

The Leakey Foundation Oral History of Human Origins Research: Jon Kaas

Interview conducted by
Bernard Wood
In 2026

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Bernard Wood
Hello, good afternoon. I'm joined today by Jon Kaas [Gertrude Conaway Vanderbilt Professor and Distinguished Professor of Psychology at Vanderbilt University]. Jon and our next interviewee, Bill Leonard, are both people who don't go into the field to look at primates in the wild, nor do they go to far-flung places to look for fossils, nor do they analyze fossils, yet their work is integral to the definition of primatology. Jon, my thanks to you for joining us.

My first questions are about your name and about your birthplace. Could you tell us a little about your family history, what your parents were doing in Fargo, North Dakota, whether you had brothers and sisters, and how you got into psychology? Why don't we begin by telling us about your name?

Jon Kaas
My name comes from my grandparents with a little influence from both sides. My grandfather on my father's side and his wife came to the United States as immigrants. When they asked, "Where should we go?" in New York, they were told "Go to the middle of Wisconsin where *all* the Germans go." So that's where they went. It turns out that someone else with the same last name as mine, Kaas, which is low-German or Dutch for cheese, was at Vanderbilt. He came from the same region of Europe and when he got to New York with his wife and they asked, "Where do we go?" they had the same response "Go to the middle of Wisconsin" and he ended up only 40 miles away from where my grandfather lived!

Bernard Wood
I guess Wisconsin and cheese are not necessarily unrelated.

Jon Kaas
No, they knew where they were going. My mother's influence is that I am 'Jon' instead of 'John' because her parents came from Norway and Ireland.

Bernard Wood
I like that too because in my list of contacts, it's immediately clear that I'm talking to you and not to one of the Johns! What were your parents doing in North Dakota, and who else was in your family?

Jon Kaas

My mother was born in North Dakota. My father, who was born in Wisconsin, was the older of two boys in a family of eight. After he went on a company training course to manage a store, the company assigned him to be an assistant at a store in Fargo, North Dakota, where he met my mother. They married, and I was born there.

Bernard Wood

Do you have brothers and sisters?

Jon Kaas

I have a sister who was born four years after me. My parents moved to a store in Minneapolis, then to a store in the middle of Wisconsin, where my father eventually became the owner. My sister and I were both raised in a small town of c.8K people called Spooner. We then moved to the country, and I went to the neighboring even smaller town, to a grade school that had no running water and an outdoor toilet. The biggest class was eight!

Bernard Wood

What type of store was it?

Jon Kaas

They used to call it a five-and-ten cent store that sold a lot of different things. Living in the country was wonderful because we could have all kinds of animals. It was on a beautiful river, which is now a national protected river.

Bernard Wood

Where did you go to high school?

Jon Kaas

In Spooner. I went with my father to his work, walked to school and then rode the bus home. I went through high school and did well. I had no plans to go on in education, and no one suggested I should do so. After finishing high school, I started in a job working in a creamery. Then I met somebody in a bar—in Wisconsin you could go to bars at 18—who was at Northland College [in Ashland] and he said, "Why don't *you* go to Northland College?" When I said, "Don't you think

it's too late to get in?" he said "No problem. You should go where I am." I applied, they gave me a scholarship, so I didn't have to pay for anything except have enough money to eat. Northland was a small college up on Lake Superior with maybe a total of 400 students. It was a wonderful place and a big influence for me. It was a long-lasting college, but they went out of business about a year ago. These small colleges are disappearing.

Bernard Wood

What was the basis of Northland? Was it based on religion?

Jon Kaas

They wanted a college up there up on Lake Superior because the city was doing well and they wanted to have somewhere where people could get educated. It wasn't religious. You had to take a mixture of courses, including one in religion.

Bernard Wood

Our backgrounds are very similar because my parents ran a store, but their store wasn't in the middle of nowhere. And like you, my mother's family were farmers and so I always thought I would be a farmer. Why did you choose psychology as a major?

Jon Kaas

I was determined to become a farmer until I started to work on a farm for $2/day and I realized it's not as wonderful as I imagined it would be! I did not know what to do in college, then I thought, "Well, everybody needs engineering, so that's the field to go into." I started in engineering, but I found it sort of dull. Then I took a mandatory course in psychology. I said, "I don't want to take a course in psychology. That's not even a science." And they said, "But you have to take a course in psychology." I took it, and it was wonderfully taught overview. Then I decided, "I'll see if there's something else" and I took a course in social psychology.

The person who taught that course was from New York. Why he decided on a teaching career in upper Wisconsin in the wilderness, I don't know. But he gave me a look at what a scientific life could be like. He gave talks at national meetings, including one in Minneapolis, Minnesota, a long way from northern Wisconsin, but he took me and a couple of other students along to see what it was like to go to a national meeting. He also took us to visit a prison in the Upper Peninsula of

Michigan, so we could see what it would be like to talk to prisoners and get that view of life.

He invited us over for tea and he said to me, "You should stay in academics." I had that as my plan, but I hadn't got very far. Then I had a required course in abnormal or clinical psychology, and because there was no teacher available it was taught by the president of the college. He asked me and everybody else in the class to write a paper and the paper I wrote for him was on the interpretation of the use of symbolism in the writing of Edgar Allen Poe, much like Freud would talk about. What was the meaning of that symbolism?

The president of the college liked my paper so much he said, "You have to go to graduate school." I said, "Is it a little late to apply?" His response was, "No, I'll write you a letter. You'll get in." He wrote to about 12 schools. I got in everywhere, but I wanted to go to the University of Wisconsin to work with Harry Harlow because he was working on monkeys and behavior and he was a leader of the field.

We talked on the phone, and I thought I was going to work with him, but the contact suddenly shut off because he had been hospitalized and wasn't taking students. I looked at the next best thing, which was an offer from Duke University that was going to be funded by government to try to develop researchers in neuroscience. They were going to pay for four years as a graduate student, or a medical student, or a combination of the two. In my first year, I did the first year of medical school at the same time as taking courses in psychology.

By the end of that year, I was invited by a new faculty member who was in the neuroscience area, Irving Diamond, and he said, "Come and work in my lab"... "I promise you a paper from your thesis if you come and work in my lab" ... "that will be published in the best journal out there and besides that, you will go on and do a postdoc at the best place for you in the country." I said to myself "Of course, he doesn't know that", but I realized later he was confident in himself, and it turned out that way. I *did* publish my thesis in the *Journal of Neuroscience*, and I did go to the best possible postdoc for what I did with him, which is work on the auditory system.

Bernard Wood

Jon, can we go back to this guy from Northland who took you to the prison and took you to the meeting?

Jon Kaas

Yes.

Bernard Wood

That's the most extraordinary story.

Jon Kaas

It's not one I expected, and he was wonderful. If there's anything to say here, you can find wonderful teachers in places you don't expect. He was reared and educated in New York, and he's in upper Wisconsin in the wilderness.

Bernard Wood

Then second thing is that the president of this college wrote letters and managed to get you into every graduate program he wrote to.

Jon Kaas

Yes.

Bernard Wood

Was this down to him, or down to you, or down to both of you?

Jon Kaas

I didn't expect that. I didn't know if he ever did anything like that before. All I knew is I had to take this course and I liked the course, but I also liked reading and I read a lot. I had to write a lot about Freud because he was important at that time and I thought, "I have to know why he's thought to be important". I had to read Freud's *The Interpretation of Dreams* and I also liked Edgar Allen Poe because there was a lot of symbolism in his stories, so I combined them for a paper and just by chance the teacher really liked that paper and, on that evidence alone, he thought I should go to graduate school.

Bernard Wood

When did people start to talk about neuroscience as opposed to neuroanatomy or neurophysiology? And what was neuroscience like in 1965 when you went to graduate school?

Jon Kaas

The neuroanatomy I had in the medical school was just neuroanatomy and it was very boring. There was no neuroscience. It was more or less teaching you to

recognize the parts of the brain, so when a slide came up they would say, "What's this?"

Bernard Wood

"This is the insular, or this is ...?"

Jon Kaas

Exactly. I was so fortunate to join the new professor's group [at Duke]. Diamond had gotten a degree with a person by the name of Neff who worked on the auditory system of cats. Diamond's background was in philosophy. They were trying to build neuroscience at Duke University, so they hired the few people who were doing neuroscience at this time. Diamond turned out to be such a good match for me. First of all, he saw where I was weak and he said, "You need to take courses in biology. You don't have enough biology." And I said, "Well, I don't want to do that because the other graduate students in those courses were already well versed in biology and I wouldn't look good by comparison to them." I didn't want to take that comparison. And he said, "I don't care what grades you get, go learn some biology." So, I did and that helped me a lot. There was a course by Knut Schmidt-Nielsen who worked with camels and did all kinds of animal behavior. He was a fantastic person.

Bernard Wood

He wrote that wonderful book [*How Animals Work*]

Jon Kaas

Without that advice to learn some animal behavior or how do animals differ and how are they similar, I would never have picked that course on my own, so that was a wonderful move for me to get interested in that area.

Bernard Wood

You have devoted your research career to the sensory system?

Jon Kaas

Yes.

Bernard Wood

How primates view and hear the world. Why did you choose the sensory side and not the motor side? When were you first aware of primates and why has so much of your career been devoted to primates?

Jon Kaas

My graduate work was with cats and how lesions of the auditory cortex would affect their ability to discriminate among auditory signals. My advisor was in the position then of transferring himself from working on cats to working more broadly across mammals and working more on how brains work and how are they organized. I knew some of the people who were working with him while I was a graduate student, so when I was postdoc at Wisconsin [see below] I would go back [to Duke] for visits and work with Diamond on his new interest, which was how do brains evolve.

I went to Wisconsin for my post-doc because it was the best possible place to do auditory research. It was fantastic. When I got there, Clinton Woolsey, who worked on a lot of brain mapping in primates, came from Johns Hopkins. They did motor mapping by electrical stimulation like Penfield mapping. When I arrived, he said to me, "We have enough people working on auditory system. We don't have anybody working on the visual system. You should work on the visual system."

That was a shock to me and I thought, "This is absolutely a disaster. I don't know anything about the visual system or how to study it." But it was the best thing that could have happened because I had to learn from scratch how to set up a lab, how to do the recording, what we wanted to do. We started out recording visual cortex in cats, which Hubel and Wiesel were studying at the time, and that's how I got my feet wet. But I wanted to switch to monkeys, and we were able to do that because they already had monkeys there. I went back to Duke for a summer with my wife, and I mapped visual cortex in tree shrews, squirrels, and hedgehogs with colleagues and friends who were still there.

I learned how to do microelectrode recordings instead of recording from the surface, which wasn't so accurate. When I came assistant professor at the University of Wisconsin Woolsey said to me, "There's somebody who came here with a background in anthropology and he wants to study the pulvinar and he was going to work with me, but I don't want to work with him. We don't get along." That is how I inherited a graduate student, John Allman. We worked together very well. He didn't know much neuroscience, but he had a strong background in anthropology. He wanted to study the pulvinar because Le Gros Clark showed it was the biggest part of the human thalamus so it's got to be an important structure. So, let's study the pulvinar.

Bernard Wood

You published dozens of papers with John Allman, but your first paper was published with Diamond and somebody called Axelrod. Was that Axelrod anything to do with the Axelrod I knew from my medical student days?

Jon Kaas

No, he was from the medical school and wanted some lab experience. He worked in the lab for a few months.

Bernard Wood

I had some lectures from Le Gros Clark about the thalamus. One of the people you published with was Ray Guillery. I knew Ray because he came back to the UK to occupy the same position Le Gros Clark had in the anatomy department at Oxford.

Jon Kaas

Ray Guillery had come to Wisconsin as a faculty member in the anatomy department. We were in the same building, we got to know each other, and I knew he was working on retinal projections. During our collaboration he discovered there was something abnormal about the retinal projections in a Siamese cat. The anatomical connections from the retina to the lateral geniculate nucleus were abnormally organized in one of the cats. So, he looked back at the records and asked, "What type of cat was it?" It was a Siamese cat. He developed the idea they have a defective visual system that starts with their eyes and is defective all the way through. When we looked at Siamese cats, we found their visual system was abnormal all the way up to cortex.

Going back to my graduate student days, one of the things I was happy about was that when my thesis advisor at Duke, Diamond, was invited to a meeting in New York he said, "I asked them to invite you to give a talk at that meeting." Apparently, they called up at Wisconsin and asked, "Is this person going to be good for this meeting?" Two other people from Wisconsin volunteered to go, but Diamond said, "No, no, you have to go. I won't go to the meeting unless you're there." So, they gave me an invitation. I gave a talk on the retinal projections that relate to the organization of the lateral geniculate nucleus.

It was enlightening to me because I could see that talks often focused too narrowly on what they were working on and it made them too technical and dull. And I said,

"We're all going to have to write a paper when we go back about the topic of our talk. I'm going to write about the principles of organization of the lateral geniculate nucleus. And I'm going to do it with Ray Guillery, because he's a real expert, and with John Allman because we were mapping it." It's a good paper because it explains how species vary and what the principles are, and so on. I got to know Ray Guillery well and we wrote several papers together. We even got to work on an albino monkey and other examples of a genetic abnormality. After Ray left Wisconsin, he went to the University of Chicago and later moved back to his home territory to be the full [Dr Lee's] Professor of Anatomy and the chair at Oxford, which had once been held by Le Gros Clark.

Bernard Wood

A more general question. You have worked on macaques and galagos and on a whole range of primates. Is there anything special about the visual and the auditory systems of primates?

Jon Kaas

Good question. A lot of animals, especially nocturnal ones, have more developed auditory system, but vision is remarkable in that the earliest primates were nocturnal, but they had a good visual system. That was really unusual. Nocturnal animals usually don't have good visual systems. They have good auditory systems and a good sense of smell. But primates evolved to live in trees, and they used their good vision to find food such as insects and fruit. What is interesting are the similarities across all the branches of primate radiation, what things are different and how they are different. We originally studied a nocturnal monkey, the owl monkey, mainly because they were available but also because they have a visual system that more closely resembled that of the earliest primates. The earliest primates were nocturnal because it was too dangerous to be out in the daytime in the age of dinosaurs, but after the great extinction period was over and primates evolved into monkeys, with many, almost all, becoming diurnal. Owl monkeys and tarsiers both had diurnal primate ancestors but became [secondarily] nocturnal. They don't have a lot of light, so it was important to amplify that light as much as possible. Visually, you sacrifice acuity for sensitivity and that's what they did. We can look at some of the primates that remained nocturnal and see the same sort of thing.

One of the things that has been coming out of NIH [National Institutes of Health] from Mort Mishkin and Leslie Ungerleider when they studied macaques is their proposal that vision is processed in two different streams, a ventral stream and a

dorsal stream. When they did lesions in the higher levels of those two streams they found different behavioral deficits.

The system that evolved in early primates into these two streams had to be modified for diurnal primates. This means that if a macaque monkey, or almost any primate, loses their primary visual cortex they act as if they are blind, whereas other animals have an alternative pathway that goes from superior colliculus to the pulvinar to the cortex and they do fine. Diamond discovered when he was looking at tree shrews that they do fine without primary visual cortex. It's not a big loss to them. Whereas in primates if you do a lesion of primary visual cortex, they act as if they're blind, but they can do things that are visual. How can that be? And it was called in the literature, ‘blind sight’. For example, a human will say, "No, I didn't see anything." "Well, how did you reach out and grab the right thing?" Their response is, "Well, I didn't see anything. I just did it."

We are still interested in and working on primate ‘blind sight’. Why did we lose the ability to use the second order pathway for vision? And the second order pathway mainly would have been in the dorsal stream for behavior, for reaching for things, and doing things with vision as guidance.

Bernard Wood

Is the elegant analysis you have just given us all down to the mentor [Diamond] who said, "I don't care how you do, but go and learn some biology"?

Jon Kaas

Yes. That got me into behavior because of the people at Duke were interested in animal behavior and differences in animals and how they might have evolved and things like that. Knut Schmidt-Nielsen, of course, was leading that group, and he was writing books with titles like *Scaling, why is animal size so important?*

Bernard Wood

Let's get back to your career. You finished your PhD [at Duke] in the mid-60s, then you were a post-doc at the University of Wisconsin, where you became an Assistant Professor in 1968. You were at Wisconsin until 1972. Why did you move to Vanderbilt University, where you have been for more than half a century. Why did you go to Vanderbilt, and why did you stay there?

Jon Kaas

I was quite happy at Wisconsin, but one of my graduate students' friends who had come back to work with Diamond on comparative studies was Bruce Masterton. He had already been teaching with a master's degree at the college level and was older and sophisticated. He had been hired at Vanderbilt, but almost immediately moved to Florida because he liked Florida better and he had friends at the University of Florida in Gainesville, so Vanderbilt was now advertising to fill that position. My advisor, Diamond, said, "You should apply for that." I said, "I'm really happy at Wisconsin. I don't want to move" but he said "Well, at least interview."

He talked me into interviewing. When I came down and interviewed, I liked the people, the people working on vision, and so on. Yet I didn't like it enough to move. But when I told my wife—who had come with me to the interview—my decision that we weren't going to move, she burst into tears because Vanderbilt had offered her a position in the Kennedy Center [https://v kc.vumc.org/vkc/] so I said, "Okay, we'll move. It's two people now." But it also turned out wonderfully for me.

I had no equipment, but it was good that I had to start and learn all over again. This was a time of change. We had already started to use one of the first available computers at the University of Wisconsin to analyze our data, and it took me at least five or six years to get enough money to buy a computer here at Vanderbilt. All these factors influenced who I was looking for and what direction our research we would go. From the beginning, I was lucky to have tremendous students working with me. They were enthusiastic. One of my first graduate students was from India who switched from engineering because he thought engineering was too boring, which reminded me of my own experience as an undergraduate when I switched from engineering for the same reason. He wanted to come and do neuroscience, so he changed departments. We had many papers together.

John Allman also came to Vanderbilt for nine months before he got a job at Caltech. He was in a courtship with, and then married, a graduate student who was supposed to work with me because she had been working with another faculty member who had left. John Allman said, "Well, you'll have to work with Jon." And I said, "What do you want to do for your thesis?" And she said, "I want to do motor stuff because that's more interesting to me," plus, "I won't have time to do a very good job of it. I just want to get my thesis done so I can join John out at Caltech." I had this great insight and said to her, "Why don't you do the research with John at Caltech remotely from Vanderbilt, but get your degree from Vanderbilt, and you'll

be fine?" They went out west and did beautiful studies together on the organization of the motor cortex. She would never have done that if she was pining away to be with John and wanting to finish up as rapidly as possible!

Bernard Wood

So, we're back to psychology?

Jon Kaas

Yes.

Bernard Wood

I want to ask about your productivity. You kindly sent me your curriculum vitae and I'm just going to hold it up to the screen so people can see it. Here is a page from your list of publications. Most people have relatively few publications, so they put spaces between each publication *and* use wide margins. You don't do any of that and your CV *still* comes to 81 pages! By my calculation, you have 395 papers in scientific journals like the *Journal of Comparative Neurology*, the *Journal of Neuroscience*. These are really hardcore journals. You also list separately 230 chapters and reviews that most people like me mingle with the publications to make them look better. Taken together, by my calculation across 55 years, this comes out to 11.36 recurring publications a year. How do you do it?

Jon Kaas

There was a tradition at Duke that you didn't publish much. You publish your thesis, and that was it. So, you finished graduate school, and you got your PhD, and you had one paper. Or maybe you could make more than one paper out of chapters of your thesis or whatever. I came to the conclusion, "Why not just do research and publish?" "Why are you waiting? What are you waiting for?"

John Allman was my first graduate student, and we worked together very hard to get papers out. Then, at Wisconsin, we added other people to our group who would publish and work with us. We took full advantage of the wonderful environment we had, with animals and space available, and research money to spend without our own grants. We normally started our recording on Monday, and sometimes we wouldn't leave the lab until Wednesday or Thursday, no sleep, no nothing, and we ate from the food machines there. We gathered huge amounts of data and then, if we were up to it, we would start another experiment on the following Monday. John and I just stayed there and did these experiments until we

couldn't think straight anymore, and then we had to quit. We have never again given that much devotion to data collection.

Bernard Wood

So, it's a combination of a lot of experiments, a lot of observations, and doing what many others were not doing, which was that you worked hard to publish it!

Jon Kaas

Yes. If you don't publish, it's like you never did the work except for your own learning.

Bernard Wood

If you don't publish it, it's wasted. It's never happened. It is difficult to drum that into people. Jon, what are you particularly good at in terms of research? What are your strengths?

Jon Kaas

I would say endurance but also making the lab attractive, something I learned from Diamond. It should be a happy place. What I ask people to do is when they come in, learn the methods we have by working on projects that other people are heading, then come back with your own ideas of what the next step should be and then you are the head of that project. Depending on the number of students and post-docs working in the lab, we have a lot of projects going on simultaneously. I feel good when they come up with something that is uniquely theirs.

For example, we would never have worked on seals if a student hadn't come to me and said, "Have you been reading in the paper about the baby seals off the coast of California? The water is unusually cold, and the seals are drifting up onto the shore. They're trying to save them, but a lot of them are dying?" And I said, "Yes, I saw that. What do you want to do?" She says, "I can go out there and get brains of the animals that die and we can come back and have some papers on the histological organization of brains in seals. So, she went out and brought back five brains. We stained them in a lot of different ways, and she did descriptions of the cytoarchitectonics. Then years later, a few months ago I saw a picture of a seal on the cover of *Science* magazine and that student was a co-author of a paper that used her data from the brains she brought here and we processed in a new study with other people. Projects based on the initiatives of students happen frequently.

Studies of the pulvinar keep coming up because that was one of the original interests of John Allman. I suggested “Let’s look at the cerebral cortex first then come back and do the pulvinar." We did a paper on the recordings from the pulvinar and defining subdivisions. One of my students has nice data from work she did with me on the pulvinar, but she has a new position, and she doesn't have time to go back and finish writing that up, plus she has a child and so on. This happens quite often; students have things in their thesis they could publish but they don't because they've already accepted another position and they are too busy to go back to it. What I'm trying to do right now with the three people that remain with me is ask, "What did people start and not finish? Let's see if we can look at those data even though they might be 20 years old and make those data into a publication, so it isn't wasted." We contact them and ask, "Can we work with you and finish this off?" Most are happy to do this.

Bernard Wood

Many people listening might not understand the notion of a laboratory with a group of researchers. What is the maximum number of people you have had in your research group? Five? Ten?

Jon Kaas

There may have been as many as 10 at one time, but five is a good average number. Right now, for example, our lab has three highly experienced researchers, plus two undergraduates, and me. That's a nice number. We can get things done at that level and it isn't enormously costly.

Bernard Wood

Jon, where did you learn to write?

Jon Kaas

Oh, boy. I think in graduate school. I did write papers as an undergraduate including the one that impressed [the Northland president]. But my graduate student advisor, Irving Diamond, was a very good writer. Early on he published a wonderful review in *Science* about how the brain evolved. One of my friends was a co-author. It was beautifully written. Diamond’s background was in philosophy, so my guess is that he was trained to think broadly, to make clear arguments, and to think of what the important questions are. I learned from him to make what the results mean clear to the reader.

Bernard Wood

Would he edit your writing, or did you read so much of his writing that you started to write as clearly as he did? What was the process?

Jon Kaas

Some things we did together with the students that were still in his lab. We all work together on writing. We write and rewrite. It's never easy.

Bernard Wood

People think that the people who write well just sit down and write it out. They don't realize that you write it. You rewrite it. You read it again. You rewrite it trying to eliminate words that aren't necessary and you rewrite it again. It doesn't just come flowing out, it's hard work.

Jon Kaas

Yes. And because almost everything we publish is with several authors, everybody participates and goes over it and helps. Even if they're not on the paper, we ask them to read and give advice on what's written there. I aspire to the sort of the writing that Diamond had in his *Science* review, and other reviews, as a guide.

Bernard Wood

Given the 81 pages of your CV, it seems impossible that you have any recreational time, but what do you like doing when you're not working?

Jon Kaas

One of the first graduate students in my lab at Vanderbilt was Rick Lin, a Taiwanese who had trained in Diamond's lab, so he already knew how to do histology. He liked to play racquetball and basketball, and we played all the time. I love playing sports and I love exercise. Until recently at the end of my workday I would run a little over a mile around the campus before I went home. I also always enjoy discussions of research, so one of the things we initiated and kept going here was to have a neuroscience talk once a week on Friday at 4:00 to 5:00. After it, with anybody who wanted to come, we would go across the street to the Mellow Mushroom where they made pizzas and we could sit down and talk for at least another hour or two about our research. Basically, we had a long scientific meeting once a week, and we tried to get people from other disciplines and from other parts of the university. In my first year here, I managed to get Francis Crick to come and talk. When I think back about it, that was unbelievable. You're asking a person who gets the Nobel

Prize to come and give a talk, and you're a new professor at Vanderbilt! He came, and I learned a lot from him.

Bernard Wood

Who from the past would you like to sit down with and talk to?

Jon Kaas

Darwin would be my first pick because his life changed so much by going on the Beagle and looking at the variety of wildlife across the globe, questioning everything he saw, and starting to ask basic questions, "How does this occur and how did this come about?" His thinking was way ahead of his time. But he also took the time to write long books on those topics, including a book describing his voyage and what that was like. He was someone who really changed science. No one thought he was going to develop in that way and make such a big difference. His parents didn't for sure!

Bernard Wood

What about neuroscience? Would you like to sit down and talk to Ramón y Cajal?

Jon Kaas

Yes, everybody would want to ask how his work came about. If I think of the people who aren't here anymore, my career was greatly aided by Mort Mishkin at NIH. I interacted with him at meetings, I interacted with the people who worked with him, I did science with them and learned from them. I found out later he was one of the people who nominated me for the National Academy of Science, and after I was elected, he called me. He did such a good job of managing the researchers at NIH and the people who trained with him did so well. Mishkin was a tremendous influence on me.

Bernard Wood

Two more questions and then I should let you go. If you could give a young researcher one piece of advice, what would it be?

Jon Kaas

It's a tough question but getting you to change sometimes takes a push. The best thing that happened to me when I went to my postdoc was when Clinton Woolsey said, "We have enough people working on the auditory system here. You should work on the visual system. Nobody else is doing that." I was dumbfounded.

Sometimes it takes a little push to try something different. My advice would be to try and not be so cautious. Try different things.

Bernard Wood

Is there anything you would like to talk about that I haven't asked you?

Jon Kaas

Not really. There are some papers we still want to get out. I am working on developing an outline and a rough draft of a review paper with someone who moved to the US from Australia. They have also worked on the visual cortex, but we have different views about the significance of some of the functional areas, and we want to explore where we agree and where we differ. What are the differences and how might we resolve them?

Bernard Wood

Well, Jon, I don't want to get in the way of review article number 231!

Jon Kaas

I'm sorry. Did I go off the topic here?

Bernard Wood

Certainly not. It has been an enormous pleasure to talk to you. I want to thank you for doing this interview and for your productive and positive career. Your research interests and my research interests are way apart, but you and I went to the same meetings for a time, and it has been a pleasure to get to know you a little. Thank you for talking with me today.

Jon Kaas

Thank you for doing a wonderful job!