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MARVALEE WAKE Interview. Paula Fass and Christina Maslach, *Academic Pioneers: Women at Berkeley in the 1970s and 1980s*. Interviews conducted 2019-2021

Marvalee Wake:

I'm Marvalee Wake, born on July 31, 1939, in Orange, California. I grew up in Santa Ana, and had a basically happy childhood reading, enjoying school, and being 10 miles from both the beach and the mountains for lots of exploring. My public elementary, junior high, and high schools had a corps of mostly excellent, concerted, dynamic teachers. I chose to attend the University of Southern California in Los Angeles for my college training, because of its breadth in biology and the humanities, my areas of greatest interest—and its generous scholarship support. I considered myself a pre-med, the profession I had “chosen” when I was about 5 years old. Being more than a little contrary, I took a diversity of courses in the Humanities because I knew I wanted a well-rounded education (e. g. courses in English lit, art history, German [I'd had Latin and Spanish in jr high-high], along with the chemistry and physics requirements, and most of my required courses for my major, Zoology, in my senior year. I'd applied to med schools, and I started “shadowing” MDs at USC's medical school that year. I became somewhat disillusioned with medicine, because so many MDs seemed to be very good technicians, but they – in terms of what I was looking for - did not do very much original thinking about what was interesting and how to diagnose and solve problems. I was taking a course in Evolution, and the professor called me in and told me I should be doing a “senior project.” I became entranced with basic research! So, graduate school suddenly had great appeal. The professor facilitated my admission, found me a TA-ship, and became my major professor, and I've been doing my “senior project” the rest of my life! I did a Master's and PhD at USC, finishing in January 1968. While there I met the graduate student who - he who became my husband, who was also a graduate student of the same major professor. He, the redoubtable David Wake, he was three years ahead of me in graduate school. We married at the end of my first year of graduate school, and our son, Tom (now a zooarchaeologist at UCLA), was born a year later. Dave finished in 1964, and the job market was incredibly different then. Dave was offered five or six positions, including the chair-ship of a department straight out of graduate school and without a postdoc of course.

Marvalee Wake:

So, his decision was among several universities, but the University of Chicago had the most appeal, so he chose their offer. I was a second-year graduate student pregnant with our son. I hadn't taken my qualifying exams yet. I overheard the conversation in which my graduate student colleagues said, "Oh, she'll never finish now." I beat them all. And it wasn't because I was being competitive or anything.

Christina Maslach:

Yeah.

Marvalee Wake:

You just learn how to parcel out your time. Anyway, we went to Chicago. The University of

Illinois was just building its Chicago campus in 1964. UI had been at Urbana-Champaign for many years, but wanted a large campus in Chicago.

Marvalee Wake:

So, I was hired as a Teaching Assistant there and I did my graduate work effectively in Dave's lab at Chicago and also at the Field Museum of Natural History. I very rarely had contact with my major professor, which may be good, but anyway, it worked. Illinois had promoted me to instructor after a year or so. And then when I finished my Ph. D. about three years later, they interviewed me for an assistant professorship and I gave the usual seminar, etc., and was hired as an assistant professor. So, Dave was at Chicago. I was at Illinois. The commute for me on the El was interesting, especially in the winter, but it worked. And then Dave was invited to Berkeley to give a seminar. He was delighted to talk with everyone in the department because he was quite familiar with it for a variety of reasons. Then as he was leaving, the person who had hosted his visit said, "you know, we really brought you here, because we would like to offer you a position." They did it that way then...

Christina Maslach:

Oh my gosh, wow. A stealth interview.

Marvalee Wake:

Exactly. So Dave sort of said, "Well, thank you. I'm impressed. I'd like to think about it. I've been told I'm coming up for tenure at Chicago and I'd like to see what's going on there." And, so anyway, he thought about it. They press the offer. And within three days, Berkeley offered a tenured position. Chicago responded with tenure for Dave, but he was in a department of anatomy and medical work. And as an evolutionary biologist, he did a lot of field work. He'd started a program in Guatemala, things like that and that plus his expected teaching and so forth, fit the Berkeley situation much better. I was at Illinois, finished you know, getting my dissertation chapters ready for publication, starting some new work and all that, but it was not a happy place for me.

Marvalee Wake:

It was a very strange department as brand-new ones can be. There was, shall we say, a dynamic tension between the people who had taught at the two-year branch of the University of Illinois out at Navy pier and the new young people they were hiring to build the new department. And there were literally fights and backstabbing and things like that. Well, I couldn't see myself fitting very well into that kind of situation. So, I was reasonably happy to leave. And when I went to tell the chair of the new department that I was leaving, his comment was "Well, we haven't done much to keep you here, have we?" "So, I said "No, you haven't." So, we left for Berkeley. Well, we started looking for housing and I started.

Christina Maslach:

Were you offered a job before you left?

Marvalee Wake:

No. I started writing other institutions in the Bay Area. And of course we had friends here who were sort of looking out for me and, not seeing anything.

Marvalee Wake:

But when we were out in Berkeley to begin to buy a house, something opened. All of a sudden, the person who had been hired to organize the laboratory component of the extremely revised general biology course for the new quarter system gave notice. So, they were scrambling around to find someone. Here I was! And nothing else had turned up. It was at Berkeley; they didn't make promises, but they said, look, we're in a phase of change. Being on quarters was new and part of the reason for reorganizing courses and all that. (NB: Berkeley was on semesters until 1966, when it went to quarters, and back to semesters in 1983.)

Marvalee Wake:

For biologists it was a very interesting and difficult thing because some courses fit beautifully in a 10-week term. My husband taught the evolution course for 40 years and he much preferred quarters. It fit; he could really punch it in—always be totally up to date - the whole bit. I started teaching evolutionary and functional vertebrate morphology few years later. I'll come back to that, but the quarter was too short. And at many institutions, that's a full year course. So, a semester was much better for some teaching, and especially administrative efficiency.

Paula Fass:

Right.

Marvalee Wake:

But, anyway, there we were on quarters, and I accepted it. When I make a commitment, I like to plunge right in and really do things. And it worked well. I was working with people, names I suspect you'll recognize: Rod Park and Mac Laetsch, for example. Folks like that were all part of that reorganization. A key change was that the biology departments had each been offering their own introductory courses, so the idea of a common introductory course was new. In fact, they organized a paper Department of instruction In Biology to accommodate courses like general biology, and eventually the non-majors course and some courses that spanned taxa and principles. The faculties came from Botany, Zoology, Molecular Biology, and from the College of Natural Resources.

Marvalee Wake:

So this was a pretty new thing. Well, at Illinois, one of the requirements for the entire Biology departmental faculty had been working in Biology One, because the person they hired to develop that course had been involved in the new pedagogy for sciences. Postlethwait at the University of Oregon had developed a new approach using hands-on learning techniques and so forth. So I came to Berkeley I was familiar with that framework. That was one of the things Mac Laetsch in particular was interested in developing for the new course. So, you know, I could bring some experience to the plan they were introducing. So that worked. I was given an office and initially, well, for most of the time, in a trailer. It did have running water, and that allowed me to maintain my research program at a certain (low) level.

Paula Fass:
What was your title, Marvatee?

Marvatee Wake:
Lecturer.

Paula Fass:
Uh huh, yeah.

Marvatee Wake:
And that plays a role too. Working with people like Rod and Mac was important. Rod was involved in lots of things on campus, and as you might remember, became Dean of L & S and then EVC. He was the principal administrator who facilitated the later massive reorganization of Biology on campus in the 1980's.

Christina Maslach:
Yes, yes.

Marvatee Wake:
But anyway, after about a year and a half of helping to develop the course, and especially working with the TA's, Rod said, "I think you might enjoy being an Assistant Dean of the college." I said, "What do assistant deans of the college do?" And, at that time they were six academic people from a diversity of departments in L & S, who met with students who were having to petition for all sorts of modifications to their academic programs. Much of this still goes on and is still useful. So, I thought that sounded all right, and interesting. I'll learn a lot about how things work at Berkeley.

Marvatee Wake:
It was. A year and a half later, Rod said, "I think you'd be in a good Associate Dean." And that meant effectively being the faculty member who ran with -- actually Mary Helen Lewis, whom you may remember really ran it. She was the staff person who knew everything. But a faculty member of course needed to have input and try to provide some ideas too and generate faculty support for the whole enterprise. And, so that's what I tried to do. I figured, why not? I see some things that could change, and I enjoy working with students, always have, always will. So, did that. Well, after I had been here for three years and had started the new role, all of a sudden, the chairman of the paper Department of Instruction in Biology in which my appointment as Lecturer resided, and the chairs of Zoology and Botany called me to meet with them. I had no idea what was up, and I was (am) very good at "imposter syndrome," I assumed I was about to be terminated.

Christina Maslach:
Okay. Okay. So you're called to this meeting...?

Marvalee Wake:

Yes. And they said, we have a situation in which L&S has been given three FTE. The College proposes to hire three women. You are one of the three whom we would like. I said, "That's wonderful. What does it mean?" And, the upshot of that was I was offered a joint appointment as Assistant Professor with Instruction and Biology, and Zoology, logically my academic "home." Zoology was reluctant to accept the full FTE because they were concerned about how it would affect their ability to generate new FTE. And they obviously they wanted to see what I was, so they asked me to give a research seminar. Of course all of that preceded the actual offer. The other two women offered FTE at the same time were Marian Koshland, Dan Koshland's wife, and Giovanna Ferro-Lucci, Bruce Ames' wife. We were all wives, research-active, but not in tenure-track positions. This action would've been 1972.

Christina Maslach:

Okay.

Paula Fass:

So it's in the midst of affirmative action - that's really beginning to sort of play.

Marvalee Wake:

Lots of things were changing at that point.

Christina Maslach:

Yeah. Interesting.

Marvalee Wake:

So, I of course accepted the position. And Zoology was wonderful about providing lab space, access to graduate students. You know, the usual full academic privileges and responsibilities...

Christina Maslach:

Yeah.

Marvalee Wake:

It was a real assistant professorship. While I continued with instruction in Biology, I added graduate seminars and, and other undergraduate coursework. But it got very interesting within about six months into my new Assistant Professorship, I was told that they had to do a mid-career review right away! My years as Lecturer count toward the tenure clock, which hadn't occurred to anyone...

Paula Fass:

Did your years at Illinois also count?

Marvalee Wake:

No, fortunately those did not.

Christina Maslach:

Six months and mid-career sounds very ominous. Like another six months. It's done, you know. Oh, my gosh.

Paula Fass:

So did you resist them?

Marvalee Wake:

No, I, I was dumb enough and naive enough to say I'm getting this going. I have the evidence for it. I had accepted a couple of graduate students. The lab was developing. I was getting small grants' support. I didn't yet have the new feasibility data to go for an NSF grant. But I'll cut that short; I "passed" the mid-career review, and was tenured in 1976, after three years as Assistant Professor. Knowing I could continue developing a research, teaching, and service program at Berkeley was a huge honor and privilege!! I did get my first NSF grant in 1977, and I'll give you a one liner about that in a minute. But I was incredibly fortunate enough to have had 35 years of consecutive NSF support, so my research program developed OK.

Christina Maslach:

Wow.

Marvalee Wake:

That doesn't happen.

Christina Maslach:

That is not typical.

Marvalee Wake:

I was incredibly fortunate. And I'm not saying, you know, I got every grant, but I had some incredible reviews along the way and incentives like that are a big help. But I believe in altruism. And when, after I was technically retired in 2003, I still was getting NSF support and all that, but I saw that I was getting my grants and some of my outstanding former students were not. And that was not right!! So I stopped applying for major funding, but that wasn't until 2014.

Christina Maslach:

We'll get back to the research in a bit. Yeah. Finish the mid career...

Marvalee Wake:

Well, it went okay. And, also a thing coming up was the retirement of the person who had taught the comparative anatomy/vertebrate morphology course for many, many years. And, that's what I am. I'm an evolutionary morphologist. I do development, I do reproductive biology, I do some systematics and things like that, but I mostly do comparative evolutionary morphology—structure and function. So I, I had hopes, but no, the department chose very interestingly to hire the wife of another professor in the department. Zoology suddenly didn't

have a problem with wives beginning in the 70s.

Paula Fass:

Back then, they wouldn't have been able to do it cause we had nepotism.

Marvalee Wake:

The nepotism thing was still in when I was regularized, but the new Dean of Biology simply said to me to just be sure that Dave and I didn't have anything to do with each other's promotions and salaries and things like that. We both said, "no problem." And as it turned out, later Dave was my boss in one unit, the Museum of Vertebrate Zoology in which they appointed me the Research Morphologist, and I was his boss when I chaired Zoology and IB.

Paula Fass:

'There was literally a nepotism rule until 1968 which would have prevented you from being right in the department. So what you're talking about is it's obvious that you don't get involved in each other's promotions, but there was a rubric...

Marvalee Wake:

Right, but with affirmative action, they did abandon that as a legislative component. A number of departments, as you're well aware, maintained it as an expectation if not a requirement, but Zoology was doing funny things in that it did hire Thelma Rowell and me (wives! Gasp..), but, just before Thelma's hiring and just before mine, no, I was already on staff. They were recruiting for a person in Ecology and, like so many fields in Biology, it was widely regarded as a men's field.

Christina Maslach:

Yeah.

Marvalee Wake:

But, the then chair decided we need another woman. Well, they didn't do it very well. A dynamic young woman applied, gave a great seminar, was hired, and she let it be known that she hadn't quite finished her dissertation. Well, it turned out that she hadn't begun to write it. So to cut that story short, she was hired as an Assistant Professor but didn't get tenure, and that left an impression on the department and the outside world that, you know...has stayed negative to this day.

Christina Maslach:

Yeah, yeah. Wow. Okay.

Marvalee Wake:

We became reputed to treat women poorly and didn't work well with them. Meat grinder, dominance problems, et cetera. All the Berkeley words.

Christina Maslach:

Yeah.

Marvalee Wake:

But anyway, there I was. Then in 1975, Dave and I went on sabbatical. He took a full year for six months, did field work, and then we together with our then 11-year-old son, went to London where we did work at Saint Bart's hospital learning new techniques and at the British Museum working with specimens of our focal taxa. And our son Tom was in first form of a secondary comprehensive public school, which was an amazing experience for him. The positives were that it was first form drawing from several schools in North London and they had a unit on the history of London, took the kids all over and taught history, geography, and some sociology using their observations. So, it was great for him too. But learning where the kids got their switchblade knives was a different story.

Marvalee Wake:

But, it worked well. While on sabbatical, the unit that Dave had been appointed director of - the university's Museum of Vertebrate Zoology - offered me a research appointment, initially a real "below the line appointment" with, in Dave's absence, which was the way it could work about the nepotism rule. So, I did accept that. Furthermore, we both were getting very involved in a lot of extramural work with professional societies and that's an arena where I have spent a lot of time and effort. I'll tell you more about that as new foci arose. But, suffice it to say that I had a sort of normal academic career after that it came along at a good pace. In 1977, I got my first NSF grant. As my program was developing, I was tenured in 1978, and appointed full Professor in 1980. Roles and responsibilities had changed and increased, and I was very busy and quite happy.

Marvalee Wake:

I never had the kind of research program in which my students worked on explicitly on the things that I was working on. Even as part of my grant support, I used my grants to support the core facilities of the lab. We did a lot of histology, a lot of filming, that sort of thing. But my students worked on any vertebrate animals of their choice depending on the questions they were interested in and, used field techniques, lab techniques and so forth. And I thought it made for a much more dynamic lab and enrichment for the students because they knew what each other was doing. They saw the questions, the problems, the literature. I used my summer funds often to hire my graduate students to do summer research on what I was doing, which gave them a publication and acquaintance with the literature and things like that. So, it was fun. We worked and I work on a weird set of amphibians so...

Paula Fass:

Which ones?

Marvalee Wake:

Well, everyone knows frogs and toads and salamanders and newts. But there are three, not two, Orders of amphibians. So I chose to work on the much less well-known third one. The Gymnophiona - caecilians, C-A-E-C-I-L-I-A-N-S - are elongate, limbless, lack tails, are pan-

tropical, burrow in leaf litter or soil, or secondarily in streams, and have a fantastic reproductive biology. They've evolved live bearing—maintaining their fertilized eggs as they develop into embryos, then fetuses, and finally metamorphosing just before birth, using the same hormones that you and I have, which is part of what I was working on. In other words, I found that these changes facilitated their evolutionary adaptive radiation and that understanding their biology could tell us a lot about our own. In order to understand their evolution, I've examined their bones and muscles, brains, eyes and ears, hearts, kidneys, gonads—just about all their parts—to see how they develop and function, and how they have evolved.

Marvalee Wake:

My students over the years have worked on everything from fossil fishes to amphibians, reptiles and birds. They have studied evolutionary morphology, development, ecomorphology phylogenetics, and always evolution. Some have used molecular techniques to examine development, some have used biomechanical techniques to study running on sand dunes, some have looked at the evolution of bone and how it works in different vertebrates, the effect of pregnancy on running performance (in lizards), reproductive biology, neurobiology, teeth, skin, and all the parts. My lab has been central to their research because all of them have done studies that integrate several levels of biological organization—a major theme of the lab.

Marvalee Wake:

I have been fortunate to have been involved in quite a few service capacities at Berkeley, and with a diversity of professional groups. I was deeply involved in the reorganization of the biological sciences at Berkeley in the 1980's. It received a lot of attention and a significant amount of publicity. The motivation was complex but highly appropriate. The distinguished professors, Daniel Koshland and Roderic Park, were leaders in the effort. The people in cell and molecular biology departments had discovered that they weren't able to recruit some of the people they wanted, in part because the facilities at Berkeley were so old that modern research units could not be built that met the requirements for housing particular kinds of research such as that on viruses, for example, and the equipment that was required for the research. Furthermore, the equipment was often large and very expensive that at most universities needed to be shared.

Marvalee Wake:

Well, a Harvard simply got a donor and developed an Institute. Worked beautifully, still does. We at Berkeley don't (or didn't) have the mechanisms for doing that. Koshland and Park and colleagues recognized that. They also saw that the numbers of biology-related departments at Berkeley had grown and grown and grown, not necessarily to meet academic needs but to meet professorial demands. For example, the College of Letters and Science had seven departments of some kind of bio-biology. The College of Natural Resources, depending how you counted them had six or seven actually. And really good biologists were included in Psychology, Anthropology, the College of Optometry and several other units. And there few good mechanisms that facilitated communication among them. Individuals were great; there were a lot of individual collaborations, cross-listed courses, etc. The stochastic growth pattern had

resulted in geneticists being in nine different departments, and the organizational problems that resulted. The campus recognized that biology was a large and significant enterprise, but to had grown almost randomly.

Marvalee Wake:

The faculty members in several departments were beginning to recognize this as a huge negative. We had a new young Department of Molecular Biology, but there were molecular biologists in Biochemistry, Immunology, Physiology-Anatomy, Zoology, Botany, and other departments. So the label “molecular biology” meant something to the outside world, but as a department, didn’t include all the researchers on the Berkeley campus. So, a major reorganization of the biological sciences was really appropriate given what Berkeley had become—prestigious, but not well organized. A lot of people began to recognize this. Then the question became what to do about it and how to do it! That’s where – Koshland’s and Park’s leadership became very important because they developed a plan. They formed the “gang of four”, headed by Koshland, which included Alex Glazer, who was then in, I think, Immunology, David Wake, who was in Zoology, and Milton Schroth, who was in the College of Natural Resources. They’re the ones who began the discussions, the planning, and then the communication with the broader faculty.

Marvalee Wake:

The communication was a difficult matter. I remember a large town hall meeting in 1985 because I was chairing Zoology by then and getting really involved in what a reorganization meant for us. It was very important for Zoology to know what the thinking was, because we had just been ranked second only to Harvard for Zoology departments in the nation in the then-most recent American Council for Education poll—the “gold standard.” Botany was very highly ranked as well. So there was a strong “we’re not broken, why do you think we need fixing?” attitude among many colleagues. Well, some of our very own members recognized the problems. We had a great range of biology practiced in Zoology, for example, the only common factor was an emphasis on “animals.” So again, there was the label problem as well as the facilities issues adding support to the notion that we really needed to change the way we were organized. But what was it? Of course, the administrative structure needed revision for all sorts of reasons. Because much of the biology, especially undergraduate and graduate training, took place in the Colleges of Letters and Science and Natural Resources, they were the initial foci for the reorganization. However, Schroth was not able to get CNR really on board. There were, I’ll not name names, some senior professors in some of the CNR units who said “no way,” partly because they wanted to protect their agricultural experiment station funding, 11 month appointments, and lighter teaching loads—all attributes not present in L&S.

Paula Fass:

Very different.

Marvalee Wake:

Yes.

Paula Fass:

Yeah, they're still resistant to any kind of reorganization.

Marvalee Wake:

So that was a big element. The only department in CNR that joined in the reorganization was Genetics, partly because of the presence of geneticists in so many departments all over campus, so amalgamation of some sort was desirable. That's basically what the plan grew into. Even with its limited participation, CNR was involved as well as L&S such that a Department of Plant Biology (now Plant Biology and Genetics) was established in CNR, and the Departments of Molecular and Cell Biology in L & S and what became Integrative Biology were designated in L & S. There is a story about the names of the latter two departments. Molecular and Cell Biology was easy—the name says exactly what it was and is. However, it represents a false division of biological science because just about everyone in Integrative Biology uses molecular and cellular techniques in parts of their research. And you know, we in IB have said that MCB emphasizes the reductionistic end of the spectrum of biology. But the real story is about integrated biology, including the name. I had been chairing the Department of Zoology since 1985 and allowed my arm to be twisted to become the interim chair of the formation of the department that would emphasize organismal, ecological, behavioral, and evolutionary biology. We'd had several meetings of the presumed faculty to discuss our common goals, but we stalled on our name. We had three meetings on the topic of the name!

Marvalee Wake:

I came into the meeting saying that if we went out of that meeting without a name, I would resign as interim chair. Ironically, only a week ago a colleague present at that meeting told me that he'd been sitting next to Paul Licht, who became Dean of Biology after Beth Burnside, the Dean who coordinated many aspects of the reorganization. And, Paul turned to him and said, "Just watch. We're going to get the name Marvalee wants." We actually tabled the issue at one point. I had proposed "Integrative Biology" because it not only encompassed our range of expertise, but indicated that we worked, to integrate the levels to bring new insights to our research. Several colleagues didn't like it, didn't understand what it meant or could mean... Some wanted a descriptive name like Harvard's department has--Ecology and Evolutionary Biology—EEB—as at several universities. But I, and a few others who supported me, wanted a name that showed that we were changing the way we wanted to practice biology. We wanted to develop a new attitude about the way to do the biology that would deal with the big questions in biology, including those that also had social dimensions. Long discussion at that third meeting on the topic resulted in the adoption of our name "Department of Integrative Biology"—a term that has been adopted by many universities and institutions world-wide for the king of modern biology that we all practice today.

Marvalee Wake:

How do you get a handle on that? How do you organize the expertise that's appropriate to it? When I heard that our colleagues in molecular and cell were calling us "the department of leftover biology", I started writing papers about the conceptual basis of integrative biology. Why not? I had to, in order to show that it had new substance. It wasn't just a residuum, more

than that of traditional ecology, evolution, systematics, and behavior. It was not a residuum of anything, but a new emphasis. There are major spheres of biology that encompass, as we now recognize, just about all levels of organization. But anyway, so I started writing and speaking that. It sort of spawned a cottage industry. I'd be invited to various good universities to give a research seminar and I quickly learned that what they wanted was a discussion of how to reorganize biology.

Marvalee Wake:

For example, at one really good university, the colleagues told me that they had been told by their Dean that they would never be in the top 10 ranking of departments if they retained the "old-fashioned" names of "zoology" and "botany"; talk about the wrong reason to do a reorganization! The reorganizing units continued to have various discussions while the plans were just getting underway. One element was that Koshland formed, under Park's aegis, the Chancellor's Advisory Committee for Biology, which remains a chancellorial committee to this day. The committee was intended to provide oversight to the reorganization process. One of their tenants was that they would report to the faculty of biology regularly. I'm the one with the historical memory on that. I have their first report – and it happens to be the ONLY report the committee ever issued. The hiatus is 35 years, and we're still waiting for the second one. The role of the committee has gone through many changes, but remains a self-appointed, largely self-directed, campus edifice.

Paula Fass:

We're going to hit another 15 minutes in three minutes. And I was just hoping, and one of the wonderful things you've done, Marvalee - is to actually incorporate the teaching and the professional and the Berkeley site, all of those things in your discussion, but you haven't really talked about some of the social, personal, a little bit of the personal, and I was wondering whether you're reluctant to do that or that you want to do that as well before we run out of space.

Marvalee Wake:

I'm basically a modest person. I don't like to talk about what people tell me I did.

Paula Fass:

No, no, no. I'm literally talking about the personal, in other words, your family life, those kinds of things that you have actually told us about your professional development and despite your modesty - your achievements have come through.

Marvalee Wake:

Let's get us reorganized because...

Christina Maslach:

Yeah. Good. You still have to keep that short. Let's start in just segments. We want to do that. Yeah.

Marvalee Wake:

The notion of integrative biology has taken hold. It was in part an idea whose time had come. I, in '89 wrote a paper about integrative biology and I said that many people are integrative biologists without using the label, but we need to incorporate those attitudes - institutionalize them in a sense. It's much more than multidisciplinary or cross-disciplinary. It's a longer range examination of what is the nature of expertise, how was it wrought to big questions? How do you then parse those big questions so that you have the expertise that you need and you can maintain their contributions to it. You don't just do a bit and walk away from it and you need a new model for training students. For example, some people still say that there's too much literature out there.

Marvalee Wake:

Well, they're the pessimists. They're not using the computer-generated tools to make use of that expanding literature in a way that allows students to not know it all, but to know how to get what's out there.

Christina Maslach:

Yeah.

Marvalee Wake:

So that's what we think we're trying to do...

Christina Maslach:

Yeah. That's a tremendous legacy of what you've been bringing. I mean, to be able to capture what's happening.

Paula Fass:

A couple of things struck me in your discussion at, in the process of the reorganization, the people who did the reorganization are all men, but you were also the, as far as I heard, the only woman who was actively involved in the process, no?

Marvalee Wake:

Beth Burnside was even more significantly involved than I was—she was the L&S Dean for Biology who really made so much happen, and she did the next-level coordination with the College of Natural Resources and the campus's higher administration. She was wonderful to work with—thoughtful, open, creative, and supportive. And she also had to work with the molecular and cell biologists who were her “home” coterie.

Marvalee Wake:

MCB was three times our size and needed a different structure for those 72 people.

Paula Fass:

I just want to, I wanted to bring that out.

Marvalee Wake:
Good.

Paula Fass:
Okay. Yeah, that's true. So do you want to talk to us a little bit about your personal life?

Marvalee Wake:
Sure.

Christina Maslach:
Yeah. And also, one of the things is, you're different than some of the people we've talked to in the sense of having a spouse who was also working in the same field. I mean, other people have had very different kinds of experiences, and you mentioned about the wife issue back in the early days and so forth. So that would be a part that would be really interesting to hear about.

Marvalee Wake:
Okay. Let's do that. I'll start as a graduate student, referring again to the fact that I overheard my fellow graduate students do the, "She'll never finish now" thing. I did. It wasn't easy because I don't like bruises. Nobody does. I'm sensitive to what I perceive as inappropriate slides, not just to me, but wherever I see them, it's, you know, it's wrong. It's demeaning, it's hostile and unfriendly. So sure, I've had my lumps. I was asked once to do an alternative CV of "first female" things. I thought about doing it and then decided no, I've done those things exactly to get past that step. The norm that we want is when being female no longer makes achievement noteworthy, but just normal, not a something normally attributed to a different gender. The criterion is merit, not gender, for the recognition. I'm the sort who lets my work both in societies and in research and teaching speak for itself. Several years ago now, I wrote a paper on two-career couples in the sciences and I criticized fairly directly Berkeley in contrast to some other good universities that were ahead of us and, finding ways to facilitate "spousal opportunity". The trailing spouse is not necessarily a lesser member of the pair.

Marvalee Wake:
Working with my husband, David has been wonderful. We have very little research work together, partly because I thought it important to emphasize my own interests in the framework of developing a career. And he was supportive of that. And, his background was fairly conventional: what the husband does, what the wife does kind of thing. And we've worked that out, shared kinds of responsibilities. In fact, he once told me "Don't worry about not getting a job, I'll hire you because I know you can write." Gee, thanks!! That didn't help. Anyway, he's gotten past that. He's always been enormously supportive—he let me do my dissertation research in his lab at the University of Chicago, because I didn't yet have a lab at Illinois. We consult with each other, but we emphasize our distinctive approaches, as well as our complementarity. We rarely work together on research projects, which is a good thing—one of our "best" was 25 years from inception to publication, because we dealt with it only when we were on sabbaticals! We've been in the same department here at Berkeley since

1972, and I've been his "boss" as chair of Zoology and IB, and He's been mine as Director of MVZ.... It works perfectly well!

Paula Fass:
In terms of childcare...

Marvalee Wake:
Yes. I know Dave would have liked more than our one child. But again, our situation was somewhat conventional, and childcare was the female role. I'm a pretty hands on kind of person anyway.

Marvalee Wake:
I definitely wanted a child too and I was pretty sure that together we could do a good job with one, but two is a geometric increase, not an arithmetic one. And, so we had our son. It's worked well. Our son Tom had an only child upbringing, which in many ways was great for him because we traveled quite a lot, went to museums, plays, symphonies, etc. But it had the only child detriments too. He said once that he'd love to have an older brother. And I said that would be a little difficult after the fact. I know that Tom mostly enjoyed it all, as David and I did, but I also remember a conversation at dinner when he was about 15, in which he said, he'd never be an academic because "You guys work too hard!"

Marvalee Wake:
However, we knew that attitude was changing when late in his undergraduate career, he started complaining that all his money was going to buying books. We had said he could go anywhere but Berkeley for his undergraduate work because we knew that otherwise he would stay with the same set of friends. Not that that there was anything wrong with the friends, but we thought that universities should be more than that - and a new experience and all the things that go with it. So to our surprise, he chose UC Santa Cruz because it was so laid back then. That was almost years ago. He had a personal guru as well as a faculty advisor and the whole bit. But then mid-sophomore year he came home one day and announced that he thought he needed "more rigor" and subsequently transferred to Berkeley. He did it the right way, too. He had, at Santa Cruz, taken several senior level courses in History, especially Greek history, which he loved. So he had a good background and at Berkeley he majored in history, but he took mostly biology courses because that was his other love. To cut that story short, Tom is a very successful zooarchaeologist at UCLA, which is his way of combining his interests and at the same time being considered in terms of his parents' reputations.

Marvalee Wake:
We have one publication written by all three of us that happens to have been his Head Royce AP biology project.

Christina Maslach:
Oh my gosh.

Marvalee Wake:

Well the reason - both Dave and I are public school people and we expected Tom would be too, but at the time --Tom would have been in the equivalent middle school--Berkeley got a huge Foundation grant, but it can only give it to four of the five, middle schools and Berkeley High.

Marvalee Wake:

Longfellow didn't get it - that school he would go to, so we had to decide whether we should be pushy parents and try to get him in a "good" school, or should we go the private school route? We decided that for continuity - given the Berkeley situation, Head-Royce would be better. He'd like to have been at Berkeley High, but he now realizes even more than he did as a kid the very good education that he got, and the friends he made..

Christina Maslach:

Yeah, I think with hindsight that often happens that you realize what's the breadth - and the, you know, other kinds of benefits that come from not just always staying close to homes. He didn't see it then, but yeah.

Paula Fass:

Well, one of the reasons that we put our kids in private schools from the get-go was because I knew how much effort the parents had to make in the Berkeley public schools in order to maintain the kids effectively and the right tracks, the right everything else. And I said, I just don't have the time to do that. So we basically paid for somebody else to do that. And Head Royce was a good place to beg for.

Marvalee Wake:

Ours was sort of similar. He had been at the University of Chicago Lab School nursery school and kindergarten. First through third grade in Berkeley were pretty good with fine teachers. Fourth and fifth were not. At Longfellow his fifth grade was a disaster and it was partly because all of the funding going elsewhere. They couldn't keep a permanent teacher for fifth grade. One week he'd be doing math to the base 12. The next week he'd be doing arithmetic. It was not an education. Head Royce was, and Tom started there in sixth grade after we returned from a sabbatical in London. It all worked pretty well for him, at least in retrospect.

Marvalee Wake:

But, let's complete the story of the reorganization of biology, perhaps my most extensive service role at Berkeley. There were several major elements in effecting that major change in administration, research, and teaching. One was, as I've mentioned, the very different opinions about whether reorganization was needed at all, let alone how it should be done. Well, the gang of four did a wise thing and said people could pretty much elect which of the three departments they wished to join. And there was a so-called interim chair for each. I served for Integrative Biology. Gunther Stent was interim chair Molecular and Cell Biology. Rod took it on for Plant Biology for a while, Lew Feldman was involved and others.

Christina Maslach:

Those were the three, right?

Marvalee Wake:

Right, those were the proposed departments. So, for Zoology faculty members, for example, the idea of choosing one of the new departments meant that about two-thirds to three quarters of the then-current faculty would become members of Integrative Biology.

Marvalee Wake:

Some would go to Molecular and Cell Biology (MCB). For Botany, it was a triple set. Some would go to Plant Biology (PB). Most of the physiologists and developmental plant biologists chose PB. The more molecular ones like Zac Cande went to Molecular and Cell, and the ecologists and systematists went to Integrative Biology (IB). All of the paleontologists went to Integrative Biology. One person from Genetics came to IB, several to MCB. All of Molecular Biology obviously went to MCB. Biochemistry was wiped out and became a division of MCB. Immunology split, going to MCB and PB. So there were a lot of professors wondering where they fit best. For example, Alan Wilson (Biochemistry) told IB that he would prefer to be with us because of the evolution emphasis, but he thought his students needed a firm grounding in biochemistry that they would get much better by being in a biochem division of MCB.

Marvalee Wake:

So decisions were made on those kinds of rationales. Marian Diamond and, Karl Nicoll came from Physiology-Anatomy to IB. Glenys Thomson, a population geneticist, came to IB; the other Genetics faculty members chose either MCB or PB. The rest of the faculty of Physiology Anatomy went to MCB.

Paula Fass:

It was a real re-shuffle.

Marvalee Wake:

Yes, and reorganization. At the same time, new buildings had been sought, and were funded and being built (another great story). Plant Biology got a new building - Koshland Hall. MCB got a new one, the Life Sciences Annex (LSA), which made it one move for those folks out of old labs into great new facilities. As the buildings were finished, the new departments came online in 1989. Parenthetically, I - as chair of Zoology - had organized in 1988 the celebration of the Centennial of the founding of the Department of Zoology at Berkeley. I then signed the papers disestablishing the department a year later. That was bittersweet, to say the least, ending a wonderful history and perhaps beginning a new one..

Christina Maslach:

Yeah.

Marvalee Wake:

Richard Eakin, a distinguished embryologist in Zoology had written two histories of Zoology,

one that stopped in the 60s, and then another one that stopped at the reorganization. So we have one person's—a former chair—record a lot of that history, with reflections about the faculty members.

Marvalee Wake:

One of the reasons I want to write a history of IB is that the emphasis about the reorganization has focused on molecular and cell biology. They or they were the primary organizers, they needed it the most, and they derived huge benefit immediately. What it meant for IB has not been developed at all. I've already told some of what it did. I had to be cheerleader and social chairman, and get everybody on board, intellectually and pragmatically. But that's the way I like to work. I like to be conciliatory, finding what will appeal to people, and then make things work. So we tried in various meetings and retreats (to the Faculty Club) to see what the interesting facets of each of the prior departments were that we could adopt. How could we do things in a unified and unique manner? There were a few things that the prior departments did similarly, so they were good starting points.

Marvalee Wake:

I used that as the basis for putting things together, but IB had one huge difficulty. The renovation of the Life Sciences Building was the last part of the reorganization. I should add that one of the reasons the reorganization had a chance was because Koshland and Park, and others, had recognized that the state had a huge pot of money from offshore oil drilling that was committed to higher education, particularly infrastructure. Nobody was using it. Koshland was so smart. He organized the proposals for funds for the new buildings and received generous funding.

Paula Fass:

Wow.

Marvalee Wake:

We had to do much more to raise the funding for the renovation LSB. Major donations were sought by a committee headed by David Wake, working with the Development Office. They became enormously successful, generating millions of dollars in donations—and there are wonderful anecdotes associated with the committee's interactions with potential donors. And that became fun (sort of). The name Valley on the Life sciences Building is for Wayne and Gladys Valley, major donors for the renovation. A lovely story that needs to be written about separately is that of the Gladys Valley-David Wake discussion. The Museum of Vertebrate Zoology (MVZ), which Wake was directing, was housed in LSB. Moving its extensive collections out and in again would have been virtually impossible. But Gladys Valley and her entourage came to visit the Museum. Gladys looked at all the specimens, etc., that Wake was describing as the modern biology that is done in museums. And so Gladys all of a sudden said, "Young man, one of my horses is having a problem with his fetlock. Can you tell me what a fetlock is?" And Wake said, "I can not only tell you, but I can show you." The MVZ had accepted the 8,000 specimen collection that a Davis professor had prepared of dried preparations of bones and muscles with the muscles painted red and with labels on them in ink. It's a remarkable

collection and a magnificent teaching aid. Wake found a specimen of the fetlock of a horse and explained to Gladys how it worked, and what her horse's problem must have been. It was a very worthwhile demo--a week later there was, I think \$15 million donation from the Valley Foundation!

Christina Maslach:
Wow.

Marvalee Wake:
That tipping point. The Getty's were also major donors for the reorganization, largely owing to Tim White and Clark Howell, two of the biological anthropologists expected to come to the renovated building because they would have lab space. Two did not come, but Tim and Clark came and established labs and a library focused on Human Evolution..

Marvalee Wake:
Tim then did transfer to IB, and he's been a great citizen. Most of the people whom we wanted had decided to join IB, and it worked out pretty well. So there we were--reorganized. But IB had to get out of LSB completely for the renovation. To cut that story short, a brand-new department with a newly amalgamated faculty was in nine different buildings on and off campus for four years. My role was to keep it going - to get it going. What held us together. I think. were two primary things: first, department seminars in which we really tried to emphasize integrative biology (which we lost track of, but are regaining, thanks to our fantastic young faculty), and second, departmental faculty searches.

Marvalee Wake:
The administration saw what we were trying to do and the greatest Dean in the world, Beth Burnside, was willing to support it. I remain convinced that even though we didn't agree on everything--you wouldn't expect it--she understood what we were evolving. She saw what we could be and went for it. Some discussions were pure joy!

Marvalee Wake:
With our time flying, I'll finish describing the reorganization by saying that we had a lot of expected, and some unexpected, difficulties. We were not able to fulfill our plan for integrative biology at the outset because we had to absorb a 10% budget cut during our first year. That killed us. We had been promised a 0.9:1 staff to faculty ratio. Garbage. No chance, given the cuts and other matters. Our ratio became about 3.5:1 and stayed that way. It probably always will be, especially under the dispersed administrative scheme under which departments "share" staff. We can't even determine what the ratio is anymore! Our main problems at the outset were that we couldn't open the shared facilities that we planned to develop, and that was supposed to be fundamental to our concept of integrative biology (and fitted the rationale advanced FOR reorganization). We did develop an imaging facility, a molecular phylogenetics lab, a shared histology lab, and a couple of others, but we could not hire the technical personnel needed to develop and maintain and do the training for the several we had in mind.

But that has turned out not to be too awful, because the science and the relevant equipment have changed so much that almost everyone who needs powerful computers or, for example, PCR machine for doing genetic sequencing and processing, can have individual pieces of the equipment in his or her research lab. And such planned facilities as photographic development rooms, etc., are no longer needed with the advent of computer-aided photography. It in the lab. We've changed, adapted our science, and provided leadership in how to adapt and how to innovate.

Marvalee Wake:

Post reorganization my lab was very well-equipped because I could design my lab; we had good microscopes, facilities for immunohistology, and for a diversity of techniques. We didn't do what MCB did and develop the standard biochem bench labs. They did need some expensive equipment in shared facilities. A key point, though, is that the costs of many kinds of equipment have declined, and those for "big" expensive pieces are typically provided either through start-up funds for new faculty, or by joint grants to groups of faculty that bridge subdisciplines, even departments.

Christina Maslach:

Yeah.

Marvalee Wake:

The paleontologists for example, needed a very different kind of lab space arrangements than, for example, physiologists. I designed my lab to two air hoods, which meant I could have a clean hood for the developmental work, and a dirty hood for preserving animals and mixing chemicals, and things like that. I had layout space. I created a small room with the light on a rheostat so we could do various kinds of filming, special staining, and things like that. So it was just highly adaptable. Our idea was to make our individual and shared research spaces highly adaptable, that's all.

Christina Maslach:

Yeah.

Christina Maslach:

Do we need to talk about your tenure case? I mean, when did... I mean you mentioned mid-career, but at some point...

Marvalee Wake:

Yeah, let's get back to my course at Berkeley. The two departments, Instruction in Biology and Zoology, planned a "normal" course to tenure to follow the mid-career review in my first year as an Assistant Professor (with research facilities, the ability to take grad students, etc.). Yes, I was scared to death, but it seemed to proceed normally. I was told it had become right on schedule, and I was tenured in 1976. I then had a rather accelerated advancement to full professor in 1980, so all was going well with research, teaching, and service.

Marvalee Wake:

When I was tenured, I started diversifying my service activities on campus (in addition to the reorganization!) and doing a lot more extramural activity. I'll summarize my work at Berkeley, then discuss the extramural activities. After I had finished my terms as Assistant and Associate Dean of L&S (the latter included trying to revamp the student services mechanisms, which didn't go smoothly), I added some other roles. I enjoy service, as I've indicated, because I meet people from all over campus, and I learn much more about how the institution works. I was a member of the Committee on Courses of Instruction for a couple of terms—a real education. A rarely mentioned role of our Chancellor, Carol Christ, is that she was the campus's first Title IX officer. Among other things, she organized a corps of "harassment officers", a small group of faculty and staff members who were to hear complaints and to try to help find appropriate recourse through the developing system. I was one of them. I received only two expressions of concern in a couple of years. I think part of the problem was that concerned people, especially women, were not able to speak out. The situation has changed only recently, as you know, and I am so glad. I've been working on sexual harassment concerns for years, especially through professional societies. Then, following chairing IB through the reorganization, I was interested in the possibility of serving on the Committee on Budget and Interdepartmental Relations. I was invited to serve a term and learned SO much about the University and its people. The committee was a lot of work, but very stimulating in determining high-level equity on campus in many ways. The chairs during my term were remarkable people—Carol Clover, Don Friedman, and Karen de Valois, and many great individuals, such as my dear friend, Steve Glickman, who had chaired his department at about the same time I was doing IB, and we had some shared concerns. I was also elected to the Committee on Committees (a committee at which my Harvard colleagues get a great laugh) and chaired it my second year. Finding good people for campus committees, and persuading them to serve is difficult, but necessary. More recently (post-"retirement") I served on Graduate Council, and was Vice Chair my last year. That was another hard-working but stimulating commitment, because the campus was again in a state of major academic and administrative change.

In terms of extramural commitment, I was/am a member of several professional societies, and have served on their committees, editorial boards, etc. I was elected president of the American Society of Ichthyologists and Herpetologists in 1984 - and they had never had a woman president before. It's a society that was incredibly macho, comparing snake bites and tossing women into swimming pools at meetings. I began to wage quiet war on sexual harassment issues and the like. I spent a big chunk of my activity in many societies working on making them more cordial to women. I'm so glad to see the way things have changed, just in the last 35 years. The idea has finally found a base.

Marvalee Wake:

I don't take leadership roles on unless I think there's something I can do. And I knew that ASIH, for example, had stopped having a graduate student committee. Well, students are the lifeblood of almost any professional society, at least in the kinds of areas in which I work, so regenerating a major role for students was important.

Marvalee Wake:

I was getting more involved in two or three others as well. In 1985, I was appointed to the U.S. national committee for the International Union of Biological Sciences. (IUBS) That's an NGO that was founded in 1919 to represent all of biology internationally. I'll just tell you a very little bit about it, and my role in it. I became, after four or five years, chair of the U.S national Committee. I represented the Union nationally and began to do so internationally because the US committee was proposing some new programmatic ideas for the Union, especially the newly developing concern about preservation of the world's biodiversity. I had the privilege of being one of the cofounders of the DIVERSITAS program, which was the first international biodiversity science program, because the US committee had introduced this strange new word "biodiversity" as a program on an international scale. That program became the precursor of today's UN-sponsored International Platform for Biodiversity and Ecosystem Services. Well, to cut that short, I was elected Secretary General of the Union, then President in 2000. The Union needed a new decadal theme to succeed biodiversity science. So, in part because of what I was doing at Berkeley, I introduced "integrative biology", the concept and practice as that decadal theme.

Marvalee Wake:

I was on the Union's Executive Committee for 12 years, having the "hardship duty" of going back and forth to headquarters in Paris three or four times a years and traveling to a diversity of countries for our triennial general assemblies, doing a lot of representation. I have stayed ridiculously involved with the Union ever since. In July 2019, I had the privilege and honor to give the evening plenary address at the Centennial General Assembly of the Union, having written, at their request, a perspective on the history of the century of work that the Union had accomplished. I didn't do a chronological history. I did what I called a "perspective," examining how an NGO grew and evolved as the science it represented grew and evolved. Think about biology in 1919 versus biology now. Several other biological unions have spun off of IUBS. Almost ironically, we're now trying to reunify biology, nationally and internationally. That's a separate thing. But I've invested a lot of time and energy in it.

Christina Maslach:

Wow, that's amazing.

Marvalee Wake:

You both know how responsibility breeds responsibility. I've held six presidencies of national and international societies, congresses, and the Union. For three of them, I was the first woman president. For two of those, I remain the only woman. One of them has just set a president elect, so that's good. So, we're working on the third one. The other three had the rather common patterned for women's involvement. Women were involved in committees, but usually the "helping" committees—graduate student support, etc., but not the finance and long-range planning committees. Then only a few women presidents before the 70-80s, but women's participation and leadership has expanded dramatically since then, and I think of one society (Society for the Study of Evolution) for which 5 Of the 6 primary officers are women!

Marvalee Wake:

Because the societies I've been pretty deeply involved in also needed some philosophical and structural changes, I've tried to help those along...

Christina Maslach:
Yeah.

Marvalee Wake:
But at Berkeley, I I have to say that the Department of Zoology paid a high price for taking me on as an assistant professor. They asked me to become its chairman in 1984. I asked if they were kidding? (And I heard some people saying that they couldn't be serious...)

Christina Maslach:
Yeah.

Marvalee Wake:
Obviously first female chair, after being first tenured female professor. That was going on in several other departments on campus too, as you both are well aware.

Christina Maslach:
And you had already gotten full professor status?

Marvalee Wake:
Yes, in 1980. I more or less seemed to. have the standard credentials by then. You know, a viable research program, consecutive extramural support, good graduate students who were doing interesting work, a good teaching record of courses at all levels.... and I loved teaching!

Christina Maslach:
So that was not as, as, as huge a thing as coming up for tenure in the, in terms of the scary department because you were clearly at that point, had so much going for you, in terms of all the expectations?

Marvalee Wake:
It would've been difficult I think to ask too many questions, although that started happening.

Christina Maslach:
Okay.

Marvalee Wake:
Not just to women, definitely to women, but also to men later.

Paula Fass:
Sorry, can you, what do you mean by that started happening?

Marvalee Wake:

The funny kinds of questions when tenure actually came up. After having had really good mid-career reviews for people, they - questions of a sort that hadn't come up like why are all your publications co-authored, or all singly authored? Why do you have just a few, but long, papers? Why don't your graduate students do the same thing you do? The different sub-disciplinary "norms" and different sociological traditions have to be explained time and time again, especially for an integrative biologist who crosses sub-disciplinary lines. It's like the Budget Committee asking biologists why they haven't written books—they are rare, especially early in careers.

Paula Fass:

You mean this was after the, after the reorganization of biology...

Marvalee Wake:

No, it started before, and was retained for a time, but not a consequence of reorganization became more prevalent trends. I'd say it's a product of assumptions, and also the way publication styles continue to change.

Paula Fass:

Do you want to share with us any thoughts about why this was happening?

Marvalee Wake:

Good question. I do have some thoughts about it. The subfields still do not talk to each other in really effective ways. Funding drives a competitive emphasis that is not good for biology, especially in a department where we're trying to create collaboration. So, I think there are lots of elements. Also, the way the management at Berkeley now has changed such that at least in the biological sciences, departments in effect do not have their own staffs. They're broadly based but expected to respond to a set of norms as though "one size fits all." So, for a department like Integrative Biology - a huge amount of staff expertise was lost when we went to that model of management. For example, at one stage, I know my husband, as Director of the Museum, was thinking about the need to buy a horse for the Hastings Reservation, one of the Natural Land and Water Reserve System properties that was managed out of the museum. Well, do you think you could buy a horse, given the current campus purchasing system? BearBuy??? These common requirements that guide staff have a real impact on the way advancement cases are structured, and to some degree, advice about career progress is given.

Marvalee Wake:

Another example of the purchasing problem is that of my colleague, Tim White, who transferred to IB from Anthro. He typically buys a new vehicle in Ethiopia to do his summer research and leaves the car there. This doesn't work too well in our current purchasing system. And of course, those of us who do our fieldwork in the outposts of countries that are classed as not well developed. You know, how do you do the charge for the room in Guatemala where there's a 30-watt light bulb above the partition between two bedrooms. We've done work there.

Christina Maslach:
Yeah. Yeah.

Marvalee Wake:

It's just a different story. The management system, especially the travel stuff is set up for bureaucrats who go to Washington and New York. We're still trying to educate the people who do the work here to support us. But the university has a giant problem retaining people. It's an open door. These issues really impact research and teaching.

Paula Fass:

Yeah. You know, Marvalee, some of the things you're describing are endemic to the problems of bureaucracies at universities, but others are the result of your particular field. I'm glad you gave - you gave those examples because I think they we've got another one, another minute I can be off. I think it also has to do with where integrated biology fits in the biological sciences these days...

Christina Maslach:

One of the things we always want to do is make sure that if there's anything you wanted to bring up that we haven't gotten to or asked about, but you want - you know, it's like things you've thought of. And that could be in terms of career at Berkeley, or you know, more international work. I know you and I had exchanged a quickie, when we set this up and you were mentioning that there was an award in your name and you know, we were talking about, that that kind of thing as well. And, other things having to do with colleagues. I mean, lots of possibilities...

Marvalee Wake:

I think of two things. One of them is the value and the commitment of having a real association with Berkeley, and the way it is perceived externally, and the consequent opportunities for representation and service that are opened. The other is what being at Berkeley has meant to me. The Berkeley name has such meaning nationally and internationally and, if one has been responsible and really followed through on major actions, one, one may become considered a representative of the valued Berkeley image. It makes for opportunities that usually require work and responsibility. I'll give a couple of anecdotes about how that name must have facilitated opportunities for me. First, the American Museum of Natural History about 10 or 12 years ago decided to generate a self-standing graduate program, a PhD-granting graduate program, thereby becoming the only non-university self-standing program in the nation at that point. It of course decided that it needed an External Advisory Board. I had the good fortune and the responsibility of being asked to be a member of the Board, along with a colleague from Yale whom I knew and a colleague from Harvard whom I also knew.

Marvalee Wake:

So we were the team that they brought in to advise them for six years, until they received full accreditation. They have been enormously successful. A second example, perhaps not so much of Berkeley-specifically, but certainly because of the West Coast (doesn't that mean Berkeley?)

and my area of science representation is that I was asked to be a member of the Smithsonian Science Commission that was mandated – now several years ago - to take a close look at all of the science units of the Smithsonian determine what was going well and what was not so effective, and why, and what the Smithsonian could do to be more efficient and forward-thinking. They'd prepared huge documentation about each unit and all sorts of other data. We worked for a year, doing several site visits and interviews as well as our own meetings, and we made 54 recommendations, several of which were actually undertaken.

Paula Fass:

Wow. Was that when Ira Heyman was the head of the Smithsonian?

Marvalee Wake:

No, he was there before that time. Lawrence Small from Harvard was the Secretary of the Smithsonian then, and we met with him, as well as others in leadership positions. Frankly, Small did not give them a good service. I must add that I know that part of the international work that I've had the privilege of doing has been of interest partly because people want to know how Berkeley does things, especially in its science research programs and their organization.

Marvalee Wake:

A third example of the resonance of the Berkeley association is that, when I was president of IUBS, a Chinese colleague on our Executive Committee for the Union invited David (Wake) and me to come to Beijing - Dave to tell them how the National Academy of Sciences worked, me to tell him how the University of California at Berkeley worked. How were we organized? That was in 2004, when Chinese government agencies were still thinking about how they wanted to organize some of the institutes and their responsibilities.

So many of my “opportunities” have had Berkeley associations. My presidency of the Society for Integrative and Comparative Biology (SICB), a large effectively international broadly-based professional society for biologists, is another example. It is a venerable one, more than 100 years old, and for many. Years was the American Society of Zoologists before it changed its name to the equally descriptive but more problem-oriented one. For much of its lifetime, zoologists from Berkeley have had leadership roles in it, and that remains true today. And, you mentioned that I had mentioned – work with professional societies has resulted in other kinds of honors. One for me and my husband is that the “best graduate student paper prize” of one of the Divisions of Phylogenetics and Comparative Biology of SICB, is named for David and me. David was president of the society while it was still American Society of Zoologists, and I was elected about five years after it's changed its name and its management scheme. So, we both have pretty long histories with that venerable and current society. The Division officers asked us if we would allow them to name the best student paper award for the two of us.

Marvalee Wake:

Of course, we were honored to accept. John Wiley Press funds the student prize awards for all

14 division of SICB, and the society is a very student-oriented one, which we especially appreciate.

Christina Maslach:

Well it's interesting because I think you also mentioned that the fact that the two of you as the only husband and wife team has now become a fun factoid. You know, in the history of the society...

Marvalee Wake:

Yes! For some unknown reason, about 10 years ago at the business meeting for the society, they started doing breaks at which they ask the attendees trivia questions about the society. So Dave and I are now a trivia question, or, rather, the answer to a trivia question—who are the only married pair to be presidents of the Society are....

Christina Maslach:

Which is sort of an interesting blend of both personal life and professional life when it's intertwined like that as memorialized, you know, in other ways as well.

Marvalee Wake:

These and similar professional society meetings are great because we see old friends and colleagues, former students and their students, and really enlarge our grasp of the direction several areas of biological science are developing. We, we're now to great grandchildren in terms of graduate students.

Christina Maslach:

Oh wow.

Marvalee Wake:

I have to add that there is one area in which I've worked for several such associations that I think still a lot of work to do. I had expected women to be further forward on the normalcy curve by now. Not because of what I did, particularly because for so many years I was saying the words but didn't think I was being listened to because only individuals would take action to make things more friendly and professional for women. But one of the societies of which I'm a former president, had a hideous example occur at a meeting, now three years ago.

Marvalee Wake:

The person getting a major lifetime award was a well-known sexist harasser, you name it. So the body, especially some young men arose saying, we will not sanction giving this award. And that began to break it open. And now that society at ASI age, the evolution society and so forth, all have written codes of conduct, often tacitly citing that group, the award was taken away from him. They did it for a cause. And, so it's the time has come a subset of a different society that meets with them.

Christina Maslach:

Yeah.

Marvalee Wake:

Because the award was one that that I'd been given and Dave had also been given— independently--we're asked to sign a letter saying yes, the action had to be taken, this and other forms of sexual harassment have got to stop. We've got to change. So, we did! One of the people who had also gotten the prize, asked to sign it said that he didn't believe that there's a problem. There's this one guy, but it's not a generic problem. So I wrote him saying, it is a generic problem, and it has been for a long time.

Christina Maslach:

Yeah.

Marvalee Wake:

Three days later I had an email from him saying, "Marvalee, I apologize. I've talked to my women graduate students and learned a lot. Well, it's about time. So change is happening. A young woman at that meeting told me her situation, she had been made to feel very uncomfortable by a guy in an elevator. She told me that after this broke, the next day, that guy came up to her and said, "I'm sorry, I've made you feel uncomfortable. I didn't mean to."

Christina Maslach:

Yeah.

Marvalee Wake:

It's going to change some attitudes and it's about time... but it takes a critical mass to activate the effort. And I don't know how to generate that mass until it's ready, you know?

Christina Maslach:

But that's a good point. That's a really interesting question as to how to recognize it, how to encourage it, how to see the signs and you know, et cetera, I think.

Marvalee Wake:

And some persistence in maintaining one's own professionalism and speaking out when it happens. I've since had one person come up to me and said, I know you've been working at this for a long time. I remember you and (a colleague) - another former president coming out of a room with very glum faces. And I remember who left with you and that he left the meeting afterward. We did it.

Christina Maslach:

Yeah.

Marvalee Wake:

So yeah, you do what you can. I lost track of my second point about the opportunities that UC Berkeley affords that have made my world a much more expansive, stimulating, and often

collegial one—the people I've met and interacted with here. It has been a heady experience to work with colleagues in different disciplines, and to learn about their perspectives on all sorts of things. It provides a rich and exciting existence—bright people, cutting-edge discussions, all focused on providing a better research and teaching experience for students, colleagues, disciplinary areas, and the public, the nation, and the future of our world. I've learned so much from bright undergraduates through Nobelists (I'm not sure that is a spectrum), and it's been a wonderful life!

Christina Maslach:

Yeah. Yeah. This has been a marvelous, marvelous interview, Marvalee. I have to say.

Marvalee Wake:

It's storytelling, but it's certainly all true, and there's a lot more like it too. As I said, I've worked hard, but it's been a privilege.

Christina Maslach:

Yeah. Well, but you know, that is a clear theme that is coming out from a number of the people we've been interviewing of saying, okay, here's my corner of the world. But the theme of that kind of persistence, the theme of it was something I really enjoy doing. And I did it, all of those kinds of, I mean, it's a privilege for us to hear from so many different corners of the campus. Those kinds of stories, which other people may not be aware of. And in some ways, as we go through these interviews, having the opportunity to pull those out and share them more broadly in the sense of here's what it was and how it took place.

Marvalee Wake:

I like service because it's a way of giving back, as well as a way to learn.

Christina Maslach:

Absolutely. I agree with you, 100 percent. And also I have found that in doing this on campus is that I get to meet people from other disciplines, really different disciplines, that I would never, ever, if I didn't get out of my own place, and my corner now doesn't even exist because Tolman Hall is completely gone. So it's like, remember all of that. So thank you. This has been terrific.

END.