**NEH Oral History - Dick Gibson**

**Interviewee: Dick Gibson**

**Interviewer: Clark Grant, Aubrey Jaap**

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 **Jaap:** Okay. It's May 22nd, 2020. We're here with Dick Gibson. Dick, I'd just like you to start out and tell me about your parents, grandparents. Just give me a little bit of your family's background, please.

**Gibson:** Well, the reader's digest version of my life would be born in Arkansas, grew up in Michigan, went to school in Indiana, moved to California for a while, went to the oil business in Texas and then dot, dot, dot, to Colorado, and then back to Montana finally. But the connection in Arkansas, which is where I was born is through my father.

He was born there in 1912, one of five surviving siblings and after World War II, many of his family in Arkansas were desperate, frankly, there was nothing to do in Arkansas except for sharecropping and scrambling and not doing much, but the auto business in Michigan was chugging right along. So his sister and her husband had already moved to Flint, Michigan.

And my dad and mother, who was from Kansas, were messing around doing this and that, whatever they could do until 1953, which is when I was four years old. And they moved to Flint, Michigan to work in the auto business. And that's what he did for his career.

My mother had grown up in Kansas and had studied psychology as a profession. Not that she really ever did much with it, but she was working in a hospital in Little Rock, Arkansas when she met my dad in 1945. And that's when they got married.

**Jaap:** When were you born, Dick?

**Gibson:** 1948. I was born before Harry Truman was elected president. He was president, but he hadn't been elected yet.

**Jaap:** Alright, tell me about going to school. Let's get the non-bullet point version of what you just said.

**Gibson:** I went to elementary school and high school in Flint, Flint Central High School. Flint was a very, very nice blue collar town to grow up in, in the 1950s and 1960s, because it was rich. We had money from General Motors. Flint had a full-fledged planetarium at the time. When you look up in the world almanac, where are the planetariums in North America? There was one in New York city, Chicago, Los Angeles, and Flint, Michigan. And that was because of General Motors and the money that they provided. We had this amazing three-story library that was just across the parking lot from my high school. We had a junior college and that's where I actually went for my first two years of college after graduating from high school.

And that's actually where . . . Well, I knew I was going to be a geologist probably since seventh grade. We had a rocks and minerals unit in science class and everybody else was disgusted, but at some point they said, "Okay, what should we do next in terms of science class?" And I was the only one that said, "Well, how about more rocks and minerals?"

Everybody else wanted to do, you know, bugs and things. Well, I like bugs too. But you know, this was clearly my love and Flint junior college was fortunate, unusual, I guess, in being a little two year college in having three geologists as faculty people. And that meant that we got to do a lot of cool things.

We had four day field trips to the Adirondacks in New York, to Ontario, to upper Michigan. And, of course, all of that stuff was very stimulating to Mr. Young Geologist, here. And, in fact, it prepared me really pretty well, I think, for when I did go away to college, to Indiana University in Bloomington. [4:52] And I transferred there as a junior. That would have been 1968 and a very interesting year and kind of the rest was history. The connection though, for me to Montana comes because of Indiana University, their geologic training program for students is out here in the Tobacco Root mountains. And so the summer of the year after my first year at Indiana, summer after junior year was when I took field camp which is what that course is called. And we came out here and I'm like, "Whoa, Montana's pretty and geology is wonderful." The field course that I took out here, I would say flat out is *the* course that truly made me be a geologist. It made me confident and able to believe that I could figure things out. And not just that you could. But how much fun it was to try. And that's the fun thing for me about geology is the trying, it never ends. And if you do actually think you figure something out, okay, well, well and good until something else comes along and proves you wrong, but that's great. Yeah.

So anyway, the Indiana connection is what ultimately led me to Montana through that course. And I did two years of grad school at Indiana University without a master's degree to show for it because my professor died and I had a motorcycle wreck during finals week, multiple kinds of things that all led to complications. But that also put me on the track to other things that complicated my life. My professor, I was supposed to be a mineralogist, and so my professor who died had a business going on the side, analyzing kidney stones. He was into weird minerals like meteorites, kidney stones.

Indiana University also was involved in the original Crest test. You're probably too young, but it was like "my half of the class had 45% fewer cavities because we used Crest toothpaste." Okay. Well that was happening in Indiana at the dental school up in Indianapolis. And my professor, Carl Beck was involved in the studies of basically the crystallinity of teeth. Is it really better if you use fluoride? Is it better, if you use Crest because it has fluoride? Which is what it came down to. And the answer fundamentally is yes, fluoride is good for teeth. You can argue about it all you want for other things, but it's good for teeth. It makes them better crystals. So he was into this weird stuff and he died. So I was his only grad student and his wife asked me, "What the hell, would you continue this business?" Because they're stacking up, the kidney stones never stop. It's like the mail, they just keep going. I mean, by the time I learned what I had to do, there were like 500 of them stacked up there. They would typically come in like, you know, 10 a day or something like that. So I learned, and then the problem became when my professor, Dr. Beck was doing it, he could construe it as research. So he could do it in his office using university equipment and all that. Well, when his wife is doing it with me as the employee, it was a little bit more like a business, not a little bit, it was a business, so they couldn't do that anymore.

So she decided to pick up and move to Davis, California, where she had some connections with the medical school. It's more complicated because I was actually dating Dr. Beck and Mrs. Beck's daughter. And Mrs. Beck was my landlady. I lived next door. It was complicated. Anyway, we all picked up and moved to Davis, California where I was in grad school for another year.

A problem there was my PhD was supposed to be working on kidney stones and the closest they had to that in the geology department was this guy who studied mantle xenolith from, you know, 500 miles down in the earth. It wasn't exactly a good match. And so I just didn't exactly get along well with UC Davis.

And so after one year of not making much money analyzing kidney stones and paying a lot of money to go to out-of-state tuition, UC Davis, I quit going to school, but had two more years of languishing and running out of money. And it's the poorest I've ever been in my life. It's the time when I would stretch three boxes of macaroni and cheese that you could get for a dollar into nine meals. That's, that's how that was. So that's my claim to fame as a poor person. It was never that low ever again.

**Jaap:** Clark is shaking his head like "I've been there, done that."

**Gibson:** I think most people have at some point. So I had a friend in geology from Indiana who had got his PhD at the University of Montana here in Missoula. And this now we're up to 1975. And in 1974, Bob had just gotten a job with Gulf oil in Houston.1974 and 1975 were the boom, boom, boom of the oil business. They couldn't hire enough people. And so they knew of my dire straits out there in California and eating macaroni and cheese forever. And they kept saying, "Come to Houston, come to Houston, you'll have a job in three days."

Well, I was this idealistic 1960s type person who didn't want to sell out to the oil industry. Didn't want to live in the big city of Houston. Didn't want to live in Texas at all. No offense, but I didn't. So it was a drawn out procedure to make that move. But I finally did, got the smallest U-Haul that would fit behind my Volkswagen beetle and drove from Davis to Houston. By the time I got there, it was like February, I think, of 75. It took three weeks instead of three days, but I did, I got a job as a geophysicist, looking at gravity and magnetic data for the oil business. It's about as different from kidney stone analysis as possible. And so that really started my true career as an oil exploration geophysicist.

Although when I'm introduced as a geophysicist, I'll tell people I'm really actually a geologist. I just use geophysical data. And that was actually my niche. My niche was, I was a no offense again, but a better geologist than a lot of the geo-physical people that worked in the oil business. That meant I could talk to managers because I could talk about rocks and anticlines and stuff. Whereas the geophysicists can talk about sound waves and half spaces and things that oil companies don't really care about.

**Jaap:** So why do you analyze kidney stones?

**Gibson:** Oh, that's a good question. Because the mineralogy, the composition actually makes a difference in terms of the treatment. For example, there's one that's a magnesium phosphate. That's called struvite and it only occurs in bat guano other than in human kidney stones, pretty much. And it is almost always associated with certain kinds of bacterial infections. So if somebody is making a struvite kidney stone, you can cure the infection and you might cure the kidney stone. There are some, one calcium phosphate mineral that only forms in a very certain acidity range, a very narrow acidity range. So if they're making brushite kidney stones, you can do whatever to change the acid base balance in the body. And hopefully they'll stop making that kidney stone. They might make something else. Kidney stones are not that well understood in terms of all the variables and the complications that go into them. It includes things like genetics and diet, water quality, all these different kinds of things, but that interplay of all those things is really not completely well understood. I might even say still, not even that well understood at all, frankly, but analyzing them is not just a game to make more money for doctors and hospitals and me. At least in concept, the idea was that knowing what they are made a difference in terms of what the possible treatment might be.

**Jaap:** That's fascinating. So you're in Houston. What happens next?

**Gibson:** I worked for Gulf oil, big oil. Well, actually. I started with a little consulting company that acquired aero-magnetic data. They flew airplanes around with a magnetometer measuring the earth's magnetic fields. So those were my first projects.

And then when my friend, Bob Langston, left Gulf because they couldn't stand Houston anymore and moved back to the Pacific Northwest, I knew there was a vacancy in their gravity magnetics department. I applied and got that job. So I was with Gulf for about eight years. It was great. The office of Gulf that I worked for was out in the suburbs, which is a plus. I didn't have to go downtown. Gulf Oil was a very laid back kind of a company, which meant you didn't have to wear ties. And the office I worked for was called the technical services center for Gulf Oil. That meant that we were like consultants inside the corporation. That meant I got to work on the world, wherever Gulf Oil was doing stuff. So I wasn't working on Texas or the Gulf of Mexico. I was working on New Guinea and Wyoming and all these other kinds of places. It was also their training center. So I got to help do training for new geophysicists that were coming in. The program was called "experience broadening", which was mostly just to give them a feel for the kinds of information that would be available to them, whether they used it or not.

And in that connection, I got to go on the West Texas field trip every year, twice a year sometimes. And, and yeah, that's a lot better than being in Houston. So my experience with Gulf was very good. And I was young enough to not care that much about Houston. And but the ability to get to do things and work on stimulating geological problems was really outstanding.

The office I worked for, just in our department, had over a hundred geoscientists. So if somebody calls you up and says, "Hey, we need to know about the gravity map of Belize. What can you tell us about that?" I can say, "I'll get back to you." And then I walked down the hall to this guy who I know has worked, he's not a geophysicist, doesn't do what I do, but I know he's worked on the reefs and things like that in Belize. And so I can get up to speed in 10 minutes and call back and act like I'm smart. Acting like you are smart is a big deal.

**Jaap:** I don't know, if you can understand that in 10 minutes, Dick, you are probably pretty smart.

**Gibson:** Well acting is a significant part of it. Eventually you learn stuff, but acting is key.

**Jaap:** Good to know. Good to know. All right. So how long were you with Gulf for?

**Gibson:** Almost eight years. And then, wonder of wonders, the great merger business began to happen. And in 1984, Gulf was acquired, taken over by, or merged with, depending on what you want to call it, Chevron. At the time it was the largest merger in American history. It was worth $13 billion, a lot of money in 1984. Now little companies you never heard of are merging at that kind of prices. It sounds like it would be awful. And for some people it was. For me, it was like kicking out of the nest. It was like, "Oh, I can go. I don't have to live in Texas anymore. I can move to Colorado." Still in Denver there was a pretty good center for oil exploration. And I can be a consultant because I think I'm smart enough and have enough connections. Well, maybe I was, maybe I wasn't. But probably about 10 other people of my vintage say 8 to 10 to 12 years of experience in the oil business were also leaving Gulf and they all banded together and they created a consulting company. It was called Everest Geo-Tech. It was based in Houston and I traveled back to Houston a whole lot to do projects and work and interact and market and all those kinds of things. I can tell you that it's really different living in Denver and traveling to Houston, even if you go for two months at a time, than living in Houston. I was happier, a lot happier. And that company was actually in business pretty much through the eighties until 1989. And some of those were difficult years in the oil business. In 1989, they really just couldn't sustain it anymore. So at that point, I became a true on my own consultant, meaning I did whatever I could convince somebody to pay me for.

Well, not whatever, geological things. Consultants are often called prostitutes anyway, but. And the good news for my starting to be a consultant in 1989 was what's the most important historical event of 1989. Do you remember? You're not old enough. Do you know from history?

**Grant:** Soviet Union.

**Gibson:** Yeah, the Berlin Wall came down. The Berlin wall came down and the Soviet Union effectively began to collapse. What that did was it made all of the Eastern bloc, the Warsaw pact countries now more or less available to exploration for Western oil companies.

And I up in Denver had been in an office that was literally across the sidewalk from the USGS library, the US Geological Survey library. So I'd go over there for lunch breaks and just to browse and look at all the wonderful, cool geological stuff. I'm opening drawers. And I find this drawer full of magnetic maps of the Soviet union, incredibly full of information. Well, I closed the drawer because, you know, in 1986 it was irrelevant. I couldn't have done anything on Soviet Union. 1989, the world had changed and I was off at conventions trying to promote myself and learning what was hot. And, of course, what was hot, was Russia, or it was still the Soviet Union. And so I went home and I put together a proposal saying, "Hey, I could make a Western style interpretation of the magnetic map of the Soviet Union, a detailed oil exploration oriented project. That would take me a year. Do you want to give me money up front to work on this?" I got five companies to do that, five companies on four continents. And so that was really, truly my first aggressive, active on my own consulting project. I spent all of the year of 1990 doing that?

**Jaap:** Was that exhilarating?

**Gibson:** Beyond exhilarating. I would say it was probably, short of field camp, it was probably the most exhilarating, informative, and mind expanding educational experience I've ever had. Because there were a lot of things that were essentially discoveries on my part. It was stuff that the Russians knew, but, you know, it's all buried in Russian literature that I didn't really have access to. So learning the tectonics, the geology and the oil systems and all those things of one sixth of the land surface of earth was a very big deal. And it also paid off too.21:42

It was really successful financially. So then after that, as a consultant, I just kinda did whatever came along. Although, I think my niche became continent scale projects like I interpreted the entire gravity map of Africa. The gravity map of South America, did an integrated look at the entire country of the United States. Half of China. This Soviet Union project, more or less the coastlines of all the world. All this for clients, for oil exploration.

**Jaap:** That's fascinating and I'm not sure I understand. That's amazing. Okay. Continue, then, so you're doing consulting work.

**Gibson:** So also, when I became a consultant, I became free to control my own destiny, so to speak. And the choice is usually, I would say not usually, always, two choices either you're so busy that you have enough money coming in, enough work coming in, that you can call the shot and say, "Hey, I'm going to take time off." Or so little was coming in, it's like, "Hey, I might as well take time off." So, what that led to was another important chapter/ aspect of my life that was simultaneous with being a consultant. And that was, I started being a volunteer instructor at the Indiana Geologic Field Station here in Montana. Because as I said, that was the heart of my own career educational development as a geologist. I'm now living in Denver, astonishingly with both enough money and enough time. How amazing is that? You either have so much money, but no time or so little time and no money. It was an outstanding wonderful time in my life that I can say, "I'm just going to go to Montana for six weeks and teach field camp." And they were all like, "Wait, what do we have to pay you?" "Well, you have to feed me, give me room and board." And, and so starting in 1989, I did that for 14 summers. And actually as we progress that led in 1999, the years with nines tend to be interesting years for me. But in 1999 I was getting older. I was only 51, I guess.

So I had taught field camp there, helped teach, these are team efforts, five faculty, five TAs and staff, and all manner of things. It's not just me by any stretch. And, thoroughly, thoroughly loved it. And in 1999, consulting was, let's just say paling a little bit. It was becoming more work than I wanted to put in to get enough money to pay the rent. Actually, it was easy to get enough money to pay the rent, and I was never driven like some people to buy a mansion. So I lived in a townhouse in Denver and paid rent. And so in 1999, the Indiana Field Station needed a new resident manager. Someone who lives there all year long to mind the place, fix it up in the spring before the students get there, that kind of thing. And it had always been kind of a dream concept to do that because the place is a wonderful, spectacular place. Anyway, the bottom line is they said, "Hey, if you want to do that, the job is yours." And so in 1999, I moved there and started living there as their resident caretaker, still teaching in the summers. The first year was kind of like a mountain man kind of an experience because, well, I mean, I had electricity and I had a dog, thank God for the dog, because as it turns out, I'm actually more social than I thought I was. I'm not as much of a hermit as potentially I might've imagined. So the first year with no incoming things like television, I had a TV set and I had VHS tapes. So I had stuff, but I read a lot of books and played with the dog a lot that year. And the following year I broke down and got a satellite dish and after four years it became pretty evident that, okay, this was a fun experiment. It's really great, but I needed to move on. And that's when I moved into Butte in 2003.

The choices in 2003, were I could either move back to Denver and work hard to pay the rent, or I could move into Butte and live cheaply. And that's what I did. And I know that sounds like a cliche or a joke, but that is literally why I moved into Butte was because I knew it would be cheap. And the rest, as they say, was history, Butte history.

**Jaap:** So were you familiar with Butte really? I mean, because you spent so much time in the summer?

**Gibson:** I knew Butte had a big copper mine. I knew that Butte had a big pit. I knew that the pit was not working anymore. I knew that I'm done. That's all I knew. That's almost literally what I knew. And it boggles me to this day, looking back to see how number one, how excited, enamored and whatever I became about Butte and how knowledgeable and productive I am about Butte. If you'd have told me that I would've had this level of a career about Butte history? No. I would have laughed uproariously because I'm a geologist. This is my career. This is my life. This is my passion. Well, now I've got two passions, geology and Butte history. And I would not ever remotely have guessed, not ever in my life. It was not on the table. So it just evolved, you know, and all these things evolve. But that one is a little more unexpected for me personally.

**Jaap:** Yeah, because if I was to think of one person that you would think is from here, it's you. I mean, when you just look at . . . You're Dick Gibson. Everyone knows who you are.

**Gibson:** I counted it as a real kudo. This is early on before I'd even done very much. And I met Ellen Crain and we're talking and she's like, "So who were your parents?" Because she assumed I was from Butte. Right? Well, I basically told the short story version of what I've just been telling you and to have Ellen think that was a very big deal, still is. And all I can say is I just have curiosity and I get excited about things. The one story that I used to tell, I'll tell it again, obviously, I was just walking down the street after I started learning things. I'm not even sure when it was, but I remember crossing Idaho street just over here. Two blocks from where we're sitting right now. And having learned like that day or the day before that in 1920, 3000 people had walked down that street from, I forget the guy's name, Scanlon or Scannon. Where Tom Manning lay in state after the Anaconda road massacre, that they walked right down that street that I was just now crossing casually. Well, that kind of freaks me out when those kinds of things happen or to walk on the sidewalk. I'm not sure which part has been replaced, but there used to be old sidewalk in front of the carpenter's union hall. Is it still old or is it new?

**Grant:** It's pretty old.

**Gibson:** I think it's pre 1910 old. That means Carrie Nation walked on that very sidewalk when she went into the Carpenter's Union Hall in 1910. Yeah. And Emma Goldman, people like this are just walking on these very streets. Well, that was all just boggling to me, to see these international connections that Butte had. And no, I didn't know shit. I didn't know anything about that. So those were the kinds of things. And a lot of it was personal stuff too. I had been doing some volunteer work at the Bureau. I was helping them do editing at a time when their editing was short staffed or something. I was going in once a week. This started when I was actually still living at the field station because I was lonely. Me and the dog. And so I needed one day a week of social life. I guess I'd come into Butte. Anyway. Dick Berg, who is a retired geologist at the Bureau, he knew me through various things and he was in there talking to me and after they knew that I'd moved into Butte, he's like, "Well, if you want to do something . . ." I moved in May. And he's like, "If you want to do something this summer, you know, volunteer at the Mining Museum. They always need volunteers." Oh, that'd be, that'd be good. That'd be fine. So I'm all hot to trot to, you know, get out there and I'm calling up, getting the appointment. 'Cause there was a thing in the paper, volunteers at the mining museum, yada yada yada. Well, three people showed up, of which I'm the only one that I ever saw again. I'm the only volunteer that showed up. Well, there was a vacuum and Gibson abhors a vacuum. And so I just did stuff and filled it up and I'm out there doing whatever they told me to do, sort old maps and clean this and clean that. And I'm doing it in buildings of the mining museum that are normally closed.

And so the tourists are walking by and they're sticking their heads in. And of course, I'm going to talk to them. Well, the bottom line of all that it evolved into, I put up a sign that said, okay, "3:00, 20 minute talk on Butte history." Or I just learned 20 minutes worth of the outline of Butte history because I needed to know it because people are asking me. So another domino theory happening here. That connection ultimately led me to meet Mitzi Razilian who at the time, I believe was the president of the board of the mining museum. Well, Mitzi is very involved in Butte CPR, the building preservation group. Okay. Well that turned into a whole 10 years or more worth of doing stuff. I started doing their website. I think I was their secretary at some point. And you know, you do stuff. It just was the right place at the right time. The CPR then led to the tour company when Mike Burns and Denny Dutton started, they didn't really discover the speakeasy, but they cleaned it up and popularized it and started doing tours.

And by 2006, so I'd been here not quite three years, I guess. Yeah. They were ready to have other people to help do tours. I raised my hand, walked around a couple of times, and again, the rest was history. Between the walking tours . . . then that expanded to driving the trolley again, because of Denny, mostly because he was driving the trolley, they needed another trolley driver. He was like, you should be a trolley driver. Okay. What do I have to do? You have to get a CDL. And that was complicated, but otherwise it was fine. That led to the Mai Wah somehow or another, you know, they needed board members and all these things just happened. And actually through the driving the trolley for the chamber, I met Cheryl Ackerman, who was the front desk person there at the time, and we got to be friends and then she was leaving there because her husband had retired from whatever business he was doing. And they bought the building that is now the Miner's Hotel. And they're going to put in a hotel and they have this whole wonderful ground floor, What can we do down there? And so we brainstormed for a little while and came up with the Butte labor history center. Well, so it's all just evolutionary, with a little incest thrown in.

I really kind of do think of it as not just a row of dominoes, but like, you know,18 rows of dominoes that are kind of weaving together. And I think in my head, I think of the Venn diagrams of my associations, you know, there's the radio station circle. There's the archive circle. There's the Bureau circle. There's Montana Tech circle. There's the tourism circle. There's the preservation circle. And all those circles, they're all in there. I have never had as diverse of a life as I have in Butte in my life. Not by a long, long, long, long, long shot. I've been happy. I like hanging out with geologists and geologists are not even boring usually.

At least not for other geologists. They're not anyway. But to be able to just sit down with not even random, but good fun, interesting people and have conversation about all these different kinds of things. Butte is truly the most interesting and diverse time in my life by leaps and leaps and leaps and bounds. 35:49

**Jaap:** We have had so many people come in for various different things and they always say, "Oh yeah, I'm meeting someone later. His name is Gibson." For all sorts of projects. And then yeah, usually we run into you guys at the Quarry giving them a tour. Yeah.

**Gibson:** Now I feel like an old, because I'm making cliches up about myself, but one of my favorite lines at this point is, you know, the scariest words in the English language are,

"Excuse me, are you Dick Gibson?" And I had that happen, I was at the Quarry one time, I was standing with Bill Noax, who kind of looks like me a little bit. Although, nobody who knew us would mistake us and this little guy with a beard from down the aisle, because Liza said, "He's over there," comes up to me and Bill and says, "Excuse me, would one of you gentlemen be Dick Gibson?" Well, number one, you're turned off by that "gentleman" thing. But then of course what I said was, "Yeah, it's him." Well, it turned out that person was Don Andrews, who is one of the co-founders of the Covellite film festival. And he wanted to talk to Dick Gibson about doing a 15 minute talk about the Covellite building, the Presbyterian church. So that's okay. I mean, it's kind of a joke to say that those are scary words. It's always worked out. No one's arrested me yet or anything.

**Jaap:** But you are a mystical being that people know about you and find you and yeah, it's kind of fun.

**Gibson:** Well, it's kind of fun up to a point.

**Jaap:** Is it hard?

**Gibson:** Well, it isn't hard. I hope I'm not so immodest that when people kind of fawn over me that I don't feel uncomfortable. 'Cause I do, I do feel uncomfortable when people act like I'm God's gift to something or other, I don't like that. But I can usually disabuse them of that after one beer.

**Jaap:** So kind of as you're talking and I feel like with people we've interviewed, I feel like since the eighties and even today, it's like people who aren't from Butte that are trying to get Butte people to be like, "Hey, you've got something here. Let's do something." Why do you think that is? Have you ever noticed that?

**Gibson:** Oh yeah, right. I was walking down Broadway street, doing a tour. And I'm just talking about things, you know, because it's what you do on the tour. And this guy turned, he was from Portland. He literally grabbed me by the shoulder. He grabbed me and he shook me and he's yelling at me. And he's saying, "Do you realize what you have here? You have a national treasure." And I'm like, "Yeah, I know. Write a letter to the editor, tell everybody else in the city." This was at a time when preservation was, shall we say, more frowned upon than maybe it is today. That there was a lot of head-to-head anti-preservation activity and thought. From the pulpit of the council chamber, people referred to the out-of-town do-gooders, which included me and not in a good way.

**Jaap:** I find it very interesting. Yeah. You know, people who were born here or families from here and they don't seem to care. And then, I mean, you Mitzi, Mary. We talked to Janet, like, it's just interesting, I guess that wasn't really a question.

**Gibson:** I think the answer might be that it's not just Butte, it's the case with any hometown. If you live there all the time, it becomes blaise, it becomes complacent. It becomes just whatever. It's just, those are the buildings that I've seen my entire life and I'm 89 years old. So what? You know, I mean, I'm not 89, but you can visualize people who would say that. You just don't. If I were to go back to Flint, Michigan, which has pluses and minuses I can't imagine that I'd be excited about it, except sort of maybe objectively from the historic point of view. I wouldn't care. And I suspect that a lot of people who live there and have their entire lives don't care either. So I don't think it's a Butte thing that people don't care. I think there's just an attrition, a complacency from the place that you're familiar with and outsiders come in and see and are blown away. And for some like Mitzi and the people you're talking about it definitely the architecture per se, for me, it never was the architecture per se. I like the architecture. It's the stories. Yeah. It's the things that actually happened in those connections. And that actually led to the book Lost Butte that I put together, because it uses the architecture as the vehicle for the stories. Because you can be warm or cold as you describe an old building. It is still just an old building until you hear about Mary McLean or Carrie Nation or Emma Gold or Frank Little and the things that happened. 41:11 You're talking about outsiders, I've had people who have come to Butte, knowing nothing about Butte, except that Frank Little is buried here. From London, England, they came to Butte because Frank Little is buried here. Frank Little is a big deal. And I think a few of those kinds of things, the word's getting out, even among old-school Butte, people who haven't paid attention really for maybe their life that, "Hey, it's a bigger deal than maybe you thought." It's like John McKee and Courtney say, you know, "It's a big damn deal."

And, and it is.

**Jaap:** Would you want to talk about geology? Talk to me about Butte's geology, a little. Did you know?

**Gibson:**I knew there was a big granite body over here, the Boulder Batholith. Now I'm done. That's what I knew because where Indiana's field camp is over there in the Tobacco Roots, outside the batholith and the Indiana field station is there because there is so much diverse and almost complete, in terms of the geologic time table, rocks to look at and study. And the more amazing thing is that they're on scales that are small enough for students to wrap their brains around in about three, four, five, six days. You don't have to map an entire summer to figure out what's going on. You can go to a tiny, well, geologically tiny, let's say two, three, four square miles that kind of size and walk around in it with instruction and guidance and figure it out. And that's what they've been doing out there since 1949. So it's a great place for that to happen.

Butte’s geology, the Butte mineral district, of course, is world famous. And the Richest Hill on Earth, which sounds like a Butte brag is actually almost certainly true. There is very little doubt that Butte is not the most valuable single mineral district on the entire planet in terms of everything that's been produced here. So it sounds like a brag, but it's, well, it is a brag, but it's not a misleading one, the only possible exception, and I'm trying to figure this out because I don't like making up stuff . . . I'd like to say true things. Actually, I love making up stuff, but then I like telling them why it's wrong. It's like the famous Leonard Hotel story.

**Grant:** Where he built the hotel to block the view.

**Gibson:** Right. Is that true? Yeah. And it's not, and it can't be, so the history that corrects that myth is more interesting to me. Anyway, Potosi, Bolivia has produced well over 2 million ounces of silver, whereas Butte at number three in the world is about 750. No. Did I say million? I meant billion. 2 billion ounces. Butte has produced three quarters of a billion. 750 million ounces of silver, which makes it number three in the world. Number two is Kellogg, Coeur D’Alene, and that's really an entire zone. It's not one district. If you forget that, then Butte is number two for silver in the world. Forget all the copper, it's number two for silver. Anyway, Potosi might be more valuable. The problem is most of that silver came out in the 1500's. So how do you value it? How do you reckon and put it all in terms of one number? Anyway, I'm not uncomfortable saying that Butte is almost certainly the richest hill on earth. And the mineral diversity is huge too. We're famous for all these metals and things like that, but I think there's like 174 different minerals that have been found in the Butte mineral district. And I promise you that there's a fair number that I'd never even heard of either. Um and a whole lot that I've heard of it. Now I'm done. I don't know what that is. Probably a copper mineral. Maybe. That's a good guess.

In terms of the Boulder Batholith, the thing that holds the Butte mineral district. That's pretty straight forward. That's the standard process called subduction where North America collides with the Pacific oceanic plate, the oceanic plate goes down, subducts down, becomes hot, ultimately pieces become molten and they come blobbing up like a lava lamp. And then that solidifies and that's the granite of the Boulder Batholith. The better question is why is it all right here? Why do we have all these minerals within about five square miles? Because the Boulder Batholith is 120 miles long and 40 miles wide. Why right here? That's a really good question. And I would tell the tourists that I think it's the luck of the draw. It's just inhomogeneity in the early earth. There was a blob of good stuff more or less right here. And it's been sliced and diced and partially melted and pushed around and shoved and whatever, but it's still kind of right here. And I think that's as good as any other explanation for that.

**Jaap:** Great. Interesting. I've always wondered that. Okay. Clark, do you have some questions?

**Grant:** I made my list. Dick, I didn't know you were from Arkansas.

**Gibson:** You didn't know? Oh yeah. The other corner from you though. Jonesborough,

**Grant:** Right. Okay. Interesting. Maybe we can talk about that at one time or something. I don't think of Arkansas. I think of you.

**Gibson:** So I only was there from like zero to two.

**Grant:** Okay. Lucky you. Well, usually I just kind of start near the end and go back to the beginning, you know? I don't know why this question came to mind, but I'm hearing you talk about, you know, the effect that people have long ago been walking on the same sidewalks as you, the effect that has on you and how maybe that compels your interest in Butte history. To some extent, I wanted to ask, is nostalgia a good thing?

**Gibson:** Oh, it's a wonderful thing. At the same time, I don't think of Butte as a museum. I know preservationists who are so sticklers for the letter of the rules and yada yada, that it's detrimental to the cause, as far as I'm concerned. I hate it. Um, nostalgia is a wonderful thing. History is a great thing, especially in a place like this, where it's living. But Butte is not a museum. It's a living city. All that means to me is that instead of just throwing up true monstrosities, that you honor that history, to me, the best example of that would be the, the new Northwestern energy headquarters building. That's a new building. Well, it's supposed to be a new building. It was built in 2015 or whatever year it was built. But to me it absolutely honors, not just Butte in general, it honors the very corner that it stands on. You couldn't have put a little building there, no offense to U S bank. I like U S Bank, but that building is useless on the other corner there. That corner needs to be massive. And with the Metals Bank on the one corner and the Northwestern energy building on the other, that corner is honored in terms of the way it was and the role it played in Butte. And the building itself, the details of it, the brick, the copper, the glass on that building, the cornice which emulates the Hennessy building. All of those things to me are just waving the flag outstandingly good. And you do that with a new building. I don't want anybody to build a new building that looks like an old building, even the building right here next to us, the archives extension, the vault over there is a new building and it doesn't look like an old building. It emulates the historical aspects of it and it fits in. To me, that's what you do. You honor the history. You don't try to replace it. And I'm sorry when buildings have to come down, but I'm also, I hope, more or less a realist. Things do fall down. And when it is done in a wonton unreasonable way, well, I don't like that at all. But at the same time, I'm definitely not in the save every building camp. That's a silly thing.

**Grant:** Have you seen wonton, unreasonable demolitions in your time here?

**Gibson:** I personally think that the destruction of the Greek cafe was wanton and unreasonable. The building, you know where it was. Okay There were many thousands of dollars on the table, of grant money and there was a willing builder who would have saved the facade and essentially built a new building on the inside. But rather than take that builder's money and the $75,000 in outside grants that were available to rehabilitate it, the city chose to spend $100,00 to demolish it. And it sits there a vacant lot today. And that pissed me off and it pisses me off to this day.

**Jaap:** That building in particular . . . that was really heated. Why do you think that building was so controversial?

**Gibson:** That's a good question. Without speaking for anyone else, of course, I guess I feel like that there were elements within the city government at the time that were almost as adamantly opposed to saving things as those recalcitrant preservationists that I mentioned were about saving everything. And that was a head-to-head thing that was never going to compromise. I mean, the fact is there was no compromise. So that's all I can interpret, but it's purely interpretation. I don't really know what was going on in some of those people's heads.

**Grant:** Care to name anybody?

**Gibson:** No.

**Grant:** I was curious if there are any other notable moments on all the tours you gave, all those years that you were doing that. People grabbing you, you know. What other notable memories do you have from giving tours? Or can you just reflect on the tours in general?

**Gibson:** Sure. I mentioned Frank Little. I was at the Berkeley pit on the trolley and that's the only place we stopped on the trolley. So, we take the people out there and I had given my spiel and as often there were some people in the background and then I told my people, "Okay," I look at my watch. "You have seven minutes to spend all your money in the gift shop and then be back on the trolley." 52:50 And they all rushed out to the gift shop and there's this guy standing there. And he had been part of the non-trolley group, people that were just standing there listening, and that's always fine. And he walks up to me. I'm now alone at the viewing stand and he says "Hi, I'm Mannus Dougan." I'm like, you can't be Mannus Dougan. Mannus Dougan is dead. Mannus Dougan is the man who saved something like 22 people in the Granite Mountain fire and then himself died. And his wife, this is 1917, his wife was pregnant with their daughter who was born, I believe three weeks after. Actually, I think 4th of July is when Mannus' daughter who his wife named Mannus was born. So number one, Mannus Dougan is dead, number two, the daughter . . . anyway, this turned out to be Mannus Dougan the third. And that just kind of, it's the only time at the viewing stand that we have left late because of me as opposed to the tourists being stuck in the gift shop. Because I could hardly believe that. And there've been a few other things. That's probably the most dramatic one. But those kinds of connections come along and they're moving.

**Grant:** 'I'm Mannus Dougan.' 'No, you're not!' I want you to just comment more if you would on your writing and publishing because I mean, Lost Butte, Butte Rocks. I like that little pamphlet, which you gave me once.

**Gibson:** I suppose I've always been some version of a writer or at least aspiring to it. You have to write to communicate. And so writing reports and things like that in my oil career were a big deal, important things. And just having stuff in my head in I hope a relatively coherent way. I'm proud of my trolley tour. I thought it was a very coherent following, building upon the rest of it. And I believe that it truly addressed all of the themes of Butte, the ethnic themes, the industrial themes, the architectural themes, the labor themes. They were all in there. I had a lot of people tell me at the end that it was a really great tour, but I wish I'd had a tape recorder, you know, and I know I was throwing a lot at them. I don't care. Throw it, take it or not. So having all that in my head, what happened with regard to Lost Butte was I saw, I'm not sure where, it must've been on Facebook. Something or other that I've subscribed to. Anyway, I came across this book. It was called Lost Washington, DC, published by the History Press in South Carolina. And I'm like, I look at it and it's essentially what I'm describing stories of Washington DC, but based on buildings that are gone, that's the lost part. Buildings, the physical infrastructure of Washington DC that are lost. Hear the stories that relate to those things. And so I'm looking around and find out that, Oh, they have a whole series of "Lost fill in the blank." And I looked to see and they don't have anything in Montana at all. So I'm like wheels turning. I could do that. It is only 35,000 words, which in the grand scheme of things is a pretty thin little book really. And so I'd go to their website and I clicked around, they have this really nicely organized seven page proposal thing. You don't even have to draft your own proposal, just like fill in the blanks. Well, not quite, you have to write some narrative paragraphs and stuff. And I sent it off. Well, I spent probably close to a month on tweaking it and agonizing about it. Because I know enough about the publishing business to know that what I'm about to send is essentially a proposal slash query letter and query letters are the thing that make or break it really ultimately that's their first impression. And often the only impression. They will say, "Oh, he's got five typos. He's out." So I'd say after a month of messing with it and tweaking it, I sent it off. And it was bizarre because I sent it by email and that afternoon, I get a phone call from this lady who is the acquisitions editor for the History Press. And she's like, "Well, we're very interested." "Really?" I mean, I was immediately skeptical. I was like, because publishers don't call you on the same day that you send in a proposal. It just does not happen. So I'm instantly skeptical. Although, I thought I had vetted the History Press and recognized that they were one of the most important local presses for local history that there is. Turned out that was correct. Anyway, so we chat and whatever. And then she calls me back. I don't know what she asked, but she called back in like five days and said, "One question . . ." This was like in November. "You say that you can be done in May. And is that true?" And I said, "Well, yeah." "Okay, then I'm taking it to the editorial board to have them review it." "Oh, wow. When are you going to do that?" "This afternoon." "Well, how long do you think it'll take them to decide?" Because once it's at that level, we're talking months. "They'll decide this afternoon." Oh, okay. I mean, I'm not very easily made speechless, but I was damn close on that because I know enough about the publishing business to know that I didn't think that was how stuff worked. It turned out after the fact, after it was published and they were happy and everything, it turned out that they, the History Press had literally like more or less that week been having discussions. How do we get Butte Montana on our list? Oh, and my thing showed up, they must have felt the same way that I did. Like, is this the Nigeria scam letter of proposals about Butte, Montana? But it was kind of mutually fortuitous. Oh my God. Nervous. And so after and before it was published, I started the Butte history blog which was about things that didn't go into the book, a lot of things that didn't go into the book, but it was an easy way to have stuff out there and visible and accessible. And then that, all of that ultimately led into the newspaper article series and podcasts that we're recording for KBMF. So I'm a great recycler, you know, they're all in different places. Mr. Wonderful Editor, David McCumber at the paper had no problem with recycling things from the blog or from the book into the newspaper, because that's a different audience. He had no problem with sharing them effectively, verbatim on the podcast for KBMF because that's a different audience. And especially the time frame is not even close. It's not like the podcast is going to air the same week that one appeared in the newspaper.

**Jaap:** I want to thank you for your writing. Because I use it all the time. It's a great jumping off point. I mean, I get on your blog and, or book all the time as a quick jumping off point, and I know you've done your work, so I know I can trust what you're saying and we use it here all the time.

**Gibson:** So, of course, I appreciate that. And, of course, I do try, and, of course, I have made mistakes, but there aren't that many, I hope. And sometimes it becomes a matter of interpretation and that's fine to have discussions about that. But a factual thing, I hope that I've checked most things adequately.

**Jaap:** Can I ask a question real quick? How do you feel about certain trolley drivers that maybe embellish history too much? Does that irritate you?

**Gibson:** Yes. It irritated the hell out of me when I first started doing it to the point that I essentially threatened to not do it. And in fact, if you want to know, this is not for publication, but at the walking tours, because of the embellishment that was being done, the lies that were being told, I did quit for like a year until the present owners Bob McMurry and Debra Pierce bought the business and me and Denny basically came back and said, "Okay, we will work for you as long as you are accurate and don't make up shit." 1:02:28 But I had quit the walking tours because of the stuff they were making up. That never happened at the trolley. But at the trolley, it was like they're telling that story about the Leonard Hotel and a few other things, and I'm just like, you can't do this, you can tell the story, but then tell why it's wrong because that's even a better story. What they're doing now, I don't really know, but I'm confident that in the time that me and Denny were actively involved with the trolley, that there was little of that kind of embellishment going on. I can not speak to today.

**Grant:** What advice can you give to new researchers about research methods relating to Butte history?

**Gibson:** I would just ask the people at the Archives.

**Grant:** Those people reading your newspaper article.

**Gibson:** Seriously, of course, the Archives here are astonishing. And I'm not the right one to make comparisons because I've never been anywhere else. Well, that's not quite true. I've been to the historical society in Helena and that's about it. I've never done any kind of historical research otherwise. The ability to now search so much information in the old newspapers online is incredibly wonderful. Just fairly recently, and I think it's because whoever it is, newspapers.com or somebody has digitized more newspapers. Jacob Riiss was one of the original muckrakers. He did a photo essay about the tenement life and in the slums of New York city called "How the other half lives." And he came to be in 1906 and he spoke at the Mountain View Church. I walked right past the plaque that says, so on my way over here, and I knew that, but I could not find the information about his visit and what he talked about and what program he was here with for years until literally like about six months ago. And I just frustratingly did another search for Jacob Riis in Butte. And here it shows up, you know, the December 10th newspaper that apparently went out there before. But I didn't find it. And it's the whole thing about his visit to Butte and the talk that he gave and all these kinds of things. So he spoke there in that church. In an interesting series, you haven't heard it yet because I have it, but it was in the paper. The series was the Butte High School Teachers Speaker series and having people like Jacob Riis coming. They also had a former governor of I think it was South Carolina who was an avowed white supremacist at the time in 1906. He came and he spoke. I mean, it was a wide ranging speakers series put on by the Butte high school teachers. So what was the question?

**Jaap:** Research methods.

**Grant:** Yeah. Just keep Googling?

**Gibson:** Well, the Archives is, yeah, Google is important because it's so straightforward and the Archives is so well-organized that it's actually easy to find things, if you really know what you're looking for and just knowing it, even without their help, the vertical files are just wonderful. And then when you know a date, you can just walk across the room to the newspaper that has that thing in it. Here's a story about that. I was in the basement of the Dellinger block, that's the building where the walking tours start.

I was down there for some reason or another one time with Denny Dutton and all the walls were covered with black tar paper, you know, that stuff. And then some of it was like peeled off and you can see some graffiti on the wall behind it. So we just started peeling it all off and there was graffiti galore, that was all written in shoe polish because Gamers' Shoe Store had been in that building and we're talking about the 1910's. And so we pulled it all off and it's all these clerks and whatever. And because of the directories that are here accessible in the archives, you can look stuff up.

Well, at the time I was not really writing articles. I was doing tours and stuff more. But there was this name, R. Liljemark. R. Liljemark. He had it on there twice, came 1911 and then I don't know if he had a ``went or not, but because they were doing "came and went," which I assume it's when they were hired and when they quit. And in any case, Liljemark, that's a name that sort of sticks in your head if you're paying attention. So I had a tour, I don't know who they were over here to the archives and you all, the archives folks took them on a tour and I'm just standing around. Well, so I'm standing around, so that means I go look up stuff and I went in the directories for 1911 and look up Liljemark. And there's Richard Liljemark. Okay, fine. So I go through the directories forward from 1911. I went both ways, but 1911 was the first one. 1917, here's Richard Liljmakr, actually 1918 in 1918. Richard Liljmark died age 21, May 29th, 1917. Okay. Interesting. I figure a 21 year old who dies has gotta be newsworthy.

So I literally go across the aisle and get the next day, May 30th, 1917 newspaper there on like page two, little three inches worth of an article about Richard Liljemark. "The well-liked son of the South side died after two weeks of pneumonia on May 29th, 1917." The date sticks with me because I'm such a trivia freak. May 29th,1917 is the day that Richard Liljmark died. That's the day that John F. Kennedy was born on the other side of the continent. So I'm into weird stuff like that. Well, then the tour came back and I had to go, so a few weeks later I'm like, okay, what else can I figure out about this? Come over here. And I think it was Lee Whitney that actually helped. I'm not positive because I'm not really good with the immigration papers and stuff. But the bottom line of it all was we found the immigration papers for Richard Liljemkr's family. His father's name was also Richard, of course, now, you know where they come from in Norway. And the interesting thing was they came over on the ship, Campania, I think was the name of the ship, the Campania. Okay. So fine. Some boat. Some more time goes by and I think, Oh, I should look up that. See if it's on Google. I don't expect it to be, because there's just some boat. Well, it's not some boat. It was the Titanic of the 1890s. I mean, it was. It set the speed record from New York to Liverpool in 1893. It was the first boat in 1901, which is the same year that our people came over on, the first passenger vessel to have a Marconi wireless radio. Oh my God. And so it's famous and there's even pictures of a steerage compartment, the kind of place that our people probably stayed in because it was Richard Liljemark's father and four kids. And our guy was like six years old. He was the oldest one. So four kids under six years old. Wow. And so all of a sudden, because of the assets that the Archives has here. It's not just a story. It's an international story involving an incredible boat, but one tiny little increment of immigration story that of course is what Butte is all about. So that's, I know that's off your topic of how you can actually research, but for me, it's always been random luck and chance as much as anything.

**Grant:** Shoe polish.

**Gibson:** Exactly. And when I come over now, because I start racking my brain for, can I do another article or am I going to have to tell David that I can't do anymore? I will literally come over here and randomly pick some old newspaper volume and lay it out there and just start turning pages. And because my rule, my personal rules for most of this stuff is, it needs to be interesting, of course, but it also needs to be obscure. I don't want to write articles about the famous events that are in the books already. I want obscure, but interesting. And so this past week which was the article about Montana in the Columbian Exposition, the World's Fair of 1893. And I came across that by looking for something else. And the kicker on that one was at the entrance to the Montana mining and minerals exhibit. They cast a nine foot solid silver statue of Justice, not blind, eyes wide open as it was pointed out, but the sword in one hand and scales in the other hand. Nine feet of solid silver, Montana silver. Half of it came from the Alice Moulton mines. The other half came from Phillipsburg. She's standing on a silver globe, which sits on the wings of a silver Eagle. And that sits on a two foot cubicle, pedestal of solid gold.

**Jaap:** That's phenomenal.

**Gibson:** Then I found a picture, the library of Congress has a picture of the thing. Yeah. And so how could I not, I mean, of course I'd get excited, you know, how can you not be excited when you find this. And, it's reported in the journals of the day as the showstopper at the Columbian Exposition was the Montana exhibit with this nine foot silver statue, the bad news, which you know there's bad news, it was melted down in 1903.

**Jaap:** I love that when you can even see a picture and then have the newspaper description, you know, like the elk and you think okay, there's a massive elk. Cool. But then when you hear what it was made of, and then it brings it to life and it's just really cool, but yeah.

**Gibson:** And that's the character too, for the newspaper articles. It's not absolute, but David does want a picture. And so when I'm going through the newspapers here, it's kind of easy. You just turn and look at the articles that go with the ones that have pictures. And it's not that unusual that I'll find something that way or 12 somethings that way. Yeah. So that's not exactly research. But that's how I do it.

**Grant:** That's your method. Yeah.

**Jaap:** That's kind of the fun part though. It's just finding something and then . . .

**Gibson:** It is until you get frustrated, but every now and then you'll find a gem. Oh man, I remember finding it. It was in the Butte evening news, not even one of the main papers, but there was like this whole half page spread on the dogs of Butte. Famous dogs. Yeah. So they were famous in that they were competition dogs.

**Grant:** I remember that one. Yeah. What drives your inclination towards volunteerism? Because especially when you were new to Butte, you talked about how many groups you became involved with, you were on the board of many groups, Mai Wah comes to mind. So what, what drives your volunteerism? Even your initial decision to help out with the field camp was volunteerism.

**Gibson:** I don't know if this drove it, but it was important. A vital factor was I had enough money that I could, I was in a financial position to be able to. And like I said, I also had the time both to do the field course and to do what I was doing here. So not needing to make a lot of money because even in Butte, I continued to do some versions of consulting. And I think the last time I did anything noteworthy was about 2013. So I was still working. I mean, I'm not independently wealthy. I need some at least until social security kicked in. So I still did some consulting, but I was very, very picky about what I would actually do. And actually most of the recent stuff, like in 2009, 10, 12, 13, most of that was focused on Nevada where I've done a lot of work and it was for an Irish oil company that was exploring in Nevada, go figure. I really truly thought that one, when they first approached me was the Irish version of the Nigerian scam letters, but they were legitimate and they've actually drilled more than one well. Not commercial success, but it's effectively an oil discovery. So anyway, the other aspect of what would drive me, I think would be the connections with the people. And because it's fun when the people that you're associated with, whether it be doing a tour or on a board are also equally or comparably excited and competent to make things happen, then that makes it a lot easier and a lot more fun. So I'm all about just having fun. That's kind of my rule, "have fun, period."1:17:21

**Grant:** Well, in the time, since I've known you, you know, when I first moved to town, you know, you were doing TED talks and things, one TED talk.

**Gibson:** I didn't want to do that. It was because Amanda Curtis made me.

**Grant:** And you, you know, you've been very involved, but even in the time, since I've known you, you've sort of backed away from these things and limited, you know, the amount of commitments that you have to nonprofits in town. I was curious if you could comment on that.

**Gibson:** Yeah. Backed away, because I'm getting old and I'm tired. And with essentially no real exceptions, there might've been a few issues that I might've had with some organization, but on the whole, it was as much as anything time to move on. When I left the Mai Wah and that was under very, very happy circumstances, it was just time that they needed new blood. I had been the treasurer for like eight years or something like that. And I'd been on the board for about 10 years, I think at that time. And they just needed to have other people. And so a happy severance. But what happened in, I think it was like 2011, so it took me like five more years to get past it. In 2011, that'd be like about the peak of my doing all that stuff. Like this time of year, late May, I looked at my calendar for the summer. So between now, late May and the first week of September, I had four days that had nothing on them, literally four days. Doesn't mean the whole day was full, but it means there was a meeting there or a trolley day or a walking tour day or another meeting there, or this thing. Literally four days in three months that we're empty. That got my attention. It's like, okay. There's, there's a reason why you're feeling a little frazzled sometimes. And so that's when I tried to start backing off defacto, it didn't really happen until about 2015. 2015, I think is the last year I did the trolley.

And then 2016 was the last year I did the walking tours. I had left CPR, I think in 2014. Done with the Mai Wah, I think in 2018. So it was a matter of backing off, but it was not a matter of like, okay, I'm pissed. Get rid of this. Yeah. So I just don't have that much energy anymore. I really don't. And it doesn't mean that I'm filling it up with much of anything else, but I kinda did say consciously, you know, I haven't been able to enjoy Montana summers with hiking and traveling and stuff. Not to say that I do that much of that anyway, but at least now I can.

**Jaap:** Yeah, it's just knowing that you can.

**Grant:** Well, I had a series of questions related to oil. I wanted to go back into that topic. What are the oil reserves like in Africa, you know, to the best of your recollection?

**Gibson:** Africa has a lot of potential because Africa is still one of the great unexplored places, especially offshore. But even onshore, there are places in Africa like Sudan, which as, you know, politically is not exactly the best place to be. But there is probably significant potential there. Historically the greatest production in Africa has come from Nigeria, from the Niger Delta. And mostly because of politics, Nigeria has kind of dropped off the radar screen as a major oil producer. I think that's not so much because it's not there. It's because their politics and infrastructure have big problems. The West coast of Africa that would be the West coast of South Africa has a whole lot of potential. It's going to be challenging because it's in deep water, but it's analogous to Brazil. With continental drift and plate tectonics, South America and Africa used to be right next to each other. So on the South America side in Brazil, there are some gargantuan discoveries being made in water that's like 8,000 feet deep. So that means you've got to put your drill pipe through 8,000 feet of water and hit the thing on the bottom that you're gonna use to anchor it. And then you're going to drill probably 15 more thousand feet through the rock until you find these oil fields. But we're talking oil fields that are bigger than Prudhoe Bay. 15, 20 billion barrels in one oil field. The analogy is to those on the African side are probably there. But they haven't been found. They will be offshore Angola and Gabon and Congo. So that's the stretch that is analogous to those parts of Brazil. And there are plenty of other places where stuff's happening as you know, because the price of oil right now today, nobody cares. And I would suspect that even big companies like Exxon right now, except in their very most strategic minds are not paying any attention to Africa because it's too expensive to find anything at the current price, but they can bide their time. Exxon is not going out of business.

**Grant:** And China?

**Gibson:** China has also a lot of country that is poorly explored and has significant potential. I do not know what I'm about to say, but I suspect very much that China's internal oil exploration (and it's nationalized, it's essentially state-owned companies) is as aggressive as possible because China's the number two consumer of oil in the world after the United States. And they need it. They want it, and if they can find it domestically, instead of importing it, they'd be way, way, way happier. So my guess would be that they are being as aggressive as is reasonable in terms of their own internal exploration. Outside companies might help as partners but China is state-owned in terms of its resources.

**Grant:** Geologically speaking, maybe this is a dumb question, but what is oil?

**Gibson:** Oil is degraded plants. There are no dinosaurs to speak of. It's plants. And as for plants, it's mostly algae, actually. If you were talking about plants on land in a swamp, it's the nature of the chemicals in the land plants, that's gonna make coal. Algae, marine algae in the ocean, number one, the volume is actually at times and in places much higher than the biomass on land. So it's dead algae that settled to the bottom and get incorporated into rocks like shale. Then the process is called maturation. They get buried under the earth in the rock, in solid rock and the hydrocarbon, the carbons, the stuff that the plant is made of, under heat and pressure cooks, essentially. And eventually enough time goes by and the right circumstances of heat and pressure. Think of it as fossil plant material, fossil algae, the chemicals change their chemistry from whatever a plant is to oil and gas. And you get both oil and gas from the same kind of sources. It's a matter of how cooked it is. Cook it more and some of the liquid stuff will be driven off and what's left is gas. Cook it not enough and you have asphalt. It's called heavy and light crude oil. Heavy is essentially tar, asphalt. And light would be not all the way to, but approaching gasoline. So you can refine it, which means you take it and you cook it even more, but under controlled conditions and think of the different molecules as having different melting temperatures, just like metals. That's how you refine copper, silver, and gold. In the refinery, you melt it down to one big pool and then you carefully reduce the temperature. So that the first thing that crystallizes out is the highest melting temperature stuff, whichever one it may be. And you essentially skim that off and cool it. Skim off the next stuff. Same thing with oil. The refining is called fractionation, which just means making different fractions. Imagine if you've seen refineries, you know, there's these big, tall things. They're like retorts is what they amount to. And so I don't know enough about it to know exactly what happens, but what it amounts to is you have different layers in there. And the ones at the top are the lightest ones that are physically floating on the denser ones as you go down. So the pipes will come out of that big, tall retort where you're piping up, that stuff, that stuff.

**Grant:** Okay. Hmm. How do magnetics relate to discovering oil and how do you discover the location of oil from an airplane?

**Gibson:** The airplane has a magnetometer in it. The magnetometer measures the Earth's magnetic field. There's a magnetic field. You undoubtedly are familiar with the big picture of shape, like a big bar magnet that goes through the poles. At least the magnetic poles of the earth. Fine and wonderful at the scale of the entire earth. Right? In detail though, if you're close enough to it, which the airplane with the magnetometer is. There's one mineral called magnetite, it's iron oxide. It's like rust, but it has a slightly different structure from hematite, which is truly rust. And it's magnetic. It's the only common mineral in rocks that's magnetic. So the presence of magnetite in rocks makes them magnetic. And that is actually measurable from an airplane with a magnetometer flying back and forth. Those variations are on the order of 1/100000th of the entire earth's magnetic field. Okay. So pretty subtle. And so those variations essentially tell us things about the rock type that's down below the airplane with the magnetometer. It says you get a high value means a lot of magnetite, a low value means not so much magnetite. And when you put those on a map, me the geologist who more or less thinks they understand the tectonics or the way the rocks are in that particular area can look at it and say, "Oh yeah, there goes the Cedar Creek Anticline because that's where that fault is. And it follows this line in the magnetic map too. And so we know that these rocks have been juxtaposed against each other, along a fault." You can't usually snap your fingers apriori and say, "Oh, here's a fault. Or here's a fold. Here's an uplift." You have to think about it. That's why I got paid. But if you think about it intelligently and with geological knowledge, then you can figure things out. In the early days of the magnetic method, basically what they were looking at was how far away are the rocks that have magnetite in them. And sedimentary rocks, which is where mostly the oil is trapped, like limestone, sandstone, shale, hardly any magnetite, except in very, very, very strange circumstances. Igneous rocks like the Boulder batholith and the Canadian shield and the stuff that underlies all these sedimentary rocks is what usually does have magnetite. So we can figure out just from the physics of it, how far away the airplane is, which means we know how high above the surface it was. We can also figure out how far below the surface it is to the magnetic rocks. If those magnetic rocks are very near the surface, we don't want to go there for oil because there's no rocks to put the oil in, no sedimentary rocks. If those rocks are 30,000 feet down, like in North Dakota, in the Williston basin, that means we have 30,000 feet of sedimentary rocks to play with and look for oil in. And if we can find major structures going on that are displayed in the magnetic map, then we can say, ah, maybe this happened over there. You know, maybe this is an uplift over here. So look on the flanks of that for where the rocks are broken and blocked and tilted, those kinds of things. That would be the potential for where the oil might be.

**Jaap:** That's fascinating.

**Grant:** Anytime, I hear politicians say something is impossible. I'll just think about drilling offshore of Brazil and it's like, we can do anything. It seems like.

**Gibson:** I believe that those wells there are the deepest water depths in the world.

**Jaap:** Have you ever felt a sense of conflict with drilling? Have you ever been, maybe you don't want to tell it.

**Gibson:** I know what you mean in terms of environmental consciousness and all that? That's difficult because, I mean, I told you, I didn't quite say this, but I was practically in tears literally, as I drove from kidney stones in California to oil in Texas, because I felt like I was selling out.1:32:14 The idealisticness of my sixties generation was pretty intense. Well, I did sell out. So what it comes down to is I did take a job for good pay to do fun work to find oil. I rationalized it as, this is a thing that everybody wants, I'm helping them find it. And I decided to, well, I tried to find out with some success, the level of how bad was Gulf oil, the company I was working at, how much were they raping the land? Were they down in Ecuador and just pouring oil on the surface or anything like that? And the answer is kind of a cop out. I mean, to the extent that I found out what I could find out, I accepted it. I did. And it sounds like another cop out to say that now in my old age, when I don't really depend on the income as much anymore, that it's easier for me to be anti oil and pro environmental, but at the same time, because I'm a geologist, I also know that things like wind energy are not the answer. You can't build a wind turbine and a wind engine without mining. And a lot of that stuff that's mined to make a wind turbine or a solar panel, or pick a thing that everybody thinks of as green comes from, not in my backyard, but it comes from China and it comes from China because we don't have it. It isn't that we choose to have it come from China. It's that we don't have any neodymium to speak of. So it's a proper good question. And I've had the conversation with oil geologists, young oil geologists who have great angst. Well, it's hard. And I feel like a hypocrite sometimes.

**Jaap:** I really appreciate you talking about, well to build these things, you have to mine them. I mean it's not "poof" there's a wind turbine.

**Gibson:** Well, you must've heard that famous line, I've got two different t-shirts to say it, "If it can't be grown, it's gotta be mined." And actually, I would say it goes so far to say, but you can't grow it without the fertilizer and stuff that you mine too. I'm very sympathetic to the concept of being less antagonistic to the earth. And the way we do things, but I like my electricity.

**Jaap:** You have to be realistic about it.

**Gibson:** I like all those things. I like this plastic pen, you know. I do. And so we're all hypocrites to some degree. The ones that aren't are, you know, the Ted Kaczynski's, well, he's in prison I guess, but whatever, you know, he lived out there in the boondocks and I'm sure there's a handful of such people, but they're crazy. And the people in Africa who are not having an impact, it's not so much because they don't want to it's because they can't, you know, they don't have electricity, they would love to have electricity. Wouldn't they? I mean, wouldn't they? I think they would. It's definitely a conflict though. And I still do feel it. And when I say I've rationalized it and when I say, I think I'm to some level of hypocrite, that's how I feel about myself, about it. It's not truly reconciled.

**Grant:** In a more general sense, I wanted to ask to what extent you think oil exploration and development has shaped our society?

**Gibson:** There's a book that's this thick by Daniel Yergin called the "Prize." Read that. And that's the answer to your question? Do you mean oil in general? You said oil exploration and development. Yeah. The society that we have would not exist. Couldn't exist. So they're impossible to even separate. In terms of what's going on today, I personally, again, in my hypocrisy, absolutely would support less impactful and less dirty methods of generating energy than fossil fuels. But that's not a snap your fingers thing. Coal has been declining astonishingly precipitously, as far as I'm concerned, you know, from probably, I'm just going to make up a year, but say 2005'ish, that kind of timeframe. 60% of US electricity was generated by burning coal. And that's down to like 35%. That's an incredible drop in right in 15 years. That's incredible. Well, it hadn't been taken up by hydro and solar and wind. It's been taken up by natural gas because so much natural gas has been found cheaply that it's easier to use it than it is to use expensive coal. Oil has essentially nothing to do with electricity generation. Maybe only 2% of electricity is generated by burning coal. It's coal, natural gas, and nuclear is next at like 20% of the total. And then all the renewables put together are maybe 10% and growing, but growing slowly.

**Grant:** Working backwards through my list here, I was hoping you could tell us more about Carl Beck. He seemed like kind of a mentor. And I was curious how he died.

**Gibson:** Carl Beck was my mineralogy professor. He was the mineralogy professor at Indiana University. I was there as his grad student in 1971. That's when life was complicated, dating his daughter, his wife was my landlady and all those things. He had been there since the fifties. Indiana University had a big hiring binge in that . . .Well, it wasn't immediately post-war, but it was the post-war PhDs. Basically the war ended. Students came back and went to get PhDs. They got their PhDs around 1950, 52, that kind of timeframe. Then they got jobs and this is the case in a lot of universities. And so Indiana was very top heavy with old people. And when I say old, he was 54. So it wasn't exactly that old but older generation and all that. And so he was a very classical mineralogist, which is what I was going to be. I couldn't be a mineralogist today to save my life. Because I got to do all this quantitative stuff and space groups and all of the crazy things doing. I don't even know. You don't want to know. I like minerals and fossils because they're cool to look at. That's why. They're pretty, they're interesting. I don't care about the other stuff that's inside them, you know, I mean up to a point I do, but not at the PhD level. So, I was his only grad student and it was March of 1971. This was my first year of grad school, the second semester of grad school, we were getting ready to figure out my thesis and we had a meeting. I don't know, like on the Monday of the week, And he was sure he had somewhere out in Indiana a new mineral that was gonna be my master's thesis was to describe a new mineral. That's a standard master’s actually. Okay, fine. Great. And we were going to go to the field the following weekend, the following Friday. Friday was going out dancing night. And so me and Barb, his daughter, and two other couples and Dr. Beck and his wife, we go to this place called Your Place, a bar in Bloomington. And it was an interesting place because it played everything from the current day rock and roll to the polka. And they were playing the polka when Dr. Beck and Mrs. Becker were out there dancing, and he fell over dead with a heart attack on the dance floor.

**Grant:** Really?

**Gibson:** Yeah. And of course that was a big deal. Ultimately, some few weeks later, it was when Mrs. Beck said, "Hey, we've got all these kidney stones piling up, you know?" And then his death is what led to the whole rest of everything that I already described. He was a very nice guy, very gentlemanly as most geologists from the fifties were. He wore a tie most of the time to class, except when he was giving his gold lecture, he would wear a BOLO tie with a $20 gold piece. He was a good guy. About every few years he would give a seminar talk to the geology department. And everybody knew he did kidney stones. So he gave a talk on kidney stones. Well, the first slide up there is this beautiful beach with ripple marks and this naked woman sitting there, a naked woman in a slide that you show in public in the 1970s, kind of attention getting. Just her back. Okay. But it was, that's all sitting there on this wonderful beach and so totally dead pan. He's up there with his pointer and saying, "I'm sure all you geologists, the first thing you noticed here was the ripple marked beach. But I put this slide in to show the relationship between geology and kidney stones, because here's the ripple mark beach." And then he points to the lady's bare back, "And this is about where the kidney is." 1:42:14

For a gentleman of the old school, he was a pretty dry humor kind of a guy.

**Grant:** Wow. Well, that's quite the story. Dance floor drop dead.

**Gibson:** Yep. He did.

**Jaap:** Did you keep in touch with his daughter?

**Gibson:** Yeah, because we moved to California, not literally together. We actually got engaged for a while and then we figured out that that was really just a reaction to him dying and complicated things. So we got disengaged. And then we actually became better friends after that for awhile while we were in California, for three years in California. And then when I went to Houston, I more or less lost track of her, lost track, but we were not in close communication. She ended up marrying a guy from Syria and lived in Saudi Arabia for a long time. And I think she still lives in Lebanon. But we are in communication a little bit.

**Grant:** I was hoping you . . . I just have a couple more here. I'm hoping you could describe Montana in the late sixties, early seventies, just in general, what your impression was a little bit more on that.

**Gibson:** I was beyond naive at the time. So don't think of myself as having the pulse on the finger of anything or the finger on the pulse of anything. And we didn't do much either. The field station is out there, isolated. What we did was we came into Whitehall on Saturday night, and then as I believe now, Whitehall loved Indiana geology students. For a pretty much of a redneck, Western, rancher place, Whitehall liked the money and on the whole, even in hippie days, students are not that obnoxious when you actually get to know them and sit there and have a beer with them in Happy's bar in Whitehall. So having said that my little microcosm of Montana is the ranchers over there around Whitehall and Cardwell. And you never talked politics so that wasn't on the table. They were just nice people. And my total experience in Butte was on our glacier field trips that we would stop in Butte for people to go buy last minute things for the last two weeks of the course, that kind of thing. And that was like two hours. So that's just not an experience of Butte. So I don't think I can really address that question. Montana ranchers in 1969, I think are about the same as Montana ranchers in 2019, on the whole. They're better connected and they're probably more opinionated like we all are, but they're nice people, as long as you don't talk about Jane Fonda.

**Grant:** Yes. The trader. Was there any risk of you being drafted for Vietnam?

**Gibson:** Yeah, for sure there was. In Bloomington as my senior year, six geology guys, we got a house and we lived together. 711 East cottage Grove is two blocks down from the Geology Building. And actually that house, we were the founding fathers. It stayed in geology hands until, I think 1988, one way or the other. So December of 1969 was when they had the first draft lottery. That day I had two impacted and infected wisdom teeth pulled. And I was out of it big time, but I got up until they got to my number. And my number was 311, which meant I went back to bed. There were 366 numbers. Every birthday got a number. So, and it was random, it was like ping pong balls, just like a regular lottery. It was a lottery. So when they got to August 19th, the number came out, it was 311.

And in the house, of the other five guys, one of them was number 12. Well, he was going to be drafted. So he joined the Marines. Whatever? You're supposed to join the Navy or the air force, but he joined the Marines. Bottom line was he didn't have to go. Two, who were actually my best buddies, Steve and Steve, their numbers were like in the 120's and one was from New Jersey and one was from rural Ohio and none of this was equable. It made a difference to the nature of your draft board. Steve from New Jersey, his district had a much larger population, which meant that it was less likely that they were going to get to 120. In rural Ohio, a much lower population, but maybe a different kind of quota. The likelihood might've been a lot better that Steve from Ohio was going to get drafted, turned out neither one of them were, but they were on pins and needles for their entire college careers. And the other two were, were big high numbers like mine that were, it was a given that nothing was going to happen. So the danger existed until the lottery. I guess I probably had a student deferment, I assume I did. But once my number was 311. That's how I learned that Bill Clinton has the same birthday as I do. I read a newspaper article about him and he referred to his draft number being 311. Wow. Wait, how'd that work? Oh, his birthday is August 19th.

**Grant:** What about your dad? Was he a veteran?

**Gibson:** He was in the army in Alaska, in the war. I don't think he did very much. He never talked about it as many of those people didn't. I don't think he saw any real action. He was stationed in Dutch Harbor, which is in the Aleutians. And I think he was there when the Japanese attacked Attu and Actu, which are the far end of the Aleutians. And that's as much I know about it. I don't think he did much.

**Grant:** And then he worked in the auto industry, the rest of his professional career. Well, my final question, not knowing before that, you know, you were born in Arkansas, but more importantly raised in Flint. I was curious if you could comment on, you know, the effects of deindustrialization that you see in Flint and in Butte, you know, do you see similarities there and how does it make you feel seeing the city's decline?

**Gibson:** For sure. I tell tourists when it comes up that, you know, apparently I'm attracted to blue collar towns down on their luck, Flint and Butte. Flint has suffered a lot more than Butte. And the population decline which Butte has experienced over almost a hundred years happened in Flint over about 15 years. Flint used to be the second largest city in Michigan at like 183,000 or something like that. And it might be a hundred thousand now, but probably not. So 50% in the space of 15 or 20 years and what's left because the jobs went away that once who were left, I mean, the drug problems are huge. The middle-class streets that I grew up on in Flint, and it was a long street, had like 20 houses on both sides. When my parents left there to move to Kansas in 1992, that's the last time I was in Flint to visit them. Catty corner from their house was this bombed out house that used to be, you know, fun neighbors with kids like my age. The other way over there, a meth house, the cops were there like twice in the two days that I was visiting. Things like that. Many houses in the long block had broken windows and, you know, siding pulled off and holes in the walls. This was in upper middle-class Flint from my day. Flint has suffered tremendously not to forget the water, you know, the water. I didn't drink the water, but the water came after my time. So there are similarities. But to me, Butte today and probably even in the eighties, when it was as depressing as it was possible to be with everything closing down, the pit closing and all that, I think Butte has thrived compared to Flint and is thriving. Even though it's not, to me it's thriving. It's not the word you use for Butte, but compared to Flint it is.

**Jaap:** What do you think about Butte's future?

**Gibson:** Well, okay. As much as I'm on the side of all the people who do not want it to be Boze-Angeles or anything like that. Personally, my attitude is that all these wonderful things that we always talk about, you know, making this happen, making that happen, not going to happen unless we have about 15 or 20,000 more people. 15 or so more thousand people is the critical mass that will make restaurants not be on a shoestring and forget about COVID. But even before that, and after that, you know how restaurants are. There are some that have a great model and a great ambiance like Metals and Sparkies that have survived. There are others that are just going to be flashes in the pan, same with the little mom and pop things. And if I want to criticize the city government on this topic on one thing, it is quit going after the next big thing, because they have tried and tried and tried. You probably weren't here, but do you remember when they were recording the German wind turbine manufacturer? They must have spent $20,000 on those people, trying to get them to come and put their factory out there in the industrial park. And they were going to have 600 good paying jobs and all this stuff. And of course it didn't happen. And I personally just don't think that Butte is the place for the next big thing. Butte is the place for a whole lot of really nice little things. And I wish they would court more mom and pop operations and maybe even not just mom and pop, but much more smaller scale types of things. And I'm not as opposed to Walmart as some people are. You need discount stores and stuff for just buying stuff, but . . . That's what I think. That we need more people and it's not going to happen. It's certainly not going to happen in a snap your fingers way. And I personally don't think that's going to happen, period, because where are you going to get 20,000 people to come here? Not going to happen. The Baptist church which is now for sale again. And you see on Facebook, all these wonderful ideas for it. They're wonderful ideas. Not going to happen. No one is going to spend the cheap $150,000 for the building and then put $500,000 or more into the building to turn it into a house. And there is no market for the other things. I don't know if we're saturated in terms of the Metals apartments and Herbert tower and those nice places or not. But if we're not saturated, it's not too far. There just isn't the market, you know? And I don't think it's, a lot of people say, well, yeah, that's the environment and the reputation. I personally think that has changed a lot, the attitude about Butte and the fork festival has done that in my view is the single biggest promotion that Butte could have ever had. People who now in the rest of Montana, don't think of Butte as a dirty drunken fighting town that you're going to get mugged if you're out at 8:30 in the evening. I mean, I've talked to people who actually believe that. Yeah. And I've had tourists from Missoula who will say, "Well where should we not go?" at the end of our tour. Well, how do you mean? Well, we have our children with us, you know, we don't want to be attacked. They literally use the word attacked. I said, "Why are you going to be out at two in the morning?" "Well, no." Well then go wherever you want, because you can be out at two in the morning in Bozeman and get attacked. Are you out at two in the morning at home in Missoula? I got mad at those people. Well, I didn't get mad, I got animated. Anyway, but I know they heard me too. Because come on, you guys are whatever. You're not concerned at, I mean, if you're outside the Party Palace at two in the morning then fine, but we're not doing that. And yes, I personally have even karaoke at the Party Palace. Once. Checked off.

**Grant:** Oh, I'm sorry. I missed that. Do you remember what you sang?

**Gibson:** Of course, I remember.

**Jaap:** What was it?

**Grant:** "More than a feeling?"

**Gibson:** "Born to be wild."

**Jaap:** So you kind of touched on this and what you just said, but I feel, especially with the Consent Decree, it's like, when people are saying, how are you going to get business? Like at the debate, they all said that it's like, well, now that once this thing is signed, it's all going to change. I don't think that is necessarily true.

**Gibson:** It's not going to change. Yeah. I mean, the perceptions of the environmental problems are out there and this isn't going to change that. I mean, for us that know, we understand the specifics that will change and will improve. That doesn't matter to John Smith in Missoula who is afraid of Butte because he thinks he's going to die from breathing the air and drinking the water. I don't think that, no. I don't think it's going to change from the investment point of view, either from big companies. They may want to think that. That's just my opinion and I'm not an economist. I don't even play one. So that's what you asked and that's what I think.

**Jaap:** I think we're concluded.

**Gibson:** Okay, cool. Well, that was fun. It was fun.