



Ralph Holloway

The Leakey Foundation Oral History of Human Origins Research

Interview conducted by
Bernard Wood
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Interview: 11/17/23

Bernard Wood (00:03):

So Ralph, could you just, first thing is to thank you for doing this, and could you just let us know your name and your, I know you are retired now, but what your affiliation was?

Ralph Holloway (00:21):

My name is Ralph Holloway. I was associated with Columbia University and still am to a degree, and now I'm emeritus.

Bernard Wood (00:33):

Okay, Ralph. And later on I will ask you just how long you've been associated with Columbia University, but we'll get to that later.

Ralph Holloway (00:43):

Okay.

Bernard Wood (00:43):

Ralph, can I ask you, where did you spend your childhood?

Ralph Holloway (00:49):

Philadelphia.

Bernard Wood (00:51):

Okay.

Ralph Holloway (00:51):

It was Philadelphia.

Bernard Wood (00:53):

Okay. And was there any tradition in your family? What did your parents do?

Ralph Holloway (01:03):

My mother was a secretary. My father was very skilled at drafting.

Bernard Wood (01:10):

Okay, okay.

Ralph Holloway (01:11):

He worked for major companies, drafting designs for them.

Bernard Wood (01:16):

Did they go to college?

Ralph Holloway (01:23):

My dad did go to college, Penn Wharton School and graduated in 1931 just as the depression was in its worst stages. So he got a degree in insurance but was never able to use it because of the depression. People were jumping out of windows and not buying insurance.

Bernard Wood (01:46):

Appreciate, appreciate. Did you have brothers and sisters?

Ralph Holloway (01:51):

No, only child.

Bernard Wood (01:54):

So am I.

Ralph Holloway (01:55):

I had a half-brother because my mother married twice.

Bernard Wood (02:00):

Okay, okay. Okay. So where did you go to school? Where did you go to high school?

Ralph Holloway (02:10):

I went to a high school called John Bartram after the botanist.

Bernard Wood (02:21):

And that was a public high school?

Ralph Holloway (02:25):

That was in Southwest Philadelphia.

Bernard Wood (02:25):

Okay. And that was a public high school?

Ralph Holloway (02:27):

Yes, it was.

Bernard Wood (02:29):

Okay. Were you a good student?

Ralph Holloway (02:32):

Fabulous.

Bernard Wood (02:35):

Well, that goes without saying Ralph. But okay. So what did you want to be when you grew up? If I took you back to the age of 10 and if I'd asked you that question then what would you have said?

Ralph Holloway (02:57):

Some kind of scientist, I'm sure.

Bernard Wood (03:00):

Some kind of scientist.

Ralph Holloway (03:01):

I was very intrigued with the table, periodic table, which I think I had memorized around that time and I really enjoyed that.

Bernard Wood (03:14):

Okay.

Ralph Holloway (03:15):

I wasn't even sure, but I did like metals and I think that came out of my focusing on my part of the periodic table. When I went to Drexel Institute of Technology, I intended to be a metallurgical engineer.

Bernard Wood (03:40):

And that's where you went for undergraduate?

Ralph Holloway (03:44):

Yes.

Bernard Wood (03:45):

Okay. And you intended to be a metallurgical engineer, but that would suggest to me that that wasn't your eventual major.

Ralph Holloway (03:57):

No.

Bernard Wood (04:03):

What was your major? What did you get?

Ralph Holloway (04:07):

Metallurgical engineering at The Drexel Institute was my major.

Bernard Wood (04:11):

No, it was your major?

Ralph Holloway (04:14):

But my family had moved after New Mexico, I think in my second or third year.

Bernard Wood (04:21):

Right.

Ralph Holloway (04:21):

Third year. And I went out to New Mexico myself a bit later. And then when I finished up, applied to the University of New Mexico and that's a whole funny story on its own.

Bernard Wood (04:40):

Okay. So you started your undergraduate career at Drexel. Your family moved to New Mexico, you transferred to the University of New Mexico. And were you still doing engineering?

Ralph Holloway (04:54):

Yes, engineering, geology and engineering.

Bernard Wood (04:58):

Okay. And so once you had completed your undergraduate degree, what were your plans?

Ralph Holloway (05:17):

Well, I wanted to go on.

Bernard Wood (05:25):

You wanted to go to graduate school?

Ralph Holloway (05:31):

I graduated in 59 and this was the time in which the oil business was really faulting. And so the degree I had in geology, even though I had worked as a roughneck in the fields, I couldn't get a job. And so I had an aunt in Los Angeles and I just drove out there and I enrolled, I think in Los Angeles University there. And I took a course in engineering and I took a course in human evolution and I dropped all the engineering and I really fell in love with anthropology.

Bernard Wood (06:20):

Who taught that course, Ralph?

Ralph Holloway (06:22):

Pardon?

Bernard Wood (06:24):

Who was the teacher of that course?

Ralph Holloway (06:27):

Oh gosh. I don't remember the name of that person.

Bernard Wood (06:37):

Okay. But it wasn't the charisma of the teacher, it was the-

Ralph Holloway (06:40):

University of New Mexico. Right?

Bernard Wood (06:43):

It wasn't the charisma of the teacher. It was the topic that-

Ralph Holloway (06:46):

Yes, absolutely.

Bernard Wood (06:48):

Okay. Okay.

Ralph Holloway (06:51):

I never found any teachers with charisma.

Bernard Wood (06:59):

Okay. So how did that affect your decision? Did that mean you wanted to go to graduate school, but not in engineering, but to do something to do with human evolution?

Ralph Holloway (07:11):

Yes, indeed. I had an epiphany as a matter of fact in which I was struggling and struggling a little bit with religion and everything else. I just had this sudden epiphany, I'm free, I don't have to worry about religion anymore, it's finished. I can do whatever I want and I wanted to do science of some kind.

Bernard Wood (07:38):

So where did you apply to graduate school?

Ralph Holloway (07:45):

After I finished the University of New Mexico, I had a job or two that took me out to Los Angeles and I worked for Lockheed Aircraft for a while as a metallurgical engineer, as a matter of fact. And then I somehow got to the Bay Area at Berkeley and became enamored with physical anthropology again and neuroanatomy.

Bernard Wood (08:26):

But the neuroanatomy, when did that begin?

Ralph Holloway (08:30):

That really began when I was at Berkeley.

Bernard Wood (08:34):

Okay. So when you were at Berkeley, you applied to go to graduate school at Berkeley and you were admitted?

Ralph Holloway (08:43):

Yes, that's right.

Bernard Wood (08:47):

This is a cheeky question, Ralph.

Ralph Holloway (08:52):

I had to find an advisor while I was in this process.

Bernard Wood (08:54):

You had an advisor?

Ralph Holloway (08:57):

I had to get one, and that's a long story, but I don't think I got one.

Bernard Wood (09:04):

Okay. So you applied to graduate school, you decided to go to the anthropology department or whatever it was at Berkeley?

Ralph Holloway (09:11):

That's right.

Bernard Wood (09:12):

And that puts you in touch with Sherry Washburn?

Ralph Holloway (09:17):

That's right, became my advisor eventually. And Marian Diamond then became, I got interested in the evolution of the brain and I was doing research on the effects of enhanced environment on the structure of the brain and mice and rats. That was what she was doing as well. And so that really forced me to really consider neuro as a specialization.

Bernard Wood (09:53):

So I didn't catch the name-

Ralph Holloway (09:55):

Washburn was opposed to this. He didn't want me to do this.

Bernard Wood (09:59):

Okay, so, I'm sorry, Ralph, I didn't catch the name. Could you say the name again?

Ralph Holloway (10:06):

Marian Diamond.

Bernard Wood (10:08):

Marian Diamond, okay. So she was also a graduate student in the anthropology department?

Ralph Holloway (10:13):

No, not at all. She was a faculty member at Berkeley.

Bernard Wood (10:19):

Okay, so she was a faculty member.

Ralph Holloway (10:20):

One of the biological sciences. Yes.

Bernard Wood (10:24):

Okay, so she wasn't even in the anthropology department?

Ralph Holloway (10:27):

No.

Bernard Wood (10:28):

Okay. So I'm just trying to recap. So you were Sherry Washburn's advisor who was in your cohort of graduate students of Sherry's at that time?

Ralph Holloway (10:47):

Mel.

Bernard Wood (10:51):

Was Russ Tuttle there?

Ralph Holloway (10:52):

Yes, I believe he was.

Bernard Wood (10:52):

Right.

Ralph Holloway (10:52):

Yes.

Bernard Wood (11:01):

Okay.

Ralph Holloway (11:02):

I can't remember many more.

Bernard Wood (11:05):

Okay. We can probably look into that when we come to write this up, but that would be good. So you were advised by Sherry, you were working on experimental neuroscience and Sherry, he didn't approve.

Ralph Holloway (11:31):

Actually, I forget the exact semester, when it was time to choose courses and so forth at that point he was my advisor. And when I said, he went through the courses that I was going to take and he wanted me by the way to become a primatologist and study baboon behavior, and this is something I didn't want to do at all. So we flashed on this and I said, I want to take some neuroscience and I want to take this course by Marian Diamond in neuroanatomy. And he said, no, no, no, you can't do that. I said, I'm sorry. I said, I'm going to take that course. He said, well, if you do, I will no longer be your advisor. And so that ended it. I took the course and subsequently went into neuro.

Bernard Wood (12:37):

So who replaced Dr. Washburn as your advisor?

Ralph Holloway (12:42):

For a while, it was Ted Macau.

Bernard Wood (12:45):

Okay. Was he a little more accommodating?

Ralph Holloway (12:50):

Oh yes. Very. Didn't know anything about the evolution of the brain, but he was open to anything. It was just a wonderful contrast, if I could put it that way.

Bernard Wood (13:04):

Okay. That's something I've heard about him, that he was just a good man who was just willing to help.

Ralph Holloway (13:16):

Yes.

Bernard Wood (13:18):

Okay. So you wrote up your thesis. When did you defend your thesis? What year was that, roughly?

Ralph Holloway (13:35):

63 or close to 64.

Bernard Wood (13:38):

Okay. Okay. And do you remember the title of the thesis?

Ralph Holloway (13:41):

Quantitative Relations in the Primate Brain.

Bernard Wood (13:45):

Wow, okay. Okay. So let's say in 1964 you had a PhD from the University of California at Berkeley. And what did you do next? Or what did you want to do next? Were you looking for a job or were you looking for a postdoc?

Ralph Holloway (14:17):

Not a postdoc. No. I just think I wanted a teaching position.

Bernard Wood (14:25):

You wanted a teaching position?

Ralph Holloway (14:28):

I applied to various places [inaudible 00:14:32] I got the degree. And Columbia accepted me.

Bernard Wood (14:38):

So you went straight from being a PhD student at Berkeley to being an assistant professor at Columbia?

Ralph Holloway (14:44):

That's right, yes.

Bernard Wood (14:47):

And who was in the anthropology department at Columbia then?

Ralph Holloway (14:53):

Well, there was Bob Murphy, there was Marvin Harris. There's Morton Freed. Forgotten the archeologist. That's basically-

Bernard Wood (15:11):

So you were the sort of biological anthropologist?

Ralph Holloway (15:14):

That's right, yes.

Bernard Wood (15:16):

Wow, okay. You started-

Ralph Holloway (15:20):

At that time there was a four field approach in anthropology and certainly at-

Bernard Wood (15:24):

At Columbia.

Ralph Holloway (15:30):

Columbia. And so they needed somebody to cover the biological anthropology side. I had met Robert Murphy at Berkeley, and we sort of had some fun together and he said, oh, I know this. He was at Columbia at the time then, and he said, I know the person that should be a great addition to our faculty. And so I ended up with an offer and I took it.

Bernard Wood (16:01):

Okay. Those were the days, Ralph. Those were the days. So when did your interest in paleo neurology begin?

Ralph Holloway (16:24):

I think it really began when I went to South Africa and met Dart and the people in his department. And saw the Dart collection of endocast, which is quite voluminous. And also he had just a marvelous collection of South African and Southwest African cranium. And I became very interested in the problem of symmetry. And so again, studying the cranium for left right battalions and seeing if there was any significant degree of asymmetry. And in the process of doing that, I got to see the tall specimen, the actual one, and I was intrigued by it. And there was this question that Keith had, sir Arthur Keith had raised about the skull, whether it was advanced or was it wasn't advanced. And I looked at it and thought, by golly, I think Dart's paper on this was right on the lunate sulcus is posterior. Meaning then that there was an expansion of the parietal. And that's how I really got into it.

Bernard Wood (17:54):

Ralph, why did you go to South Africa?

Ralph Holloway (18:08):

Well, I think I had a Guggenheim, or I can't remember precisely, but I think I had a Guggenheim that was, I had paid travel allowance and there was also the Leakey's there, [inaudible 00:18:30] Kenya.

Bernard Wood (18:32):

So the decision to spend the travel money to go to South Africa would suggest to me that you already had an interest in paleo neurology or you wanted to extend your interest in the brain to the evolution of the brain.

Ralph Holloway (18:54):

I want to extend to the evolution of the brain. Actually before I wrote my thesis, thought that paleo neurology was impossible, that the endocast could tell you absolutely nothing but maybe the volume. And then I changed my mind when I went to South Africa.

Bernard Wood (19:16):

How interesting. Okay. Okay. And then Ralph, your sort of career has been, there are not many people who can claim that they have started and enabled a discipline, but you really begun. There were people who were sort of commenting on the end cranial morphology, including Dart obviously, who must have inspired you. But the notion that you could put this latex inside cranial and swell it around and then wait for it to cure, and then you could pull it out and you could get an endo cranial cast, how did that come about?

Ralph Holloway (20:10):

Well, I didn't invent that technique. I forgot who did. And it just appealed to me. And I tried it first with some of the monkey crania that we had in the anthro department.

Bernard Wood (20:33):

Right.

Ralph Holloway (20:34):

And then I got into it and started borrowing past particularly bonobo and chimpanzee, some gorilla, a lot from Tervuren in Belgium of the Bonobo collection. I forget the term for it, maybe anal compulsion or something like that. I had one more, one more, one more.

Bernard Wood (21:09):

Okay.

Ralph Holloway (21:09):

That's something I truly enjoy. I point out that my interest in science really went back to metallurgy. And I was offered a position, we had a summer kind of arrangement, so I was able to go to Baltimore with the American stainless steel corporation there, and I knocked on the door of them. No, that wasn't it. I'm sorry. I went down there and they just let me loose and they said, you can do anything you want to do and so forth. I said, well, I'm interested in what low temperature effects would be on the structure of stainless steel. And so they let me play around with liquid nitrogen and so forth. It was just a wonderful experience doing that. I even wrote a report for them about the effects of low temperature stuff on stainless steel.

Bernard Wood (22:23):

Okay. Okay.

Ralph Holloway (22:27):

Very important part of my push into science.

Bernard Wood (22:34):

It's interesting that you view science as a very broad church that includes metallurgy and neuroscience, that it was sort of basically the push into science. Exactly what you did in science was something else, but you recognized that you had aptitude as a scientist.

Ralph Holloway (23:08):

I wasn't that vain.

Bernard Wood (23:09):

Okay. So Ralph-

Ralph Holloway ([23:18](#)):

Just evolved.

Bernard Wood (23:20):

You just evolved into a scientist. Well, I think you're being over modest, but okay. So what do you think are the qualities of Ralph Holloway that make him into a good scientist? And let's not argue about whether you are a good scientist. Could you please accept that?

Ralph Holloway (23:42):

Well, I'll take that. Thank you very much. I would say just openness. You've got to be open. You've got to also recognize that you probably have biases and you've got to test your biases and what I've later come to appreciate is repetition. Oh, what's the other word I want? You sort of need to reinvigorate yourself with sort of expansion of ideas. And it might be in any topic, so forth. At the time, I'm enormously interested in astronomy. I keep wanting to get that edge of the universe, peel it back and see what the hell was under there.

Bernard Wood (24:48):

Okay. Okay.

Ralph Holloway (24:48):

This stuff like that.

Bernard Wood (24:52):

Ralph Holloway (25:23):

Bernard Wood (25:36):

So something else I'd like to ask you is the teaching aspect of it, because most of the interviews we've done so far have really focused on people's research that the strong impression I get is that you enjoy teaching, you like teaching, you like inspiring young people. And the people I know that have been your students, they speak very highly of your teaching and also your inspiration. So where does that come from? Did you enjoy teaching or did you resent the time you spent?

Ralph Holloway (26:22):

I didn't resent my time teaching, I enjoy teaching. In terms of large lecture classes that are over a hundred and so forth, I did those for a year or so and could do it well. But what I really liked was sitting down with students and just molding problems and then encouraging them to follow what they wanted to do. The experience with Washburn really had a deep impression on me about freedom and letting a student do what they wanted to do was as much guidance as was necessary maybe. But by and large, let them go and get into it. You can always advise them more afterward if they're really into it. But I didn't like saying, you have to do this or you have to do that.

Bernard Wood (27:25):

Okay. That's interesting because-

Ralph Holloway (27:29):

As it turned out, in 85 I think it, was the department was going through hell with regards to the four field approach, and the question is whether physical, biological anthropology or physical anthropology would be a part of the curriculum at all. [inaudible 00:27:53] question. I remember walking out and saying, by golly, I'm going to teach this course and I'm not going to lecture anymore. And so I offered a course in which only eight or 10 students could be at and I never lectured again.

Bernard Wood (28:11):

Okay. Okay. But something I'd like to ask you, because we interviewed Kay Behrensmeyer not that long ago, and she joined the Natural History Museum and she has stayed at the Natural History Museum. You joined Columbia and you have stayed at Columbia. It seems to me that the road was a little rocky at times, but you never abandoned Columbia.

Ralph Holloway (28:51):

No, I never did.

Bernard Wood (28:54):

Why was that? Did you not think that you could go and get a job somewhere else? Of course people would've been happy to have you.

Ralph Holloway (29:03):

Yes, I did. I thought of that. But I had relationships here, children that were getting educated in private schools, and it was just would've been much too much to drop everything and go somewhere else and reestablish a whole life and so forth. I grew up in Southwest Philadelphia and I'm very attached to it, and I wanted to stay at a place that was fairly close. And another major part of that is my first wife's people were in New York, and so that was another reason I took the job at Columbia.

Bernard Wood (29:56):

Okay. Okay.

Ralph Holloway (29:58):

There were all sorts of-

Bernard Wood (30:00):

Yeah, I know. There are lots.

Ralph Holloway (30:02):

[inaudible 00:30:02] so forth that fit in.

Bernard Wood (30:04):

These things, they're not a simple equation.

Ralph Holloway (30:11):

No, they aren't.

Bernard Wood (30:11):

Do you have affection for Columbia?

Ralph Holloway (30:17):

Yes.

Bernard Wood (30:23):

To what extent... You just carried on doing your own thing. I'm not sure everybody could have done that. And so I guess this sort of gets back to my question about determination, and some people may call it stubbornness. Do you think that was also important in your science? In other words, sure, you had to be open, but nonetheless, you also, if you want to investigate something, you have to do it properly, and that means doing it properly, and that means doing it the way you think it should be done as opposed to the way other people think it should be done. You are one of the people that I always think about that you have your standards and that's what you're going to do, and whatever anybody else is going to say, you are not going to veer away from those standards. Where did that come from? Did that come from your parents? Where did that come from?

Ralph Holloway (31:54):

Chromosome nine, I don't know. I think [inaudible 00:32:06] probably sort of stubborn.

Bernard Wood (32:12):

But your parents must have, they didn't sort of metaphorically beat the stubbornness out of you.

Ralph Holloway (32:22):

No, they didn't.

Bernard Wood (32:23):

They must have recognized that this was an important part of Ralph Holloway's personality. What did they think of you? I started as a medical student and my parents had a grocery store, and so they understood that to have an only son who was a doctor was a good thing. Once I moved into paleo anthropology, that really puzzled my parents because they never understood what I was doing and could never... My father bless his heart, used to introduce me later in my life, say, this is my son. He used to be a doctor. He doesn't have a proper job. So did your parents appreciate that you had a proper job?

Ralph Holloway (33:35):

I think finally when I got, yes. I think my dad was quite proud. My mother had passed away very early in my, just after I got my degree and was writing my first papers in nature. I think she was proud. And my dad, the story was when I decided to major in anthropology and so

forth, and then he asked me, well, what the hell? Where are you going to get a job after that? And so forth. Because this was in the oil depression thing. And I just told him, I've got anthropology, dear.

Bernard Wood (34:24):

Okay, okay.

Ralph Holloway (34:25):

But he couldn't understand. Understood. He was the first person in our family to ever go to college.

Bernard Wood (34:40):

So, I got a strong sense that thanks to my parents' generosity that I was effectively educated away from their world. Did you get that sense with your father or that you felt that you sort of shared a world?

Ralph Holloway (35:02):

I think they were very, very pleased that I was going into engineering at Drexel Institute of Technology.

Bernard Wood (35:15):

My son's an engineer, you see, that's what my father would've said. My son's an engineer.

Ralph Holloway (35:22):

Yeah.

Bernard Wood (35:24):

Okay.

Ralph Holloway (35:25):

And then when I started going into the anthropology thing, dad was a little shaken by it.

Bernard Wood (35:34):

Okay. Okay. Okay. Ralph, what are you most proud of doing?

Ralph Holloway (35:44):

I think-

Bernard Wood (35:48):

Is it the paper? Is it the students that you mentored? What is it?

Ralph Holloway (35:57):

Well, it's really sort of broadening the field of paleo neurology and utilizing the fossil record insofar as one could get some information from the inside of the cranial to say something about possibilities of things that you find on the endocast that might have to do with the frontal lobe and brokerage area in terms of language and whether you found these early on in the fossil record or much later. Those are the kinds of questions that's fascinated me, and I really enjoyed working on.

Bernard Wood (36:47):

Okay. [inaudible 00:36:52] I'm sorry Ralph. I interrupted you. Say again.

Ralph Holloway (36:59):

For students, I didn't have that many. I only had a couple that would be interested in following that.

Bernard Wood (37:09):

Ralph Holloway (37:23):

Well, early on I was sort of very skeptical about the importance of brain size and more into the possibilities of the organization of the brain as being possibly more important than the size itself. I was always struck by the thing we know from biology from 900 to 2200, Jonathan Swift and so forth, and that range of variation with what is sure anything but stupidity meant to me that brain size by itself was not important or had low importance. Oh, yes, I was interested in terms of the change in the fossil record with that. And I was particularly interested in the possibilities that we really had to look at parental care as a major factor in the evolution of the human brain. Because as the brain got larger, it took longer to mature. And if it took longer to mature, it meant that the help required probably meant that it was a much closer social bond between the mother and father. It sort of sparked me on.

Bernard Wood (39:01):

I often sort of think that I'd like to put myself inside the brain of *Homo habilis* and how did *Homo habilis* see the world? Do you ever do things like that? You are much too good a scientist to do something like that.

Ralph Holloway (39:29):

Well, one wonders of course. Sure. Yeah. I'm particularly interested in sexual dimorphism and how sexual dimorphism differed in species as we come up to modern *Homo sapiens*. Because I really think social behavioral changes and that evolutionary part were really very, very important and not so sure the brain size was. As a measure possibly of the amount of social cohesion that was the environment for them.

Bernard Wood (40:12):

Ralph, can I ask you to, what sort of researchers of the past do you admire?

Ralph Holloway (40:29):

Well, there's a geneticist at Harvard, David Reich, and the kinds of things he has been doing, finding out about modern human variation and displaced throughout the world. I have a major interest in human variation and modern variation. I think that's one of his very fine book.

Bernard Wood (41:03):

Right. Right.

Ralph Holloway (41:10):

There's so many of them. It's sort of like-

Bernard Wood (41:13):

Okay.

Ralph Holloway (41:15):

Dozens of them, they've all had an impact.

Bernard Wood (41:21):

Right. Okay.

Ralph Holloway (41:22):

That one I think is sort of modern or most interesting one.

Bernard Wood (41:28):

So that will be a sort of modern example of work that across the years that you have admired.

Ralph Holloway (41:37):

Yes. And just sort of incidentally, Tuby, John Tuby was a major influence with Meave, and he just passed away, I think yesterday.

Bernard Wood (41:48):

Really? Oh, I'm so sorry. So, how did they influence you?

Ralph Holloway (41:56):

Well, it was evolutionary psychology that they were into, and so it sort of opened one size to the possibilities of these genetic changes having a change in this kind of behavioral response and so forth. And social cohesion between males and females, which I think is largely unexplored.

Bernard Wood (42:32):

So if you were to give advice to a young person who was interested in paleo neuroscience, what would your advice be?

Ralph Holloway (42:55):

I would say find a university where work is being done on neuroscience, like Duke, for example. I've forgotten her name, but it is one of the major figures in canine brain research.

Bernard Wood (43:23):

Okay. Yes.

Ralph Holloway (43:23):

You got all of these different breeds, and so the relationship of that variation and breeds to their behavior, I think is one of the more fascinating topics out there. So I would encourage a person to go there and see where you can go with her into that topics, into those topics. Yeah, that's one.

Bernard Wood (43:51):

Okay. Okay. Do you have any regrets in your sort of scientific career?

Ralph Holloway (44:13):

There was the whole Dean Falk fiasco.

Bernard Wood (44:17):

Okay. Rob.

Ralph Holloway (44:20):

Lunate sulcus. I wish I hadn't spent all that amount of time with her.

Bernard Wood (44:29):

Okay. But I wonder whether the difference of opinion actually led to more interest in paleo neurology than there would've been otherwise.

Ralph Holloway (44:54):

Oh yes. I think when an under cast appears and so forth, the first thing I'm going to look for just out is the lunate sulcus. I might then get to the frontal lobes and look for the language areas and so forth.

Bernard Wood (45:17):

Okay. Ralph, what do you do to relax? Or what did you do to relax?

Ralph Holloway (45:24):

Well, actually, I play trumpet and trombone.

Bernard Wood (45:29):

That's what I've heard, yes. Okay.

Ralph Holloway (45:34):

But now that I've lost some teeth and so forth, it's rather difficult to get more than an octave going. So now I read a lot. And I'm sorry, my main interest is in thrillers.

Bernard Wood (45:50):

Oh, okay.

Ralph Holloway (45:54):

Thrillers.

Bernard Wood (45:55):

And who do you read? Who's worked do you read?

Ralph Holloway (46:04):

I always forget his name. Oh God. He made a movie, a couple of them. Robert Ludlum.

Bernard Wood (46:20):

Okay. Oh, okay.

Ralph Holloway (46:23):

All of those books.

Bernard Wood (46:27):

Okay. What do you like about his writing?

Ralph Holloway (46:33):

Oh, I like the combination of violence and sex, obviously. No, the plot is very good. I think the writing is excellent, and so there's always seems to be a little surprise right around the next page or so.

Bernard Wood (46:51):

Okay. Yeah, I guess it's a bit like paleo neurology. There's always a little surprise on the next page.

Ralph Holloway (47:03):

What's that?

Bernard Wood (47:06):

It's a bit like paleo neurology. There's always a surprise on the next page.

Ralph Holloway (47:16):

Yes, there is. Yeah. Although not really.

Bernard Wood (47:17):

Yeah, as I said that I realized that wasn't very intelligent because I think-

Ralph Holloway (47:22):

Something terrible happens and then I guess something becomes a [inaudible 00:47:35].

Bernard Wood (47:42):

Is there any other topic, Ralph, that you would like to touch on before we finish?

Ralph Holloway (47:48):

Genealogist is one. Yes. I really enjoy that. To try and find one more generation has its own thrills. Yes.

Bernard Wood (48:04):

And that's been an interest of yours?

Ralph Holloway (48:10):

Yes. Yes.

Bernard Wood (48:12):

Okay.

Ralph Holloway (48:14):

More recently than all the other interests.

Bernard Wood (48:22):

Okay. Okay. What do you think age has brought you? It brings all of us aches and pains and various degrees, but what do you think age has brought you?

Ralph Holloway (48:42):

A curious mix of tolerance and intolerance, I would say.

Bernard Wood (48:56):

I think that's very interesting. I agree. I agree with that. I think a curious mix of intolerance and tolerance. Yeah, I agree with that.

Ralph Holloway (49:13):

The times are just extraordinary with regard to politics and foreign affairs. Just extraordinary, I don't know how anyone could not be a little bit interested in that.

Bernard Wood (49:30):

Right. Well, Ralph, we're at an hour and you very generously gave us an hour. I just want to thank you and just one-

Ralph Holloway (49:41):

Another hour. I'll give it to you. I am going to take a sip.

Bernard Wood (49:48):

Is there anything else that you would like to say about your career and in terms of advice to young people?

Ralph Holloway (50:04):

My advice is follow your heart.

Bernard Wood (50:07):

Right.

Ralph Holloway (50:08):

If you find something that is really interesting to you, pursue it. Don't let the economics of the situation and so forth be the most important part of your decision. Make sure your heart is in it and your brain. Eventually, the politics and the money side of things will even out as long as you like hot dogs and hamburgers.

Bernard Wood (50:38):

Okay. Would you say you have been a happy person?

Ralph Holloway (50:50):

No, I wouldn't say. I've been pleased with a lot of things, but not truly happy. There've been too many tragedies in my life.

Bernard Wood (51:03):

I understand. I understand that. I understand that. I also would not say that I'm a sort of happy person. I think laughter should be used pretty sort of sparingly. Okay, Ralph, well, can I express my thanks to you and my admiration?

Ralph Holloway (51:34):

What are you working on these days? If I may.

Bernard Wood (51:37):

What am I working on? Oh, Ralph, I'm sort of working on trying to tidy up my academic life. My parents had a grocery store and they ran a small business. And a few years ago, I realized that as an academic, that's what I do. I run a small business. And I need to spend more time just making sure that my small business is in good order. My parents used to spend the evening and the weekends restocking the shelves and making sure the shop was clean and making sure the windows were dressed, and I'm just sort of realizing I need to

spend a little more time doing those things because I want to leave my small business in reasonably good order and make sure that... There are some projects that I would like to finish. And there are some projects that I realized they're not as interesting as I thought they were, and so just sort of dumping them.

Ralph Holloway (53:01):

Well, you're in a great place in George Washington. Yes?

Bernard Wood (53:04):

Yeah. But all the glitters is not gold. And I'm very lucky with my colleagues. One of your proteges is a colleague, Sherwood and Francys Subiaul, and I'm immensely lucky to have those as colleagues.

Ralph Holloway (53:31):

Yes, you are.

Bernard Wood (53:33):

And that's made me come to appreciate you even more than I already did.

Ralph Holloway (53:42):

That's great.

Bernard Wood (53:46):

So Ralph, thank you. And also thank you to Thomas for making this work.

Ralph Holloway (53:54):

Thanks, Tom.

Tom (53:55):

You're very welcome.

Ralph Holloway (53:58):

He says, you're very welcome.

Bernard Wood (54:00):

Okay. Okay. Well, we are very grateful and I'll be in touch with him to work out how, because I need to do an introduction to this and maybe when I have drafted something, perhaps you could look at it just to make sure that I've got everything right.

Ralph Holloway (54:17):

Very good.

Bernard Wood (54:19):

Okay. Ralph.

Ralph Holloway (54:21):

Take care of yourself.

Bernard Wood (54:22):

Yeah. And you take care of yourself. You are a very precious person, Ralph, so make sure you take care of yourself.

Ralph Holloway (54:31):

I'll try my best.

Bernard Wood (54:32):

Okay.

Ralph Holloway (54:32):

[inaudible 00:54:34].

Bernard Wood (54:35):

Okay, bye bye, Ralph.