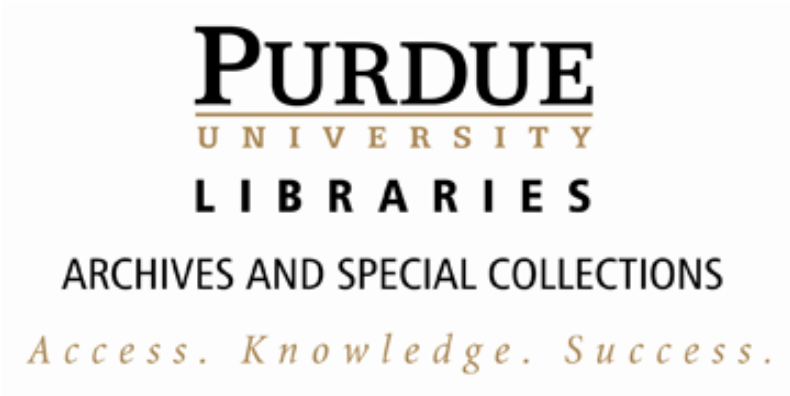
Dr. Rita R. Colwell Interview

Conducted by Katherine Markee on January 13, 2009



The following interview was conducted with Dr. Rita R. Colwell (RC), Distinguished Professor, University of Maryland, College Park and Johns Hopkins University, Bloomberg School of Public Health for the Purdue University Oral History Program. It took place on Tuesday, January 13th, 2009 at her office. The interviewer is Katherine Markee (KM), the Oral History Librarian.

KM: Thank you. Welcome.

RC: Thank you.

KM: Tell us where you were born and your parents and early years.

RC: I was born in Beverly Cove, Massachusetts on November 23rd, 1934. My father, Louis Rossi, and my mother, Louise Rossi, were immigrants from Italy, and I was one of six children. Actually, there were eight, but the oldest died of the influenza epidemic in the late 1918-1919 Influenza Epidemic. Another brother died just before I was born. So six living brothers and sisters in my family. I attended the Beverly Cove School for elementary school years and to Briscoe Junior High School and to Beverly High School. I went on to Purdue University as an undergraduate.

KM: Okay. Make a couple comments about your days in high school. Were there any activities that you were involved in?

RC: Yeah, several. I played on the girls' varsity basketball team, and we were pretty good actually. I was involved in various activities. In fact I received an award at graduation for writing poems and stories, and also received scholarships to

Purdue which included the Daughters of the American Revolution scholarship which paid for books and other awards for activities as a pretty active undergraduate, I mean pretty active high school student.

KM: Good. Did you apply to any other institutions other than Purdue or how did you happen to choose Purdue?

RC: It's an interesting story. I applied to Radcliffe, to Tufts and other New England colleges, and I've forgotten some of those other schools, perhaps Smith. I was accepted at Radcliffe, the women's part of Harvard University, which of course, in those days, women couldn't go to Harvard. They went to Radcliffe which means that, had I accepted admission to Radcliffe, I would have had a Harvard degree. I received a scholarship from Radcliffe but it was only half the tuition. In retrospect, I think the tuition was something like $1800 which is trivial by today's standards. I received a $900 scholarship, and the other $900 was just beyond reach. My sister had graduated, my next older sister, Yolanda Rossi Frederikse, had graduated from the Massachusetts College of Art, and then had gone on to obtain a Master's in fine arts at the University of Illinois. By this time she was financially without means and had taken a job teaching art at Purdue. She asked, "Why don't you apply to Purdue?" which I did do. Purdue offered me a scholarship which meant that I could go to college, live at the college and be able to afford my college education because I received funding. So it turned out to be one of those wonderful, fortuitous outcomes because had I gone to Radcliffe, I very likely would have ended up doing women's studies, that is, very likely

studying literature or the humanities and not science. By attending Purdue, I was exposed to engineering and to science and found that that's what I really liked. It turned out to be an extraordinarily good choice and very lucky because it was a series of fortuitous circumstances, sheer good luck!

5:00 **KM:** What year did you enter Purdue, and tell us a little bit about campus life and things when you were here.

RC: It was an interesting time. It was 1952, September, Purdue University was really the epitome of the 50's with "white bucks," corduroys, corduroy skirts for women when you were a senior. And the huge majority of male students in engineering, proudly attached to their belts were their slide rules. I don't think any engineering student today knows what a slide rule is, never mind use it every day. I joined a sorority, Delta Gamma. It was really a lot of fun. I was involved in Science Club, the undergraduate science journal, in the debate club. I ended up in the Gold Peppers, Mortarboard, just about all the activities that were available at Purdue.

KM: Lots of activities.

RC: Yes, lots of fun things to do and even ended up pledge master for my sorority.

KM: Very good. What was the, you were in the School of Science. That was what your interest was. What was your major?

RC: Well, I started out in chemistry, but the classes were huge because, you know, every freshman had to take chemistry. By the way, there were only about 9,000,

well maybe about 12,000 students at Purdue at that time. So Purdue was a small school. Of course, now it's, what, 50,000?

KM: We have 40,000 here.

RC: 40,000 undergraduates?

KM: That's correct. Well, total enrollment at the moment is about 40,000, with the grads.

RC: It's significantly larger than when I was there. When I was at Purdue, the entire undergraduate, well, no, half the total university student population could fit into the Music Hall.

KM: Wow, that gives you a good perspective.

RC: Right. I remember there were approximately 6,000 seats. There were a few more than Radio City Music Hall because Purdue would boast about that. Then Radio City Music Hall in New York would add a few seats, then Purdue would add a few seats.

KM: I heard that. It's an interesting story, isn't it?

RC: Yes, it is. Whether it's true or not, I don't know. But anyway, that was the popular myth. At the university at that time, you didn't exactly know everybody, but it was a relatively small campus. It was of course isolated, in the sense that the nearest major cities were Indianapolis and Chicago. Lafayette was not exactly the "watering hole of the Western world," but there were sufficient restaurants. Of

course, Harry's Chocolate Shop was where we all had to go when we could go and have our beer. I think we could still drink beer when you were sixteen or eighteen. I've forgotten. Of course, it moved to twenty-one, and that changed things. The Student Union was where everybody met and had coffee and where all of the undergraduate student activities would take place. I was very impressed as an undergraduate because the Music Hall schedule was terrific. I saw a production of Aida, the opera, straight from New York City, a number of interesting plays and famous actors and actresses. Purdue made a big effort to have a very varied cultural set of opportunities for the undergraduate students. The tuition, of course which I didn't have to pay and the fees gave you tickets to all of the Music Hall productions. I went to them all because it was really nice. It was really exciting. Then there were the athletics: football, basketball. I was there when Purdue broke the long winning streak of Notre Dame.

KM: Oh, what a milestone! Nice to be there.

RC: Yeah. The students tore down the goal posts and carried them to the city hall
10:00 front steps in Lafayette. I remember the parade went on for two days. The fraternity houses were really quite wild. One of the fraternities went back to party and found a student asleep during the game, and they simply picked him up bed and all and carried him in the parade. There he was in his pajamas sitting in his bed wondering what was going on being paraded through the streets of West Lafayette.

KM: [Laughs] Quite an event.

RC: Indeed. Neil Armstrong's brother was also a Phi Gamma Delta I think. I knew him. We dated a little bit, and then I met my husband at Purdue. We got married before I graduated my senior year, and we've been happily married ever since.

KM: Was he in the same school as you?

RC: No, Jack was a graduate student majoring in chemistry, physical chemistry. His brother, Chuck, had graduated with a PhD from Purdue, had been in the Purdue program for returning veterans. His brother, Chuck, served in the Pacific during the Second War. Jack was a graduate of Mount Union College in Ohio, and had been accepted as a PhD student at Purdue. He had been accepted for Navy Pilot School, but Professor McBee, the chairman of the chemistry department said, "Don't worry, I'll get you deferred. Come to Purdue and start your graduate program". Which Jack did and within two months was drafted. So in the army he was sent Germany where he was stationed near the Czech border, served there and then came back to Purdue. So he was a returning vet with the GI Bill. So I met him in my senior year, I think in the spring semester. We decided practically on our first date to get married. So we made a good decision I think.

KM: Sure.

RC: We both agreed that since I had done my undergraduate degree there, and I had been accepted to medical school. I had been accepted to several: to Yale, Boston University, and Western Reserve, the only ones I applied to. I didn't apply to any others. But we decided to get married and so I asked the chairman if I could do a masters' degree, and Jack would do a masters instead of a PhD.

We'd go elsewhere for a PhD simply because it's a good idea to do your graduate studies elsewhere simply because it gives you exposure to a wider variety of career opportunities and to make a broader community of friends. So I asked the chairman for a fellowship, but he said they didn't waste them on women. This was 1956. Times are different now. But my undergraduate advisor, Alan Burdick, was wonderful. Tex Burdick, as he was known. I went to him. He said, "The microbiology department's loss is my gain." He was in genetics. Because he was my undergraduate adviser, he knew my record, which was heavily an honors student. "I've got a research assistance ship. Come and do your master's in genetics." So I did. It was very, very good because I did the masters in genetics. At that time, there were some very good people-well, there still are, but in genetics, Oliver Nelson who had been elected to the National Academy for developing high lysine corn, and Tex Burdick was a tomato and fruit fly geneticist. So I did my masters in fruit fly genetics looking at the effect of chemicals on crossing over specific chromosomes. I was able to take microbial genetics, neurospora genetics, chicken genetics, I think even human genetics which was incredibly good foundation for going on as I did to the University of Washington to do a degree in marine microbiology and now I'm working on universal genomics, so it was a good occurrence all the way through.

KM: Very good. Sounds very good. Moving on then, after your graduate work, what
15:00 was your career path before you went to Maryland, and tell us a little bit about that?

RC: Yes, at the University of Washington Dr. Burdick had recommended that I work with a yeast geneticist who was in the botany department, but I was really trained as a microbiologist, so I had applied and been accepted to the department of microbiology. The new grad student advisor was a chap who, it turned out, was not a good friend of the botanist with whom I'd been recommended to do my thesis with. So I started out on the wrong foot by suggesting to this one professor in the micro department that I might want to do a thesis in the botany department, but stay in micro. It was not exactly the right thing to do because I immediately alienated that chap. In any case a new professor came to the university in the oceanography department, uh, school-Dr. John Liston from Scotland. He was a marine microbiologist, and I ended up working on my thesis for Dr. Liston in an entirely new area, totally new. I was perhaps one of a dozen marine microbiologists. It was very successful because I was looking at the systematics and ecology of bacteria in the marine environment associated with marine animals. I wrote the first computer program for analyzing taxonomic data in the U.S. There was a group at Iowa who were doing somewhat similar work, but my program ended up being the first to really analyze bacteria data. The initiator of the idea was [Professor Peter] Sneath at Leicester University [University of Leicester]. Well, he was at the British Research Council in London at the time, and then went on to Lester. My program was the first and that sort of gave me some international recognition very quickly. I applied as my husband did to the National Research Council of Canada to do post-doctoral work since one of the well-known microbiologists working with bacteria that lived in the sea and

required salt was Dr. Norman Gibbons. He headed the Applied Biology Division of the National Research Council in Ottawa, Canada. Jack and I both got post docs, but I got another letter that said, “Oops, because of nepotism rulings, husband and wife cannot each have a fellowship”. So I got a letter subsequently from Norm Gibbons saying, “I’m terribly sorry about this, but you can come to my lab and have lab space, access to the chemical rooms, whatever.” Dr. Liston said, “Well, let’s apply for an NSF grant.” So, we did. We got it. He made me the principle investigator, and got me appointed, arranged for me to be appointed a research assistant professor in oceanography. I was granted a leave of absence, so I went to the National Research Council with an NSF grant. They wanted to hire a technician. As it turned out another woman who for reasons of nepotism couldn’t get a job. She was a PhD microbiologist from the University of Wisconsin and her husband had a job in the Department of Agriculture in Ottawa. So she and I did some splendid work. We produced a lot of papers, a lot of data. Then I subsequently was recruited because I had become well known in the field of marine microbiology. A friend of mine, Professor Richard Morita who remains a close friend at the Oregon State University recommended me when my husband got a job at the National Bureau of Standards in Washington, D.C, now known as the National Institutes of Standards and Technology. Dr. Morita, Dick Morita knew that I was going to have to go to work in Washington. He introduced me at the American Society for Microbiology annual meeting; I think it was in St. Louis, to Dr. George Chapman who had just been recruited at Georgetown University to

20:00 start a graduate program in biology-brand new, brand new building, brand new

program. So, I was the first microbiologist to be recruited to the department for the graduate program. They had a microbiologist who was teaching the undergraduates, but I was recruited in the new graduate program. So that's how I moved to the Washington area. I was at Georgetown for six years and was very successful. My NSF grant continued. I got an Office of Naval Research [ONR] grant. I had another NSF grant to study deep-sea bacteria and build a deep-sea sampler with a team at the National Bureau of Standards. My group got very large and I was an associate professor. I was to be promoted to professor, but the chairman, who was a wonderful guy in every other respect, instead promoted that year a Jesuit priest who was in the department to a full professor and told me I'd be promoted the next year. Well, I called up the University of Maryland and talked to my friend, Dr. Raymond Deutsch who said, "Funny you should call. We do have a spot. One of our faculty just retired, and we need to hire someone with experience in systematics and ecology." So I moved to the University of Maryland as a full professor, and they built me a new laboratory and I had a very successful career at Maryland. I founded the Sea Grant College working with Dr. Mike Pelczar who was the author of the most widely used textbook in microbiology for undergraduates at that time and was Vice President for Research at the university. I eventually was convinced to become Vice President for the entire university of Academic Affairs. Essentially a provost is academic vice president. Then I worked closely with John Toll who was the president, and decided in 1982-83 that it was time for Maryland to move into biotechnology because of the opportunities with NIH, FDA, the complex of University of

Maryland, the medical school in Baltimore, Johns Hopkins and so forth. So I founded the University of Maryland Biotechnology Institute with a new building that went up in Baltimore for the marine biotech center, a new campus that my building was the first on in Shady Grove, which is now the University of Maryland, at Shady Grove, and a facility at College Park, the ag-biotech center. Then as President of the Biotech Institute in 1998, I was tapped to become the director of the National Science Foundation and served there for six years. I returned to the university as a distinguished university professor, and also have an appointment at Johns Hopkins in the School of Public Health. When I left the National Science Foundation because the term is six years-you don't get a second term. You can serve only up to six years, so I'd served my full term short a few weeks. I was recruited by Canon, the multibillion-dollar camera company to help it move into the area of medical diagnostics. I helped them found and served as chairman of Canon US Life Sciences, which is now doing very well. I recently started my own bioinformatics company, CosmosID, which we launched in November 2007, so I keep myself busy.

KM: I would say so. What is-one thing I wanted to ask you-you were on the National Science Board at one time. I believe Dr. Beering is on the National Science Board at the moment.

RC: Yes, I was on the National Science Board from 1983 to 1989. When I became director, no one from Purdue had ever been on a science board, so I tapped

25:00 Michael Rossman, and he came on the board. Then when his term finished, I

had talked with Steve Beering, and he expressed an interest... I said, “Wow! That would be wonderful.” So he then went on to join the board, and then he became chair of the board.

KM: Yes, Were you the head of the board when you served on that, when you were on the National Science Board?

RC: The science board is an advisory body to the Director of the National Science Foundation and to the President. So I was actually director when I suggested Purdue candidates for the board.

KM: For the researchers can you tell just a little bit about some of the things you were involved in with the National Science Foundation, just so researchers, some general comments you’d like to make.

RC: Sure. It was a wonderful tour of duty, so to speak, I was able to complete an agenda that I had in mind when I went there when I was asked and I’d thought about it. I knew the NSF pretty well because I had been funded for many, many years by NSF. I had served on the Science Education Advisory Committee, the Ship Facilities and Planning Committee, the panels for the biosciences and the geosciences. I had been very familiar with it. So when I went to the Foundation, I knew there were things I really wanted to see get done. I doubled the stipend for graduate students because when I arrived, it was $16,500. Students simply couldn’t live on that, so by the time I left, the stipend was $30,000. I started the GK-12 program using graduate students to improve teaching in elementary, middle and high school. That is they would get a stipend, one of the fellowships

equivalent to the graduate fellowships, $30,000. They would teach up to twenty hours a week in the elementary, middle or high school, and pursue their degrees in science or engineering or mathematics. This was a way to bring energetic, enthusiastic young people to help catalyze interest in children. In that program, I started with $12,000,000 that I kind of scrabbled together. I understand that it's now a thriving program of perhaps $60,000,000. I increased the computer science budget. I increased it by a billion dollars, $200,000,000 a year for five years. I started the Cyber Infrastructure Program to make high end computing accessible to every institution through linkages. I started the Biocomplexity Program to cross disciplines and to get people in the biosciences working with medical scientists, ecologists, geoscientists, chemists, mathematicians, social and behavioral scientists to bring the human dimension into some of these large ecological type studies. I also worked to improve various programs for…an advance program for women to bring them back into the workforce and to provide opportunities for them to become established in their research. I doubled the math budget because I think math is so important and that has resulted in a doubling of the number of students majoring in math according to Science magazine a few years ago.

KM: Quite a few initiatives.

RC: Just a few. I worked closely with a science advisor, Neal Wayne, and then John Marburger, who succeeded Neil in providing nanotechnology. That was initiated by Neal Wayne, but I launched it in a very effective way since he went on to

become science advisor. We worked closely together. In the Nanotech Initiative, we got that up to about 250-240 million dollars a year in my time, and it's continued. So it was pretty exciting.

KM: Yes, I would say so. Can we talk a little bit about some of your awards and honors, and I thought that the one I'd like to start with first is the National Medal of Science Laureate that you received in July of 2007?

RC: Yes, that was really wonderful because the National Medal of Science is given to
30:00 maybe a dozen people in various sciences-physics, astronomy, chemistry, math, etc. every year. To be one of twelve is really quite a major honor. It's presented by the President at the White House, which was very exciting. That was for my work in marine microbiology, especially my work on cholera, which I had shown to be an aquatic bacterium naturally occurring in the environment, which was a total paradigm shift. It had been considered only a human pathogen person to person. I also showed that it went into a dormant stage, which was why it was hard to isolate it between epidemics because it goes into a dormant state in the environment. I did a great deal of work showing it was associated with plankton, and if you filtered out the plankton, you could reduce the incidence or cholera, which we showed in a three year, study which NIH funded. In Bangladesh in the MATLAB area, an old SEATO laboratory, it became the International Center for Diarrheal Diseases Research, Bangladesh, and I did my work there. So that was pretty exciting.

KM: And Purdue honored you with an honorary doctorate.

RC: Yes, that made me feel very good, I mean your own institution, your alma mater. And that was early on. That was, I think, 1983.

KM: No, ’93, something like that maybe, something around in that time. How did you learn about it? Did someone give you a call or…?

RC: Yeah, actually, I just got a call from Purdue, and I think one of my colleagues, Al Chiscon and his wife were probably the culprits if you will behind it. I was very grateful. It was very nice. That was really, I think it was before I went to become NSF director so it was nice.

KM: Sure. One of the ones is that Colwell Massif, the geological site in the Antarctic, that you got some name recognition there.

RC: Yes.

KM: For the researchers, just make a couple comments on that.

RC: Yes, in 1983 when I was on the Science Board, I became chair of the Polar Science Committee of the Board. All the board members got to go to Antarctica to the South Pole Station and to McMurdo Station. I had wanted to go to Antarctica to research. So while I was there, I took advantage to do some experiments and actually published a paper on some of the bacteria there and did some more work. I ended up chairing many committees, and I chaired the committee to replace the biolab. We named it after Al Crary, but I was instrumental in getting the report that justified the replacement of what was really rather squalid quarters for the biologists to this wonderful modern laboratory.

Then I also was on the-Norman Augustine chaired this committee-we called it the Augustine Committee to replace South Pole Station. The building was sinking into the ice and becoming really too crowded and a bit dangerous because of being obsolete. So I played a major role in both justifying to Congress the South Pole Station and in getting it built while I was director. So it was very nice. Actually, before I was director, because of the Crary lab and the work I'd done in the Antarctic, to be given one day a letter that indicated that I had had a mountain named after me in Antarctica. So I was very pleased, very touched.

KM: Very, very nice. You were also the first woman member of the Cosmos Club. Correct?

RC: I was. That was fun, 1988, Jack, my husband, and I were in Australia at the University of Queensland on sabbatical. I got a message to not talk to the press. I was thinking, "Why would I want to talk to the press?" Well, it turned out, as you know, it was very controversial getting women elected to the Cosmos Club, which until 1988, probably a hundred years, had never had women members. There was great opposition. I understand there was opposition to African Americans being elected to the club. The mayor of Washington said he was
35:00 going to take away their liquor license if they didn't vote in African Americans. So they voted in African Americans. With women the vote apparently took place in, must have been October 1988, I've forgotten. A very dear friend of mine had been preparing along with Johnny Tole the nomination package, and as soon as the vote occurred, he strode up to the podium, he told me, and slapped on to the

desk-podium his documentation of my credentials and my nomination. So I became the first woman member of the Cosmos Club.

KM: [Laughs] For the researchers would you just make a comment, when they hear this on the tape, the Cosmos Club, what type of club it is.

RC: It was founded by a group of scientists. It was Powell, I think, has the auditorium named after him. It's a club that not just a dinner and lunch place to stay in Washington, D.C. It's known for its lecture series. It's a meeting place for discourse-law, science, the humanities, the social sciences, politics, government, So it's very exclusive. I think it has about a thousand members at any given time, maybe sixteen hundred. Until 1988, no women were allowed. In fact, once when I was at Georgetown chairing the seminar department, my guest was a famous protozoologist from Indiana University. The 1789 restaurant just off the campus, named 1789 because that's the founding of Georgetown University, was closed or overbooked or something. The chairman said, "Why don't we just go to the Cosmos Club? I'm a member." So I said, "Sure." So we made the arrangements. When we got to the Cosmos Club, I was harassed at the front door. They said, "Women have to go to the side door." So I had to go around to the back and up the back stairs because women weren't allowed on the second floor in the special banquet room for meetings like the seminar. The guests for the seminar speech were in the upstairs rooms. So that was not exactly a nice thing. When I later received the Cosmos Club award for my work and so forth, I reminded the

club that I had once had to go in the back door or the side door, and was now pleased to be able to go at will in and out the front door.

KM: [Laughs] As the need arises, right? A couple of professional associations. One I did want to ask you a little bit, American Institute of Biological Sciences, you served as President?

RC: Yes, I actually served as President of the American Society for Microbiology in the mid 80's. Subsequently President of the American Association for the Advancement of Science. I've also served as President of the International Union of Microbiological Societies which meets overseas every year, occasionally in the U.S. Then this past year, I was elected President of the American Institute of Biological Sciences, which encompasses all of biology: the botanical, zoological, microbiological, behavioral biology. So it's been quite nice.

KM: Right. Exactly. Let's talk about family and your husband, is he still affiliated?

RC: Jack is a physicist and he's semi-retired. He's a senior scientist at NIST. He's been very, very supportive. He works in low temperature physics, and he's spent his entire professional career at the Bureau of Standards or NIST, the National Institutes of Standards and Technology. We have two daughters. One is the botanist at Yosemite National Park. She works for the National Parks Service. The other is a physician. She has an MD and a PhD. She did her MD, PhD at the University of Illinois in the medical scholars program and did her thesis work in Tanzania on Mount Kilimanjaro. She went to Harvard as a post doc at Harvard School of Public Health. She did her residency and fellowship training in

40:00 pediatrics at Dartmouth, and now runs a clinic in Windsor, Vermont, that I think is still affiliated with Dartmouth. She has three children. I have five grandchildren now.

KM: Well, that makes it nice for the holidays.

RC: It sure does. We have a little boy who's ten named after my husband, Jack. He's known as Little Jack. He's not so little anymore and a little girl who's six, Adelaide Kate, and a four year old whose name is Fenton-Finny. My daughter is married to a writer, Rick Canning, Richard Canning, known as Rick. He's terrific. He writes at home, does editing and the two of them raise the kids together.

KM: Oh, that's very nice. Did either of your children come to Purdue?

RC: They've only come on occasions. When the honorary degree came up, my daughter Alison came, and Stacy. Both of them came to Purdue on that occasion. Let's see any other occasions?

KM: Let's talk about a favorite Purdue tradition. Do you have one of those that you'd like to share with us?

RC: Well, I always got a kick out of the roar of the lions. I think that was if you were an undergraduate, the shrine of the virgins I guess when you walk past the lions, but probably aren't there anymore, they were supposed to roar. I think probably, just the fun times, being known as a Boilermaker. Just the undergraduate traditions, going to the Union, going to the Chocolate Shop, the football games, the

traditional parties after that, the traditions in the sorority. It was just a very nice undergraduate experience, very nice.

KM: Okay. Do you have an outstanding event in your life?

RC: Yeah, getting married at Purdue.

KM: Very good.

RC: I was married by the chairman of the philosophy department in a tiny little church just outside of Lafayette.

KM: Oh, okay. Do you recall the Levee or the Village has changed a lot since you were here?

RC: Oh, yeah.

KM: Could you…you've been back and forth to campus since…

RC: Yes, I've been back a couple of times as, what's it called, the alumni, the distinguished alum…

KM: Right.

RC: Old Master's Program. I've been invited back, I think twice, as an Old Master. The most recent was a couple of years ago when I was giving lectures. Yeah, it's changed. I mean, the library is so modernized. The mall, the engineering building is modernized, it's just incredible. I think just about all the quote, temporary, unquote huts are gone where art used to be…art teaching was done. Some of

the temporary buildings around the physics department. I think Heavilon Hall burned down, didn't it?

KM: Oh, a number of years ago, sometime before I came, but they've got the new Heavilon Hall is there. Of course, you were talking about the temporaries. That's where the Armstrong Engineering is located there at Stadium and Northwestern.

RC: What's interesting though and what's nice is that the accommodations, the hotel in the Student Union, has not changed. The Student Union, really, interior has not changed. It's still the kind of hallowed, shadowy hall with photographs and the memorabilia. The rooms look pretty much the same, and that's kind of nice.

KM: Yes, I would agree. In closing, are there any comments that you'd like to share with us or any questions that were not asked that you'd like to make some general comments on, Dr. Colwell?

RC: One of the things I feel about Purdue is that it's sort of like Diogenes with its candle under a bushel basket. It's a wonderful institution. It has served the nation certainly in space research, and providing I don't know how many astronauts. It has provided extraordinary undergraduate education, but it's not as widely known
45:00 as it should be. It should be the name that comes to anyone's mind when they think of a university, a United States university, particularly a state university. It should be right there at the very top because in my perspective and opinion, that's what it is.

KM: It is. It's great. Thank you very much. Any closing comments? Anything else you'd like to add?

RC: No, just very grateful for the education and for the friends. I keep up with my undergraduate friends particularly my sorority class. We get together periodically, and we've aged well.

KM: As a group, we're still together, right?

RC: Right.

KM: I want to thank you, Dr. Colwell. I'm very much appreciative of you taking the time to…with this interview, and I thank you very much.

RC: Thank you.

End of Interview

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