. Petersburg Times. Lake, along with Nelson Poynter and several bank presidents raised the money to buy the expansion land over lunch. They didn't let anyone know that they were accumulating these tracts of land and gave it to the state. The University was able to convince John B. Lake that marine science in particular would become a great program for research and education in the city. This would allow high quality scientists to come to the area. This group has probably been the "single greatest contributor to the University of South Florida that there is." They have contributed land and many fellowships. They have contributed over a million dollars, perhaps as high as two million dollars to the University over the years. The Marine Sciences Department won the National U.S. Geological Survey Competition in 1988. Without the donors they could not have won that competition.

Dr. Betzer's Role in the business community's money-raising
Business people are occasionally put off by academia because academics tend to take a longer time to come to decisions while business leaders must make choices quickly and often. The business community allowed Dr. Betzer to become a part of the group and was very helpful to the Marine Sciences program. This was very helpful when USF was not considered one of the top universities in the state university system. The University of Florida and Florida State University received preferential treatment. The business community came into a discussion that the University was having with the Board of Regents. USF wanted a Ph.D. program in Marine Science at USF and the BOR did not. The business community in St. Petersburg really came to the aid of the University. Carl Riggs, the Vice President of Academic Affairs, was supporting the University's position, but the assistance of the business leaders was a great help to the cause.

This was an unusual occurrence. Most times business leaders do not associate themselves with Ph.D. programs. But these people were willing to fight for the possibility of a major research program in the community. Lake was actually "incredibly aggressive" with the BOR in trying to get this program off the ground. He isn't exactly sure what they did, he just knows that the business leaders went into the situation and got things done.

The business community supported the program for a number of reasons. Dr. Betzer believes that what they saw was the possibility for academic stature and technical achievement was something that St. Petersburg had after they lost the fight for the USF to Tampa. They saw that this was an opportunity to bring good intellects and technical people into the community. Dr. Betzer is not sure why Jack Lake and his associates decided that USF St. Pete was so important, but they did so much to help them out. They had reviews when the program was in its initial stages; Miami got the Post Secondary Education Commission to review the school's program and Florida State was behind another review. Dr. Betzer believes that the schools wanted to get the program in its initial stages; the business leaders met with the reviewers (the reviewers were some of the 1,600 people in the National Academy of Sciences), a group of "very eminent people"

who were impressed by the doggedness of the community leaders in their support of USF St. Petersburg. In this was they were helpful to the establishment and maintenance of a doctoral program and the stature of the program in the eyes of others. When Jack Lake retired from the St. Petersburg Times they named a fellowship after him. The fellowship is given every year in the form of a $250,000 endowment.

Working at USF

This was Dr. Betzer's first job out of graduate school. While he and his wife decided that he would keep the job for two years, he has now been there for thirty-one. What initially attracted him to the school and kept him there over the years was the bright young minds on campus. There were great people researching at the school with little support and they were still getting national attention so he decided that it would be a good opportunity to help a fledgling program and make things happen rather than go to a big and established school and get somewhat lost in the shuffle. There were no traditions in the USF Marine Science program when Dr. Betzer arrived.

The dean at the time was Theodore Ashford. Dean Ashford believed that the school had made a mistake in its allocation of funds by starting the program. The Dean told Dr. Betzer that he had made a big mistake and should have joined the chemistry department. Dean Ashford also said that if the University was structured correctly that everyone in Marine Science should go back to their current departments. The future of the program was "tenuous at best." William Taft, the director of sponsored research, was very supportive of them. They had almost nothing and he was good at providing federal matching funds. He was able to put up half the money for expensive instruments. This was very helpful with federal agencies because the sharing of costs allows the agencies to see that people are serious about the program.

Carl Riggs also made a huge difference for the program. Administrators at USF were asked to pick an area that they believed would be an area of excellence in the future and they would get extra money. USF picked Marine Science. The main campus selected a group of nine faculty members from St. Petersburg and they got 8 new faculty positions and extra money. This was important because they then also received a certain amount of recognition as being important to the university community and important in the eyes of the outside world.

They were joined by Robert Garrels, arguably one of the top three people in geo-chemistry in the world. He was in the National Academy of Sciences, and had previously been at both Harvard and Northwestern Universities. He wrote a letter to USF asking to apply for one of the positions. His colleagues were amazed and one of his associates in the National Academy of Sciences had to write a letter of recommendation for Garrels. Wallace Broecker wrote a letter to Dr. Riggs saying "Dear Dr. Riggs, If you think you can get Robert M. Garrels to join you at the University of South Florida than you ought to roll a red carpet all the way to, Evanston." Dr. Betzer believes that what Dr. Broecker meant was, "Garrels had lost his mind."

They have been going steadily up and up since they established the Ph.D. program. Carl Riggs and Jack Lake were friends, ensuring a close connection between the St. Petersburg downtown partnership and the academic community in Tampa. There was encouragement from Riggs for the association between community business leaders and the school because the state could not provide all the things that the business community was offering. Having these people helping the school and providing financial and community support was very important to the development of the campus. Lake helped drive the endowment of the chair in science in 1982. What is less known because of the perceived competition between Tampa and St. Petersburg is that Lake was also a force behind the endowment of an engineering chair. He had a vision of a better University of South Florida regardless of the campus, St. Petersburg or Tampa. "He was truly remarkable in that sense, way ahead of his time." Without the aid of John B. Lake and the business community, "At the very best we would have been significantly impeded."

Becoming department chair
In 1982 he became chair of the department where he served for many years before becoming dean. It has been an exciting period for Dr. Betzer: they won the national competition for the U.S. Geological Survey (USGS) (which might be the only time that they defeated Columbia, the University of Rhode Island, Duke, NC State and The University of North Carolina, "everybody in the country was stunned"), all the while they have continued to be supported by the community. This support from community, business, and administrative leaders is the reason for the successes they have achieved.

Impact of USGS Center
The graduate program has been "significantly enhanced." There are some respected and well known scientists on student committees. There is a lot of support for the sciences. He had little space for his last student before taking on his administrative position. He gave up his office space to Paula Koppel and he had no space to do work with a "wonderful new student" named Lisa Merman. The USGS gave her a laboratory and built her the systems that she needed to process her samples. They served on her committee and aided her. She would not have gotten her M.D. without the aid of the USGS. They have been a great help and the experience has provided a model for others. They have just purchased a new X-ray fraction system**,** a $130,000 system they don't have the room for. There was a luncheon at the USGS where they have a room for the system and provisions for a technician to run and maintain it. Thus, the two groups share the scanning electron microscope and transmission electron microscope because the university can afford to pay for it and the USGS can afford to house and maintain it. The USGS uses their machine shop. This is a "wonderful collaboration" because they accomplish more together. There have been at least five major national meetings because of this connection between the two groups. People are coming to USF St. Petersburg partly because of the association with the USGS. They started with six people and one building, now there are 110 people and two buildings (with a third to be built). This is the largest center for the USGS in the southeastern U.S.

This association could be used as a springboard to bring other similar groups into partnership with USF, including the National Oceanic and Atmospheric Administration,

the Expanded Coast Guard, the Department of Energy and the Environmental Protection Agency. Jack Lake understood very early that this would be a community effort, and that the people attracted by the program could be of great benefit to the community in general.

Greatest achievement at USF

Dr. Betzer feels that facilitating the interaction and support of the business community was very important. He also is very proud of the Oceanography Camp for Girls, started in 1992. They wanted to do a program to attract young women to the sciences. They began with the county school system and began with about thirty young people. The young people spent about three weeks with graduate students from around the world. The kids were able to go out on expeditions with graduate students on oceanographic vessels. Everything was paid for and they got to meet with many bright young women. The participants continue to stay in touch and meet occasionally for reunions. This program has actually made a difference in the paths these girls take when they get to high school. They tend to take more math and science. This affects peoples' lives directly because women tend to get paid a few more thousand dollars a year based on knowledge of math and the sciences. The program has been so successful that Dr. Betzer has tried to endow it, believing that state or county support would eventually run out. They also enjoyed support from the National Science Foundation, which judged the program a "model program for the United States." This was an honor and entitled the program to receive NSF funding for a while. The program is now endowed so they are able to pay for the mentors and pay the preparations. Thus, it should be able to go on for the foreseeable future. The capstone of the program is a presentation by the young people, who present their work and interact with the graduate students. It is a great experience and there are many young people that cry because they do not want to leave the program. This program is a rewarding experience, and Dr. Betzer is very proud because the college never had a fundraiser. The fact that he did all the fundraising makes the successes very sweet.

He is also proud of the USGS victory and the presence of professional engineers in their group. They have two state initiatives that Peter Wallace, Speaker of the House and Chancellor Reed believed in. They were given nine positions for engineers to come in and develop sensors for marine science, forensics and medicine. This engineering group "has done astounding stuff." Enterprise Florida picked out the laser scanning system developed by this group to advertise for technology in Florida. This system is being tested and if it works well it will be in every U.S. port in a year or two. While the system was designed to scan sand waves on the continental shelf, it can also be used to look for explosives in ship hulls and things in harbors by rotating the laser to look up rather than down. This was designed by people at USF St. Petersburg. Their work can be applied to homeland defense and medicine; Dr. Betzer is very proud of this although he had nothing to do with it beyond getting the positions opened. If he hadn't opened the positions then this work would not have been done.

One of their engineers was invited to give a presentation in Minneapolis by Intel, Boeing, and Rogers and McDermott Corporation. She has invented a new electronic chip without silicon. All the chip factories have been moved to China and India and by changing the

technology and making it better, faster and cheaper. The United States could get this production back and "she might have made the biggest discovery that's been made in years in the United States." They are in the process of patenting. Her name is Heather Broadbent and she is "a remarkable person, very self-effacing and quiet." He had the president of Rogers Corporation tell her directly to get that patented ASAP. Of these things he is most proud.

Changes in department personnel
They didn't have women in the department at first, which "was very embarrassing." The first woman hired was Pamela Hellock Muller in 1986. Now there are six women in a faculty of thirty, the last of whom is distinctive in that she is the only African-American female chemical oceanographer in the United States, Ashanti (Sunny) J. Pyrtle. The hire before her was an African-American man named Michael Howell, and he hopes they will help improve the diversity of the department and the grad student population. It has been relatively easy to get Chinese, Brazilian, Venezuelan, Caribbean and European graduate students, but they "do a terrible job, as does everybody else in the geo-sciences, with recruiting African Americans." They are trying to change that and the first step is to change the faculty. They have been lucky enough to get two great faculty members and now they have eight or nine African-American grad students as opposed to the two they had last year. They have a grant proposal to start a Research Experience for Undergraduates program with a focus on minorities. They were able to get historically black institutions throughout the U.S. to sign up and send people here over the summer. Whatever the scientific discipline, they can do work here. This will hopefully help get young people interested in the program and particularly young African Americans.

Now that they have added more women scientists, they are shifting their emphasis towards trying to make the program open to African Americans. They have a Native American professor and three Hispanic professors. They have never had a shortage in other ethnic groups, it was in the African-American community that they were not able to get people into the school. This is consistent throughout the geo-sciences. There were 390 post-doctoral fellows nationally in the geosciences and oceanography, only six of whom were African Americans.

Job market for graduating grad students
About thirty-five percent of those that get Ph.D.'s go into the academic world. Some teach at Penn State, Georgia, Skidway Institute of Oceanography, UNC-Wilmington and UC Irvine. They students are very good. One was just promoted after just two years as an assistant professor. One former student, Sunny Jiang at Irvine, was given a chancellors award for mentoring undergraduates. His oldest daughter teaches at Santa Cruz and received a chancellor's award for teaching. These awards are very rare.

Approximately another thirty-three percent work for federal agencies. A recent graduate is head of the National Oceanic and Atmospheric Administration, currently directing a group that is analyzing "how you apply real time data systems to coastal areas." These systems are in Houston, New York, San Francisco and NOAA is charge of them. This

young graduate student who worked on the port system was hired, and is running this for the entire United States.

Another thirty-three percent go back to their foreign countries and work at universities there. Some are in postdoctoral positions like Woods Hall Rouying, who got into their competitive postdoctoral program. He received one of their postdoctoral awards and has about 2 or 3 years of support at Woods Hall.

The first Ph.D. was Bruce Barber in 1984, who had created a "major aquaculture facility in the state of Maine." Tom Cuba was the second Ph.D., he owns and runs an environmental consulting company in the Tampa Bay area. The graduate can do many different things. The master's students can do many things as well. David Mearns has a company in England called Bluewater Recoveries. He found the Bismark and the D'arbyshire. After finding it, he discovered that it had a fatal design flaw. He told the House of Lords, though they did not believe him, and had to take all other Bulk Carriers off the ocean. He also discovered five tons of silver.

Dr. Betzer's first student has many patents and became a "business technocrat." There is a person named Steven Goodbred who got a Ph.D. at the Virginia Institute of Marine Science and is now "rapidly ascending the academic ladder" at the State University of New York at Stonybrook. He didn't get his Ph.D. here at USF, but he got his master's and developed an interest in the field.

Sandy Hiles is another example of a master's student who went on to interesting and important work. Sandy went to the University of Rhode Island for a Ph.D., which is "arguably one of the five or six best in the world." She came back to USF where she was offered a job to replace Ken Steineger at the Florida Marine research Institute. She will be heading up the Red Tide Division of the major environmental marine research lab in the state of Florida.

The number is not large, but the quality is good. There is a lot of faculty/student interaction and this is the key to the success of the program.

Faculty and faculty interaction

The interaction is mostly productive and highly encouraged. Andrew Torres published articles in the St. Petersburg Times about a research trip to the Antarctic. These research teams of ocean chemists and biologist looked at a problem and used chemistry and biology to solve it. The sciences they use are very interdisciplinary so they can share in the. They need to use people with different backgrounds and skills to do the research and problem solving that is necessary. Therefore they need to be able to interact with one another for the most part, because they work together and rely upon one another's knowledge.

There is a new International Ocean Drilling Program that includes several countries from around the world such as the U.S., Japan, and European nations. Almost every committee of the IODP has a member of the college of Marine Science at the University

of South Florida. This is the first time they have been so influential. Mostly people have individual labs, chemistry, biology etc. The faculty members team-teach and in many cases are proud they are able to interact and design an interesting and flexible curriculum. This is a great model for the future of the discipline.

College and interaction with the rest of the campus
For a long time there was a sense of separation between the college and the University even though faculty interaction has been great. The historians in particular, especially David Carr and Ray Arsenault, are people that the marine sciences "enjoyed and respected a great deal." The undergraduate program originally had no science component. Since this has changed, marine science classes have opened to interested students. There has been great interaction lately with electronics engineers, especially Debbie Cassill and Allison Watkins, who are putting together a major research proposal to the national science foundation in robotics. They all got together and put together this proposal with engineers in Dr. Betzer's department. Debbie Cassill actually has some biology students working with the United States Geological Survey. There has been a "wonderful sharing" with the other environmental science programs. They have developed links throughout the campus despite the lack of academic connections. While there were few sciences on the campus, now that there are more there is also a great deal more interaction.

Goals for the College of Marine Science
He wants to see the college advance, but he does not have a definite agenda. The things he does are driven by the faculty; Dr. Betzer tries to be "an enabler" and let the faculty work and move the school in a direction. There are certain things that must be worked on in the future, including attempts to find space and legislative support for the NOAA group in town that wants to come to the St. Petersburg campus.

The most difficult task of attracting federal aid has been taken care of. The science is moving in the direction of partnerships and he wants to do as much to facilitate this as possible. As a result the school will be helped immensely on many levels.

Final thought
"When I first looked at this campus in 1971 I said, 'Wow this was a big mistake - what are you doing here,' and there is a tremendous excitement in taking something from basically the very beginning and watching it grow and flourish and everything and there is a tremendous satisfaction and joy that comes from building something like that." Expectations of those at USF are higher than people on the outside so we should never "underrate your ability as an individual to have an impact and an effect in a very positive way on this institution."

End of Interview