ORAL HISTORY INTERVIEW TRANSCRIPT OF

STEPHEN PYNE

Interviewed by Jean de Pomereu, 18 May, 22 May, 1 June 2020

May 18, 2020

Q. I've just switched on record, and it is recording, yes. Stephen Pyne, thank you very much for agreeing to do this oral interview. We're the 18th of May 2020. This is for Ohio State University, Byrd Polar Research Center. This is going to be the first of maybe two or three oral interviews. We're going to begin by retracing what first got to you to Antarctica because that's not obvious, and it certainly wasn't obvious for a North Rim firefighter. You spent a good chunk of your youth firefighting, if I'm correct, on the North Rim of the Grand Canyon. Maybe you can start with a bit about that, and then how Antarctica popped up.

A. Sure. A few days after high school, I went to work at Grand Canyon as a laborer. I was there, it turns out, while I was signing my papers, one of the crewmen on the North Rim fire crew called in and said he couldn't come. They were anxious to fill it. I was there. I was given the slot, and I suddenly found myself, someone who had grown up in a Phoenix, Arizona suburb, valedictorian, basically a scholarly guy, played some sports, suddenly find myself in a completely different world. I had to make sense of it. And so that's actually relevant because the same thing is going to happen when I go to Antarctica. I did lead two lives. I never studied fire in school. It was never taught in any place I went to. I was interested, I eventually became interested in the history of geology or science exploration, that kind of thing, and wrote a dissertation biography of an American geologist. And then, out of nowhere, this was after I had my Ph.D., I was writing a book, a big book, on the history of fire in America, and was finishing that. Out of nowhere I received this form to apply for a National Endowment for the Humanities Antarctic Fellowship. I have no idea. There was no cover letter. There was nothing. It was just this form, application. I didn't know what to do with it. My wife insisted that I apply and I said I would expand my science stuff. I would put Antarctica into this larger history of earth science exploration and the rest of it. And of course, I wound up doing something completely different. Again, it was an accident, and then again, I found myself in a very different world, very different geographic world, but also a different cultural world. There is a subculture of Antarcticians. They have their own ethos and interests. I was completely out of that. Once again, I found myself in those circumstances and had to repeat in a sense the experience I had at Grand Canyon.

Q. Could I interrupt? That's quite a chunk of time in a short amount of time. What the dissertation you mentioned?

A. It was biography of an American geologist, Grove Karl Gilbert, who in the post-Civil War period became an explorer in the American West. He was on several major expeditions. One of the founders of geomorphology named two mountain building processes. He was an all-purpose guy. Very nice guy actually. He was our first Chief Geologist of the U.S. Geological Survey. When the survey celebrated its centennial, it created a special award which was named after Gilbert, to honor him. He's very well known among geologist, probably our greatest geologist, maybe our greatest scientist of the 19th century. That's what I thought I was doing. And so there was a very tenuous link to Antarctica and earth science, but it was continuing kind of an academic tradition, and then when I got there, I discovered that this isn't going to work.

Q. This dissertation was a Ph.D. dissertation? I know it ended up being a book, but was it your Ph.D.?

A. Yes, it was a Ph.D. and before that, again, and this actually is relevant, I was trying to understand the Grand Canyon. We all recognize it now. It's instant. It's one of the great wonders of the world. Natural wonders and so forth. But when you really stop and think about it, it's a very strange place. It's a very peculiar looking place. I was fascinated by a geologist, a colleague of Gilbert's. They were on some of the same expeditions, who had gone to the North Rim and studied it, and wrote a really classic book in which he says that the Grand Canyon is a great innovation in our modern ideas of scenery. This is off the scale. It has nothing like European traditions of pastural landscape and sea scapes. It's completely alien. You will have to cultivate and study for it. You will have to understand it. In a certain way, I was always interested in Dutton. How did he do that? And after a while, it became clear that I was going to be Dutton for Antarctica.

Q. So it was the perfect prelude in a sense.

A. I didn't recognize it at the time, but as I began going into it, I said, "This is the same problem." So in a sense I'm having to recreate my own struggle to make sense of the canyon. A very different landscape. How do I understand that?

Q. And how about fire in between the canyon and Antarctica? What does that fit in? Was that just an activity? Was it something you were thinking about?

A. I had gone through school, all my schooling, I had never studied fire. It was never taught. And never did anything with it. They were to completely different worlds. During the summer, I was on the North Rim Longshots. We were in this wonderful place. We went out. We did lots of manual labor. We fought fires. We lit some fires. We did all this sort of stuff. And they were completely separate. There was no crossover. There was no way for the two to blend. But I was coming to the end of that. I did it for 15 summers. That's a lot. I had already received a Ph.D. At this point, I had been 10 years at the Rim. No jobs. I worked on the South Rim as a temporary for the winter, and then decided I would write a book about fire. Why didn't I take all this academic training I had been given as a historian and look at fire in the same way? Nobody was doing that. There were scientists studying fire. But no one was really looking at fire as a broad scale cultural issue, integrating all of these other kinds of things. And at the time there was a lot of discussion in the U.S. about changing fire policy. We realized that trying to eliminate fire had been a mistake. We needed to restore it. So there was effort. And so I got some funding. I spent four years. During the winter I would research and write my book, and in the summer, I would go back on the fire crew. But that was coming to an end. I couldn't do it. I was just getting physically broken down, having difficulties. I was married. I had to get a job.

Q. How old were you when you started?

A. I was 18. I had just graduated from high school. A few months after 18. Before I went to college, this was great, this was the event that changed my life. Everything I've done as an adult comes to that decision to take the job offer at the North Rim. I even met my wife there. I mean, Everything, everything comes back to that.

Q. You went from 15 to 33. You were 33 when you went to Antarctica?

A. I was 32.

Q. Okay. I spent 15 summers, yeah.

A. So you mentioned this application comes in out of nowhere. It seems like divine intervention. Your wife encourages you to apply, which is obviously quite contrary to most Polar wives who, in the history Antarctica, would often rather their husband stay back home. Why? Is it too personal to say? Why did she encourage you to go?

A. I don't know. We had met at the North Rim. She eventually actually joined the fire crew for a couple of seasons. She just thought, she just saw me as someone, if this had been the nineteenth century and it was offered, I would have gone. I should do it now. Just thought that it would suit me. And I was looking at it and I said, "I have no idea." I had spent a winter at the National Humanities Center. It had just opened and it was another fluke, I was able to get, cause I had no academic job, it provided me a place to work. So I wrote a lot of my fire history there. And the Director, a man named William Bennett, later went on to head the National Endowment for the Humanities. And while I was there, he was looking for someone to jog with. So I did that and he was fascinated by Shackleton, and got me to read some Shackleton stuff. So there was a little bit, and I've always wondered - he never said - if he was the one who told, when he became Director and the fellowship was in operation, told someone to send me an application. I have no other information for it.

Q. What was on your application? What did you actually apply to do?

A. I thought I would expand what I had done with Gilbert and the American West. I would do a more global survey. Earth sciences, larger scale exploration. And Antarctica could be a part of that. And so I imagine writing this somewhat larger survey with Antarctica being given kind of a prominent place. It was a way of contextualizing Antarctica. And of course, once I was down there, that whole notion just fell apart. I said, "This is not what I'm experiencing here. This is not how I have come to understand this place." So it became its own entity. Its own *sui generis*, its own self-referential.

Q. This is something that I would very much like you to develop I would say, in a progressive fashion as we go through your journey there. So you applied to do this. Would Antarctica have just been a chapter in this grand history of the earth sciences basically?

A. Yes. It would have been a chapter maybe entered into several chapters. Several themes developed. In effect, it was a larger scope Antarctica would fit into this bigger matrix. Ad in fact, what I wound up doing was turning that inside out.

Q. Okay. And so you sent off your application. I don't know how much time it took for you to get a second letter to say that you had been accepted? And then, how long was it between the second letter saying that you had received a fellowship to when you actually went to Antarctica? And can you maybe describe a bit of the preparation you did during that time, if you remember.

A. Sure. I really don't remember what the delay was. It was not a lot. It was several months. It was also my last season on the North Rim. So I was doing some preparation, but with the North Rim, in those days we didn't even have a telephone. There was a telephone for personal business; we had no TV. We were completely isolated. In some ways it was betraying to be in a part of the world. Once a month a book mobile would roll into town, the county book mobile, and that was it. We would get some books, but that was it. We had no newspapers. I read about the lunar landing in Time Magazine. I subscribed to that and I got it once a week. That was it. That's all I knew about the outside world was that. But it was a very intense social life. You live with this group and we lived right on the spot. Your whole life is caught up with that world on the North Rim. You'd have to go to town, which was either 85 or 120 miles away, depending on what kind of grocery store you wanted to get to. You'd do that every few weeks, but that was it. Preparation was limited.

Q. How many were you on site?

A. We had a crew that varied between six and eight seasonal employees. And I was the crew boss for 12 of the 15 years. And then during the height of summer when the lightning storms would come, most of our fires were started by lightning, we would get a squad of six Navaho Indians. They were part of a program and they would come for that period of time. So it was a very small but interesting group, but there was a concessioner there. They ran a lodge and an inn. There was a campground. There was a small store. We had an arrangement where we could eat at the local, they had a little restaurant of sorts, kind of a buffet restaurant, next to the campground. There was an arrangement where we would get a special discount, so we ate most of our meals there. So there was a social life. It's not that we were completely at some remote setting. But there was no world outside of that.

Q. This second letter, this letter of acceptance or award, you probably got when you were on the Rim?

A. I think just before, just before I went to the Rim. I was still unemployed at that point, and I finished rewriting what became *Fire in America*. I think Princeton University Press had already accepted it. It was in the process. In fact, I remember I was doing some of the copy editing, again by mail, while I was at the Rim. So doing that at the kitchen table.

Q. Okay. That season comes to end, and it was your final season. You knew it was your final season, right?

A. Yeah. It was a sad time in a way, but I knew the time had come. I was married. I had a young daughter. At this point, we really needed to find a job and I had been offered a job at the University of Iowa. I spent five years looking. I decided that this my last year I would do something else. So we were really at the end of our rope. I said by that time, when that came, I said, "Well, I've already accepted this fellowship for a year. And they said, "Fine, you can come after you finish the fellowship. So it was a big change. That was one of those phase changes in your life. So I knew it was different and sad to leave the Rim, but I have lots of good memories.

Q. This is 1981. Correct me if I'm wrong. And so then you're closing up a major chapter in your life. You know you're going to the University of Iowa. And you fly off to Christchurch presumably. Is that correct?

A. Yes.

Q. From here on, can you start sort of explaining the first, let's say, your journey to McMurdo and maybe your feelings and how you felt about leaving home. It's quite a long trip.

A. I was excited. I was in some ways happy to be gone because the fellowship, again, I had no, I still had no official job at this point. I wasn't starting to work for another year. So my being gone was one mouth out of three that we didn't have to feed. That was good. We had moved to Iowa City. I really didn't know what to expect. Almost everybody that I was with in Antarctica had been there before. Or if they hadn't, they were with a group that had been there before. They had a certain drill. There was a certain initiation that went on. I was a completely sort of freelance orphan, whatever metaphor you want. I was just there. Just on a space available basis. Whatever I could arrange while I was down there. But I thought for three months that I'd never have a chance to go back. I would do it. My wife was quite insistent that I do it all. Of course, we were completely isolated at that point. There's no internet. I was able to call on Christmas, but it took seven and a half hours. They would do it by Ham radio operators. They would connect one and then they would chat. It was a regular thing. So from the South Pole to where the nearest one was, and then they would cross the Pacific and eventually it was practically a local call. My wife was very surprised to hear it.

Q. How old was your daughter?

A. She was a year and a half. Actually, she had just turned two a week after I left. So we celebrated her birthday a little early and I went into town and I found this little sort of soft toy penguin, which I gave her. She didn't know what this was about. It was all different. We've been very close. I spent a lot of time with her at that age. And then I disappeared for three months. At McMurdo I bought a large penguin, stuffed toy penguin, which I carried with the head sticking out of my back pack. On comming back I gave it to her and she refused. She refused to talk to me, for a week, because I had deserted her. I'd left. And then eventually the two penguins, the big penguin was the daddy penguin, and the little one was the baby penguin, and they began talking. So she had them talking together and then eventually we were reconciled.

Q. That's great. Did you stay in Christchurch for a little time? Did you start making connections there with people?

A. No, I didn't really know anyone. We were told we'd probably have three or four days before we would fly down. It turned out, it was just a day. So I decided to maximize it. I went to the museum there. They had a little Antarctic museum and got a little bit. But I was pacing myself and then suddenly we would come back and as is typical of Antarctica, okay, you're going in three hours. And there you are. And so, again, it was all new to me. The equipment, the protocol, everything was new. I was long for the ride.

Q. I guess you are used to sort of heavy wear, with firefighting.

A. Not really. That's urban firefighting. You have big turnout coats and breathing gear. Wildland firefighting, you just have, it's pretty hot, so just cotton cloth and flame-resistant stuff, a hard hat.

Q. You went down, do you remember what kind of plane. Was it a Hercules?

A. Yeah, it was a C130. It was about a seven and a half, eight-hour flight. It's a long time. We leave late afternoon. It turns dark. And then the further we go on, it starts turning light again. And so it was very strange. And they'd turn the heating off or down while we were in the plane. We were in full gear, and so you began getting acclimated a little bit. It was a very strange things, but in some ways, it was so strange that there was not a shock value. And we landed at McMurdo. It's a mountain. It's an active volcano. There's some texture to the landscape. You can look across the bay and see the TransAntarctic Mountains. There's a lot. There's a big cinder zone at the base. It's very strange, but in some ways it's not completely alien. For the first couple of weeks, we were given training in snow craft for several days, all of which was new to me. I grew up in the desert and snow was exotic, much less working around ice. What's that? And then went to Northern Victoria Land.

Q. Before we go to Northern Victoria Land, how long did you spend in McMurdo and obviously you would have spent some nights out on the training camp and stuff. But let's do the training camp separately. McMurdo itself, how did you find life when you unpacked your bag on that first day?

A. It struck me like a classic like a 19th century mining camp. Just sort of sprawling about the hillside, sort of half planned. Somewhat chaotic. Just trying to learn. Oh, you actually eat with this group, not with that group. Again, I wasn't connected to anyone. No one was there telling me how to do it. I was just sort of having to figure it out and make my presence known. For the first couple of weeks it was very strange and, in some ways, I'm trying to convince myself, "I am really in this strange place." But it happened so suddenly. You're just on the airplane and then you get off the airplane and here you are, on a different continent. It was strange, but not bizarre. It was still possible for me to imagine doing what I had set out to do. Just sort of do the field trip, learn what I can. It's a requirement of the fellowship that you spend one to three months in Antarctica. So I went for all three.

Q. That was decided at the time?

A. That was decided up front, yes. They needed to plan that. They were helpful. It's not that they completely ignored me. But they weren't used to this. They were used to what they called distinguished visitors. We would come in, say for two weeks, and they had a regular drill. They would escort them here and there, fly them to the South Pole, so they could have their photo taken, then fly back. But I was not that. The only other category they could put me in was writer. And writer for them means National Geographic or equivalent, somebody who is going to do sort of character studies, character profiles of people and their science, so they're sort of used to that. And I'm saying, "Well, that's not really what I'm doing."

Q. How did people take you in, for example, in the canteen and stuff? And did you have to explain every time what you were doing and what was their reaction?

A. Well, pretty much. I eventually found a small group. They were sedimentary geologists associated with the paleontologist. And they were interested in the North Victoria. A guy named Jim Collinson who was at Ohio State at the time. And he knew Gilbert. Gilbert is well known among geologists, so I had written about one of their heroes. That was some point of access. And he sort of helped and gave me some contact. We remained in contact for years afterwards as well. I heard from him a couple of years ago. He's in Colorado now. But otherwise really no. I just tried to, I would go to the chalet which was the headquarters for NSF and I'd say, "Is there anything going on here?" They would say, "Well, this guy is going to do a shakedown/sledging journey to make sure all of his equipment was working." I said, "Great, I'll go with him if I can." So I went out with that and met them. Then at Northern Victoria Land it's a pretty small group. I just sort of became known.

Q. Just before we get there, you did your training out on Windless Bluff?

A. I was out on the ice shelf, yes.

Q. You mentioned previously that you dug an extraordinary cave or whatever.

A. There was a lot of ice-axe arrest and climbing and learning about crampons and just basic ropes and stuff like that. But then the final exercise was they had a pile of equipment and you were supposed to pick something from that, and they would come back in 24 hours. So you would build a shelter and the rest, and there were a bunch of designs possible. I don't know why, but I got really into it and dug this large sort of subterranean room with side sweeping births and steps going down and the roof covered, cut out. I had a hard, small shovel, that I could sort of chip and shake the ice. So I had large slabs and covered it. Apparently, that became quite a showcase for the later ones. I had no idea. I was used to shoveling from my fire crew days, so I said ah a shovel… I would make a shovel work.

Q. McMurdo was how many days up front?

A. It was about two weeks I think, maybe three weeks.

Q. Did you get to the historic huts at that point?

A. I went to the hut. I went up Observation Hill and saw the Memorial Cross. I walked over the ridge to the New Zealand camp. I walked around, but there is a lot of downtime.

Q. Did you get to Cape Evans or Cape Royds?

A. No. I had no access and no reason. They're not going to send me out just for site seeing.

Q. Yeah, sure. So let's go to North Victoria Land. How did you get there? Who was going? Can you describe?

A. This was one of the big projects for the year. It was a geology group. So it was well suited for me. They were going to the Evans Névé area. They would set up a remote camp and they would be there for several weeks. We flew in, again, with LC130's and land on the big ice field. Then there's the Quonset huts, these canvas Quonset huts insulated. And so I was learning about how you lived there, and how dry the place is. I grew up in the deserts, so I'm used to dryness, but this was really dry and the water rationing was pretty severe. That was interesting. And then I could go out on more or less a daily basis. Jim Collinson and his group, I went out with him several times. There was a geomagnetism guy from Australia. He was using helicopters going sampling nunataks and stuff. He had those instruments for geomagnetic recording, doing stuff. Went out with a geochemist who was a petrologist who was collecting rocks. One of his students was doing a dissertation on it. And so, there was a large, well not very large, but this peak looming out of the ice and they were, one part of it was scoured out by the winds, and so they were collecting stuff and studying the ice and I remember then saying, "Well, you've got to sort of sit with it and get to know the ice." I was thinking, "I don't want this sort of cryo mysticism," but he was right. You sort of look at it and you begin seeing patterns. You just need to be with it. You need to spend time. So I had nothing I could do. I studied petrology. It was one of my favorites. I minored in geology as an undergraduate. Plate tectonics was just breaking when I was an undergrad, so it was one of the most exciting fields at the time. I have an igneous rock collection. I have granite from every continent now. It's my souvenir collection. At that point, I decided to contemplate and look around. This is where I saw a scene where there had been a shallow scouring of the ice. There was a little outcrop of rock and some strips of cloud above it. So I took a couple of photos of that and that was one of several epiphanies if you will, I had at that time. I said, "This does not make sense as landscape as I understand landscape. Even landscape as Grand Canyon." This may be strange compared to the Alps. This is really weird. This is modernism. This belongs with Mark Rothko or Josef Albers or Barnett Newman, or somebody like that. This is a different kind of aesthetic. I realized that at that point I had to think about the Antarctic landscape or icescape differently. And so in a vague way, I was thinking of Duton, how does Dutton come into this canyon and there's no connection for it. How do you cultivate an appreciation for it? And so he looks at evolutionary theory. He looks at Ruskin and he looks at other kinds of things. He begins putting it together. That's where it started, I realized. This is different, and it's a different story. This is not about people, for me, it was not about people coming to the ice, experiencing it, taking things away, and coming back, which was my original conception. This is about a story that begins in ice, people come in, go away, and then the ice remains.

Q. This aesthetic angle, was that something you had already developed in terms of the Grand Canyon, or was it even the methodology new?

A. The methodology was new. Because I was out there for the better part of the day at this large outcrop. The other guys, I think there were two or three others in the party, they were all collecting rocks and majoring in doing stuff, and the rest, I couldn't help them with that. I was just sort of trying to stay out of the way. Looking around, I've got my camera, let's take some photos. What am I going to shoot? Where's the perspective here? Where's your focal point? Where are the figurations that come in? How do you compose something like that? It doesn't make sense. You can't create something. So at that point, the aesthetic challenge was a way into the intellectual challenge. Why is this place the way it is? It's because it has ice. So much ice. Ice is the informing presence, the informing principle of Antarctica. And so I began seriously thinking about ice. Not just as something that covers the rocks, but as a kind of active presence if you will. And then began to think, what does the ice do? What is ice? What does ice do? How does that act aesthetically? But does it act the same way on people's experience? Does it act that way on ideas? Does it act that way on institutions? And so I began thinking about, this is a book about ice. That was the sign term for Antarctica, the ice, when you're to the ice? What are you doing on the ice? My literary training, my ears sort of start burning when I hear that. I said, "What a great metaphor. This is not just a sign term. This could be used, developed to have it's own kind of meaning."

Q. What's the name of this nunatak or this outcrop?

A. I don't remember, it was on the outskirts of the Transarctic Mountains. It was on the interior side of the Transatlantic Mountains. It was within, not a long helicopter flight from the Evans Névé.

Q. Okay. What you're describing, would you describe it more as a question mark, or did already the structure of the book start? Or does that come later?

A. It took me about two weeks. It was probably a week, ten days or so, at Northern Victoria Land. And then it began to gel. Okay, this is what I'm really doing. I didn't know how the book would be organized, but I knew I couldn't use the structure I had proposed. I could, but that would be false to what I understood here, what I experienced here. This is a different world. It has to be understood, in some ways, on its own terms. That was the challenge and how I would do that as a historian. Someone trained in history, how I would do it. It didn't become obvious. It took a long time for the actual structure to come together, but I began to appreciate, this is the organizing principle now.

Q. Did you speak about this with anyone else at the time? Or did you sort of bounce ideas? Or was it quite inward?

A. I really had no one to speak to. I'm not necessarily proud of that fact. I'm not an especially social guy. I'm not anti-social. But I just sort of hang around and am content. I'm not a party guy. I don’t mix easily. I'm just happy to sort of go along. So there was really no one to talk to. But the same had been true for my fire book. I was used to spending, I spent a couple of years essentially talking to no one about what I was doing, and then suddenly this book came out and people didn't know what to do with it because they had no preparation for it. Nobody had done this before. They had no inkling that it was happening. Just suddenly there is it, a *fait accompli*.

Q. Your free of what you haven't said. You're bound to what you have said.

A. There's a lot to be said for a lot of give and take and exchange, but there's also something to be said that, you're not being forced into a mold. You're not being forced into the conventional terms of discussion and the frameworks because there's nobody, if I had started talking like that down there, these are all scientists. You're half suspect anyway because you're coming out of the humanities for heaven's sake. What is that? Fortunately, you've written about earth science, so it's okay. But if I started that, they would have said that this guy is babbling. We don't want anything to do with him. Avoid this guy like the plague. This guy is really off. He's crazy. So I just let it, just had to simmer.

Q. You were happy to contain? Because you mentioned the word epiphany. There is excitement in this realization presumably?

A. There was also dismay because I realized that what I said I was going to do; I wasn't going to be able to do. But I would do something better. I would get all the things that I wanted to say; I would just turn it inside out.

Q. The photography, the photographs. As a photographer, I'm interested in that. Obviously, you would have been limited in how much film you had. What was your approach to taking photographs? Why were you taking photos?

A. Good question. I took some for information, just to record, this is what it looks like. I would often use a very wide frame. I did have a lens attachment that I could zoom in and out of. And of course, as you point out, this is still chemical film. This is not digital. You just can't click away from the thousands, so you have to be selective. There were certain shots, very few of me. I had a few shots taken of me, but mostly I shot what the terrain looks like, or this is what this looks like, or this is interesting from an information standpoint. And then I began taking things, how can I compose this? And realized there were different challenges. One challenge if you're in an iceberg, another if you're in pack ice with a few bergs and the fog. There's another if you're in the mountains, and there's another on the Ross Ice Shelf or the interior ice shelves. So they were all different. And that became a challenge. And there was a great language, pretty good language in science, to describe these things. There's the old song, that the Inuit have dozens of words for snow and we have an impoverished language. Well, that's nonsense. We have hundreds of words for it, if we appeal to science. But then I didn't find a language for the aesthetics of it. To move beyond the scientific descriptions of these ice chapters in the book, began with science and different themes, of different terrains, and then they tried again with an aesthetic. How can I make sense out of this? What's the meaning here otherwise? What's the aesthetic appeal? I didn't have anyone to help me. I didn't have anyone to hinder me either.

Q. Let's not develop that too much right now, because we'll get to that. But you mentioned Rothko for example. Did you have Rothko in your head at that point, or did you reference it later?

A. I had a great graduate school training. I was rejected at all the graduate schools I had applied to. I just worked as late as I could on the North Rim that year and trying to make as much money until the snow comes towards the end of October, and then everything shuts down. Then I had heard, by accident again, that there might be interest at the University of Texas, Austin. There was a guy, it turns out he had written a Pulitzer Price book on exploration in the American west. And so at that time I had no way to look up anything. I was completely isolated. I got a 1927 Underwood typewriter that I inherited from my grandmother, which is what I would write letters on. And so I wrote him and said, "I'm interested in this," and they said, "Fine, come on." I went in January. But part of that program, they just sort of left me alone. I was sort of self-motivated. I sort of knew what I wanted to do. That was good, but one requirement was something called intellectual cultural history. Everybody in the program had to take that, and that was sort of the core.

That meant literature, it means some history and philosophy, and some art, some art history, some introduction to it. Through the course of that, I began reading about art history. There was no formal training otherwise. But that was accepted in that program. You want to look at the totality of the culture. How the different parts come together. And so I had that, and then I began looking at this Antarctic scenes and said, "I've not seen landscape like this before, but I have seen paintings that look like this."

Q. The photos were partly documentation and partly echoing those paintings perhaps?

A. Yeah. Some were, I was sort of thinking of the long linear stripes. Newman's tend to go vertically. But there were scenes, I would compose it so that this would echo in a sense, the composition of that.

Q. You quote Newman in *The Ice*. I don't think you mentioned Rothko because I would have remembered that. That's also a comparison that I make: Rothko, in terms of Antarctic landscape. You basically come to the end of this North Victoria Land, then you go back to McMurdo for a little while. And then, you have another field trip to the Dry Valleys. Is that correct?

A. Right.

Q. What did you make of that? Because that's very different obviously.

A. Yeah. That felt familiar. Again I'm used to deserts. Actually where I live is a very lush, botanical desert, but nonetheless it's a desert. This was fun. It was interesting. You're forced to say, why does this appeal, instinctively appeal, say more than Victoria Land. Well, there's more texture to it. The ice does not overwhelm as much. There's a better balance. I began thinking about this. I've never had aesthetic training as such. I've never been trained in art of any kind. But you're right. That was a way into it. Why do I feel differently about this? How do I see it differently? And these guys there were measuring patterns around the cracks, the width of these pattern grounds. In micro, no one cares to see what the frost-thaw cycle is. I have nothing to do with this. I don't want to be around this particularly. But it was very interesting. And so the ice is even in the ground. It's on the ground. It's in the ground. It's in the air. So again, ice is still in a forming presence. It was fun flying over and back because the sea ice was breaking up, and again, you've got all these sort of geometric patterns as you go.

Q. How long did you spend in the Dry Valleys?

A. Just three or four days.

Q. Did you take hikes and walked around?

A. No hikes. I didn't want to go very far. They didn't want me wandering around and then have to look for me.

Q. Did you remember which valley it was?

A. No. It would be in my, I kept a journal and it would be in that. I don't have access to that now, unfortunately.

Q. Were you familiar at the time with the artists that had visited Antarctica up to 1980, which was not that many, but obviously starting with the beginning, photographers with the water colors of Edward Wilson, with Eliot Porter, David Paige. Does that ring a bell? David Paige who went down with Byrd in the 1930s? (Pause) Is that stuff that you took interest in after the trip, or were they images that were already in your head?

A. That came about afterwards, when I began writing about the aesthetics? Why do these early things, Wilson's watercolors, why are they attractive? And why don't they work? Why not Ponting's? These great portraitures of people? As he says, he's not going to the

South Pole because there's nothing to photograph particularly. And so those questions came, but they did not loom large at the time. All the advanced training and preparation I had done was for this other theme. So it wasn't wasted, but it was not, I'm going there now to confirm it. What happened was, I went there and said, "This doesn't work." So then I began filling back, what does it look like? I've seen this before. Who are those artists? How does this look? White on white paintings. Or one of my favorites, the Roskenberg effort, where he got de Kooning to erase one of his drawings. I said, "Wow, that's what this is like." That's it. But that came afterwards, when I was searching for some kind of connection. I have to confess, I'm not at heart a modernist. I mean, I love the great 19th century landscape paintings. These great operatic canvases and modernism is something I appreciate intellectually, but I'm not drawn to it especially.

Q. Okay. In a way, you have that sort of shift or epiphany in North Victoria Land. That sort of deconstructs your whole project because you have to rebuild it some other way. And in a way though, it sounds like it was almost the wrong place to go to the Dry Valleys after that because it might have confused you in your newfound clarity.

A. Well, it still provided contrast. One of the things that came out of it, and I think it comes through in the book is, the value of comparison and contrast. You need to bring things to this landscape because it's not going to happen there. A few places do and that's why everybody loves the Dry Valleys, not to go and see your equivalent. These are the reasons why, and so I tried to understand it. It was very helpful with that. And the same with my return voyage by an ice breaker. I got to see a lot of different kinds of scenes, and again contrast became, why does this look different? Why do I respond differently to this?

Q. It didn't shed doubts on a new-found approach?

A. No, I was still working it out because this sort of came upon me. I wasn't really prepared. I sort of resisted for a while. I said, "I don't want to have to invent something new on this, and the more I got into it and began thinking, even looking at it from an exploration history standpoint, what's so different about it? Well, the ice again creates all the differences. There are no indigenous peoples here, no guides. There's no way to live off the land, for example. So all of those other things are gone, so my whole sense of this is, again, being turned around. And so I was just coming to that slowly in many ways reluctantly. I realized, I wanted to be honest about this, and this is what I see here. This is not what other people see, but this is what I see. I have got to shape that. And so it was a long struggle to sort of work my way through it. Then eventually, I went back to Clarence Dutton's work at the Grand Canyon and said, "You know, this was the challenge he had. How to create, how to cultivate meaning, cultivate appreciation since it's not just there. You've got to invent it. So he looked to the culture of his day, the high culture of his day, and tried to make sense. Here is how we can tweak this, so that we understand it, since I would have to. He did it with a long journey, lots of separate ones that he reorganized. As I look back on it, I wasn't using him as a conscious model, but I look back on it and I think subconsciously that I understood that that's what I was doing.

Q. That's fascinating. I'm actually thinking that this is a good point to let it sit because we've been speaking for just under an hour. I don't want it to sound like a Netflix stopping right at the right moment but I think it's probably a good point if we then start our next chapter going back to McMurdo and then stepping onto the Plateau at the South Pole and Dome C. I think you've given a lot in the last 55 minutes.

A. I'm used to people forcing me to be more terse, to be as succinct and brief as possible. You're encouraging me to elaborate on some of these things. If I stumble a little or hesitate, I'm not used to somebody wishing to draw the conversation out.

Q. I hope that's okay.

A. It's fine with me.

Q. I'll just stop the recording here.

May 22, 2020

Q. This is the second part of Stephen Pyne's oral history for the Byrd Polar Research Center at the Ohio State University. We're going to pick up from where we left off with the first part of this oral history. In the first part we covered your firefighting days, your application to go to Antarctica with the National Endowment, and then your arrival in Antarctica, and your first journeys out to McMurdo to North Victoria Land and the Dry Valleys. You explained that when your project started to change and your perception of what your book and your work was going to be about, started to change when you were in North Victoria Land. You mentioned one particular day when you went out on the nunatak with a team of geologists and you sort of had time while they were working to just contemplate the landscape around you, and just how different and modernist it was. And then you went back to McMurdo and then you went to Dry Valley where you encountered a more a more habitual landscape for you in terms of its rich geology, etc. Then you go back to McMurdo. If you can start by telling me how long you spent in McMurdo on your return, and then how things unfolded in terms of you going then to the South Pole and Dome C. Had that been planned previously, or was it an opportunity that arose?

A. Let me go back to North Victoria Land for just a minute. It took about two weeks in Antarctica before the sense of the place began to permeate. When I was at NVL I realized that I could not write the book I thought I was there to do, that Antarctica was its own reference point. And that everything came back to the ice. Then I began to contemplate what exactly does “the ice” mean? How does it operate? And it's at that point that your insight about the aesthetic experience matters, because I realized that ice had its own, had its kind of character, and it would require a different way of understanding than the traditional ones. So I left NVL with that sense that, what I thought I was doing was not going to happen, but I would have to build a new vision of how to make this work. I traveled in Antarctica on a space available basis. I was not a targeted project. Everybody else is part of some mission or other, and so they are all scheduled and pre-planned, allowing for weather and mechanical difficulties or whatever. But as space was available, then I could go. They had planned to send me the Pole because I couldn't be three months in Antarctica on the program I had without going to the South Pole. It was wonderful because it turns out it was the solstice. I was going to arrive at the South Pole in the solstice. I said, "That's really a life moment. This is great." Except that about 15 minutes after we had taken off from McMurdo, one of the engines stopped. I actually have a photo of it, looking out the window, and here's the propeller not turning. They had to return to base and I was thinking that we are safe, we are fine. And they're working on it. And many hours later, they had it repaired and we took off. So I did make it to the Pole in time for the solstice and took some shots, 23 1/2 degrees above the light of the horizon, there's the sun making its tour. So that was great. And of course, the South Pole, it's a destination. Who would not want to go to the South Pole? But it also seemed to be hype in a certain way, that it's a celebrity landscape. So you go to the Pole because it's the South Pole. And realizing that the ice passes through the South Pole. That is in a sense a huge ice sheet, a glacier in one sense. And so they have to re-survey the actual Pole every year, recalibrate it. So I said, "Well, if this book is about ice, and the South Pole is not the axis of narration for ice, because it passes through, so it's an important historic moment for exploration and so forth, but that was not it." So the Pole was very interesting. We were living in this dome at the time. I would take walks out around the actual Pole of rotation and was careful to count how many times I went one way and how many times the other, so I didn't gain or lose a day of my life. Just contemplating those kinds of anomalies. But then, by accident I had overheard when I was back in McMurdo, a logistics crew were planning to send some stuff to the source regions. And that triggered a sense. It was like many terms I heard in Antarctica, that people just use sort of slang terms, working vernacular. I had become sensitive to that. Certainly in my career as a firefighter, all these wonderful occupational terms that are full of metaphoric resonance in a sense. And nobody took them seriously. Nobody thought about them in a literary term. So source regions triggered it. So I approached the NSF guys and said, "Look, I'd like to go out with one of these if there is space." And there was. So I spent about 12 or 14 days at Dome C, so there was a joint U.S. and French base set up there, and they were doing drilling of various sorts. There were some short-term drills. There was a group by the University of Nebraska. I believe there was a group from Wisconsin that was doing seismic profiling, setting off charges. And there was a group from France that was doing some deep drilling. They had their own project. But I didn't have anything to do specifically. Everybody else was out. I got to work the hand drills for a while and go out with the geophysics guys. But I really didn't have a task, so I had a lot of downtime and a lot of time to think about it. And just the strangeness of it all and the barrenness of it all. I began to think that this is a place only an intellectual could like. You had to have reasons. You had to bring things to it. Because the average guy, and the U.S. Navy supplied logistics. So these guys would come in and there was some support group. These guys would say, "There's nothing here." And in a sense, they're right. You had to take that seriously. Again, I spent a lot of time with working class folks in fire. These are manual laborers. It's not a very glamourous job actually. It's a lot of hard work. But I began to be sensitive to their sense of the world. So anyway I began to think that this really is a place for intellectuals. How should an intellectual approach it? In many ways, that became, and as I look back on it, was in many ways one of the two critical moments in Antarctica because this is really where it all comes from. This is the whole thing distilled down to its essence. I began really thinking about that, trying to take photos of it, trying to imagine how you could make sense out of it. But this rather than the Pole became the real end point. This is where the narrative culminates to. I began to have a sense of working from the outside in. It would not just replicate my actual travels, but it was a reconstruction on those terms. So the sense of passivity of the ice, the sense of the ice taking, not giving, reflecting back as a kind of mirror. The sense that you want to get from it what you can bring. And you have to bring a lot to get much out of it. The sense of it being a sink rather than a source. All of this began to play in. Then I began to play with other senses. Antarctica is a kind of underworld, so if you're making a journey to it, if there's a narrative to it, it’s a journey to the end of the world, but there's Tiresias. There's are no native guides to take you there. So all of this was the strangeness of the place, and I began to embrace it in a sense. That's sort of where the basics crystallized.

Q. You mentioned, at the same time, you say it's not a source, it's a sink. And yet you call it the source. Can you clarify that?

A. Sure. They call it the source because this where all the ice comes from. At these points, ice flows out. It comes down from the sky, just like the cosmic house dust really. It's just sort of falling down and everything is so simplified, so reduced, that you don't even have snowflakes. You just have particles that would make up snow. So again, there's this sense of, you know, everything, even the ice is now reduced to its minimum. There's nothing else you can take away and still have something. So at this point, everything flows out very slowly, but it flows to the Pole. It flows to the mountains. It flows to the coast. And so in that sense it's a source to everyplace else. Get some ice from somewhere else. It has its own ice but it gets it from somewhere else. This is its own self-reference point. That's when it became a source of ice, but what does the ice do? The ice is a sink in a sense, so there was a little paradox.

Q. You speak a lot in visual terms, but what about silence?

A. [laughs].

Q. Did you get that, and did you manage to step away, I would say, both at the South Pole, but let's focus on Dome C. Did you manage to step away from the hive of activity. Please tell us about the silence.

A. There was not really a hive of activity because you're still close enough to the Pole that the sun is up 24 hours, slight tilt. So you had no sense of day or night. There was no sort of natural order forcing you into a kind of social order. And so people just came and went.

They ate whenever. They went out and did their work whenever. They slept whenever. There was no real organized social life. One exception would be, the Navy sent in movies. We were part of that circuit, and so there would be movies and we could watch a movie. That was some noise, and began to think about, sort of like a deprivation tank in a way, except you could see, but your sense of smell goes, your sense of hearing. There's no noise. Your sense of color, your sense of motion. All of these things are sort of taken away. So there is some sound. There are sounds of people and some noises. There's some wind but you're in the source region and you're interior enough that you don't really have strong winds. There's just this sort of immense tomb-like silence. And again, in many ways it's the opposite of fire, where fire overwhelms all of your senses. They are very loud. They are brilliant. They are moving. All of your senses become numb. They sort of shut down because they're overwhelmed. And with ice there's just nothing. There's nothing to stimulate, so you crave some kind of stimulation. That's why eating was so important, and why a cook was so critical, to life at the station. You had to have some variety to it. All of that began to impress. And at this point, this is 40 years ago, we didn't have internet connections. We didn't have other kinds of access, so there was no way to sort of frame in a constant stream of stimulants. It's what you carry with you. It's what you add really.

Q. And did you manage, did you have time to step away from the base? Obviously, you probably couldn't go too far because of safety reasons, but how did you go by yourself or not by yourself?

A. I went enough to be away from everything. Not so far that I couldn't still see the base and back of course. But to be really out there, there was nothing. There was really nothing else. In a certain sense, it forced me re-evaluate what I mean by solitude and what we think of as wanting to simplify our lives. And I came away saying, "No, you don't want to simplify your life. You want complexity. You want variety. You want stimulation. What we want is to be unburdened. We want the responsibilities and cares to go away; we want to be away from that, but we crave other stuff. Otherwise, you just sort of go into a semi-hibernation. You become kind of comatose. Everything begins shutting down. So that was it, and I began to reconsider Richard Byrd's famous experiment, where he went off to a remote base by himself. And it turns out, it ends, he's got carbon monoxide poisoning as having effect, but he's sort of hallucinating. It's not a kind of Henry Thoreau and his Walden, living a life of self-determination and simplicity by choice, it becomes a nightmare. All of that, and the sense of sort of the dark side of the ice, in a sense what it can do. Sucking away everything. You need to work very actively to fight against that.

Q. In your description it seems like it echoes of maybe an ideal space for meditation, not that I have any experience myself, but what you describe is actually the opposite. Do you think that's your character? Or do you think someone could be happy out there if they were an adapt of meditation, for example.

A. Probably. Again, in some ways it's a *tabula rasa*. It reflects back what you bring to it. What I brought, I realized I needed to be more active than I thought I did when I went there. Someone else could respond very differently. But the challenge to me was, how do you abstract a landscape that's already abstract? I mean, it's one thing for the modernist to take all the brick-a-brak and clutter and sort of Victorian fussiness and architecture and everything else, and simplify it. But what if it's already simplified? How do you abstract it further? If you want silence, if you want solitude, if you want meditative space, it's already there. What does that work? I'm not sure. I have a sense it couldn't work. For me, it couldn't work. It was a different challenge. Once I broke through the idea that this is a different kind of landscape that requires a different prism for understanding, then all kinds of other things became possible. I was willing to experiment and think about different stuff. And again, because I didn't have a particular task. My task was just sort of to be there, I had lots of time to think about this if I were busy. The people who coped best I thought were the lower level technician guys who always had something to fix, were always doing something. They're cooking, they're repairing equipment. They're fixing the helicopter. They've got 100 tasks to keep them busy during the day, so they're engaged. And the people who have a harder time were the ones who didn't. My task, I had to engage intellectually. That was the only way I could do it.

Q. Did you feel a sense of anxiety there?

A. Not anxiety as such. I did at some point towards the end, I was becoming restless and I actually broke out, my entire body, with hives. It was kind of an allergic reaction and I'm not sure whether, I don't think it was food, I think it was finally cumulative stress. I had never had an episode like that before. I think that may have been it. That was back at McMurdo.

Q. It was back in McMurdo?

A. Yeah.

Q. I had a conversation with a good friend who lives in New York, and of course we're in the middle of the COVID-19 crisis. He's in confinement. His job has come to an end. He's in this limbo situation which so many people are in. He's been very anxious and yesterday we were talking and he said, "I'm better now. I've surrendered. I've just sort of relinquished. I have accepted that." Of course, it's interesting, because it doesn't mean he sits there doing nothing; he's saying that the result is that he's just reading, like he's never read before. So of course, that proves what you were saying, that you don't want nothing. You want stimulus. We want stimulus. And actually the absence of stimulus is counter. Can we rewind a moment? You heard about this source region in McMurdo. I think you describe it in one of your essays. It was in a workshop and this is what they had been using for a while.

A. Apparently this was just guys responsible for loading up planes and shipping stuff out and they had supply missions. I don't know where they got it or they invented it or they heard it from someone, but they were just tossing it around just casually. Let's say we've got to go the Pole, we've got a plane to the source regions. It just trigged, for me, it triggered all kinds of other meanings.

Q. And how far did you go in the plane before turning around with the engine broken?

A. We were probably about 15 minutes or so out of McMurdo, not very far. We hadn't crossed the mountains, so we were still on the ice shelf, yeah.

Q. Was it a scary incident?

A. I didn't know enough to be scared. There was something wrong, and so they had the door on the side. They call it a jump window, and it had the window and I took a photo. So I've got a photo. There are four engines. One is turning; the near one is not. I got a shot of that which is kind of fun. There were very sturdy planes and they can fly on three, but they didn't want to go the Pole and then try to take off and come back on three, they'd have no redundancy, no back-up.

Q. And during the flight, did you sit in the body or did you manage to get to sit in the cockpit? I'm just thinking of your view and going back to the landscape.

A. Let's see. Mostly I was just on the back with all the cargo and the rest, and looking out the window. Actually when I was first going in to Antarctica, I was taking some shots, and we hit a little air pocket. And at the time I was replacing the film. So my thumb jammed down into the camera and it jammed the camera, so I couldn't put new film in. So here I was at the very start of it and my camera was broken. But I met a guy who was a professional photographer, had been hired by NSF, to document the season. I said, "Can you fix this? " He said, "Let me take a look," and he was able to repair it. Otherwise, I wouldn't have had any of those camera shots at all.

Q. So you took photos on the way.

A. I took photos, yeah. Again, it was the problem of finding, composing it. What are you taking the photo of? There has to be something there, even if there is "nothing," the nothing has to be a presence. One of them I liked going to Dome C, I've got an aerial shot and there's nothing. There's a little horizon of blue and then all this white ice below us. And then there's a streak of gray going across, and that gray is the shadow of our contrail from the plane. I said, "This is a great Antarctic picture. This sort of fits my sense." I was able to do that, but it was a real struggle. It's already abstracted. There's not a lot to play with. You have to put things in. You have to bring things. You have to do something. Again, I'm not a professional at this. I'm not trained.

Q. There's a story of when Ellsworth, this transantarctic flight, he took photos down the peninsula and then across Ellsworth Mountains, then when he hit the inland region beyond the Ellsworth Mountains, he stopped taking photos, because there was nothing to photograph anymore. He was later criticized by a geographer called Roscoe for not taking photos, for not continuing. It's in the papers. For Roscoe he'd made a mistake “because the absence of anything to photograph is as important as the presence". It's a great little quote. But how long did you spend at the Pole?

A. I was there about two weeks. No, not quite. I was there at the solstice, and then I was at Dome C for New Years. It was probably about nine days at the Pole, nine or ten days. The Polar visit was a requisite.

Q. What did you actually do there for that time?

A. At the Pole?

Q. Yeah.

A. I walked around. I took photos of the place. They had an outlying station to measure carbon dioxide and other sorts of atmospheric stuff, so it was away from the Pole so it wouldn't be tainted by stuff at the Pole and of course it upwind rather than downwind. Again, you get a sense that the Pole is not the source. Things pass through it. I talked to people, but as it turns out, there were two guys running most of the logistics for the planes, the aerial stuff, the gas, and the rest. They spend their summers in Alaska on fire crews doing the same things, cause Alaska is the largest civilian Para cargo operation in the world. So that's what they did, then in the off season they were sort of like ski bums. So instead of going skiing or whatever, they went to the Pole and did essentially the same thing there. So I talked to them. It was interesting.

Q. About what?

A. Just what we were doing there. We didn't talk a lot, but it was really bizarre to see that they had that.

Q. The idea of you traveling all the way to the Pole to speak about fire is kind of interesting.

A. That was not my intention. I didn't go there with the intention of fire and ice as a contrast and to develop it. It took many years actually to work out what exactly the contrast is. What people were doing. They would watch movies. So they had some tapes and they would just watch it over and over again. Again, it was a kind of slowing down, search for anything, to prevent a kind of hibernation state going in. That came through, the sense that if you're there for a long time, it takes a particular personality to do it, and I realized I didn't have it. I did, for reasons that aren't entirely clear to me now, I decided I would need some kid of project while I was there in Antarctica that wouldn't require lots of books to carry down with me. We didn't have any readers. There was just a weight and volume problem. So I decided I'd learn Spanish. I brought a Spanish text down and so I spent hours on Spanish vocabulary, making flashcards, and it passed the day. I developed a routine. There's a wonderful, and the original Parkinson's essay, for Parkinson's Law, where he describes how work expands to fit the time allotted for it. And so if you don't have much to do, you manage to spread it out over a large period of time. And that's exactly what was happening there. And so I was trying to create a routine so that I would not just be vegetating in front of, I think Shogun, was one of the first mini-series out, and so there was a tape of Shogun and people watched it sequentially, the whole thing, two or three times running.

Q. You mentioned you were writing a journal which I haven't seen because it's not available yet. But were you also writing outside of your journal or not at all?

A. No, not really. I wasn't taking notes. I was accumulating ideas. Some of them got into the journal. I had never kept a journal, so it was a different experience for me. Again, something to do. I think it was years before… When I got back, I was not able to write again, writing the book, because again, when I accepted the Fellowship, I didn't know that I would get it. And I was finishing a big book on fire, fire history of the U.S., and then cause I had done so much research for that I decided there's no good textbook for fire. I got a contract from Wiley Interscience to write *Introduction to Wildland Fire*, so when I got back, I still had that to do. That was a kind of distraction, and then I got hired, I did get a university post, so I've got to prepare lectures and do that. So I wasn't able when I got back to plunge into it. Again, I had several years to think about and work through how to make sense out of it.

Q. We'll get to that, but there's another thing that strikes me: you know by then that the place you want to get to is Dome C, yet you're at the South Pole and the landscape of the South Pole, away from the station or around the station, is no different from the one at Dome C. It's interesting, it's kind of the a proof that Antarctica is an intellectual landscape, because for anyone else, the difference between the landscape around the South Pole and the landscape around Dome C… There's no difference pretty much. And yet for you its unsatisfying and it's not where you want to be. Is that correct?

A. Yes. I mean, it wasn't a disappointment. Here I am at the Pole. I mean, it’s a life moment. And it's at the solstice. I mean, you couldn't buy that, you know.... And so it was great, and I was very happy to be there. But then it became clear that this was not for me where the action is.

Q. You get, as you described, you get to Dome C. I'm interested in maybe a little bit on the French team that were there doing ice coring work. Did you speak to them about that work?

A. I spoke to them a little, and they weren't… They weren't being standoffish but they just had their own group. The other groups had their groups. And again, there was not a social order where we all got together at the same time for meals. We all got together for certain rituals of the day, but it was off on their own. Whatever was working. And again, it was a sense of having, we think great, libertarian ideas. Everybody does their own thing. It was a terrible world. It was a terrible social world. There's no organization. There's no meaning. There's no order. Again, it's the same problem as with solitude. I did speak to them a little. Yeah, they took me over and showed me their project and talked a little bit about it. They were very friendly while we were there, but I had nothing to contribute to them. Here's this American, this historian. Just like a lot of things, people were polite, but I didn't really have anything to trade. So they were friendly. I do remember one guy, I believe he was the leader, Francois, and I remember him coming, at one point he was sort of, he wasn't angry, he was just sort of mystified, that not only would they have to publish their results in English, but it would have to be American English. So that was a great disappointment, a double disappointment. The other guy, Claude, I don't recall his last name, was really sort of full of life and a certain kind of impish quality, struck me as a little gnome. He was the one who sort of would break the solemnity and the earnestness of it with a little joke or a little, just sort of physical humor of some sort, practical joke of some sort. It seemed to touch me, amused me by whatever he was doing. They were nice. Flags of both countries of course greet you as you entered the base.

Q. I missed something which was actually the flight from the South Pole to Dome C, which is kind of a flight from nowhere to nowhere. What aircraft were you in? Do you have memories of that?

A. We didn't fly directly. It's a hub. We flew back to McMurdo and then immediately turned around. So I connected with a regular supply flight. Yes, that would have been really weird.

Q. I imagine just going from one to the other… By the end of your stay at Dome C, you wee getting kind of a little bit restless by the sounds of things. You few back to McMurdo and how long did you spend there?

A. Oh gosh, I was there for a long time, at least three weeks, I think. I tried to find something else to do, and I had heard that they had a supply mission going out to Siple Station, across the Antarctic. I asked if I could go on that, and they said, "What? You're just going to fly over and fly back? Go out and see what it is and come back?" I said, "Yeah, I'll do that." It turns out, we missed the connection. They changed the flight and didn't get the word to me. And so I showed up, but they had already left. There was just a lot of time I walked around with not a lot to do. They had arranged for me to return on an icebreaker. They had asked if I wanted to do that, and I said, "Of course." So my last journey around Antarctica was by boat.

Q. That emerged then; it wasn't pre-planned: the journey back on the icebreaker.

A. I think generally it was. I had said that I would like to and they said that they would see when they had the ship going and would arrange accordingly.

Q. 'The Ice', the book, starts with the berg and then the pack, the shelve, the ice sheet and the source. And of course, your journey back from Dome C to Punta Arenas was in the direction of the ice. Did you, from the moment you left Dome C to Punta Arenas, did you already have in your mind these concentric circles as it were, this unpacking of the ice?

A. Not exactly. I had a set of difference ice terrains that mattered. Actually, it was something triggered, I was thinking of Dante's Inferno. I was thinking about Antarctica as an underworld. In the Inferno the innermost region is ice. And so I was thinking, ok, and then you have these sort of concentric circles outside it. That's sort of what Antarctica is like except that there are circles of ice all the way out. And so I sort of had that sense. And then it was a case in the book of, I would describe that, but each of these poses a particular challenge to people who come in. The pack ice is critical to get to the mainland, particularly in the age of wooden ships, or ships before they could be ice-strengthened. So that leads to a whole discussion of one of what does exploration mean here. And then the glaciers. They've got rock and ice. So that's great for earth science and how Antarctica might fit there. And then the shelf would be great for the shelf or the ice sheet would be great for aesthetics. How do you make sense out of this? So there were a series of sort of historic encounters each on a different theme. Then the Pole itself or the source regions were the politics of Antarctica. Here all the world converges in a sense. How do you make sense of it? So that structure sort of came into order.

Q. You got onto this icebreaker. Do you remember the name of it?

A. It was the *Glacier*. I think it was retired shortly thereafter.

Q. And that was a long journey… So you sailed out of McMurdo. Did you land anywhere in between McMurdo and Palmer Station?

A. No. It was very different. I'm a land lover. I'm not a sea guy. I get sea-sick easily. I was well stocked with Dramamine for most of it in anticipation. And of course, the icebreakers crush the ice, move the ice, by rising up and crushing it. So they have rounded bottoms so they can really roll, but we were in the pack ice and it was thick enough that we didn't get swells. So it was actually a fairly pleasant journey all in all, until we hit the Drake Passage, and then you would get the bell ringers as they were called. The ship would roll enough that the clapper would strike the edge of the bell and strike back. So at that point I said, "I'm going to a lower part of the ship."

Q. And upon leaving McMurdo, did you skirt the Ross Ice Shelf? Did you go along the cliff of the Ross Ice Shelf at all?

A. Not really. It was not a kind 'White Cliffs of Dover' experience. There was still enough sea ice that was still breaking. It had another couple of weeks.

Q. It's interesting cause you would have sailed through the Amundsen Sea, and to your right you would have had, to the south, you would have had Pine Island Glacier and the Thwaites Glacier, which have become one of the front lines of Antarctic climate change and monitoring, etc. In the book you do actually mention the Pine and Thwaites Glaciers. But how aware were you of this unfolding story?

A. The climate thing was not a big issue at the time. There was interest in was the ice growing, the ice dynamics. And there was a particular guy, Canadian, Ian Willens I think was his name, and I got to talk with him for a while about it. He was interested in west Antarctica and measuring some of that. He explained some of it to me. So I began reading that. So there was a little discussion, but it was generally put within the context of the cycles of large ice ages come and going, not that there was an immediate issue. In fact, warming, increased carbon dioxide, increased greenhouse gases in the atmosphere, did come up once at Dome C. There was actually a meteorologist there who was very happy with it. He said, "Well plants alone make carbon dioxide. Right. Let's put some more out there." There was not a sense at the time that we were headed towards some kind of climate apocalypse so the ice would feel it. It just wasn't a topic. As I mentioned before, even the ozone hole is not very apparent. That became an issue after I left, actually about the time I was writing the book. It really didn't enter in.

Q. It's interesting because in '86, '87 the French, not the same people who with you, but the same wider group, had a project with the Russians at Vostok Station in '86, where they drilled an ice core that went back 400,000 years. The French analyzed it and that analysis was published in three papers in Nature, and it was the first time that Co2 and atmospheric warming were linked. It then becomes the basis for the hockey stick graph and all that. You were there just on the cusp of that. In a sense, I would say, when you were there, Antarctica hadn't become a symbol of climate change. It still was what it was, which is very interesting…

A. Both for greenhouse gases and for ozone. I was just ahead of that. That was a way of engaging Antarctica with the larger sort of cultural climate, if you will. That didn't become one of my themes because it wasn't relevant.

Q. What was your personal and intellectual response to the Antarctic Peninsula and Palmer Station? Did you stay at Palmer Station, or did you stay on the ship? Can you describe that?

A. We stayed on the ship. It was quite interesting on several counts because, again, you're back into a mixed landscape. So you've got some ocean. You've got icebergs. You've got mountains. You've got snow and various kinds of ice. And yet even so, walking back from the base - I mean we did go to Palmer and toward it - and I walked around, they have the Glacier and sea, but again there was a problem of perspective because there was no foreground effectively. So it all just sort of became flat. You reversed the whole 500-year tradition of perspective in landscape. There were lots of things there, but it just becomes flat. And again, that reinforced my sense of even here, the presence of the ice is enough to distort our understanding. But there was enough area that was not ice. You could have some handholds. So, that's where people would like to go. Wow, this is really Alpine. This is like Norway with a touch of the ice age still in it. You can relate. You can connect. Whereas, when you go elsewhere it's really hard. We saw penguins. There were penguins there.

Q. Do you like penguins?

A. Oh the penguins were great. The one was isolated. He was bleeding. He must have had a run-in with a leopard seal or something. I don't know. He was obviously injured and off by himself. We would often see sea penguins as cartoons. And they're birds. They have feathers. They really are birds! Unless you see them in the flesh, you don't really appreciate them.

Q. It's interesting. Getting back to the landscape. It's almost closer to Chinese or Japanese painting, where there is no sense of perspective. It seems more adapted to that tradition of art I would say. So your journey along the peninsula was relatively short then? It was Palmer and then you headed straight north again. Did you skirt the coastline at all? Did you go through the broken coastline of the peninsula?

A. Not very much. We went out enough. There was a lot of fog. It was not really possible to see much, and I've got some photos that I like Sort of journalistic photos of what it was like, so you could see sort of pack ice thick enough, not completely frozen, but still big. And then some large tabular icebergs in the background. And then several layers of fog over it, and that would be fairly typical. And then the Drake Passage. I can't imagine doing that in a wooden ship. I really can't. I have, when my father's family went to California, they went from Ireland to Boston, and then very quickly went to California during the Gold Rush. And they went by ship, and I can't image somebody doing that against the wind. Going east to west like that. Of course, they never made it to the gold fields. As far as I can tell, they never made it beyond the pubs on the wharf in San Francisco. So yes, that was interesting. For someone who is interested in exploration history, that was great to see, to experience it. And then the Strait of Magellan. For me, as much as the South Pole, for exploration history. And there were some offshore oil drilling. So there was a gas flare. And so it was almost like it was an eternal flame, sort of marking sort of the entry point. And how inconspicuous it is. It's just sort of this raised table lamp. There's nothing. There's no sort of sense of, here's your portal to the future. This is going to change the world and the rest of it. I mean, it's a very difficult passage to find and it turns out you didn't need it. They found another way around. But that was great. The shock, the different kind of shock now, because there's life there. *Terra del Fuego* from Darwin on, is presented as this barren near-wasteland, nothing, and yet I was just overwhelmed with smell, with sight. We had a tidal bore come through. So there was a difference in the water. There were dolphins at one point. There was land. There was motion. There was color. Lots of things which in normal circumstance I would have figured as a pretty unpopular landscape. Then it turns out, compared to where I had been, it was a real face change. Then when we got to Punta Arenas, we didn't continue all the way through - the ship would - but I exited it at Punta Arenas. I craved darkness and water, and so I just filled a bathtub and lay in it, and turned the lights out. The contrast with what I had experienced. A very simple kind of thing. But you're perfectly right. Everybody is going to experience it differently, and for me given the time I did it, the way I did it, and I guess my own background at that time. And then I returned to Iowa which was a new place for us. We had just moved there. I wasn't teaching because of the timing, sort of coming back mid-semester. It was really mid-winter and it was really a cold snap. A really terrible time. We had to take our car to a garage. They had it warmed up so we could drive it. It had to be hauled off. Really, really cold. I'm thinking, there's snowflakes here. I'm watching the snowflakes on the window. I'm watching the wind blow through the trees stripped of their branches. I'm looking at built landscapes that are different and I'm interacting with it. And so, yeah, compared with what I had known, this is a pretty grim landscape. But compared with Dome C, it's a pretty vibrant place.

Q. How long did you say at Punta Arenas?

A. Just overnight. There was no reason to stay, so we came in in the morning, and then I walked around. They had a hotel room for us, and then the next morning I flew out. And then outside Santiago, Chile, where I would catch the flight to the U.S. There were fires in the mountains. I had come full circle!

Q. When you got home, with your wife for example, what did you tell her? What did she ask you? How did that sort of re-immersion go?

A. We were just glad to be together and I had my young daughter. I don't know if I told you, the last time we had to reconnect through these dolls, these sort of penguin toys. It was a hard time for her. She's from Utah and my family, and some of her family is in Arizona. She had gone there to spend some of the time. She wanted to know what it was like. I had sent her a couple of letters. It was a very long route back. Through the Navy we could send back samples. So I sent back my granite collection. I sent back samples of granite that I had collected there. The postman delivers it to the house and says, "This is a heavy package, Lady. What have you got in here, rocks?" And she said, "Yes!"

Q. “My husband is sending me rocks instead of flowers!”

A. She has been a great helpmate and a great friend and companion. We just had our anniversary, when was it? Last week, a week ago, 43 years. She was not necessarily interested in all of my stuff. I've got slides, my film developed into 35-millimeter slides. I showed her the slides. And that was enough.

Q. What did she say when she saw the slides? When she saw the nothingness? Was she struck by it?

A. This is what it's like. She was much more interested in the photos I had of people or the events, and here's what McMurdo is like and here is what the Pole is like, and here's what a remote camp is like. Here I am with a snowmobile. Stories of passing through the crevasse fields, all of which was very new for me and for her. It was interesting, but she was not in awe of it. She's very practically grounded in many ways. I start going intellectual and she will just accuse me of being an academic. Basically, she doesn't like academics. She thought she was marrying the foreman on the fire crew, and it was sort of a bait and switch. She ends up with this guy who writes books and teaches at a university. She didn't sign up for this, but she took it in good humor.

Q. That's amazing. That's probably the key to a successful marriage I would say.

A. We're not competing. It would be hard for two academics to do it.

Q. I'm think it would be great to have another interview and sort of a wrap-up where we can really talk about how you sort of abandoned, not abandoned but you got into other things, and then you come back to it. And as we do that, then we'll re-explore some of the things you've covered about the journey. And this other one might take less than an hour. We'll see how it goes. So I'll just pause for now on the recording.

June 1, 2020

Q. This is the third session in Stephen Pyne's oral history. In this session we're going to focus more on the writing process and the actual production of the book following the trip to Antarctica. So my first question is, could you retrace the process of writing, research and publishing the book on your return from Antarctica, starting with how long the project was on standby for, and why, on your return from Antarctica. How long did it take?

A. The Fellowship was for a year. I spent three months in Antarctica. It was basically the academic year and I spent part of that getting ready. So when I came back, I had maybe six months left, five to six months. I knew I couldn't finish the project, I mean the whole book design, in that period. I had other issues. I was headed to a job at the University of Iowa. I would have to start over there. There were lots of things. I still had a book I was completing under contact, a textbook on fire. What I did was to write about the Grand Canyon and Clarence Dutton's book, ‘Tertiary History’. Because I was interested in exploring the sense of the great ages of discovery, and I could see Grand Canyon as kind of a climax to a second age. And I was getting to see Antarctica as very typical of a third age environment. So this would in a sense be part of my preliminaries, my effort to work through the ideas, structure of the book. NSF was not particularly happy with that. I wasn't particularly happy with it, but I said that it was coming. So it was finally two years before

I was able to engage the book fully. In the meantime, I had been given access to a research assistant at Iowa. I just spent my unencumbered days and evenings going through the Antarctic bibliography and just circling items that looked useful. And then hand them over to the research assistant and say, "Photocopy these." I was accumulating stuff and thinking about it, but wasn't able to write. Then, in 1984, I had reached the point that I just had to finish this for any number of reasons. During spring break of that year, I wrote the prologue and worked out the general outline for the book. I approached Oxford, I'm not sure what the nature of the introduction was, but they looked likely and they were interested. They signed an advance contract. I had a small advance in money, so that summer I worked at Rocky Mountain National Park writing a fire plan, and then in the fall I just took a leave of absence. Unpaid leave of absence. We would live off the small advance. I moved back to the Phoenix area, and wrote. And so I wrote for four months. That was basically my life, was writing it. I did almost nothing else and had a full draft at the end of it. At that point, we were really hard up for money. I was able to get a job as an instructor at the University of Arizona, which is 120 miles away, but I would drive down one day a week and teach a course. At Arizona State University, they had a visiting professor line, and I was able to work there for a semester. So while I was doing that and teaching, I finished the revisions. Then, I think it was around April or so, I sent it off to Oxford. And then that summer, I had a job at Yellowstone National Park writing a fire plan. I was at Yellowstone and there were big concerns that bison were attacking tourists. Grizzly bears were always a concern thinking about fires. And I had this manuscript. I finally heard back from Oxford and they said that the manuscript is unintelligible, "We don't want it. And we want you to pay your advance back." I said, "Well, I don't have any money to pay it back. I will pay you back off whatever royalties I get." That was a pretty grim time. I knew I had written a difficult book. I wrote the book that I thought was true to my experience and was helpful in explaining why Antarctic history evolved as it did. But I knew it was not an easily accessible book. And I accepted that, but I wasn't prepared for this. So thanks to another set of circumstances had made contact with the University of Arizona Press for a different project. And so I sent it to them. They sent it out to a reader. The reader gave it a great review, but they came back and said, "We'll publish it if you cut it in half." I can't cut it in half. The University of Iowa Press was starting up. So I sent it to the editor there, who as it happened had been the copy editor for my first book, the biography of the geologist Gilbert. They were very excited and took it. I said, "Okay, I've done my job." Nothing will happen. Becasuse this is a new press. It's in the middle of nowhere as far as intellectual effort goes. Iowa is famous for its writer's workshop, but that's all fiction, poetry. Nothing will happen to it. And in fact, the *New York Times* Book Review gave it a great spread, full page spread, big photo, big writeup, and then eventually named it to its ten best books of the year. It was a huge success at that point. At that time, I had taken a second-year leave of absence from Iowa. My wife didn't really like it. Neither of us really fit there. I was able to get a job at Arizona State University. They were opening a new campus, so I was one of seven people they hired. Again, this is out in the middle of nowhere. Was part of the metro area. And suddenly they've got this new faculty member who has gotten this recognition. And so it was a big deal, and then the next year I got McArthur Fellowship. Nothing could go wrong for me in 1988. And in fact, Yellowstone burnt. And so my first big experience with national media because I had been involved with that program. So it turned out well, but I have to say for a long time, I felt like Jack and the Beanstalk. I sold the family cow for a handful of magical beans and what had they done for me and my family? I had nothing to show for it. In the end, NSF was very pleased with it because the book got a lot of attention. The program got attention and so forth. But for several years it was…

Q. Could you describe that attention following the New York Times article? How did that echo out? Was it in the academic world? Was it in book reviews?

A. It was in the book world. The New York Times Book Review particularly then was the major outlet. You always get London Review of Books. The UK has got its own great literary circle, but in the U.S., this was a big deal. Almost immediately after that, we got offers to publish it in paperback, a mas-market paperback with Bantam, which was done. And then, a UK press, Arlington Books, brought it out almost immediately. So I really had a big hit. I wasn't quite prepared in a literary sense. I had just assumed,.. I had done what I thought I had to do. I had completed the task I had agreed to do. The book was the book I thought I needed to write, but nothing would happen with it.

Q. Did you travel to support the book? At the time, did you do lectures?

A. No. They didn't publish very many copies. I think they published 1,500 copies or so which was a fairly big run for a university press, but that's nothing. If there had been a big surge of interest, they couldn't have met it at the time. Nobody had anticipated this. I was really very lucky. It could have easily gone the other way.

Q. In respect to the writing process, you mentioned the Antarctic bibliography. Obviously, the book is much more erudite than that. It extends very widely into references to the wider environmental history, to the Arctic, and I would say for anyone, but especially for someone who is relatively early on in your career. How did you wind all that in? It's probably an impossible question to answer, but it expands far more widely than that Antarctic bibliography.

A. I don’t know. Many things become easier to understand in retrospect even if you're the actor: the agent of that history. You don't really appreciate it until later when things sort of sort themselves out. It just seemed to me that this was what the book required. And I had got through a graduate program at the University of Texas, that had been really fundamentally interdisciplinary in the sense that it was an approach to American history. But it was really included in intellectual and cultural history, history of science. It was willing to embrace all this stuff, willing to incorporate anthropology. It was not diverse as diversity has come to be defined in the academy now in terms of race, gender, ethnicity, but in terms of topics, in terms of disciplines. There was a tolerance, even an encouragement, for bringing things together and making sense. And that in many ways suited my temperament. I had been in that kind of work and succeeded at it, but mostly what I've done is synthesize, try to bring lots of things together. So that's what this was. I mean the peculiar feature of the book may be this fluctuation of chapters, what I call ice chapters and history chapters. And what people have most responded to are *The Ice* chapters, but I thought I was writing a history. And that's what the Fellowship was about. That's what I said I would do. And so *The Ice* chapters were necessary to show what the problem was that exploration, art, earth science, whatever. This was the challenge before them. To do that you had to understand the character of this place. And then to do the character of the place, I had also the example of Clarence Dutton in the Grand Canyon, who tended to alternate some sort of aesthetic chapters with geology chapters. I didn't make

Dutton an explicit model, but I think it was sort of buried subconsciously, that this was okay to do. I like his book. It wouldn't be wrong to do something like that.

Q. We'll get back to Dutton, but is the wider contextualization of Antarctica, was that also in a sense in your mind, or were you reading voraciously at the time, to achieve that synthesis?

A. I was willing to take whatever I could find. The whole aesthetic bit was new to me. I mean, I hadn't written really about that before. I hadn't tried to consider that. But that became a big challenge. So all of *The Ice* chapters start with scientific descriptions of the ice. This is the language we have. This is the descriptive language, but it's not enough. And so they all end with some kind of aesthetic appreciation. I had no real model for that, but I think as you pointed out earlier, there were a couple of triggers while I was in Antarctica that guided my understanding. And a couple of them were aesthetic. This is how to understand this place. When I realize this was a modernist landscape. I mean, I'm not an unabashed enthusiast for modernism. Some parts of it I like; some parts of it I could really do without. I'm really not fond of post-modernism. I deal with it intellectually, but once I had that insight then I began to think, how can I understand this thing? And so I expanded it. It just seemed to me that that was the right thing to do. And there were so many narrow studies arguing over which route somebody took. These are all legitimate, but in some ways they seemed antiquarian. Where was the real intellectual heft here? Where was the intellectual passion? Why should we care about this? What makes this place what it is? And then I came back with a sense that this is about ice. That's what makes it unique. The magnitude of the ice, the way the ice influences everything. Then I have to ask, what is ice, and how does that affect somebody encountering it? How does it affect institutions? How does it affect this whole thrust of western civilization, which was galloping all over the world and exploring and commercializing and colonizing and doing all this stuff. What happens when all of that energy hits the ice? That for me was sort of the intellectual framework. I was willing to arrange wherever. But see that's also a problem, when you do something like that, where does a book like that fit? Does it fit in the historiography? No. Is there a field of study, Antarctic studies, that embraces beyond the sciences? Well, no. It doesn't have a place. So in some ways my sense of Antarctica is *sui generis*. I replicated in my own book.

Q. What's really almost mysterious from the outside is this constant sort of echoing of scales. Both physically you've got the distillation of Antarctica. The reductionism of Antarctica. And then you've got the vastness of the subject in terms of its physicality. And in terms of your own writing, you've written this thing in four months, and yet it incorporates so much other, or makes so many links to other literatures and other fields of scholarship. That all this managed to gel together is phenomenal.

A. Well, there's a certain magic to it, a certain mystery to it. I was just reading some reviews on writing this last week. And there were these writers trying to explain what they were doing. And the reviewer was saying, "Well, they really didn't know." In retrospect they're trying to make sense out of it, but they really didn't know. And so it can't be taught. I couldn't teach someone to do the alchemy that occurred.

Q. If we can talk about those history chapters because we have in a way spoken a lot in the first, and how *The Ice* chapters were born and your encounter with the continent ends up in *The Ice* chapters. When it comes to the history chapters on exploration, literature and art, earth sciences and geopolitics, again you've explained how you did the research with reliance on the bibliography, etc. But can you tell us how your approach and contextualization in the wider histories, how did you decide to formulate that?

A. Probably the most interesting idea I encountered in graduate school, I came in 1974 and was taken a seminar from William Goetzmann, who became my dissertation supervisor. And he had won a Pulitzer Price for the history of exploration in the United States. It was basically nineteenth century. And he wrote a paper. He was working on a second great age of discovery. There was a transition in the eighteenth century and exploration took on a different character. And he later wrote this up as a book. It was published actually the same year as *Ice*. It was called *New Lands, New Man: America and the Second Great Age of Discovery*. I thought that was a great conception. Suddenly exploration which had just sort of been this endless shelving of personal narratives and adventure stories and survival accounts, all of which was great. Great fun. But there could be an intellectual structure to this. Nobody teaches exploration history systematically. Again, it's not a subject in its own right. And I thought that was a great idea. And I developed that through my graduate career and used it in a light way in my biography of Gilbert. I wanted to expand it. I thought that if the Grand Canyon was a great climax of the second age, Antarctica doesn't fit that model. It's something different. Surely, we can think of a third age that would also include the deep oceans, that would include space. All of these sort of active areas, Antarctica being a kind of pivot into that third age, introducing the themes. This is where the second age, when we think of the heroic days, as to what made it heroic. It sort of dies out there. It reaches the limits. You know, you’re reduced to one guy hauling his sled back in survival stories. You’re listening to monologues... This is the end. I thought this would be great. Antarctica could then be a kind of evocation and display of what the third age of exploration, which is our age, meant. So that I thought was going to be the real contribution of the book. And of course, nothing ever came of that as far as I know. Nobody has ever picked up those ideas. I developed them in another book, *How the Canyon Became Grand*. I did a book on the Voyager mission space exploration. I've just written a book now where I'm trying to summarize it all, distill the three great ages, into a relatively short book, next year. So I thought this was sort of what I was academically trained in. This is what my career would be. Of course, it went very differently. So nothing really came of that. I continued to use it, but that's what I thought my contribution was. And so all the descriptions of ice, all the descriptions of Antarctica, are in a sense a way of evoking what the character of the third age of exploration will be. In fact, I edited a volume for Environmental History a few years ago. I called it *Extreme History*. A guy was interested in Antarctica, so I said, well "Let's also do space and deep oceans and get the whole thing." How do you write history where there are no people to contact? In some ways no biota. I mean the deep ocean has got stuff. We're finding new stuff all the time. But otherwise nothing. How do you write history in that? What makes sense out of that? So I've continued with that, and I've now sort of summarized it. Most of my career went in another direction completely unexpected, which was fire. And the history and sort of global surveys of fire. So that's what I thought I was doing. That was the contribution. But there was very little interest in that. Most of the interest has been in my depiction of Antarctica, and in some ways a personal encounter. A personal encounter but a mental one. This is an intellectual. It's not exactly the heroic age of the mind, that's giving it too much magnificence. But that was the encounter. And that was really what the smart readers, not just intelligent, but people who sort of get it responded to. And I responded to it much later. In a sense, I hadn't realized that this was really what I had done.

Q. In a sense, you're the next generation in explorers. Rather than the physical explorer, you become that, you yourself as the intellectual explorer. And of course, there’s the scientist who go there for specific tasks. Forgive me for reiterating the question in a way: So you settled into that wider earth sciences and IGY and that wider history, did you know all this prior to the conceptualizing of how you would place Antarctica, or did it come at the same time? I know you said you had these great classes as an undergrad. Did you do a master's?

A. Yeah, I did a report in lieu of thesis, just a term paper was accepted, and I had done it on that. I was just interested in the idea. But that was it. I never had a class on it; it was a course on nineteenth century American intellectual and cultural history. Goetzmann read this paper I was working on, and that was it. And then I mulled it over and again, we've had a lot, if IGY is in a sense as I think of sort of the announcement of a third age. There were several preliminaries, but that was sort of the first that crystallizes it. We're not that far along. And in 1986, we were 30 years or less beyond that, so it was still pretty new. Think about the exploration of space and the deep oceans that have gone on since then. The idea was just evolving and the history was happening as it evolved, so they were beginning to interact. So I stayed with it and I keep going back to it. Again, maybe it was the result of my life experience as spending part of the year in an academic setting, and then my summers on a forest fire crew, I got used to flipping back and forth. So I've done that intellectually. Most of my books are on fire, but I keep going back to sort of this exploration thing.

Q. At the time you had written about the IGY, again, where did you get your sources from?

A. There had been stuff at the time. Journalists had written some. It was a big event. I remembered it as a kid. This was really cool. I didn't really know what was going on. I was eight years old, but I remember that happening. And there was a great, J. Tuzo Wilson, a Canadian, who was the head of International Union of Geodesy and Geophysics at the time who was sort of overseeing it, the overnight group for IGY. He wrote a very interesting book called *Era of the New Moon*. That was a good introduction to it, and then there were other publications and so forth. And people had written about IGY. There were calls to have a new Polar Year. It was the third in a series. But I didn't see a larger intelectualcontext for it. It was just sort of like science going on. This is really big science. More of the same thing. Does it have some other meaning?

Q. Like Walter Sullivan?

A. Yeah.

Q. You would have been reading those books at the time in order to just understand the facts and the chronology.

A. I was doing it as I was writing it. I didn't have enough time to do a lot of the reading in advance, so I was working continually. I had identified stuff and then was picking up stuff and reading it and working it as I went through. So it was not the case that I had this fully formed in my head and was just writing it out. It was a case, I had sort of the vision what this was supposed to be, and then I was just scrambling to make sense out of it.

Q. Geopolitics must have been difficult for you, or not?

A. Yeah, that was completely new for me. But it turned out to be quite interesting. There was the Antarctic Treaty. Again Antarctica becomes the point of departure for space and the deep oceans. I mean, there was a Law of the Sea that goes back centuries. But the real issue was what to do with the deep oceans. And so the Antarctic tree becomes the basis for that. So I see Antarctica again as this kind of this pivotal feature.

Q. Switching back to your ice chapters briefly, are they in a sense an exercise in place making, by which I mean through these ice chapters is Pyne constructing in terms of projection of his own ideas, or is *The Ice* the unfiltered expression and reflection of a continent that has made itself through natural processes? Are *The Ice* chapters just reflecting something or are they making something?

A. They have to be making something. It's my engagement. How many thousands of people have gone down to Antarctica before I did, and we didn't have a book like *The Ice*? There had to be some alchemy, something I saw or was prepared to see, prepared to give an impression to, that others didn't. In some ways I've seen the same thing with fire. You have many, many more people engaged in it, but no one had thought about it as a literary project. No one had thought about it as history, large scale cultural history. In that sense, yes, I'm making it. It’s an engagement. I couldn't have made it up without the ice. The place had pressed itself on me, the character. Once I shed the notion that I'm going to go back and echo the heroic age and we're going to have these great adventures on the ice. I'm going to see these spots. This is the great age of discovery carried to its next *Ultima Thule*. Once I shed that and realized this is different, then all kinds of possibilities became apparent. In a sense, I was liberated to think anew. I really didn't have a model for it. I do think in a vague sense, the memory of Dutton's book on the canyon was there, because he was willing to do this alternating thing. So he sums up the geologic history in one great chapter. And then he sums up the aesthetics of it with the evolution of a particular day. So he's got these things paired. So as I say, I didn't seem them as an explicit model. I'm going to do the same thing, but I think in my subconscious it was there. It was okay to do it, something like that. If Dutton got away with it, I could do it. This was published as the first monograph for the Geological Survey. And not everybody liked it because they said, this was only half science. One guy, a mining engineer said, "I've started Dutton's book and decided life was too short." He didn't want all this other stuff cluttering it in. But of course that's what survived. That's why the book is still read, for all the other things. So in a sense, I did, that was a model for me.

Q. And it seems to match what you just described about Dutton's book. It seems to match the reception of *The Ice,* which some people absolutely adhere to it and appreciate it for what it is, and others find it too complex, don't have the time for it basically. It seems very much that way. We're actually comparing two works, one on Antarctica and one on the Grand Canyon, and of course they are very different, but do you think in terms of *The Ice* and its concentric structure which ends up as the source, do you think that model could be not so much applied, but found elsewhere? And the most obvious example would be the Greenland Ice Sheet, which is also an ice sheet. But perhaps also smaller ice caps. Or entirely different systems?

A. You certainly could. And there's a great exploring tradition of looking for the source of rivers. Where do they come from? The source of the Nile becomes this sort of almost mythic quest. There's a sense in which I'm playing on that. That was really my sense. The idea that concentric circles, I thought of Antarctica as a kind of journey to the underworld, again in a very vague sort of illusive way. And Dante's Circles of Hell, ending in ice. So I thought maybe circles was the way to do it. You could see these sort of concentric rings of ice interacting with the sea, interacting with mountains, and then interacting with ice ultimately as the source region. So that sort of presented itself as a model.

Q. It's interesting because rivers, if there is an image, I guess you could think of as a maze. It's still circular, but it's more of a maze. And did you have Greenland in mind? Do you think a similar book could be written about Greenland?

A. Greenland has a longer history and it's got a native population in part, that has got to engage. It's history would be different. It's not as isolated. I'm saying now about the cultural history. You certainly could, but in a way why would you? Why not let Greenland stand for Greenland instead of being a miniature of Antarctica? I would try to find, what is the essential character here, and then what structure of book makes sense?

Q. I'm wondering if Greenland, and this is a question I should be asking more a scientist, does the summit of Greenland, does the source of Greenland achieve the same level of distillation as what you describe in Antarctica? Probably not.

A. It could but in Antarctica you've got, I mean, I think you could, but I'm not sure that's the Greenland story.

Q. No, no.

A. Greenland was a point of departure for a lot of the Arctic. The North Pole expeditions, certainly under Perry and others. So there's a different kind of engagement, has a different engagement with human history. Norse settlements, always people going back, harkening back to that stuff. None of that is really true in Antarctica.

Q. You mentioned conversations with Barry Lopez who you met at the beginning of the writing process. Can you tell us about that a little bit?

A. It was an accident. I actually had been invited to give a talk at the North American Prairie Symposium. They were interested in prairie and fire. Barry Lopez had been invited as sort of a keynote speaker, sort of host, sort of celebrity in a way, to speak about nature and attract people. We just by accident happened to run into each other during lunch in one of these. And so we were starting to compare notes. He had finished *Arctic Dreams* and I was beginning *The Ice*, but we were comparing notes and later Barry went to Antarctica. We had some other correspondence and meetings and organized a writers and artists program that he wanted to do, find some way to revive and sort of repurpose their sending of people down there. And so Barry was doing that at the time. We had some good conversations. It was fun.

Q. So you saw him after he had sent out to Antarctica as well or not?

A. Yeah, he went several times. Actually, part of what apparently precipitated this was that Vice President Gore had gone to Antarctica and was interested in sort of climate and all kinds of things. And NSF wanted to put on a big show for him. So they brought out some of their tools and they brought out their scientists and they were going to give them the grand tour. And he said, "Hey, I hear Barry Lopez is down here. I want to talk to Barry Lopez." And so that got them, "Wait a minute. Here's a major political figure. This could affect our funding, our engagement. He wants to talk to the writer." It's okay. We really need to get more serious about the writing. So Barry was apparently part of the critical catalyst for that.

Q. But he went before the publication of your book.

A. Let’s see… I don't know. I don't think he did. I haven't got the dates. He had finished, I think it was probably afterwards, but I can't verify that.

Q. Because, obviously these are questions that should be asked to him first and foremost, but there's a slight mystery as to why out of his trips, he got a few essays, which are fantastic, but he never did write a large book, which might have echoed *Arctic Dreams*. And the questions I'm asking myself is, to what extent is that because he read *The Ice* before or after or what the role of *The Ice* is in that not writing a big book.

A. I don't know. I think his talent is really engaging with the things of nature and people. And in a sense, you don't have that the same way in the Antarctic. And so it plays against his strength. I think I'm maybe more trained as an intellectual. As I've said before, Antarctica is probably a place only an intellectual could love, so I was prepared to deal with the abiotic quality of so much of the ice. The acultural quality of the ice. That seemed to me interesting. I think it's hard to get a hand-hold if you're writing natural history in the usual sense. Where are the objects? Where are the grips? How do you engage it. The points of contact aren't there. They're sort of… Blown away.

Q. And as you said, he went back several times, so he didn't decide on the first visit that this is not for me.

A. Yeah.

Q. There's a bit of a question mark there. It's interesting.

A. He was interesting. He described joining some divers who were going down below the ice and seeing seals and things. So you're finding things that are connecting. For me, it was enough, what does the ice on the top mean?

Q. Maybe he was more interested in the coastal areas and the ocean in a sense.

A. Yeah.

Q. Okay. As you said, the reception of *The Ice*, everything changed on the review of the *New York Times*. People today seem to go back more to… There seems to be more of an attraction to *The Ice* chapters rather than the history chapters. I don't think that that's necessarily fair. What about this idea of interdisciplinarity? Do you think that's a hindrance or a strength of the book? Or both?

A. It's both. I think it's part of what makes the book unique, this particular fusion of things, that were not sort of part of the standard kit for going to Antarctica. The intellectual gear. What do you carry with you? How do you think about this? There were all kinds of new things brought in and that was what makes it different. But you know the downside to being different, is that people don't know what to do with you. There's no historiography for it. Nobody teaches Antarctica in this way. It doesn't have a place. There's not a tradition, a Pyne school of Antarctic engagement didn't result. The trick on that is to make your intellectual enterprise social. So you want to do a short piece or even an essay, a short book, something that is accessible to a lot of people. It gets them excited, and then they go out. And now you have this whole group engaged in this big project. That's maybe what happened to a science, how that works as well. And instead, *The Ice* is almost a gated community. In a sense, it's self-contained. It's not easy to get into. It's hard sledding if you will, and then you don't know what to do with it next. What do you do? Where do you take it? Okay, here this opened up possibilities. Here, I'll finish off the next possibility. And you have a dozen people engaged in this. They may be competing with one another, but they're all engaged in this larger project. I don't see that happening. That's part of what startles me about your interest, which I continue to be delighted with, but in a sense surprised because I haven't had that. And the same thing happened with my fire stuff. There's one book on Madagascar on fire, but other than that, nobody's done it.

Q. What about its influence on writing itself, on non-fiction writing and environmental history writing? I guess that applies to *The Ice* and your wider work.

A. I'm not sure what the question was.

Q. You've also written a book called *Voice and Vision* on non-fiction writing. I guess my question is, to what extent has one of the big impacts of *The Ice*, if not towards historians or scientists, has it been to writers: non-fiction writers?

A. I don't know about writers. It certainly made a difference in my writing. What I've learned was the value of the vision, if you will - voice and vision - of having *The Ice* become an informing principle for the whole book. And I've written a large book, it came out during the time of my Antarctic Fellowship. It ended up being called *Fire in America*. The publisher at the last minute changed things. And it's very loosely historically organized, but its just all over the place. One critic, not unkindly, described it as like what watching two TV's at the same time. And in a sense, it flips back and forth. It sort of jumps around. What I learned writing *The Ice* was how to have one thing organize everything else around it. So when it came time to write *The Fire History of Australia*, I made Australia sort of Gondwana twin of Antarctica, so Antarctica broke off, moved out of the Poles, and became a world of ice. Australia moved off into the tropics and became a world of fire. So I was able to make fire a kind of informing principle for describing. And I continued that. So that's what I learned, and that stayed with me. And that has been very valuable.

Q. I guess that takes us back to the question about place making, which is that, yes, it's Stephen Pyne making his concentric circles around Antarctica, but they are themselves based on…

the guiding principle is actually the physicality of Antarctica. It's not just you; it comes full circle. It’s listening to your environment. Is that correct?

A. It is, and that's what I've tried to do with all of my environmental books, is try to understand. That's the other thing I learned from Antarctic. What is this place about? What is the essence here? What is the character that makes it different from other places? Why do we care about it? What can we learn from it that's different? That I learned in Antarctica. It took me about two weeks in Antarctica before a sense arrived. Since then, it can happen in a couple of days now. Now that I sort of know, I sort of have a method, a kind of intuitive method, but a method for: this is what I want to know about this place. What is it like? How do I got about finding that? How do I go about expressing it?

Q. Was that methodology really born from the writing of *The Ice*?

A. Yeah.

Q. And so would you say the writing of *The Ice* then informed your whole fire histories?

A. Yes, it has. And again, for good and bad. It gives them an organization that my initial book didn't have, but it also makes it different because it expects people to accept the premise that, I'm going to use fire to organize a lot of history you think you know. It's going to look different because I do that. How do you receive that? My sense is that my book on Australia, for example, was a history of Australia, a cultural history of Australia, but told through fire. It‘s both. It's that interactions that really matters. So it has served me well, but it's also made the stuff in some ways difficult to fit into categories. And there's a limited amount of energy people are willing to invest in something that's truly new, unless they see personally a point in it. And so it's hard. It's one of these things that maybe, oh yeah, that's a great book, but I'm not going to teach it because students can't make sense of it. It's a fun thing, but they don't know where it goes. How does it connect to other things? There are always tradeoffs of that. That's what I found, being interdisciplinary or transdisciplinary or whatever the terms are, is very much a mixed bag. It can allow you to do novel things, but then novel things can struggle. Most novel things don't survive. There's an evolution. Most mutations don't contribute to further survival. They are weeded out.

Q. Have you ever taught non-fiction writing?

A. I did. I ended up, even though I was a historian, I ended up in a life science department at Arizona State. And for about 23 years. They were very polite. I taught a course on fire. So the conservation biology program was happy with that. And because I taught it historically, students could get credit for history. They have to have these sort of general studies so they could get history. They filled with biologists. So it was successful. But I didn't have any students, no students that were interested in fire. I'm not a credentialed biologist, so nobody wants me on their committee. The history department, I had spent three years initially in the history department, having transferred from the branch campus. And I realized this wasn't going to work, and they were so angry they refused to let students take courses from me. I had for a dozen years absolutely no engagement with graduate students. I had a few with the history department when I was starting and they were interested in environmental history, and then once that played out there was nothing, nothing further. And I thought I really should do something in graduate training, and I thought I could teach writing. And so I did. Actually I was invited, I spent a month at Australia National University, and they invited me, this was about 2005, I think, and they invited me to give a seminar on writing. I said, "Okay." So I began thinking about my writing in a more self-conscious and systematic way. And then out of that, while I was there, I began writing what became *Voice and Vision*. With the book coming out, I decided to teach it. Having taught it for a number of years, I realized there were other things that should have been in *Voice and Vision*, so I have a sequel *Style and Story* which covers like openings and closings and a bunch of other things. I originally thought it would be for historians, but the publisher said there's no interest, not enough interest in history, to warrant publishing this. Harvard University Press, which published *Voice and Vision* said they are Harvard and they don't do revisions. They don't do sequels. I guess if you're Thomas Piketty you can get away with things, but if you're Stephen Pyne you can't. So I wound up publishing it elsewhere. So two small books. And now I teach the International Association for Wildland Fires, this big global *omnium gatherum*. They had a mentoring program they had developed, trying to get people. And I said, you know, "I can teach writing." I've done that. I did it last year. I'm doing it now this year. I've got several people. And so I just have an 11-unit program, teaching writing craft, getting them to think about their writing, learning how to read like a writer would, and so forth. So I'm doing that. So how to express things? I've always had the sense that I don't understand something until I can express it. I've always struggled right from the beginning, you don't wait until you've gathered all of the research and you've got all the facts and everything imaginable nailed down and then begin to ponder it. I am writing it as I go along. I mean you have to be, I'm testing. So it'll be the science equivalent of coming up with working hypotheses, testing them mentally. Okay, this isn't going to work. This will. Here where it goes. And just continually evolving that. So I'm collecting stuff all the time, and then when I actually sit down to write, it's sort of, I find ways to have it gel. I tend to spend a lot of time on the structure because that frees the voice up to be a little more fluid. Not having to struggle to connect all the points, but it's very hard to get over academic training. Academic training is really lethal for writing. Any kind of public writing, in any genre. And it's very hard. There's no humor. It's always earnest. There's no joy in the writing. There's no pleasure in reading it just for the aesthetic pleasure and intellectual pleasure. So students have a hard time struggling through that. It's a detox program in a way. They have to spend half the course getting rid of all of the stuff they've had beaten into them. And then they can find their own voice, and then they can begin writing without stuttering.

Q. How much of your writing ends up in the wastepaper basket?

A. A lot of it. Less as I go along. I've gotten smarter I think at knowing what's not going to survive and being ruthless about it. And having a better sense, this really belongs. This will take three drafts. I'm just sort of experimenting and doodling, and it's going to take six drafts. I've gotten better.

Q. I guess we've just got a few more minutes of time, and I'd like to ask you, how does *The Ice* fit in as a subject matter with *Fire*?

A. Well it didn't and I resisted for decades really, the idea of *Fire* and *Ice* paring together. And Antarctica was its own book, was its own thing. They were not connected. Anyway, obviously there are transfers. My sense of how to write, a kind of driving principle. And then I realized that things depend on context and Antarctica needed a context, even within my writing, so I came up with this global design of fire books. I called *Cycle of Fire* and *Cycle in a Heroic Sense*. *Fire* is a kind of literary hero. And then I thought Antarctica could be the end of that. That's where *Fire* dies. So that's the end of the cycle. If you think *Fire* is difficult to deal with, consider *Ice*. And since then, I've begun thinking a little more systematically about ice and fire. Why do they look different? Why is writing about it different? Why do we experience them different? What does it mean for humans? We're an Ice Age creature by creation, but we're a fire creature. We're the keystone species for fire. We have a monopoly over it now. That's what we do. But we came out of Ice Ages. So now it's coming back, I've developed this idea of a pyrocene, that the sum of all of our fire practices including burning fossil fuels, is creating the fire equivalent of an Ice Age. So in that way, they're coming together.

Q. Do you imagine going - final question - do you imagine going back to ice perhaps in tandem with fire, or independently?

A. It might. For years, I hesitated to think about going back because for one thing I didn't have a lot yet to say. And I didn't want to compete with myself. If I go back I don't want to look ridiculous. It's an anti-climax. What am I going to do that's better? I can't. But I could see in the context of a pyrocene, I could see in the context of environmental stuff, revisiting Antarctica in that context, so that I'm not in a sense trying to do an update or sequel or trying to better what I did then. I was exhausted, mentally and physically, when I finished writing that book, and I didn't have a lot left. This was all before Antarctica really became an environmental issue with ozone and global warming and everything else. Now it's become.... So I can imagine doing it in that context.

Q. Great. Thank you very much, Stephen. I'll stop the recording now.

A. Okay, thank you.