



John Byrne Oral History Interviews, January 23, 2014

Title

“The Early Years: From Long Island to Los Angeles”

Date

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Location

Center for the Humanities, Oregon State University.

Summary

In interview 1, Byrne discusses his childhood growing up on Long Island, including memories of boyhood interests, community life and experiences at Horace Greeley High School. He then recounts his academic and social progression as an undergraduate at Hamilton College in upstate New York. From there, Byrne moves on to memories of his graduate training in geology at Columbia College, including his experiences conducting research in the Bahamas and the South Pacific. The interview concludes with an overview of Byrne's time as a doctoral candidate at the University of Southern California, a period during which he researched the geology of the Sea of Cortez, went on his first oceanographic cruise and met his wife, Shirley.

Interviewee

John Byrne

Interviewer

Chris Petersen

Website

<http://scarc.library.oregonstate.edu/oh150/byrne/>

Transcript

Chris Petersen: Okay, Dr. Byrne, if you could please introduce yourself by giving us your name and today's date, and our location?

John Byrne: Yeah. I'm John Byrne, middle name Vincent. This is January 23rd, 2014, and this is part of the oral history project that is going on at Oregon State at this time.

CP: All right, so today we'll talk about your early years, and kind of proceed through your educational career. Begin at the beginning. So you were born in 1928 in Hempstead, New York, on Long Island?

JB: That's correct.

CP: What were your parents' backgrounds?

JB: Both of my parents grew up in Brooklyn, New York. My father went to work when he was 16 years old. He never graduated from high school. He went to work for Cannon Mills, which was a major textile company, and he started what—he claimed he was a box boy. He was the guy who packaged stuff, and so on. When he retired from the company, and he spent his whole life with that company, he retired as the treasurer of the company, and the director of the credit department in the company. My mother went to work for Cannon Mills, and that's where they met. And then after they got married, she probably worked for a short time, and then I was born, and she was a stay-at-home mother with one child.

CP: So you didn't have any siblings?

JB: No siblings.

CP: You grew up initially in Rockville Centre?

JB: Well, first four years were in Hempstead, which is the town next to Rockville Centre, and then when I was four we moved to Rockville Centre.

CP: How would you characterize that community?

JB: Well, the neighborhood that we moved into was a new neighborhood where they were still building buildings, and opening up fields with streets, and so on and so forth. And it was a small neighborhood, and as a new neighborhood, there were a number of families with kids my age, and sometimes a little bit older. The big kids and the little kids, we were—I was one of the little kids.

CP: And so what did you do for entertainment?

JB: Well, there were a lot of things we did. One of the things that we had, there were woods behind the house, and there were all sorts of paths in the woods. We had names for each of the paths. And so we would play different games in there. We would play games in the street—stick ball, touch football; bicycles were big in our lives. We would ride bicycles. On one occasion we had races. Somebody had found a stopwatch, and so we could time each other on the same bike, and so on. In the evenings in the summer, we'd sit around under the streetlights and just hang out, as it were.

So, I don't think we had anything special. The things that I remember about those days were, occasionally, somebody would come through and gather the kids together, and say, "How would you guys like to sell the *Saturday Evening Post*, or *Collier's Magazine*? And if you sell so many, you'll get this great baseball bat, or ball," or whatever it was. And I don't know; we never sold enough magazines to make any difference, but those are the kinds of things that happened in those days. There was no concern about, I think, us getting in trouble, but we found ways to do that, of course, so. There was nothing special about it. We just, "Where did you go?" "Out." "What did you do?" "Oh, nothing." You know, that sort of thing, so.

CP: Did you go to the city often?

JB: To New York City, no, not when we lived in Rockville Centre. After we moved to Chappaqua, which was the next phase of our lives, my life, I guess, we'd go to New York City occasionally. And while we lived in Rockville Centre, the things that I remember is, once a year, my father would take me to Coney Island. We would go to Steeplechase Park and ride all of the rides, and so on. But no, I didn't go to the city very much in those days, other than to, occasionally, we would go to my grandparents' house in Brooklyn for a meal, whatever. But, yeah, didn't enjoy the city at that point.

CP: Were movies and the radio important to you?

JB: Yeah, movies were. Well, radio too. Now, those were the days of Jack Armstrong, the All-American Boy, Tom Mix, those kinds of things. [0:04:58] And it seemed to me that we'd play outside, and then around five o'clock or so, there were a whole series of these serial-type radio broadcasts, obviously for kids. This was, of course, before television and that sort of thing. Movies? As I got older, movies were a big thing. Saturday movies, always a double-feature, always a serial, a cartoon, a news reel. It's hard to recall how long it was, but it must have been a long time, because you know, there were two movies. There were the B-movies and the A-movies. The B-movies were the ones that were sort of the filler-in types of movies. And then in the summer, I think on Wednesdays, they would put together what was similar to the normal Saturday show, mostly for kids. And of course in those days, I think it cost about 25 cents to go to the movies.

CP: Do you remember having a hero as a boy?

JB: I don't think so, not specifically. You know, when you think, you look for heroes. I think as a kid that age, you probably look for athletes, professional athletes. My father was a New York Giants fan, and so I was a New York Giants fan. And those were the days of Mel Ott and Carl Hubbell, and people like that, you know. And we would go to the Polo Grounds to watch the Giants, but. The other heroes, I guess, is, at some point, my father would take me to what we call midget auto races. And in those days, there were—I suppose there were heroes there. I remember a guy named Dutch Schaefer, who drove a midget with a Ford engine, as opposed to Offenhausers. Offenhauser engines were the fastest, and so on, so. No, yeah, I guess there were some heroes.

CP: You attended Hewitt Elementary School. Do you remember enjoying school?

JB: Yes. Yes, I think I did. And I remember a few of the teachers. I remember Ethel Getman in 3rd grade, and she was one of those inspiring-type teachers. And I remember Morris Ottman in 7th grade. And I could tell you tales about them. We would go to school, and when the weather was good, there was always a soccer ball out on the field, and when you have 30 or 40 kids playing soccer, if you get to kick the ball once, that was a successful day, you know? And then we devised, I guess, a game we called box ball, and it used one side of the school, and the square, the concrete squares of the sidewalk. And you were assigned to a square, and you—it was like a version of handball. We played that with a tennis ball. And those kinds of things occupy you before school, you know?

And then in school, as I say, I remember those two teachers particularly. There were others, but Ottman was the one that I remember most clearly. And one of the things that he emphasized was diagramming sentences. And by the time we were finished, we could diagram any grammatically correct sentence you could put together.

CP: Did you like to read?

JB: At that point, I don't know that I read very much. My father would read to me in the evening when I went to bed. And when we moved to Rockville Centre, he set up a woodworking shop in the basement of the house, and one of the first things he built was a reading stand, and I can remember that. It was tiltable, and so on. And the books that he read were things like, oh, the *Boy's King Arthur*, and so the Arthurian legends were always important to me later in life.

There was a magazine, I think, called *Boy's Life*, that had a series of short stories, and these were the kinds of stories, sort of the Horatio Alger kinds of things, where the kids who were disadvantaged managed to athletically beat the teams that were well taken care of, and so on. [0:10:03] And there was a book—oh, boy. *The Will to Win*, I think, was the name of it, and maybe that's not right. But anyway, it was a collection of those short stories, and he would read those to me. And I suppose I read those later on myself, after he stopped reading in the evenings, yeah, yeah.

CP: What was your experience of the Depression?

JB: We were not terribly affected by the Depression. My father was apparently demonstrating some success in the company he worked for, and so we had bought this new house in Rockville Centre, and that was in 1932. So it was the height—the beginning of the serious part of the Depression. I do remember people coming to the back door, never to the front door, but to the back door, and asking if there was anything they could do around the house to earn a meal. And mother, I remember saying, "No, I don't think so, but I'll fix a meal for you, anyway." And she did that, and they would sit on the back steps and eat the meal that she prepared. And that was about the extent that I was aware of the Depression at that time, yeah.

CP: So it didn't seem to make an impact on your friends, either? It was not a—?

JB: No, the neighborhood was successful. You know, I think the other people, the parents of the kids in the neighborhood were probably at the same level of success that my father was, and so we were not severely impacted by the Depression at all.

CP: Aside from selling magazines, did you have a job as a kid?

JB: No. I did after I got to high school, but not before high school. No, mostly it was staying out of trouble, and playing games with the rest of the kids in the neighborhood. We did, as I said earlier, we had the big kids and the little kids. And what we learned about athletics, we learned from the big kids. I do remember that we played baseball a lot. And there was a family, the Pratts, two brothers, Neil and Bob Pratt. Bob Pratt was the big kid, Neil Pratt was the little kid. And they had, as I recall, boxes with baseball mitts and balls. And in those days, you know, you never threw away a baseball; you simply taped it with tape.

And because the neighborhood was still developing, we could set up a baseball diamond in one of the fields, and if you hit it to the next row, that was a home run. And so, you know, you adjusted to what you had. And that was very successful. I remember, because they were building all of these new houses, there was all sorts of lumber lying around, and we borrowed some of the lumber to build a backstop for the baseball field.

CP: What was the influence of religion in your household?

JB: Say that again?

CP: Religion?

JB: My folks were Christian Scientists, and I guess they were serious Christian Scientists. My mother subsequently became a practitioner. And so church was every Sunday, and the pattern got to be that after church, we would go and have dinner out at some restaurant. But, yeah, and then of course, as I said, they were serious about it, so we would go—I would go to Sunday school every Sunday, and they would go to church on Sunday, and also to church on Wednesday evening. The Christian Scientists on Wednesday evening had a testimonial-type service, where people would get up and relate what had happened to them in that religion. So church was a big thing, particularly for my folks, not so much for me.

The church that we went to was in the next town to Chappaqua. I into Chappaqua, and that's what I remembered, but in Rockville Centre it was the same thing; they were heavily involved with the church. And I think when we moved from Rockville Centre to Chappaqua, which happened in 1941, there was a connection in the church. They knew people, or they met people, through the church, more than they did otherwise. [0:15:03] So it was a big element in growing up, yeah.

CP: Was this something that came from your grandparents, or did this start with your parents?

JB: Yeah. My grandmother on my father's side was a Christian Science practitioner, and so that's where it came from. It came from the paternal side of the family.

CP: Did your family talk about politics at all? Was that something important to them?

JB: Not at that stage. Not at that stage. My father was very conservative, he was a Republican, and he had all of the Republican philosophy. Capitalism was important. You had the opportunity, based on your own talents and energy, to

advance through society, and so on. So, and of course that rubs off on a kid. But he was very conservative, and I suppose I am, too, to some extent, and was to some extent. If my father knew me today, he would think of me as a flaming liberal, I'm sure. One of the stories that he tells—I was born in May of 1928. Herbert Hoover was elected President in November of 1928, and one of the first things my father tells me, or told me, that he tried to get me to say was Hoover. And so it was, "Hoo-Hoo-Hoover." And, well.

CP: Do you remember having a love of the ocean as a child?

JB: No. No, but we would go to Jones Beach. Jones Beach was relatively new. It was a state park. When you think back about it, for the '30s, it was a fabulous facility. It had a swimming pool; it had a whole series of beach support, parking lots, and those kinds of things. It was on a sand bar, or sand beach, whatever, with a bay behind it. So there was fresh water; I think it was called Zack's Bay. And then on the other side the ocean, with surf and so on and so forth, and then a facility with a swimming pool.

And at that stage my father would, during the summers, my father would take me to the swimming pool every Saturday, and that's where I learned to swim, was in the swimming pool. It had multiple-level diving boards, and I remember there were, I guess they were athletes who were practicing, divers who were practicing for the Olympics. That would have been the 1936 Olympics. And so we would go every Saturday morning and spend an hour or two in the pool, have a hot dog on the way home, and see these guys who were practicing on the high platform, and this sort of thing.

CP: You went to summer camp?

JB: Yes. Yeah. I don't remember how old I was, but maybe nine, something like that. Forest Lake Camp, I think it was called. You supposedly had a uniform, blue shorts, blue t-shirts, polo shirt, whatever. I think I was there for about six weeks, but I'm not sure. And it was a sort of a tradition. If you lived in the suburbs of New York City, there was a week at the beginning of the summer where Grand Central Station was jammed with kids on their way to some camp, and the parents were, I suppose, escaping from the kids by sending the kids off to camp.

The Forest Lake Camp had a whole series of cabins, and depending on age, you were in a cabin. It had a counselor. The counselors were usually college-age kids, and I remember there were some—I think there were some actually West Point, United States Military Academy, counselors there, who, among other things, would teach you to shoot a .22 rifle, sort of thing. I don't recall whether we had horses or not, but we probably did. Again, there was a lot of swimming, and a lot of games, and, yeah.

CP: Was this an annual event for you?

JB: No, just did it once. [0:20:00] Just did it once, and got a little bit homesick. I was sort of sick toward the end of it, then I think that was when I was a little bit homesick. Then that was it; one year was enough. An interesting connection—the camp was run by—the director was a guy by the name of Winton Tolles. And I encountered him again when I went to college. He was the Dean of the Students at Hamilton College, so there was a lapse in there of seven years or so, eight years, ten years, nine years, where Winton Tolles was—we'll hear about that when we get to the college years, I suspect.

CP: Well, and you mentioned in 1941 the family moved to Chappaqua?

JB: Yes.

CP: That was a smaller community?

JB: Yeah, I guess it was. I think Chappaqua at the time had about 3,000 people, and it was basically a commuter village for New York City. It was on the Harlem division of New York Central, and my father would commute every morning into the city and back out. Apparently, when we lived in Rockville Centre, he had always aspired to have a place in the country. And you know, this was not a big thing; there wasn't much discussion about it. And they went off one weekend—my mother and father went off one weekend, and came back and told me we were going to move. And it was kind of news to me, I think; at least that's my memory of it. And they described the place, and it sounded terrific: house up on the hill, a winding driveway up to the house, a little stream along the side flowing into a pond on the other side of the road, something like five or six acres wooded. It sounded great.

When we got to see it, all of this was true, but the road up to the house was just two gravel ruts. The lawn—there wasn't any lawn, it was just grass around the house. It had been built by an individual who at the time was living in the back of his garage, had built the garage first so he could live in the back of the garage while he built the house, and so on. And of course, my folks lived there from 1941 until, oh, boy, sometime in the 1950s. And, of course, they had developed it and so on. It was a beautiful spot by the time they sold it. But a lot of good memories of the years in Chappaqua, yeah.

CP: This was your first exposure to geology, you mentioned?

JB: Yes. When we lived out on Long Island, Long Island was basically a sand bar, terminal moraine from the continental glacial sheet that came down and left this bar of sand and gravel that became Long Island. So you didn't see any hard rocks. Well, when we moved to Chappaqua, the house was situated so that on each side of it, there were exposures of very hard rock, and we knew nothing about this.

The rocks were, as it turned out, metamorphic rocks, Precambrian in age, very hard, had millions of years of erosion and so on, and so had some very strange erosion forms, some that looked like footprints. Well, clearly they were not footprints, but I didn't know that at the time. So yeah, there was interest in knowing what the rocks were, knowing something about it. And so when I got to college, why, I did take a geology course. And that changed the course of my life. But the seed was planted by those rocks next to the house.

CP: You attended Horace Greeley High School?

JB: Horace Greeley High School. Horace Greeley was the thing that people living in Chappaqua would claim. Horace Greeley apparently had a farm in Chappaqua at the time he was the editor of the *Herald-Tribune*. And Horace Greeley, you know, said, "Go west, young man. Go west." But everything in and around Chappaqua that could be named after Horace Greeley was named after Horace Greeley, and the school I went to was the Horace Greeley High School.

Well, it was more than a high school. [0:24:58] It ran from 2nd grade through 12th grade, and so you had elementary, but not the youngest kids. And so it was both elementary school and a high school. And of course, it was a small town. My class, I think there were 26 people who graduated in my class. But yeah, it was a good school; it had a good reputation. And being small, you got a lot of special attention that you might not at a larger school. Yeah.

CP: How did your interest in education sort of progress when you hit high school?

JB: Well, it was different. I mentioned Morris Ottman from 7th grade. And then we moved to Chappaqua, and so I was in 8th grade, 9th grade, and on up through graduation in 12th grade. And in 8th grade, I think much of what we had done was by the homeroom teacher, as it was in the elementary school. And then of course, when we get into high school, there was a social science teacher, there was a mathematics teacher, and so on. And so, the nature of the education changed. Growing up, and I think about at the stage where I was in 8th or 9th grade, we began to think about the future.

And the United States Military Academy was on the other side of the Hudson, but not that far from Chappaqua. And for some reason, I got the idea that I wanted to go to West Point. So we got the catalogue for West Point, and it basically indicated what you should take in high school to be eligible to go to West Point. And that shaped the curriculum, where there was ability to be flexible in it, for the high school years. I took French, because it was recommended that that was—by West Point, that that was the language you should take. I did not take Latin; that's a regret that I had, but I did take French all through high school. I took mechanical drawing. I took all of the mathematics courses.

Being a small school, they alternated chemistry and physics, and so by the time I was ready to take a science course, which I think was probably junior or senior year, it was chemistry that year rather than physics. I never had any physics in high school. But I did reasonably well in high school, and I took it seriously. We had homework every night, and I did it, and frequently I would be the last one in the family up, because I was doing the homework. My folks would go to bed, and so on. And I think that in a class of 26 and so on, I was probably ranked third or fourth, somewhere in there. I never thought—I think in high school, I thought, "Well, we're a bunch of smart kids."

In New York state at the time, they had—and maybe they still do—they had what they called Regents exams at the end of each sequence of courses, and everyone in the state took the same examination. Well, about the last week or two before the end of the term, you spent time looking through the old—and they had books of all of the old Regents exams. And

so, after you go through 10 or 15 Regents exams, there aren't too many questions that could be asked that you haven't already learned the answers to. So I remember in high school mathematics courses, and the teacher I had there was one of—I guess if I had to list my mentors, he would be one of them—Herbert Oakes, and we called him Herbie. He was very funny, and everyone in the class scored in the upper 90s out of 100 on the Regents exams on mathematics. He was good, and as it turned out, we were pretty good, too. At least, we thought we were.

In English, I remember going through the English. We had a good English teacher, a woman named Sylvia Curzon [?], and I remember going through those classes and learning about books, important books, that we never read, but we could tell you who the author was, and what the books were about, as a result of having taken all of these Regents exams. And so we did reasonably well [0:30:00], and I think that probably reflected on the prestige of Horace Greeley High School. The kids there did well, because of the way we were taught, and because classes were small we could get extra attention, and so on, so. So that shaped the intellectual background for us.

Neither of my parents had gone to college, but they were sure I was going to go to college. And I think most of the kids that graduated from Horace Greeley High School did go on to college. There were different levels, different economic levels, in Chappaqua, and kids from lower economic strata, as well as from the rest of us, whose parents commuted to New York City. I remember in our class we had people, for example, who were involved in the editing of *The New Yorker* magazine, that sort of thing.

So it was an upper level, but there were still the kids whose parents were physical laborers and that sort of thing. And they were our friends. There wasn't any social stratification among the kids, and I don't know that there was among the parents either, but it was a pretty good mix. In our town, if there was an ethnic group, it was probably Italian. And I don't remember any blacks, any African Americans at all, but I do remember the Miliambros, and the Carrozas, and so on, that these were our classmates. So it was a good environment to prepare kids for college, I think.

CP: Were there any particular extracurricular activities in high school that you grabbed onto?

JB: Well, I guess so. Being a small school like that, most of the kids were involved with athletics at one stage or another. I played basketball. I wasn't very good, and wasn't very tall, so I would be sort of the second level of the basketball crowd, you know? I was the bench; I was on the bench in basketball. And baseball, my friends played baseball, and so I became the manager of the baseball team. Well, the manager was the guy who made sure that the balls and the bats and the bases were out there for practice, and during the game, you kept score. And it was your responsibility—my responsibility—to call in to the local newspaper with the results of the game. And of course, I had kept the score, and so on, and so I could recount what happened in the baseball game. Some of my close friends did play baseball.

The other thing which was sort of an academic thing, I wouldn't say it was—well, I guess there were a few things—there was a creative writing club, and several of us participated in that. In French, in the senior year French class, the teacher got the idea that we should present a play, in French, for the general assembly, which met once a week. And I don't remember; my numbers may be a little bit off, but I think there were four girls in the class, and three men. And so we would, democratically, we would vote as to whether we were going to do this play. Well, the vote came out four to three, and all of the girls voted yes, all of the boys voted no.

Well, the play that we did—we did one act of the play, *Tovarich*. And *Tovarich* was made into a movie that starred Charles Boyer and Claudette Colbert, and it was the story of a Russian couple who escaped from Russia at the time of the Revolution, landed in Paris, and became the manservant and the maid for this wealthy family in Paris. The lead in the play was the Russian nobleman who plays the manservant. Well, I got that part.

And practice was at the same time that basketball—practice for the play was at the same time as basketball [0:35:00], and so I was excused from basketball practice. The French teacher had talked to the coach. And in those days, we had one coach for all athletics, you know, all men's athletics. All women's athletics had a different coach. So the football coach coached basketball and track, and all of that. And his name was Whitey Keel. And Jean Fenn [?], who was the French teacher, talked to Whitey Keel, and Whitey Keel said, "John, you can rehearse for the play."

And of course we did, and I did, and the play was produced. And of course, the basketball team sat in the back row and hooted and yelled, and so on, at the time the play went on. And thinking back, you know, at the time I think it was a

terrible thing to do. And thinking back, it was great. It was a great memory, and it became part of my life. And French became my second language, and I used it later in life—high school French, that is, yeah.

CP: What is your memory of Pearl Harbor?

JB: Pearl Harbor was a Sunday for us. We had come back from church, and my father was listening to the news, and it was announced. And we all remembered it; we remembered where we were, what was happening. We were all shocked by it, and my parents reacted to it: the Japanese were crazy to do this. And then of course, we all were glued to the radio to hear President Roosevelt make his statement, "Day of infamy," and so on. And then in the neighborhood, we all began to march.

Now, for those of us living on the East Coast at that time, you know, the Japanese had done it, but the Germans were the threat. Living on the West Coast, it would have been different. But my father became an air raid warden. And all of the communities were divided up; we went through blackout. You blacked out all of the windows in your house. You painted the headlights on the car so that it was a little, tiny square that allowed light to come out. My father was responsible, as an air raid warden, for going around and meeting all of the town, the people in his area. There was a lot of concern at that time about incendiary bombs, so everybody had to have a shovel and a pail of sand to dump on an incendiary bomb, if they ever came. They never did, of course. But that was it.

And my father learned a lot about the neighbors as a result of those visits. There was gasoline conservation, sugar conservation. To get a new tube of toothpaste you had to turn in the old tube, because in those days they were made of tin. And so a lot of little things that affected our lives, in what, in the grand scheme of things, are fairly minor ways. The people who commuted, because there was a gasoline shortage, arranged to have a bus that would run through the area and take people to the train station, and take them home at night, and so on.

And that affected our lives in minor ways. We would heat the house primarily through the fireplace in the living room, and block off the living room with blankets, and so on. And my father would—he set it up so that there was a little grate that you could burn cheap coal in, and that's how you heated the house during those days. But again, when you put it in the grand scheme of things, that's pretty minor compared to what some people went through.

The other thing I remember is I remember, later in high school, in the summer, I went into New York with my father. He continued to commute, and so on, and so I went in with him to take a course in, oh, I think they called it speed-writing and typing. And so I did those things, and I would come home on the train in the late afternoon, three o'clock or four o'clock, something like that. And I can remember seeing this newspaper held by somebody up ahead [0:40:00], with a headline to the effect that the United States had dropped an atomic bomb on the Japanese. And of course that ended up bring the war to an end. But that was my introduction to the atomic bomb, was that headline in the *New York Daily News*, or whatever paper it was that we were, whatever.

But in high school, we did lots of things that were related to the war effort. Each class would try to raise money in one way or another. We did it with a carnival-type atmosphere. The boys in shop—in those days, boys went to shop, and girls went to home economics, you know, or whatever. The girls would knit scarves, and mittens or gloves for the servicemen, and the boys would make model airplanes to be used in aircraft identification. And those were fairly minor things, but they did affect everything. Everything was affected, and as I say, we were concerned about the Germans landing on Long Island, and that sort of thing, from submarines. And there are reports that they did in fact do that. But the war effort didn't really reach us directly. Only indirectly, but it was there; there's no question about it.

CP: Were you anticipating having to serve?

JB: Yeah, I was caught in the first draft. The war was over by the time I got out of high school and would have been drafted, but kids that I knew in high school did go. They did serve in the military. Some of them came back and went back to high school. I remember one really neat guy that I really liked, came back, and he had been disfigured, he had been blinded and so on. He was very bitter. We were all very shocked by it, and that was the way it really reached you. It really reached you when you saw what it could do to people, and yeah. Alan Gallon [?] is a memory that I don't want to forget.

CP: When did you start playing music?

JB: When I went to Hewitt Elementary School, I think about the time I was in the 6th or 7th grade, they must have started a band. And earlier than that, in 3rd grade, I remember we all had to buy little plastic things called tonettes. And these were like, I suppose like recorders. Everybody played them, and we learned to play simple songs on those. In 5th or 6th grade—we didn't have to—we had the option of selecting an instrument, and probably our folks selected them for us. I ended up with saxophone, and played the alto saxophone badly. Now, my folks hired somebody to come in and give me private lessons, but it didn't really catch on until we went to high school and played in the Horace Greeley High School band. And I played alto saxophone until I was about a junior, and then the school had a baritone saxophone that had been played by Howard Peck. When he graduated, I inherited it; I played the baritone saxophone. And that, again, played a significant part of my life.

After high school, I was asked if I would play in this dance band that was run by a guy from the next town down, Pleasantville, New York. And I think the name was Bobby Higginbotham. And we had a little band he put together; we would play at high school dances and that sort of thing. And that was a significant memory. And I continued that until I was President of Oregon State University. And that's another story; I don't know whether we tell it now or we tell it in the days when we talk about later events in life. But, I'll tell it now.

In high school, after high school, I played in this dance band. White Plains was then nearest big town—still a relatively small town, but White Plains would have a contest for dance bands. And depending on how many of your friends you could get go, the winner was determined by applause. And so if you had your kids in the audience, you won, and if not, you didn't. [0:44:59] Well anyway, we prepared to participate in this contest, and one of the kids knew a man named Norman Leyden. I think that was L-E-Y-D-E-N. And Norman Leyden was an arranger for Glenn Miller. And Norman Leyden came up with this tune called "Pattern in Lace." It was very similar to "String of Pearls," which was played by Glenn Miller. But anyway, "Pattern in Lace," and so he orchestrated "Pattern in Lace" for us, and we decided we would play this in this contest in White Plains, and we did.

Now, we didn't win the contest; we came in second. And Norman Leyden had orchestrated this thing for us. Well, his brother was—oh, I can't remember the name—was the guy who ran the Pops concerts in Portland. Now, this was when I was President. They came down here and played in LaSells Stewart Center, and I went up to—after the concert was over, I went up to Leyden, and I said, recounted the story about his brother, playing. And he says—I may have the names wrong. It may be Jimmy Leyden; I don't know. But anyway, he said, "Yeah, he's our manager. He's next door, right here." And I said, "You're kidding!" He said, "No. I'll get him."

And so he got him, and Leyden came in. And I mentioned this anecdote that he had orchestrated this "Pattern in Lace." He closes his eyes, and he starts to hum it. Well, I could hum it, too, so we hummed it together. So that was the connection, years and years later, to this event that had happened when I was just out of high school, playing in this dance band. I wish I had continued in the dance band, but I didn't. When I went to college there were other things to do, you know, so you dropped those kinds of things.

CP: Another hobby that you had early on was World War I airplanes?

JB: It wasn't a hobby, but you know, in the days of the '30s, we were more focused on World War I, the kids were, than on what was happening in Europe at the time. Of course, in Europe at the time, the Nazi party was beginning to evolve, and so on. So, what we would see, we would see on the newsstands, pulp magazines, World War I flying aces, this sort of thing. Eddie Rickenbacker was a hero, because he had been not only a race car driver, but he had been an ace during World War I. And so we had a special feeling for the flying aces.

One of the things that I do remember, I do remember a friend in elementary school, a man named William Higginson. We called him Sonny. Sonny Higginson and I loved World War I flying aces. I can remember going up to his bedroom one day and drawing pictures of the old airplanes. And I'm sure we didn't know whether it was a SPAD or a Newport or a Sopwith Camel, or whatever it was, but it was a biplane, and so we would draw pictures. And that's my first memory of creating art, "art," if you want to call it that.

So I continued that. I like to draw, and I did that all through high school, and I suppose I became sort of the class cartoonist, you know. But I wasn't very good, but it was there. And it served me well when I started taking geology

courses, and it served me well after I retired. So, yeah, the art was started there; it was probably about 3rd or 4th grade, I would guess.

CP: So you mentioned you took a year off after you graduated from high school.

JB: Yeah, and it was accidental. I think partly because my folks had not gone to college, they were pretty naïve about the whole thing. They were Christian Scientists. They said, "Well, why don't you go to the Christian Science college?" which was a place called Principia. It was located somewhere near St Louis. And so my father decided, well, we ought to go out there and see it. [0:50:03] Well, we went out there, but it was—it had already filled up. It was like in May or June, or something like that. They had no more room. They had limited the size of the classes, and so on.

They suggested that, "Well, why you don't go to Principia High School in Saint Louis in preparation for going to Principia College?" And somehow that didn't sit too well, so we decided, no, won't do that. You can take a post-graduate course in high school, take the classes you didn't get to take when you were in high school, and so on. Well, I did that for a while, and it was a no-winner. I don't even remember the classes I took, but I quit about halfway through that year and got a job.

In that year, I got a job. My father said, "Well, you can't just sit around. You've got to get—you should be working." So he suggested I go to New York City, sign up with the travel—no, not a travel—with a search firm, an employment firm, and let them get me a job. Well, they identified one with Price Waterhouse, an office boy position with Price Waterhouse, an accounting firm, but it was for an office boy. Well, office boys were the guys who sharpened pencils, filled the inkwells, carried papers back and forth, and so on. And I ultimately ended up going to work for Price Waterhouse, 56 Pine Street, one block north of Wall Street, in the financial district of New York City. I worked for them for a while, and then in the spring it began to get hot, and being in New York City in the summer is not the best place to be.

So anyway, I had a good experience at Price Waterhouse, and memorable experiences, but then I decided, no, I don't want to do this anymore; I'll find something to do in Chappaqua. So I went back to Chappaqua, and I remember sitting in the high school band, and they allowed me to do this. The assistant principal, or associate principal or somebody, saw me there, and he came in, and he said, "Can I talk to you?" And I said, "Sure." And he said, well, Joe Zangone, the head janitor had dropped a desk on his foot and broken his foot, and they needed somebody to fill in for Joe, and would I help out? And of course I would help out.

And so for a short period of time, I don't know, six weeks or so, I ended up as a night janitor in the high school. And so I would show up around 12:30, 1 o'clock, and first duty was to clean out the cafeteria. It was interesting how you evolve, you know? The place was a mess. Kids had been thrown food around, and so on, as I had done a year before, I suppose. And so I ended up on the night shift, replacing Joe Zangone for six weeks or so.

It was at this time that I was asked to play in the dance band. And went to the principal and I said, "You know, I've been asked to play in this dance band, but I don't have a baritone saxophone. The school has the saxophone. Can I borrow it?" The principal's name was Douglas Gravind, and he said, "You know, John," he said, "I wish you hadn't asked me that. But if you do borrow the saxophone, take good care of it, will you?" So he never did answer the question, and he answered it indirectly. And of course I did; it made it possible for me to do that.

As janitor, it was an interesting job. I saw a different side of things, had a number of little experiences that are memorable. I remember the guy I worked with, and unfortunately I can't remember his name. We worked from 1 o'clock until, I guess it was about 10 o'clock at night, with an hour off for dinner. And I remember he said to me one time, he says, "Let's go see what they have for dessert in the cafeteria, shall we?" Of course we had keys to everything, we could open anything. And we did, you know, went in the cafeteria, and I can remember we had fruit cocktail. And he says, "You know, if we get discovered, we'll get fired." And I said, "Boy, this is pretty risqué!" [0:55:01]

But it was good experience, and I helped out. Did that for a while, and then after that elapsed, when Joe could come back to being head janitor again, I went down to a major cemetery, just in Westchester County, called Kensico Cemetery. It was huge, and it had a lot of important people interred there, or buried there. Lou Gehrig's ashes were there, and so on. And the place was divided into five sections, and so each section had a team that would go out and cut the grass once a week, and it took about a week to get through the whole area you had. So I operated a power mower in that group. And that's how I occupied my time during the summer before I went off to college. I went to Hamilton College, yeah.

CP: How did you decide on Hamilton?

JB: The superintendent of the school district was a man named Robert Bell. He had been the dean—the principal of Horace Greeley High School. And so he was well known in the community, and he said, "Well, you know, a place you ought to look at?" He says, "You probably want to go to a small college. A place you ought to look at is Hamilton College." Well, friends of mine had gone to Williams College, to Amherst, you know, ahead of me. And so we did a tour. Went to Williams first, and then to Hamilton, and the treatment we got at Hamilton was enough to convince me, this is where I want to go.

It was a small school with 750 men; it was a men's college in those days. We went there, we were very well treated. I told my father, "We don't need to look any farther. This is where I want to go to college." And so I did. Entered in 1947, graduated in 1951. And at that time, again, it was a transitional period. There were returning veterans at Hamilton. Hamilton was a fraternity college, and I think 90 percent of the students were in fraternities, and that was how they housed the students at Hamilton. They did have dormitories, and you started out in a dormitory, and then transferred to a fraternity house.

But I had fraternity brothers who were either in the military at the time, and would come back, or had been excused from the military and had been mustered out, and they were older than the rest of us. I was one year older than all of the freshmen coming in from high school. I had had this experience working in New York City. You know, it was pretty heavy stuff. One thing that was of value—I had learned to play pinochle while I was an office boy. And there were two veterans, Jack Kelley? Jack Riley? I can't recall right now. And Don Parker, who wanted to play pinochle. Well, I was the only guy in the fraternity who could play pinochle with them. So I had two senior mentors, veterans of World War II, who took me under their wing, and it gave me certain advantages that other entering freshmen didn't have. Yeah.

CP: How was your academic experience?

JB: Well, I'd come out of high school as—I thought I was pretty good. I got to Hamilton, and I realized I wasn't as good as I thought I was. And the biggest problem I had was freshman physics. That was the first problem. And I had a devil of a time, except in the area of electricity, and so on. And as a result of my experiences in elementary school, I had become acquainted with a good friend who was really into electricity; that was his thing. And a lot of that rubbed off on me, so I handled the electrical part of physics without any problem.

The rest of it I had problems with. I thought I was going to be a high school mathematics teacher when I went to Hamilton. [1:00:00] When I encountered solid analytic geometry, I realized maybe I wasn't going to be a high school mathematics teacher, and—critical—I took my first geology course. I got my first A, and found it absolutely fascinating, and that was the change. In fact, interesting experience—I couldn't take the geology course until my sophomore year, but in my sophomore year, following the first semester, my grades went down during the first semester, and that was due to the mathematics more than anything else.

Winton Tolles, former director of the camp that I had gone to when I was nine years old, called me into his office. He said, "Byrne," he said, "Your grades are supposed to go up in your sophomore year. You're supposed to be doing better. You're doing worse, and we're watching you." And so I spent a lot of time and visited with the math professor, and so on, and got some special tutoring. It didn't help very much. I was out of my depth in mathematics, obviously. Geology was another matter.

So I took physical geology from a faculty member who was about to retire; name was Nelson Dale. His nickname was Rocky—a geology professor, Rocky Dale. And in those days, just an aside, most faculty had nicknames. The advisor to the fraternity was a man named Willard Marsh. Well, he was Swampy Marsh, you see, and so on. Anyway, Rocky Dale was about to retire. He taught the physical geology course. This was followed by a new young faculty member teaching historical geology, a man named Phil Oxley, who became a close friend later on. Phil Oxley taught historical geology.

Well, for me, the historical geology course was a mind-opening course. I had no idea of the age of the earth; I had no idea of evolution, any of this kind of stuff. You know, I came from a very conservative, non-academic family, and it was mind-boggling. And I got an A in both of those geology courses. Later on, because of the interest, because of motivation, I guess, I became an example of what happens to a student when he or she becomes motivated, and they used me as an

example. My junior and senior year was, you know, was virtually straight-A. So, that was my academic experience. The geology is what turned me around. I was really motivated by it.

CP: You were a trustee?

JB: Well, in my senior year, I was a lab assistant in Geology. And that becomes a trustee. They say, "You are now a student, which is not the same. You are not the same as all other students. You are now working for the Geology department." So, if you liken it to prison—college to prison—I'm a trustee, you see? I'm one of the prisoners who is trusted. Well, I was one of the students who was trusted by the faculty, you know, in Geology. Yeah.

CP: Well, another component of your experience as an undergrad that I'm sure made an impact on you and on your career was the emphasis on oratory.

JB: At Hamilton at the time, public speaking was required for four years, and each year was different. Freshman was the introduction, and a lot of funny experiences there. And you graduate through that ultimately to oratory, having gone through impromptu, and all sorts of things like this. And normally there was a contest at the end of each year. In my junior year, it was extemporaneous, and so, "Well, that's great. I can participate in extemporaneous. I don't have to prepare; it was great."

Well, that was wrong. I should have looked at the rules before I said I would do it, because what they say is, "Okay, here are the five topics we are going to ask you to give a talk on." So that meant you prepared five speeches, rather than—or you were ready to prepare five speeches. Well, I did, and of course the speeches they gave me were a slam dunk. [1:05:03] They were giving me freshman geology kinds of things to talk about, you know, and by this time I could do that. So I did, and I won the contest. It was about the origin of the earth and this sort of thing. And I don't remember much about the contest except they told me, they slipped me this thing, and said, "Okay, here are the five topics." So, rather than simply walking in, I had to spend time, which I didn't really think I had, preparing for five different speeches. Yeah.

CP: Was public speaking something that was ever nerve-wracking for you, or did it come pretty easily?

JB: Well, you know, going back to Morris Ottman, Morris Ottman had us give talks to the class. And one of my early experiences—and I suppose this is a little alarming the first time it happens—this kid in the class named Warren Thomson, lived down the street from us in the neighborhood we were in, and Warren gave great talks. He said, "It's easy." He says, "Find something in the *Reader's Digest* that you think is interesting, read it a couple of times, and then just tell the class what you read." And that's what we did. And that was the start of public speaking for me. And so, it's an interesting thing. At Hamilton, there was no problem, because we were all in the same boat.

In my class was Omar—oh, gosh—Pond. Pond? Yeah. His father was a famous poet. He was in my class, and he was supposed to get peoples' attention. One of the rules of public speaking is, when you get up there, you've got to do something that gets the public's attention. Anyway, he walks up, takes a string of firecrackers out of his pocket, lights them, and throws them on the floor. He's going to talk about Guy Fawkes Day in England, see. And so that was a little memory that we had.

We had people say, "You're supposed to act relaxed while you're speaking. You know, walk around a little bit, and so on." Well, I remember this one kid in our class stands there ramrod straight, and then it dawns on him [snaps finger], "I'm supposed to walk." He takes two steps over, stands there ramrod straight, and so on. Well, you remember those kinds of things. So, public speaking was not a problem in college, and I suppose it was not a problem in graduate school.

The problem occurred for me when I'm talking to my peers. Then the whole business of being critiqued enters your mind. "Am I doing this well?" That's where the apprehension and the fear begins to develop, the stage fright, whatever it is. And then it dawned on me—and this was while I was a faculty member—it dawned on me, "Hey, the thing I'm going to talk about, I know more about than anybody in the audience. And this is my opportunity to share it with them." And once you do that, then it's easy. It's easy. It's for you. It's not for me, it's for you. And that takes away—for me, that takes away the apprehension. But yeah, public speaking was big at Hamilton, yeah.

CP: So you finished up at Hamilton in 1951, and had you decided by then that you wanted to pursue geology?

JB: It was pretty clear that my career was going to be in geology, rather than in teaching mathematics. Yeah, I love geology! It was great. One other little anecdote: at the end of the first year, I've had physical geology and I've had historical geology; the historical geology I kept what I thought were very complete notes. I got a great big piece of butcher paper, and I convert those notes to that butcher paper, which is the history of the earth. And so that's up in the room, my study room in the fraternity house. Well, every kid taking geology in the fraternity is in there after they see that. That's how they studied for the historical geology course.

So, yeah, geology was something that I wanted to do. I wanted to teach geology. [1:09:59] And well, that was a thread. I mean, that was one of the areas I was going into. I wanted to teach. I like that; I like to teach. I like the sharing. I like the spark that you can see when people finally get it, you know? And you see it. I mean, it's pretty obvious. Yeah.

CP: Did you have an experience at Hamilton that made you think about teaching, or did you have, like, where you were sharing it one-on-one, or?

JB: I don't think so. I don't remember that. I remember that, yeah, you've got to go to graduate school, and I hadn't thought about graduate school until somebody in the year ahead of me was working on a master's degree at Hamilton, and so we had talked about it. He says, "Yeah, you've got to take languages and everything. You've got to pass a language examination." Well, French was not a problem. At Hamilton, I had taken four years of Spanish just *de facto*. You know, I wasn't trying to major in Spanish, I just happened to. But Spanish didn't count. It had to be French, or German, or Russian. Well, we didn't do Russian, but we did German, so my senior year I took freshman German. And it was because I wanted to go to graduate school. So yeah, the senior year was preparing for graduate school. And with the idea that ultimately, at some point downstream, I would end up teaching. Yeah, that's what I wanted to do.

CP: So you decided to go to Columbia?

JB: That's a story in itself. I think I applied to Yale, Columbia, Penn State, Cal Tech, maybe one other, Cornell, maybe. And I was accepted at Cal Tech, and from the East Coast, Cal Tech sounded very prestigious. And so I accepted it, and they said, "You can come here, but you're going to have to take physical chemistry," because I hadn't had that. I had taken college chemistry one summer at Columbia University, and did very well in that. And that was my first interaction with Linus Pauling, incidentally.

But anyway, I wanted to go to Cal Tech. And somewhere along, in the spring or late winter, Phil Oxley, who was still working—he was the guy who taught historical geology—was still working on his PhD at Columbia. He received a letter from Norman Newell, who was a faculty member at Columbia, and also a paleontologist at the American Museum of Natural History. He received a letter from Newell, and Newell said, "I notice that Byrne has been accepted at Columbia, and would he be interested in working on my project in the Bahamas?"

Well, in those days, you got a spring break, and so on spring break I was going back to Chappaqua. And so I said, "Well, Phil, yeah, I'm interested, but let me go back on my spring break, and go down to the museum in New York City, and talk to Newell about it." So Norman Newell had this project where he spent six weeks in the Bahamas and six weeks in west Texas. In the Bahamas you were diving on a coral reef on the east side of Andros Island. So anyway, I decided, yeah, I'll go to Columbia and the Bahamas. So I swapped Cal Tech for the Bahamas, basically, and went to Columbia.

And Newell—if I had to list my mentors, Newell would be one of the significant mentors. Herbie Oakes in high school, Phil Oxley at Hamilton, and Norman Newell at Columbia. And so I did that, went with Newell—not with him; he was in the first six weeks and we were in the second six weeks. Went to the Bahamas, and we spent six weeks mapping the reef on the east side of Andros Island, and then moved to west Texas to compare that reef with Permian reef in west Texas. And then subsequently, of the kids, of the students who had been with Newell in the Bahamas, I was the only one that it was logical to go with Norman Newell to the South Pacific, to Raroia the next summer, which I did.

CP: Yeah, pretty amazing experience. [1:15:00]

JB: Yes. Absolutely, a life experience, yeah. Yeah.

CP: Do you want to talk about it?

JB: If we're ready to talk about—

CP: Sure.

JB: Raroia? Well, I'll talk about the Bahamas first.

CP: Okay.

JB: In the Bahamas, and this was before scuba gear was popular, so in the Bahamas we had a pump at the surface, a hose, and a diving thing. And of course, in the Bahamas, the predators were barracuda and sharks; we were concerned about—I was concerned about that. And I started off immediately. I said yes to Columbia, I said yes to Newell, and a week after I left Hamilton College I'm in Miami, getting ready to go to the Bahamas. First night down there, I go to the sport fishing pier, which is close to the hotel I was staying in, and see what sharks and barracuda did to tunas, or whatever fish that had been caught—a frightening experience!

And so we get to the Bahamas, and we're ready to dive and put the mask on, and I'm the first one. And we had a student running the boat for us, a guy named Gene Pifram. [?] We were on a 40-foot boat, and we lived on that boat for six weeks. And so I said to Gene, "What do we do if we see a shark?" And he waves. So I don't know, you know. But we go down there, and of course you're constantly looking, and you're constantly convinced that just at the limit of your visibility, that's where the sharks are lurking, or the barracuda are lurking, to do damage to you. And of course they didn't.

But we go down, and at first—you've got a valve on the side of your thing that lets the air into your mask that you're wearing, and at first you've got so much air coming out, it's blowing out the sides of your mask. By the end of the summer you've got the valve cracked down. You don't open it unless you want to breathe, then you give it a little shot, and so on, so. So experience counts, you know; it's one of those things. But anyway, that was the way we studied the reef, was with this diving thing, and the hose that would constantly get hung up on corals, and that sort of thing.

Well, we go to Raroia—Norman Newell was selected to do this summer study, summer for us, winter for them, of an atoll, and it's part of a series. The reason we go to Raroia is that part of the team is a man named Bengt Danielsson. Bengt Danielsson is the Swede who travelled with the five Norwegians on the raft Kon-Tiki, which ended up on the reef at Raroia. Then subsequently, Danielsson had spent a wife—he and his wife, a year—he and his wife had spent a year on Raroia, living with the people. And so, that's the reason. He was available to go as the anthropologist to an atoll. The atoll literally would be Raroia, where he was accepted as one of the people, and he was part of our team—wonderful connection between us and the 125 or so people who lived on Raroia.

Raroia is an atoll about 27 miles long and 9 miles wide. It's got a lagoon in the middle, which had a maximum depth about two-thirds of the way across. The Kon-Tiki ends up right in the middle of the reef on the windward side. So, we're selected to go to Raroia, and I'm selected to go with Newell. We end up having gone through Hawaii, to Fiji, to Tahiti, and then by schooner from Tahiti to Raroia. We end up living with Bengt Danielsson and these natives for two months, more than two months, on the atoll, and mapping the reef.

That's basically what we did, and I was Newell's assistant. There was a botanist from the University of Hawaii who had an assistant, a student assistant. [1:20:03] There was an ichthyologist named Bob Harry, from the California Academy of Scientists, a zoologist named Joe Morrison, from the Smithsonian, and Bengt Danielsson, and he had a part-time assistant who came with us for part of the time. And so we're living with these natives for two months, and that's a life-changing experience.

Being on the reef, my responsibility was to make a bathymetric chart of the lagoon, to study the distribution of corals on the reef. So we do all of this, and I'm desperately trying to fall in love with a Polynesian maiden, and that's not working very well. But it was a great—as you say, it was a great experience. It was a life-long, life-changing experience. And then from that, I go back to Columbia with Newell, and Raroia is very much with me during that.

Newell suggests that I study with a man named K.O. Emery at the University of Southern California, which I did. But Raroia was very much there during the first semester there in the second year at Columbia. Yeah.

CP: You emerged with a stronger appreciation of Polynesian culture?

JB: Yes, and particularly, having spent the summer with natives in the Bahamas, who are very, very different from the Polynesians. The natives in the Bahamas—and we had a native who lived with us on the boat, and he served as a guide and so on, in the Bahamas. His name was Bane; he was about 50 years old. He had been a sponge diver before the sponge industry collapsed in the Bahamas, and he was a descendent of slaves that were brought from Africa to the Bahamas. Had fear of the ocean, although he lived on it, had lots of myths and mysteries, and so on, and we could talk about those.

And then compare them with the Polynesians, who are, yes, they're natives and so on, but they're very intellectual. They're very smart. They're very sharp. They have no fear of the ocean. They live by the ocean, and they make maps of the ocean waves, and so on, using sticks and shells, and so on. Very, very different experience with the Polynesians on Raroia, yeah.

CP: Tracking back just a bit to west Texas, that was your first contact with Humble Oil, is that correct?

JB: Well, Humble Oil was supporting Newell on this study comparing the Bahamas reef with the Permian reef in west Texas. And Permian rocks produce oil, so Humble was interested in it, and so on. And we could go into the geologies of all of that, but basically, yeah, six weeks at each place. And in the Bahamas, or in west Texas, basically what our responsibility is, is to map these little what are called bioherms, which are little, tiny patch reefs, as it were, modern equivalent being a patch reef. And collecting rocks from these, it turns out that in the Permian basin of west Texas, a lot of the fossils which are calcium carbonate have been replaced with silica. And you can dissolve calcium carbonate with hydrochloric acid, and get these beautiful—silica's glass, basically—these beautiful glass fossils.

And so our responsibility as graduate students is to collect these huge rocks that seem to be loaded with fossils, and carry them back to where they can be shipped to Columbia, which we do. And so we do this all day long in the heat of west Texas, and that's our responsibility in the field at west Texas. Anyway, we had some fun out of it. We go swimming in cattle tanks, and some of this kind of stuff. And what I remember is finding this rubber tire, and saying, "Hey, rather than carrying this rock on our back down to the bottom of the hill, why don't we wedge it into this rubber tire and roll it down the hill?" And we do, and the last thing we see this thing is still going, you know? I tell folks, it may be in Mexico by now, and we don't know. [1:25:00]

But anyway, we had a good time in west Texas as well, though it was a very—again, a very different culture. Every Saturday night we would go to a barbecue at some ranch, and the ranchers in west Texas are different. I mean, different from the kids who go to graduate school in Columbia University, you know? So again, it was another experience in cultural differences. And all of these things begin to mount up and become important, particularly when you get to be the president of a Land Grant university. Yeah.

CP: What was the environment like for you at Columbia?

JB: At Columbia, this is East Coast. It's 1950, in the 1950s. As graduate students, we all wear coats and ties, khakis, and so on, but a coat and tie, and that's expected. Being a graduate student is a full-time job. You take classes during the day; you work on your thesis at night. You're going to a seminar, or whatever. And so it's a full-time experience. I ended up—I've been very fortunate. My folks—all of the colleges I went to were private institutions. And so I'd like to give you the hard luck stories and so on, but they're not there. And of course, I'm an only child, and so all of my folks' attention is on me. And those are benefits that not every person has. Some people say, "You didn't have the benefit of living through a hard experience," and that's true.

But anyway, so at Columbia I stayed in a dormitory. And occasionally I would go home on weekends, which was 30 miles upstate, in Westchester County. But I'd get up in the morning; I'd spend breakfast in the cafeteria in the graduate student dormitory I lived in. I'd read the *New York Times* for half an hour, and then go take classes, and so on. At night there would be seminars, or we would be in there working. And then at 11 o'clock or so—and Friday afternoons! Friday afternoons were kind of interesting, because we would have labs on Friday afternoons, and then we would relax. And a couple of beers put you to sleep if you were already tired, you know?

And then Friday night, in those days the big event Friday night was Friday night boxing matches, sponsored by Gillette. And so we would go to—I think the name of the pub or the bar was West End Grill, or something like that. It was sort of a Damon Runyon-esque bar, you know? It's still there. We would go over there and we would watch the Friday night fights on television. Well, at Hamilton I had also done that, because I had gotten close to the chefs or cooks at the fraternity,

and they were the only ones who had a television set. And this was when television was just becoming popular. So anyway, we would go to the West End and have a beer, and watch the fights. And that was how we spent our week, and that was the life of a graduate student in geology at Columbia. And then when you go to southern California, it was an entirely different experience, but still, with some similarities.

CP: Your research continued to focus on the Bahamas?

JB: My master's thesis was on—yeah. Newell had encountered a guy who wanted to do, I guess, a vacation in the Bahamas, and was willing to collect samples from the Great Bahama Bank, which lies to the west of Andros Island. And he had collected a lot of samples that needed to be worked up. And so Newell said, "Would you like to do your thesis, your master's thesis, on the sediments of the Great Bahama Bank?" And I said, "Sure."

So that's what I did at Columbia. And finished my master's thesis by February of—what would it be? 1953, and then transferred to the University of Southern California, as Newell had suggested, with the promise that I would work up the sediments from the lagoon at Raroia after I got to SC. [1:29:59] And yes, I did, and what I wrote in a short paper is included in a report from the American Museum of Natural History on Raroia. Yeah.

CP: You were in New York in a very fertile time for jazz. Did you have any experiences of going out and seeing music in the city, at all?

JB: Well, we did. The first year I kind of resented being in New York City. I mean, I knew New York City. It's dirty. When I think of all of the negative things about a big city, New York has got them in spades. But it also has the other side of the coin. It has culture, it has the Museum of Modern Art, it has the Metropolitan Museum. In those days, it had the old New York Opera House, with all six balconies, and whatever. This was before Kennedy Center, and so on. And lots of theatre. I mean, it's just loaded with culture, if you're willing to look into that. And after we came back from Raroia, we did.

There were a bunch of us, a bunch of the graduate students who were still there from the first year, and they arranged it, and said, "Why don't we go to an opera?" I had never been to an opera; didn't know anything about it. My folks? That was not their thing, you know. Their music was Andre Castellanos. It wasn't symphonies, or anything like that. And that was the height of it. And so, let's go to an opera. Well, what opera will we go to? Well, I understand that *La Bohème* is coming around. That would probably be a good one to see. It was terrific. It was mind-boggling! I had never seen anything like this. This was *La Bohème* with Patrice Munsel, and people like that. I had heard of them, you know, but that was about it. And we were up there in the 5th balcony, looking almost straight down on the stage.

The next night, this other guy and I decide, hey, let's go to the opera again. Well, what's playing is Puccini's *Madame Butterfly*. But there are no seats. However, there was standing room, so we buy standing room, and we stand for 150 hours. [Laughs] It's forever, and ever, and ever. It's a long opera. But fabulous, it's just absolutely fabulous. So we had broken the cultural ice jam, as it were. Yeah. Yeah.

CP: Well, you mentioned in 1953 you drove across the country, and set up on the West Coast at USC?

JB: Yeah.

CP: What was that transition like?

JB: Well, the interesting thing about that was, first of all, it was a time for me to be with my father, driving across the country, and he had never been to the west. His mother used to read westerns, pulp magazine westerns, so the culture of the west was there in the family, but in a non-realistic way. For him, as we're driving across the western part of the country, where it's semi-arid, and rocks, and so on, there were Indians behind every bluff. He's living this! It's great. So we have a wonderful time driving across. We got to SC, and I decided I'm going to live in the dormitory, and it was a graduate dormitory there. It's an old house or something like that, and it's fine. He leaves, and I'm by myself. I don't know anybody. He introduced me to one person he knew business-wise, and so I'm not totally isolated, but I'm alone.

And the first semester at SC, it's getting to know the other geology students. I'm looking for social companionship, which means women, I suppose, so when they have tea dances and that sort of thing, I go to them. Well, you know, here I'm an

East Coaster. I grab a suit and a tie, as a graduate student. I don't know what the dress code is, and so I show up with a suit and tie on, everybody else has got a sport shirt on. Okay, I can do that. If it's cool, they've got a sweater on. And so the next time I go, I've got a sweater and the rest of them have coats and ties on. I still to this day haven't figured it out! [1:34:59] So what I did was I would keep the coat and tie in the car, and look in through the window, see what the dress code was, and dress accordingly, you know.

And the culture was very different, very relaxed. This is 1953, and it's a long time ago. And so it works fine, but again, we're graduate students, and so that's a full-time job. So you're taking courses, you're starting on your research, and so on. If there are jobs to be had, you get a job, and I did that. After I'm there a semester, I got a job as a lab assistant and a lab instructor in elementary geology, and that's very helpful. That's my first teaching experience. And I go the extra mile. I do stuff—in those days, geology laboratories use a lot of geologic quadrangles. And so every time we're doing a study of a quadrangle, I learn something cultural about the location. Elmira, New York—I didn't even know geologically why we studied Elmira, New York, but that's where Mark Twain retired to. That's where his home was. So I talk about Mark Twain, and Elmira, and so on. So I did that, and then we get to talking about structural geology, and kids have difficulty visualizing things, so I make models out of clay and bring those in, and that sort of thing.

I love it. I love teaching, and that's what I want to do. It's pretty clear to me that, by the end of that experience, that's what I want to do. And so that introduces me to the SC undergraduate. Private college, private institution, and these are all kids who are well off, or they're athletic and they can get a scholarship, and so on. And SC is big on the athletic stuff. In the student union, they put up a new mural, Ten Great Moments in Trojan Athletic History. I don't remember what they were. So I write a letter to the editor of the paper, and I said, "Wouldn't it be great if we had ten great moments in Trojan academic history?" Shot into space! Nothing happens as a result of it.

But anyway, so SC is important, and it's a somewhat more relaxed graduate school atmosphere. Whereas at Columbia there might be faculty around at night, there are none around at night at SC. They all live some distance away. They go home; they don't come back. But the graduate students all live close to campus, and so there was a graduate student community that develops. And if there are visiting faculty, as there will be, as I'll tell you in a minute, they live close to campus, too. So we associate more with—graduate student to visiting faculty.

One such faculty member is a man named Hiroshi Ninio from Japan, and he gets to know the graduate students very well. And because he's close to campus, he's around at night, he's around during the day, and so on. There are no people that he would normally associate with, other faculty, there at night. Okay, so Hiroshi becomes a favorite person for us, you know, Japanese. Again, another exposure to a culture that we don't know. And so that's the environment at SC.

At SC they had some other good customs. They said, "If you're a full-time graduate student, you're eligible to audit any course that you want." So I audit night courses in music appreciation, literature, history, and this keeps me busy one or two nights a week when I'm not doing graduate student stuff. And those are good—I can still remember those courses. It was more exposure to classical music than I had ever had, so that's good. I get to go to a lot of baseball games. The baseball field is right on campus, as is ours here, and so I can find time to go over and watch a baseball game.

The laboratory in geology that we teach is in a World War II surplus building [1:40:02], and it turns out that a certain number of undergraduates begin to use that as their hangout spot. Well, it turns out we have another graduate student, and older graduate student, who turns out to be best man in my wedding, named Dick Stone. Well, Stone has got communication with the athletic department. So the student jocks hang out with Stone, and consequently with us.

There's a guy named Eddie Allen who pitches for the—I think his name's Eddie Allen—pitches for the Trojans, pitches for SC. So we go over to watch Eddie Allen pitch a game for the Trojans. And so I get so that I get pretty good; I get pretty familiar with the baseball team, as I did here. When I was in Oceanography here, I used to go over and watch baseball a little bit. But anyway, it's a relaxed atmosphere that's very different from the atmosphere at Columbia. No less serious, but just different.

When I first arrived, I'm there to study with a guy named K.O. Emery, Kenneth Orris Emery, who goes by the moniker K.O. And I call him up after I get there, and I say, "Well, I'm here now." He said, "Would you like to go on a field trip Sunday morning?" And I said, "Sure." I don't know whether he arranged it for me, but he and a couple of other faculty

members go on this field trip to Palos Verdes on the beach, just very, very informal. I'm not sure that would happen at Columbia. So there is this relationship between faculty and students, which is very beneficial, at SC.

CP: How did your research evolve while you were there?

JB: Well, at SC, I'm there for my PhD. And obviously, the PhD's going to be directed somewhat by Emery, and I had just come from Columbia University. I'll have to get into a little geologic jargon here. At Columbia there's a faculty member named Marshall Kay, who is a stratigrapher, study of sedimentary rocks, and Marshall Kay is a champion of the concept of geosynclines. A geosyncline is a huge stack of sedimentary rocks, normally formed along the edges of continents. And Marshall Kay has written a book on geosynclines, sedimentary rocks and geosynclines.

Emery says, "Why don't you study recent sediments of world geosynclines?" Hell, why start with something small? Let's start with something big. So, I'm going to study the sediments of all—recent sediments of all of the world geosynclines. This is before plate tectonics. This is before we know what we know today about geology. And so we start to do that, and obviously it's too big a topic. And so this begins to narrow down, and Emery says, "Well, you know, there have been a lot of sediments collected from the Gulf of California," Sea of Cortez, whatever you want to call it, between Baja California and Mexico. Scripps—and Emery has his degree from Scripps—and he says, "Scripps collected a lot of sediments that have never been worked up."

Hell, I'm an expert on working up sediments that other people have collected, you see. I did the Bahamas, now I'm going to do the Gulf of California. So my thesis, my dissertation, ends up as the marine geology of the Gulf of California. And it's basically a study of the sediments, but everything else as well. There are a lot of anecdotes I could tell you about that. But we're at SC now, and that's where I start doing my research on it. Well, in the group at SC, the "Emery group," his graduate students, and so on, there are again, some veterans who are older than the rest of us, and who provide leadership for the rest of us. And there's one named Bob Stevenson, who participated in two military conflicts, World War II, where he was a navigator on a B-17 [1:45:01], and photo reconnaissance in Korea. And he is now back.

There is a sewage treatment plant that's about to be built, called Hyperion. And they want a base-level study of the ocean, off where the Hyperion outflow is going to be, how powerful it's going to be. And so the Hyperion project is created. Stevenson takes over as the director of it. A number of the graduate students, including myself, end up working the Hyperion project for a certain period of time. So that's what I do for part of the time, take the courses that Emery offers, and some other people in the Hancock Foundation, which is the main marine activity at SC, and take courses in marine algology, and the rest of the time work on my dissertation.

In the course of doing that, the chairman of the Geology—I become a senior-level geology graduate student, well-respected. I'm teaching; getting good reviews on the courses that I'm teaching. I do things on time. You know, I'm a good guy, from the perspective of the chairman of the Geology department. He goes on sabbatical, and he says to me, "Would you like to use my office in the Hancock Foundation while I'm gone?" Great, and that's where I write my dissertation. I write it in Tom Clement's office in the Hancock Foundation. So again, things are falling into place, and that's what I do.

In the meantime, I meet Shirley, my wife, who subsequently becomes my wife. We get married during this period. She teaches 4th grade in Long Beach. We live halfway between Long Beach and SC. We have two cars, worth \$200 altogether, and we go in different directions every morning. I finish the dissertation, and having made the connection with Humble Oil Company, and Harold Fisk, after I get my PhD I go to Fisk, and it's really the only job I'm offered. It's the only job I want. Again, the pieces are all falling into place.

CP: What was Shirley's background?

JB: Shirley's a musician. She went to Whittier College. She went to high school—her folks had never been to college. She went to high school, and didn't know what she was going to do after high school, and a counselor at high school said, "Why don't you apply for a scholarship at Whittier College?" And she does, and she gets it. And that's the difference in her life. She goes to Whittier. She has been a pianist, her mother teaches piano, so she has been a pianist since she was a little kid, and she is taking private lessons. She goes to Whittier; she continues to do the piano stuff, and she becomes a music major and gets a teaching credential as well.

Her job, her first job, is in the—I can't think of the name of the school, but it's an elementary school in Long Beach, California, fourth, teaching 4th grade. And she's got a whole series of experiences she can tell you about teaching 4th grade. [1:49:00] And I tell her, once a 4th grade teacher, always a 4th grade teacher. You know, she orders me around like she would a 4th grader. Anyways, I love her. And so anyways, she's teaching 4th grade, and we get married, and we go in two different directions. She becomes pregnant just about the time we're finishing up to take that first job at Humble Oil Company, in the research section in Houston, Texas.

And the graduate student experience is—I have the experience of having been a single graduate student, and also a married graduate student, and both sides of the experience are great. I had good time all of the time we were there. And so, then we were off to Houston, Texas, another different environment.

CP: For sure. A couple more questions about USC and then we'll move on.

JB: Yeah. Yeah, sure. You bet.

CP: You took your first oceanographic cruise.

JB: On the *Velero*, yeah.

CP: What was that like? On the *Velero*, what was that like?

JB: Well, the *Velero IV*, I think it was the *Velero IV*. We were at the Hancock Foundation. Captain Hancock—Captain Hancock's an interesting guy. Hancock is—I won't say he's a billionaire, but he's a multi-millionaire. He owns most of Wiltshire Boulevard, from downtown Los Angeles to Santa Monica. He owns the La Brea Tar Pits. He owns a small airline that operates north of—he's got unlimited pilot's license, he's got unlimited ship's captain. We're going to go out on the *Velero*. Well, Captain Hancock is going to be the skipper on the *Velero*, and of course there's a crew that does most of the work. He's also an amateur musician. He's either a violinist or a cellist, and I don't recall which.

And so when we go out on the *Velero*, it's a different experience from going out on any other oceanographic research vessel, because we stop work at 5 o'clock. The ship anchors, and we dress for dinner, coat and tie. The Captain, when he's the skipper of the ship, he takes his classical music group with him, and they play for half an hour or 45 minutes while we have sherry in the lounge, while the Captain and his associates are playing classical music. He takes along his purchasing agent, who happens to be an amateur gourmet chef. And the first time we were out there, we had baked Alaska for dessert. I've never had baked Alaska before! You know, so, it's a very different experience.

And then, as graduate students, we're expected to stand what's called an anchor watch at night. So there's somebody up there on the bridge, at four hour intervals, all night long. That's our first experience. We're gone for about—oh, I don't know—four or five days? I gain four pounds. You know, it's just different. It's not what you would expect an oceanographic cruise to be like. And the graduates—we operate all of the equipment, we do all of the things. We're learning what it's like to be oceanographers. Do we get seasick? Yeah, I suppose some of us got seasick, or a little queasy. Yeah. Then that happens right out of the—first semester we were out at sea for four or five days, yeah.

CP: The other thing I want to ask you about was what sounds like it was a pretty memorable meeting with a couple of Cal Tech geologists, Charles Richter and Beno Gutenberg.

JB: The Gutenberg thing, or the Richter thing, was phenomenal. I do my dissertation on the Gulf of California, and it's really more than just the sediments, it's the geology surrounding it, and so on. The experts on seismology are at Cal Tech, and these are two guys named Gutenberg and Richter. They've got a book on all of the earthquakes, significant earthquakes of the world, and so on. So I think that I ought to go over and talk to Richter. I have taken whatever maps are available, and I have tried to come up with a map of the structural geology that frames the Gulf of California. Now, you've got to remember, this is all before plate tectonics.

So anyway, I go over to see Richter, and I sit down and I tell him what I'm doing, and I show him what I've got, and so on and so forth. And he said, well, he didn't know how much he could help me, but they do have some records of earthquakes in that area, and he shares those with me. And then this alarm goes off, and it's like a fire alarm. It's a big—we've got an earthquake! And so we go up, and there's a globe. It's got to have a diameter of about two and a half or three feet. And

attached to the globe is a tape and the tape is attached at the spot—it looks like southern California, but it's technically the spot where Cal Tech is. And the seismometer—they have a seismometer. The seismometer is someplace else, but the recording instrument is right there next to this big globe. And so there's Richter, and Richter's a big, tall guy with bushy hair. [1:55:02]

And when the alarm goes off, everybody begins to migrate to this big globe. Well, attached to this thing is this tape, and the tape is divided into seconds. Well, the difference between the initial, primary wave of an earthquake and the secondary wave is measured in seconds. And from that you can tell the distance that this earthquake occurred from Cal Tech. That's all you can tell. So what happens is, they're all watching, and they're watching the seismometer display. And I don't remember how many seconds elapse, but a number of second elapse, and it shows up on the recorder. It's recorded. They know exactly the time difference between the primary and the secondary waves, and that's been measured on a tape. So then they start swinging the tape around the globe.

Well, in swinging it around, the tape intersects the Aleutian Trench, it intersects the Tonga Trench; it intersects the trench off South America. And I should also mention that this little short guy without any hair at all shows up. That's Gutenberg. And so, here I've got Gutenberg and Richter, and they begin to debate: did it happen in the Aleutians? Did it happen in Tonga? Well, in order to know, you have to get the records from another seismic station, and then you can begin to intersect the arcs. When you have two other records, you can really pin it down. So, they don't know at this time whether it's Aleutians, Japanese Trench, Tonga Trench, whatever. It turns out it was the Tonga Trench, which is a very seismic area. But this happened while I was there! Again, that's a life memory, Gutenberg and Richter arguing about why this could be from Tonga, or the Aleutians, or whatever. Yeah.

CP: You experienced an earthquake with the guy who named the Richter Scale?

JB: Yeah, that's right. That's Richter, yeah. Charles Richter.

CP: Well, this has been great, thanks. We'll start up with Humble Oil next time.

JB: Okay. All right. [1:57:34]