



AMERICAN INSTITUTE OF MINING,
METALLURGICAL, AND PETROLEUM ENGINEERS

ORAL HISTORY PROGRAM

**Barbara Filas:
Following in Her Dad's Footsteps (and Working to Fill His Shoes)**

2019

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PART 1

00:11 Introduction

Arnold:

Today is Monday, February 25th, 2019. This is an interview with Barbara Filas, Partner with Filas Engineering and Environmental Services and a Professor of Practice at Colorado School of Mines. The interviewer is Tim Arnold. This interview is being conducted as part of the American Institute of Mining, Metallurgical, and Petroleum Engineers' oral history project. We are recording at the Society for Mining, Metallurgy and Exploration's annual conference in Denver, Colorado, and we're going to discuss her experiences in the mining engineering industry and her contributions to the field. So, Barb, tell me about where you grew up.

00:49 From Grand Junction to the University of Arizona...with my Piano

Filas:

I was born in Grand Junction, Colorado, a native there. I graduated from high school at Grand Junction High School. When I got out of school, I had decided that- I hadn't really decided what I wanted to do as a professional, so I went to the local college in Grand Junction. My dad actually bribed me, because they asked me what I wanted for my graduation present, and I said I wanted a piano. And they said, "Well, if you stay and go to Mesa for at least a year, we'll get you a piano for graduation." And, if you'd go ahead and go on to Arizona (where I wanted to go just to get out of Colorado), then they'd get me a pen and pencil set. So, I went ahead and got the piano and stayed in Grand Junction.

I took a Geology course because I thought that it might have been interesting to see if I wanted to get into mining because I never was very creative in my thought process about what I was going to do when I grew up. My mom was a nurse, my dad was a mining engineer, and, in high school, I worked as a nurse's aide at the local hospital. When I figured out that you didn't give a patient a glass of water without a doctor's order, I decided I didn't really want to be a nurse because I'd be being told what to do for my whole life. So, I looked as far as mining engineering at the University of Arizona, which was my dad's alma mater, and the rest is history. I went over to Arizona after that year at Mesa with my piano.

02:29 Influence and Encouragement to Become a Mining Engineer

Arnold:

So, tell me a little more about how you got influenced to be a mining engineer, how your dad influenced you to get into the profession?

Filas:

I guess it wasn't really my dad that influenced me, per se, other than it was his discipline, and he traveled a lot. As a kid, that's not necessarily a good thing because he was away a lot, but I love to travel; and so, I thought that was a pretty neat thing. He was a little nervous when I said I wanted to go to his alma mater because he'd gotten an honorary degree from the University of Arizona and it was all his friends that were in the department, Bill Drescher and Tom O'Neil and all those guys were in the department at the time.

And, he was so afraid I'd flunk out and humiliate him. He was pretty nervous about that. But he didn't discourage me. And, he supported me, and my mom did, too, to go off and give it a shot.

03:35 Family Background in Mining and a Chance Encounter

Arnold:

So, does your family come from a background of mining?

Filas:

Well, my dad was a mining engineer, but I think, if you step a generation further back, his family immigrated from Sweden and Finland. My grandma was Swedish. My grandfather was Finn, and he emigrated over to the Bisbee area in Arizona to work in the mines, and he died of silicosis. He wasn't an engineer. He died of silicosis when my dad was about 15. So, he started trying to get the odd job here and there, working wherever he could get a job. And, one time, the President of Phelps Dodge came through the McNeil area, which was where they lived, and they got a flat tire, or their car broke down; something like that. So, my dad loaded the team up in his family's car and took them down to Douglas. He decided to- or he was getting ready to go back home, but he didn't have any money to put gas in his car, and he started to cry. They asked him what was wrong and he said he didn't have any money to get back up to McNeil. So, they filled him up with gas, and the President of Phelps Dodge asked him if he could ever do anything for him, just let him know. And, he said "Give me a job!" He managed to sneak in and get a job when he was 17 at Bisbee. And so, he worked in the mines for a while and then, but I think he was age what, 29 or 30 maybe, he went back and got a degree at the University of Arizona, which is where he met my mom.

Arnold:

While you were at Arizona, did you have any professors or classmates that really influenced you and what you did with your profession?

Filas:

You know, I wish I could even remember the guy's name. The most memorable thing I walked out of the university with was from the guy who taught our mine management class. He said "When you get out and you get into industry, wherever you go, make sure you find your high-status friend in the company." And, that's something that I paid attention to. I don't even remember the guy's name now and, but, that was a lasting and much repeated thing that I've carried with me throughout my career because it is important when you're the new guy on the block to find your high status friend then, and get your mentor and crawl under their wing.

06:20 Landing First Professional Job with Exxon

Arnold:

How did you get your first professional job?

Filas:

Well, Arizona had a pretty good recruiting program, and the guys would come through and would recruit. The students would all sign up and interview. And, it was at a time when EEO was pretty important in the United States, and people don't even know what that is anymore. But with equal opportunity employment, they had quotas of hires that companies needed to try to achieve. And I was, to the best of my knowledge, I was the second female graduate from the University of Arizona in Mining Engineering. The first had graduated just maybe six months before me, or a year before me, Denise Sylvester. So, I was the second, and there just weren't women in the industry. And so, when you went and interviewed for these jobs, it tended to be the bigger companies who were looking to fill those quotas. I went to work for Exxon, Monterey Coal Company, the underground division of Exxon.

Funny story, though, I interviewed with Bucyrus Erie, which is now a part of Caterpillar. They came on campus, and they were interviewing, and they had- there weren't very many students who'd signed up to interview. So, it was kind of-- everybody was running around saying, okay, we've got to get somebody to go into these recruiters and interview with them and just talk to them. And so, I went in, and I talked to them. And then, they come back, and then they wanted me to go out to Illinois and look at their dragline erections [and all of this - delete this is possible]. I say dragline because they were, they'd build these things on site because they're so big. And then, a drill rig-- I went out to Sierrita where they were building a drill rig. They flew me around and they made me a job offer, and Exxon made me a job offer. And, I swear to God, I'm not kidding, they offered me the position of Erection Engineer, [laughs], sorry. They didn't really think through what the position title was. I could have passed that business card around.

08:43 Underground Coal Mine Planning - A Whole New Experience

Arnold:

Clearly, you were a woman in a very man dominated field. So, when you went to work for Exxon, what'd you do? What were your positions? What were your job duties?

Filas:

I started out in mine planning, underground mine planning for coal mining, and I had gone to an open-pit surface hard rock mining school at Arizona. So, going to work for Monterey was just an absolutely new experience because we had to beg at Arizona at the time to get them to even do an Introduction to Coal Mining class because it just wasn't what the university did. I'd actually taken a class on coal mining, so I knew what room and pillar meant. But I really didn't know much about coal mining, which is why I remembered my mine management guy's, whatever his name was, his recommendation to find my high-status friend. And, I found Gary Skaggs, who was our senior engineer. And, Gary, to this day, if you know Gary, you would look at me, and you'd look at Gary, and you'd say, those two are the oddest pair to become mentor and mentee. And, we've been friends [since I was 23 years old]. He is the engineer's engineer. He was from West Virginia. He's very technically oriented and knows everything there is to know about underground coal mining. And, for some unknown reason, he took me under his wing and helped me to understand what I needed to do in order to do underground mine design for coal mines.

10:31 Striking Out to Make My Own Name in the Industry

Arnold:

What was it like being a woman engineer trying to work in this male-dominated industry back then? And,

do you have any good stories about trying to get your business done?

Filas:

At Monterey Coal Company, because it was Exxon and because they had a pretty progressive program for hiring the straight-A students and ethnicity, there wasn't much ethnicity available. So, they hired women. It was kind of, I'd almost say, a sanitized environment. There were a lot of women by percentage working there that I can say I worked with. My first job out of school in 1979, there was probably 20% women working there, which was absolutely unheard of because, like I say, they recruited straight-A students and women. So, I didn't qualify for the straight-A student piece, but I got the- I'm convinced I got the job because I was a woman. And, they had offered, Exxon. Exxon interviewed at the school; it wasn't Monterey per se. So, when I interviewed, they made me an offer at the Highland uranium mine in Wyoming and also at Monterey Coal Company in Carlinville, Illinois. I chose to go to Carlinville because my dad had been in uranium his entire career, and I wanted to do something else and make my own name in the industry. What I know now is, if you have an opportunity to take advantage of anybody who's going to give you a hand up in the business, whether it's your dad or your friend or whoever, you should take advantage of that if you have it. But I decided I was going to make it on my own, by-golly, and went off to mine coal in Illinois.

12:32 Being a Woman in a Male-Dominated Industry

Filas:

When I left Monterey (this is my favorite story of all time because it was very characteristic), I met my husband. And, we went off and traveled for a while after I left Monterey. And then, when we went back and started looking for jobs, it was kind of- find a place where there are multiple coal mining operations because my husband's an engineer as well. So, we went and traveled around the country, spent all our money, then we went back to my parent's house in Grand Junction, Colorado, and looked around at what kind of mining was going on. There were the coal mines in the Paonia area, so we went up there. My dad drove us up there, and he dropped me off at U. S. Steel's office, and then he took Frank up to another mine. We knocked on the door and just cold-called at these mines. And I walk into U. S. Steel, and I said, "Can I see the manager?" And they said, "Okay, well, sure." And they introduced me to Lloyd Miller.

Lloyd Miller made quite a profound impression on me because he looked at me, took one look at me, and he says-- I said, "I'm looking for a job. I'm a mining engineer, and I've worked for Monterey Coal Company for a couple of years, and I'd really like to work here for you." He looked at me, and he said, "I don't have any use for women working in the coal mines. I had a woman show up this morning to work, and she had shaved her head bald cause she said she didn't want to look sexy to the men underground." And he says, and he looked straight at me, he says, "That woman wouldn't look sexy to any man anywhere. She's as big around as she is tall." And I'm like, "Okay."

So, I'm thinking this interview is starting off really well. He says, "Well, come on into my office," and he grabs his general mine foreman, and he grabs his safety guy. And so, these three guys are sitting in the office, and I'm sitting there. We ended up talking, you know, just standard yakking away for, I bet it was a couple of hours. Then, at the end of the interview, we stand up, and Lloyd takes one look at me, and he says, "Well, I don't hire the engineers," and I'm thinking, you just wasted two hours of my time, and you don't hire the engineers! And, he says, "Well, you got to go talk to Glenn Sides over in East Carbon." And so, I said, "Okay." And, he gives me all the information, and I'm dumb enough to say, okay, let's just go. And, when I stand up to leave, he looks at me, and he goes, "Well, at least you're big." So, that was my interview

with Lloyd Miller.

Subsequent to that, I learned that general mine foreman, who was in that interview, got transferred to the office in East Carbon, which was where the engineers were hired. And, I go over, and I do sit down with Glenn Sides, and I interview with him, and that all works well. And so, I'm interviewing with him, and then I go in to interview with the assistant general mine foreman. And, this assistant general mine foreman comes in, and he's a talkative guy. It was great, anybody could talk to him. And then, the general superintendent walked in, and he's this crusty old guy, and he walks in, sits down, and Mike and I are still just back and forth and back and forth. And, Paul Watson just sits there and looks over the top of his glasses glowering at me. And, I'm just like, "Wow, who is this guy?" And finally, he looks over the top of his glasses, and he goes, "You know how to set a SPAD?" I said, "You mean a surveyance spad?" He says, "It's the only kind of SPAD I know." I said, "Yeah." And, he got up and walked out. That was the end of the interview. So, I get the job and Dick Conkle, the guy that was the general mine foreman in the interview; he and I ended up carpooling together, and he says, "You know the minute you walked out the door, Lloyd picked up the phone, called Paul Watson, and he said, if you have to hire one of 'them', meaning a woman, this is the one to hire." So, it was a curious interview. I've got to admit, a lot of people today would probably walk away from the situation when someone says, "I don't have any use for you working here."

Arnold:

But, you got the job.

Filas:

But, I got the job.

17:28 From Newbie to Engineer - The Transition to Knowing Something

Arnold:

So, earlier in your career, there's a point where you go from being a newbie to actually getting to the point where you think you're an engineer. Do you remember what that transition was? Was there a project where it was, you know, getting in operations and managing people, or what really got you to the point where you thought you knew what you were doing finally?

Filas:

Where you transitioned to knowing something?

Arnold:

Yes.

Filas:

Working at U. S. Steel was that time, and it was because I went to work in the coal mines in 1979. The Surface Mining Control and Reclamation Act was passed in 1977, and all the States started trying to get their programs, their state delegate programs, organized. And, in Utah, which was where I was working, that happened in 1981, and I went to work for U. S. Steel in 1980. The regulatory program in Utah and Colorado was about the same time. We had a mine in Utah, and a mine in Colorado, and a coal cleaning

plant in Colorado, in Utah, sorry. So, Glenn Sides, my boss, the chief engineer, decided that rather than contracting out the permitting, that we were going to do that in-house because he had this new engineer that he could put to work on it. I got going with the other guys in the department, and we did the permitting for the Wellington Coal Cleaning Plant, the Geneva Mine in Utah, and the Somerset Mine in Colorado.

I worked for U. S. Steel for five years. In the first three years or so, I did coal mine permitting exclusively and worked with the regulatory authorities to get these permits approved. Once we got the permitting done, then I ended up getting transferred to the coal cleaning plant, where I was a plant engineer. I was responsible for product quality and refuse disposal, and all that sort of thing, and all the compliance at the mine, the mine in Utah, and the coal cleaning plant. So, it was basically by the time I left U. S. Steel, and I didn't leave it because I wanted to, it was because Steel sold their Western operations to Kaiser. At that time, I was seven months pregnant with my second son, and we had heard rumors that Kaiser was going to keep the maintenance guy and the environmental guy on board. Then, they came out one day and started walking around. They figured out who the maintenance guy and the environmental guy were, and, all of a sudden, the environmental guy was seven months pregnant, and they kind of rethought that and said, "Maybe we don't need to keep the environmental guy." So, I ended up doing some consulting work for them until the baby was born. But, I think that the decision was made because I was pregnant, and they didn't want to take that on.

20:39 Going from Coal Mine Planning to Reclamation Planning

Arnold:

So, you've transitioned into where I wanted to go. You started your career off in the coal mines, but you're certainly much better known for the field of environmental and permitting. So, tell us a little more about how you transitioned into that field.

Filas:

By the time I was five years out of school and I'd finished working with U. S. Steel, I had five years more experience on the permitting and environmental side than anybody on the planet because no self-respecting mining engineer wanted to do that part. That's why the new kid got to do it. So, I had more experience than anybody else.

After the kids were born, and I was out of a job, my husband was still working underground at the mines, and we were looking, watching the want ads to see what kind of jobs came up. There was a position that came open in the hard rock group at the Division of Oil, Gas, and Mining, the state. So, Frank's going, "Well, you should apply for that," and I'm going, "Oh man, I really don't want to work for the state." But, you know, he wanted to get out of working underground, and if we moved to Salt Lake, there'd be better opportunity for work. And, I said, "Well, you're just as qualified for that job as I am. You should apply for it, too." So, we both applied for the same job, and, as it turned out, we later found out that we were the number one and number two candidates. Fortunately for me, he was the number one candidate and got the job. I was the number two candidate, which was perfect, because I didn't want the job, and he really did want the job because he wanted a professional job getting out of the coal mines. And, for me, I'd worked with the regulators, and I just didn't want to go there.

But, as he was working in Oil, Gas, and Mining, he got to know all the guys on the coal side, and they were all my buddies because I'd just worked with them for quite a long time. And, there was this guy who had just taken over this leasing company, and I probably shouldn't mention his name just because I think that

there was a lot of litigious action that went around this story. So, I'll leave his name out of the mix. But, he had taken over this leasing company, and they had financed the buildings at a coal property, coal lease. So, the guy had picked up the coal lease and picked up these buildings by taking over, with his investor group, this leasing company that had foreclosed on these buildings.

Then, the Jordanelle Dam was starting to be built in up in the Park City area, and they needed sand and gravel. The way this coal deposit was, it was overlain by a sand and gravel deposit, and then you'd go into the underground coal seam. And, this guy, well, I should take one step back. In the state of Utah, at that time, the sand and gravel went with the surface rights, and the coal lease went with the mineral rights. They were separately regulated. So, he was out there one day on his bulldozer, and the property owners, because the property didn't belong to him (he just had the mineral rights coal lease). So, he's out there with his bulldozer pulling some gravel out, thinking he's going to make some money over at the dam, and the surface owners show up and say, "You can't do that. We own this land." And he says, "Oh no, I'm just getting access to my coal seam, so I have right of entry here." Then, the surface owners went down to Oil, Gas, and Mining and said, "You need to go talk to this guy because he's mining coal without a permit." And so, Oil, Gas, and Mining comes up and looks around and says, "What are you doing here? You're mining coal without a permit." "Oh no, I'm mining sand and gravel for the Jordanelle Dam." So, he took both sides of it-- "and you don't have jurisdiction over sand and gravel."

25:02 Engineer is a Good Title

Filas:

So, he got a cease and desist order for, what was it, \$30,000 a day. And, he needed to file a reclamation plan with Oil, Gas, and Mining for his coal mine that had been inappropriately developed. My buddies over at Oil, Gas, and Mining mentioned to Frank that this guy needed somebody to put a reclamation plan together, and I'd just done three of them. Nobody else had done any of them when it really came right down to it. So, it was kind of a good marriage. But it also brought on-- It was a good learning experience for me because of this guy. So, I agreed to come on board, and I'm putting together his reclamation plan for the project, and he comes down one day, and he says, "So, what do you want your title to be Barb? Do you want to be General Manager? Do you want to be Mine Superintendent? What do you want to be?" I said, "I think I'll just be Engineer. Engineer is a good title."

I wasn't very far along in my career, and, usually, when you're young and spry, you just want to get ahead and be the big boss and take on the big title. I don't know what made me say, "Just make me the Engineer." But, boy am I glad I did, because he ended up doing some interesting shenanigans shall I say. He was running a leasing company the whole time I worked there. I worked for him for two years. He never paid a dime to social security or employment tax when I was there. He would take money from one company and pay the payroll of another company, and he was just moving chess pieces all the time. Ultimately, there was a grand jury investigation into him, and I can remember when they started that grand jury investigation. The Attorney General's office was coming down to the guys in Oil, Gas, and Mining saying, "So what was this Filas person's role in this?" And my buddy, Randy Harden, the Engineer, said, "She was just the Engineer," because I had this guy sign as the President of the company, all the applications, and all I did was certify the engineering drawings and that sort of thing. So, ultimately, I heard a rumor that he ended up in jail. It was pretty clear that he had bankrupted all of his investors, and I never even got a subpoena to testify.

Arnold:

A shady guy in mining. Imagine that.

Filas:

Imagine that.

27:42 No Filas VS Filas - More Transitions

Arnold:

So, how did you transition into what you spent a lot of your time, of your life, on, into Knight Piésold?

Filas:

Well, after that incident, I was looking for yet another job, and we had decided that we wanted to move away from Utah for a variety of reasons. And Frank was done working for the government because, you know, he'd done his stint. So, there was a job opening in Grand Junction, which was my hometown, with Atlas Minerals. I applied for that job, and I think I was number two for that position, too, but the guy that actually got the job offer first failed the drug test. I was able to get in once more from the number two position. So, I went to work in Grand Junction. Frank was still working for the Utah Division of Oil, Gas, and Mining at the time, so we were kind of commuting. Atlas had mines in Southwestern Colorado and Southeastern Utah, so we made a pact early on that we weren't going to sign any of the regulatory documents or letters that went into the state. It would have been Filas versus Filas because he was regulating the hard rock program, which would have been all the uranium mines, and I was working in the uranium mines in Southeastern Utah. It was always my boss who would sign off. We'd do all the work, and his boss and my boss would sign all the paperwork so that it never looked like Filas versus Filas.

29:28 Atlas, Eureka, and Knight Piésold

Filas:

Oh, we were transitioning to Knight Piésold. I was working for Atlas, and they wanted to transfer me out to the Gold Bar mine in Eureka, Nevada. So, Atlas decided to create a position for Frank as a foreman in the mine, in the open-pit gold mine. So, that was my transition. We packed up the family and moved to Eureka where both Frank and I would work at the Gold Bar mine.

I was living in Eureka, Nevada, and, you know, that was a fun time. I mean, it was a time when the regulations, all the water pollution control programs, were being organized, and the Nevada Mining Association was very active. I was testifying in that process, and that was a lot of fun. But, living in rural Eureka, Nevada kind of started wearing on me. Don East ran Knight Piésold. And, I can remember--

I should take a step back because, when they wanted me to move to Eureka, I really didn't want to go. I was really comfortable living in Grand Junction. My kids could go to grandma's for daycare, and they loved going to grandma's. It was really kind of a nice place, and I didn't want to go. Keith Hulley was the President of Atlas at the time. And, Keith took me aside, when he wanted me to move to Eureka, and he says, "Barb, sometimes in your career you're going to have to decide between engineering and operations because if you stay in the middle, you're going to stay on the bottom." He was trying to get me to go to operations. I'd been pretty much working in the office for most of the time. So, I said, "Okay, I'll do that," and I went out to the mine, and I was the environmental guy out at the mine. So, I don't know that I ever really was the operations guy.

Then, I spent a couple of years out at the Gold Bar Mine in Eureka, Nevada. Don was out there one day, and we're talking. We were building an expansion to our tailings area, and he wants to put in the design this under drainage system that was a herringbone design, and then a gravel layer to help de-water the tailing, so that it'd get more efficient settling and drying in the tails. So, we're in my office one day, and the guy that was managing that process wanted him to cut some costs out of the design. So, he decided he was going to take out a lot of that under drainage system out of the tailings facility. And, I'm saying, "Well, that doesn't seem like that's such a good idea." Basically, I told Don that if he could sell it to the regulators because he's getting on the board, and he's writing Q=KiA, and it's, you know, we can get the water out of here and blah, blah, blah.

I just told him, as far as I'm concerned, it's eyewash, because you get that consolidated tailings, and you get lateral drainage, but you aren't going to get a lot of vertical drainage. So, if you have a big pipe network or a smaller pipe network, as long as you have the drainage, you know, the drainage layer, you should be able to get the thing de-watered. But, if you have a network of pipes, it's going to drain better. Everybody just knows that. I said, "But if you can convince the state that it's going to work, and it's going to keep the head off the liner-" because we were using soil liners with cyanide in a cyanide containment pond. So, I don't want my liner to leak, and I don't want it to saturate my liner and go into the groundwater because then, I know I'm going to have an environmental headache. But, when I told him it was eyewash, the next thing I know, he's asking me to come to work for him.

At that time, Knight Piésold didn't have any environmental capacity. There was no one working in environmental; it was civil and geotechnical. Ultimately, when I decided to go to work for Knight Piésold, I thought I was going in to be a part of a new capability. Well, Don and Stan Dempsey got together through Stan's Denver Mining Finance company, and they formed what they called Denver Knight Piésold. It was a new environmental company, and they'd bought out Gormley Consultants, which John Gormley had what was leftover of the D'Appolonia Group in the Denver area. And, it was a group of three guys, I think, who came in, and then I kind of got shoved down John's throat because Don had already made the arrangements to hire me. And then, this deal with him and Stan worked out, and John's company got bought. So, for the first six months, I worked for John Gormley. I'd go home in the evening, and I'd tell Frank that, "God, if it weren't for Don, I wouldn't stay with this company." And, after the first six months, it'd be, "God, if it weren't for John, I wouldn't stay with this company." Don and John were great guys.

35:15 Career with Knight Piésold

Arnold:

Talk a little bit about your years with, how long were you with Knight Piésold? And, I know you basically built a pretty good business there, so let's talk a little bit about your career with those guys.

Filas:

Yes. Well, Knight Piésold was, and let me circle back to when I left Atlas. I can remember going up, telling Keith Hulley. We had a board meeting that I'd given a presentation that I'd kind of tendered my resignation right about that time. And, Keith, who had told me you've got to pick between engineering and operations; if you stay in the middle, you stay on the bottom-- I went back to Keith and said, "Now I've really decided that I am going to do the engineering piece. It's your advice that got me here. It's your advice that got me out."

So, I moved to Denver and worked with John Gormley. And, John was a great guy to work with, but his background was different than mine. It was at a time when the Nevada gold mining industry was very much

booming. I went to work for Knight Piésold in 1989, and it was crazy booming in Nevada. I had been working in Nevada since the law was written, and John hadn't worked much in Nevada at all. Sometimes we'd have to butt heads a little bit because he was my boss, and he wanted to review everything. John was a good micromanager. He's a dear friend of mine even to this day, but he was so careful, and he would change "in" to "with" in a report, you know, that kind of detail. And so it was difficult to get things done. I got to the point where I'd say, "Okay, here's the document that we're going to issue. The client's already reviewed it and is happy with it. You do your review, and then we'll get it out later this afternoon." So, he didn't have the opportunity to change "in" to "with". [Laughs] But yes. And at Knight Piésold, over time, we grew the environmental capacity. It started with a guy, you know, John and one other guy and me in Denver. And then, there was one guy in Wyoming, who we didn't have a lot of direct interaction with, and he ultimately went off on his own. But, we grew that group. And, ultimately, I took over the environmental group at Knight Piésold. And, I turned into John when it came down to being a micromanager.

38:16 A Good Aha Moment

Filas:

One of my epiphany moments in my career was when I was busy trying to keep-- I was managing all the projects. I had hired a bunch of young, really sharp young people to help me with the work that we were doing. And, one day, I looked up from my office, and I saw three of these guys literally lined up outside my office waiting to come in and get me to make a call on something they were working on. And, my epiphany moment was, "Wow, if that was me standing in that line, I'd be looking for another job!" Well, I can tell you that all three of those guys-- One of them is like the Assistant Attorney General in Colorado. She went back and got a law degree. One of them is running the NEPA program for Wood Environmental Consultants, and one of them has been doing independent consulting on her own supporting her family for years. They're all very, very capable people. And, I was the one who was doing what my boss drove me crazy doing. I didn't realize I was doing it myself until I saw them outside my office that day. It was a good aha moment.

39:34 Nearly 20 Years - A Lot of Time with Knight Piésold

Arnold:

So, a lot of time with Knight Piésold; how many years?

Filas:

Just shy of 20. It was kind of an interesting process. We went through globalization in, I think it was in, the late nineties or early two-thousands. I don't remember the dates exactly, but we globalized the company. We didn't consolidate the company. All the companies that used to be like Knight Piésold in the United States was a Colorado corporation, and in Canada, it was whatever they do in Canada, and Australia was whatever they do in Australia. But, we all had the name Knight Piésold. To our clients, they logically thought we were all Knight Piésold. So, we decided to build an overarching group, kind of similar to what AIME is to the member societies of AIME. So, we have this overarching group called Knight Piésold Holdings Limited, that all the companies were affiliated with, and that gave us our common name. It gave us a board of directors, and I sat on the board of directors for KPHIL. Don East, who started the practice in the United States, became the global CEO. One of my partners, in fact, it was my interviewer's brother, Jim Arnold, who became the president of the U. S. Practice of Knight Piésold.

I will have you know that Tim and I have been friends for many, many years. His mother, at my wedding, told me that she wished that I would've married one of her sons. I said Jim, when we became business

partners, that this was the next best thing that we could have done for their mom is just be business partners because that was as close as we were really ever going to get to being married.

PART 2

00:20 Working on Six Continents with Knight Piésold

Arnold:

So, in 20 years with Knight Piésold, you saw a lot of the world. How many countries do you think you saw, and what were your favorites? I'm going to ask you your least favorites, too.

Filas:

I never have counted up how many countries. I just say that I've worked on six continents. Antarctica is the exception, and I really don't have any desire to work on Antarctica. If I decide to see it, it's going to be for the penguins. My favorite place? I loved working in Latin America. And then, I decided I didn't love working in Latin America because you're always working at heart-exploding altitudes. I really loved working in Africa. That's really my soft spot. You will change lives by bringing an economic engine like mining into a region. But, you can change lives really for the worse, if you do it badly. That's where I got so interested in the social side, and I'm no social specialist. I definitely know my limitations because it's an art more than a science. And, every time I've worked on studies, we always have a social component, and I always have to get the social expertise in. But, it's probably the more interesting side of the business.

Even back in my early career, I was always more interested in the metallurgical side of the process than the mining side because mining's pretty academic. You blow stuff up, you pick it up, you move it, and take it over. And, there's more going on in the mill. So, I got on to the environmental side, and the environmental side is pretty straightforward. It's pretty cut and dry. And, when you start dealing with people and how their behavior is, it's a very different animal. I was never trained for any of that. I was, well, for practical purposes, I wasn't trained for any of the environmental or social part because it was not taught in school back in those days. The laws were just coming into play. Coal mining got regulated in '77, hard rock mining got regulated even later. I even remember coming into the hard rock mining when I went to work for Atlas, and I'm seeing these little environmental assessment documents for the Gold Quarry pit [a Newmont project]. We would have had volumes and volumes in the coal mines at that time for that kind of a permit.

03:12 Biggest Technical Challenges - Knowing When to Let Go - Seeing the Bigger Picture

Arnold:

So, you worked in technical fields all your life. What do you think your biggest technical challenges were?

Filas:

Technical challenges? I was smarter when I was younger. [Laughs.] Maybe because I look back at some of the things that I did back in the day, where I'd go in and audit things, and look at whether it was doing an update. I used to do annual updates on the reclamation cost estimate for a project in California. We did cost estimates for a project that you could see Mammoth Hot Springs from the portal of the mine. And, I look at some of those things today: you transition in your career from being the technico to being a

manager. And, I've always said that we do a really poor job, as engineers, of letting people know what it means to do that. Because when you start out your career, and you're rewarded as a young engineer for i-dotting, t-crossing, doing all that nth degree of detail, and then you have that epiphany moment when you have to let go. Like the three guys standing outside of my office. Then, you have to start looking at a bigger picture and step away. And, everything that got you ahead when you were younger, now is what's going to hold you back, and keep you small, if you keep doing that later in your career.

04:53 I'm Taking Over - And the Rest is History

Filas:

I can remember when I was, I mentioned that with Knight Piésold, I ended up, after we had globalized the company, I ended up working on the board of directors, the global board of directors, and Don East was the global CEO. And, over time, we ended up, Don was trying to run the U.S. practice. After Jim Arnold left, then Don was trying to run the U.S. practice, and run the global organization at the same time. Finally, the board just says, "This isn't working. You need to pick one or the other." So, Don starts thinking, oh, I've got to hire somebody to run this U.S. practice. And, he looks around, and he decides that he'd better start looking outside because he really didn't have anybody to run it. And, this was 2002, and, if you remember what the cycle in the industry was like in 2002, it was a pretty ugly situation. And, the company was in a tough financial situation. The company was in a really tough financial situation because we had a client that stiffed us for a million and a half dollars. And, you don't have that much volume in a small consultancy. I think the last year, the year before I took over, it was a \$17 million year, but a million and a half of that was bad debt. And so, the next year, it was like a \$13 million company. So, Don was looking around, and he finds, I was out of town, and he finds this guy. He's interviewing, and he finds this guy that he wants to hire. I get back into town, and he says, "Okay, Barb, I really want you to take this guy to lunch and meet him, and see if you like him because I think I want to hire him. I think I'd put him in as the practice leader here." And I said, "Okay, well fine." So, I arranged to take this guy to lunch, and we go out to lunch, and we go over to the Cheesecake Factory. They have this giant menu, and I said, "I'm going to order a vegetarian sandwich," and he goes, "Well, that's kind of a "girl" thing to order." And, I thought, that's kind of a "dumb ass" thing to say. [Laughs.] So, we had our lunch, and that was his first impression that he made on me. And then, I get back to the office, and he sends me this email that was his thank you for taking him to lunch. And, I don't even know how to do it today, but he took a bucket of yellow roses, and put it in the background of an email, and said, "Thank you for a wonderful lunch." I thought if Don East would've been the guy taking you to lunch, would you have sent a bucket of roses? So, I got up and walked to the other end of the office, and I walked into Don's office, and I said, "You're not hiring that guy. I'm taking this job." And, he looked at me real funny. It was very obvious that it never occurred to him that I would take over this company because he'd always thought of it as civil and geotechnical with an environmental on the side. Well, the environmental was every bit as big as the civil and geotechnical, by that time. I'd been with the company for 15, maybe 12, years by then. I was a principal in the company, and I just said, "I'm taking over. I don't care. At least the guys know me. We can't bring somebody in at a time when morale is on the floor, financially we're having a tough, tough challenge. And so, I'm taking this job." And he went, "Okay." The rest is history. So, I took over as the head of Knight Piésold, and we managed to pull ourselves out, as mining cycles will always do. Because we kind of hit the bottom of the trough and started up the other side, and were able to pull ourselves out of debt, and get back in the saddle again.

09:09 You Can't Expect to Just Get It - You Have to Earn It

Arnold:

And, this is a good segue into where I wanted to ask about your general career. So, again, woman - male dominated career. What was the toughest part about being a woman in this male dominated career? And, let's be honest, there's still a lot of males in this career. And, what advice would you give to women that are going to be in a lot of the same situations?

Filas:

I've said it a million times. I've never played the sex card. I always tell people that if you want to get ahead, you have to run faster and jump higher than the next guy. I don't care whether you're male, female, purple, orange, you just have to be better than the other guy. If you're running from that bear, you've got to be the one that can run a little bit faster. So, that to me is the most important thing. You just have to earn it. You can't expect to just get it because you're some minority or you're some diversity and inclusion thing. You just have to earn it on your own.

10:27 Incident at the Coal Cleaning Plant

Arnold:

Did you ever get discriminated against, do you think, because you are a woman? I mean you, you've talked a little bit about some of these, given us a couple stories like that. But, do you really think you were discriminated against at any time, or were you able to overcome it by just working better than your peers?

Filas:

I don't remember anything that was, well, there was one incident when I was working at the coal cleaning plant, and I don't know what was the motivation. I only admitted that this even happened last year, I think, maybe a year and a half ago. I didn't even tell my husband that it happened. I was working at the coal cleaning plant, and I got this letter. I used to, when I was at the coal cleaning plant, I watched the refuse area. So, I'd drive by the post office. I'd always pick up the company mail, and whoever wrote this letter knew that I was going to be the first one to see the mail that came in. There was this letter that came in, and it was literally, you've seen the creepy TV shows, where they have cut outs from magazines? It was one of those, and it was addressed. It was typewritten, it was addressed to "Plant Engineer?" at the Wellington Coal Cleaning Plant. Inside there was this note saying, "You think you know what you're doing. You're so useless here. This is the worst thing, blah, blah, blah." I threw it away, and I forgot about it. It wasn't until I was giving a talk in Duluth, Minnesota, and I was talking about some things that I've learned.

12:35 The Importance of Women Mentoring Women

Filas:

My point was, you're going to run into boneheads in every industry, and if you let them get you down, they will. That's what they're trying to do. So, I tore that thing up, I threw it away, and I said nothing to anybody for 25 years, probably. I didn't do the math, but something like that. Yes, it was pretty weird. Out and out, I haven't seen a lot of blatant discrimination. But, I know that I also have, over my career, turned the corner on the mentoring and the importance of women mentoring women. Early in my career, I really didn't do much along those lines because I was trying to compete in a man's world. I can remember being in college, being a member of the Society of Women Engineers. And, I quickly got out of that because I didn't want to be stigmatized as joining the women's groups. Because, if you're going to compete in a man's world, you've got to compete head to head with them rather than compartmentalizing yourself and taking whatever position that might do for you. So, for me, I kind of stayed away from the mentoring of women. I always

just hung with the guys. And, with time, I've found that, through a lot of the SME things that I've done, I've found that the younger women really do appreciate hearing about some of my experiences, and I just didn't have female mentors. They just didn't exist in this business back in the day. So, I didn't gain that appreciation, but I can see the difference that it makes for them. And, I can see that there really is some discrimination that happens in certain circles.

I got a call from a young lady who, I don't know, maybe six months ago, who just wanted to talk. I know her through SME, and she was explaining to me about this boss that she has and some of the challenges that she has with him. It sounds like she's just run into a bonehead, and all you can do is work through it, as best you can, or make other arrangements. I can tell you, though, one of my dear friends, and this is outside of the mining business, I gave her some of the worst advice I could have given her. She used to work at Knight Piésold. She was studying to be a lawyer, and she was working in a law firm here in the Denver area. She confided in me saying, "You know, there's some real sexual harassment going on in this office. What do you think I should do?" And, I said, "If it were me, I'd just walk away because I don't want to be labeled as somebody who's going to call sexual harassment." She didn't listen to me, fortunately. She challenged the guy, and then the whole office literally jumped on that bandwagon and took the guy down. And, he was a very prominent lawyer here in Denver. So, fortunately, she didn't take my advice because my advice wouldn't have been good. But, I'd never been in that kind of severe of a situation. So, I don't take it lightly, and I learned something from that. So, my friend that called six months ago, I didn't say just walk away. I said, "You have to evaluate the situation, and make your own decisions, and talk to your HR department. Talk to whoever, but I can't really advise you on that." So, I've really grown to appreciate more, the importance that other people see in my role, that I never had. So, I think it's been an interesting transition. I really can learn something in my old age.

16:34 Becoming the First Female President of SME - Starting Out as a Student Member

Arnold:

So, you were the President of SME. When did you first hear about SME, and tell me how you started out, and the path it took you to get to the point where, well, you could be considered for the presidency?

Filas:

Well, my Dad was a member of SME, and he was the Chair of the Colorado Plateau Section. It was probably AIME back in those days. I think he called it AIME. But, when I was at the university, that's when I actually joined myself. That's when most of us get exposed to SME, as a student member. I can remember running for student chapter President and failing, and I was so disappointed. And, then I went about my business. We, my husband's a mining engineer, too, so we'd go to meetings and stuff wherever we happened to live. But, I really didn't get involved until one day, I just, I wanted to get involved in the SME governance.

17:11 Creating the Environmental Division

Filas:

So, we had a meeting in Reno, a million years ago, and I'm walking back from the hotel to the convention center, and I'm talking to Ta Li, and I said, "How do I get onto a committee?" And, he says, "You want to be on a committee? You're on the reclamation committee for the Mining and Exploration Division." And, I thought okay, great. So, I did that, and then, the next thing I know, they called me. Somebody called me, I don't even remember who it was, called and asked if I would be on the Professional Registration Committee. Somebody who was the representative for the Coal Division had just passed away, and they

needed to fill the slot. So, I said, "Okay, yes, I'll do that." So now, I'm in the Mining and Exploration Division, and I'm in the Coal Division. Then, my buddy, Dan Eyde, calls me one day and says, "Would you be a Standby Alternate to the Board of Directors for the M&E Division?" I said, "Sure." Then I started thinking, it sure would be nice if we had a home for somebody like me who does the environmental stuff. So, we started looking at building the Environmental Division. We got a group of interested people, and got the first new division, in 50 years at the time, going. I was the inaugural Chair for that.

So now, I'd been Coal Division, I'd been at Mining and Exploration Division, now I was Environmental Division, and I had sat on the executive committees of all of those divisions. I don't think anybody's ever done that. So then, as I'm working through my SME, I'm looking at other things that interested me. So, I got involved with the [education committees]. I'd been in the Professional Registration. I got involved with the ABET accreditation process, which was really an interesting process. I actually did an equivalence evaluation at the METU University in Turkey, which was a pretty neat evaluation. I actually was groomed to do the evaluation of the Geo-Environmental Engineering Program at Penn State. They wanted to have someone who had the environmental side look at that because it was really more of an environmental program than a geological engineering program. And, over time, I was fortunate enough to be elected by my peers to be the first female president. It wasn't easy though.

Back in 2002, I was a candidate, and that was when we had the run-offs for two people, and I lost that election to a guy who ultimately withdrew his nomination for President. He never served as President. So, I missed out on that. But, considering where Knight Piésold was in 2002, it was probably fortuitous that I didn't get the presidency of SME in 2002, just because of the financial condition of my company at the time. They needed my full efforts to help get us out of the situation we were in. So, 2005 was my year, and that was a pretty exciting year. It was really fun. It's probably the most rewarding year of my career.

21:10 2005: A Year of Transformation for SME - Barb's Seven and Seven Plan - A Look at SME's Governance

Arnold:

Yes. Let's talk about that year because SME, at that time, was not in very good shape. You had some people before you, I know, that'd really done a lot of yeoman work to get us back on the right track. But, quite honestly, you helped transform SME in a lot of ways. And, I think there was a period there, where you were probably a book end of, that completely changed the way SME not only was functioning, but the way we work going forward. Why don't you talk a little bit about some of the changes you made to the society or, under your presidency, that were made to the society?

Filas:

My mantra, I called it my seven and seven plan. If you looked at the trends on the financials, and, if you looked at the trends on the membership, if you didn't run out of money in seven years, you were going to run out of members. It was members and money. If you didn't run out of one, you were going to run out of the other in seven years and then seven years later. So, obviously, if we stayed on those trends, we were going to be out of business. Fortunately, I succeeded Art Schweitzer who was the President in 2004. Art had taken on the financial challenge, and he came up with a financial recovery plan during his presidency that I continued to implement. What I took on during my year, before I took on the presidency, you always- SME presidents, when they are president-elect, usually take on whatever they want their mantra to be during their presidency year. What I had done is I had said, we need to look at how we govern the society. SME governance was something that I thought was holding us back. We had a 27-member board, and it was a rite of passage to [be on] that board. So, every year you'd have- It would be industrial minerals, and then

we'd have a president from coal, and then we'd have a president from MPD, and then we'd have a- So, it was a rite of passage, and everybody who sat on the Board had spent 20 years on various committees to get onto the Board. I could remember people opening their Board packages while they were sitting on the Board at the Board table, and it was just not engaged. People weren't engaged, and there were so many of the people on the Board that it really just needed a revamp.

23:41 Dealing with Membership - Building for the Next Generation

Filas:

The other thing was we needed to deal with the membership, because, like I said, in seven years we were going to be out of money, and in seven more years we'd be out of members. So, we were definitely going to- We needed to shift these around. Art dealt with the money, and I asked Brij Moudgil, who was the President in 2006 after me, to take on "how do we market SME to the next generation of industry professional?" We needed to get more members in and turn this declining membership around. Then, I thought it was going to take a lot longer, so I asked Jim Arnold, who was the 2007 President, to take on the governance, because the governance was so much a bigger thing [to make happen given the Society politics], we really needed to make a quantum shift. So, we went around and talked to all the divisions, and I told them, I said, "I want you to nominate one person to this governance committee who you think is most likely to be your next President of SME from this division." I wanted all the best leaders we could get. So, they were on this governance committee, and that committee was so strong and dynamic, it was amazing.

I can remember they came up with a plan, and, literally, I think there was maybe one guy who didn't become a President of SME from that committee. But, basically, they came up with a plan that was great, and there was no rite of passage. It was, we're going to elect the person who's best qualified for the job. We are going to elect people to the Board who are best qualified for the job, not because they've sat 25 years in the Environmental Division or whatever. It was because they were the doers and shakers, and they were the get 'er done guys who would make it happen. I thought it was going to take two years, which is why I asked Jim to do that one. Brij came up with some great ideas, but the governance was so overshadowing, because it was so big. And, literally, the next year we were ready to make the shift.

I can remember the Board meeting, the Sunday Board meeting that was my last great hurrah on the Board. And, we had talked it around the whole time, and I called for the vote. I said, "I've got a motion. I've got a second. Do we have any further discussion?" And, it was dead pan silent. It was a unanimous vote. Twenty-nine people resigned from the Board that day, and we totally revamped the governance into the strategic committees that we have today. They are far more agile and are able to get things done. We've got a far more engaged group, so I just look back in awe that we were able to get that many people to agree. I think it was a moment in time that was just inspired by God or something because how you could get that many people, who had worked so hard coming up through the ranks, to say, "And now, I'm going to resign, and do the right thing for the Society." It was awesome. I can remember my line when we took that vote, "I'm stunned." That was my line the minute I took the vote.

Arnold:

Yes. There were people on that Board who did one thing, and that was vote themselves off the Board.

Filas:

Yes.

27:47 AIME Board of Trustees - Another Time for Change

Arnold:

So, when you become the President of SME, you started getting much more involved with AIME. Like you said, your Dad probably was a member of AIME. But, tell me about your experience with AIME and how that's, well, just tell me about your experience with AIME once you, after you'd been President.

Filas:

Well, that was an interesting one because I came on, and I wasn't on very long. I succeeded Don Ranta on the AIME Board of Trustees, and Don had been the VP of Finance, and I got asked to take that responsibility on. And, anybody that knows me knows that that's kind of an oxymoron to ask Barb Filas to take on Finance, but they also did that. I also was VP of Finance at SME for a few months or so. So, it was a much more sensible thing. But anyway, I was a Trustee at AIME, and I had been there about, I think it was a year, maybe two, I don't know. I think it was a year. We were doing a lot of projects. We were spending a lot of money, and I was very concerned with how we were managing, how we were just managing the organization as a whole. And, I can remember, DeAnn Craig became the President of AIME when I was having these consternations, and I was this far from resigning from AIME. I went into the meeting, and DeAnn asked me if I would continue to be VP of Finance for her, and I said, well, it depends on how the meeting goes because we were going to have this strategic planning discussion at the meeting. And, I said, if we continue to do what we're doing, I'm thinking about resigning. If we decide to do something different and change the mantra, then I'll do back flips; I'll run faster and jump higher and work for you as much as I can. And, I can remember the Board said, "Yes, let's step back. Let's live within [our means], not spend the corpus. Let's live on the proceeds of the investments. Let's have a virtual office; let's not have real offices." I can remember DeAnn and Michele Lawrie-Munro and me sitting in the office in our conference room, and we looked at that budget and we hacked, what, half the budget out, and came up with a budget that did not get into the corpus of the money. We came up with a plan, and so, I was happy to do that and fulfill my full term with AIME because we did the right thing. I think we really needed to pull things in and quit spending the monies that people had donated over many, many years. We needed to make sure we preserved that so that it could live on.

31:22 The Benefits of Membership in SME and AIME - Networking

Arnold:

So, tell us how being a member of SME and AIME, how has that helped you in your career?

Filas:

Networking. Networking. I was a consultant for 20 years, and today I still do consulting. And, I can't stress enough to young people how important that is. So many people don't have an appreciation of knowing a lot of people in a lot of different disciplines and a lot of geographic areas. And, if you are involved with the technical societies- As a consultant, I got work out of that. I mean, it wasn't an enormous amount of work, but it was people knew who I was, and I'm sure that I got work through avenues that I didn't even know, that was word of mouth through people that might've been affiliated with SME. But, just knowing people in the business gives you- You know where to go, you know who to turn to. If you need something, you know who to ask. And, if they don't know, they're going to ask somebody else. It's a very small industry we work in.

32:43 Getting Involved - Show Up, Put Your Hand Up, Follow Through, and Get it Done

Arnold:

So, I get asked all the time. I'm sure you do, too. How do you, what do you tell people when they say, "I want to get involved with SME?" Young people: they want to, I want to get involved one way or another. What advice do you usually give them?

Filas:

I usually say, "You show up, you put your hand up, you say "I will work for you", and then you follow through and get it done." The worst thing that can happen in an organization like SME is where people put their hand up and say, "I will do this", and then they don't follow through. And, I've done a couple of cleanup jobs on that. I can remember when the Mining Environmental Handbook was floundering years ago, and I basically said, "I will take on this coal chapter, and I will finish it, because it's two years late, and it isn't even started." You can still buy that book online. It's a little dated now, but the world gets done by people who show up and volunteer. So, a young lady that I work with even today, she was asking me if she could tag along with me at the meeting this week, and I said sure. But I said, "You go - you want to get involved - you go to that Environmental Division meeting this morning, and you introduce yourself, and you tell them you want to do something, and you want a job." And, if you volunteer, people will almost always give you an opportunity to jump in way above your neck.

34:22 Attracting the Next Generation

Arnold:

So, how do we attract young people to the industry, and how do we keep them in SME? If they are, if they end up joining, how do you keep them involved in SME? But, we definitely aren't the hottest industry out there anymore for young people. How do we bring them in? How do we keep them?

Filas:

Boy, I wish I had that silver bullet, but the only thing you can do, I think, is be honest with them. Tell them it's a wonderful industry, and I think young people, if they get involved and they realize how small this industry is, it can be really exhilarating. Because, I mean, you can go to work for Google, and you aren't going to know anybody in the other side of your industry. This industry, I can remember sitting in a, we were in a little bar on the project site in Tajikistan, middle of nowhere. I'm sitting there talking to this Australian guy, and I'd never met him before. And, we get to talking, and he says, "Yeah, I'm an investor in a brew pub in Reno, Nevada." This was at a time, it was years ago, so there was only one brew pub in Nevada. And I said, "Cami Prenn, Tom Young, Greg French", and he's like, jaw drops. It's like, "Yeah, those are all my buddies." Tom used to be my client. Cami is married to a good buddy of mine; I've known her forever. Yeah. And, Greg, I used to work with at Atlas. And, this was a perfect stranger from Australia in Tajikistan. So, it's an extremely small industry, and I maintain that anywhere you go on this planet, if we spend three minutes talking, odds are we can find someone we know in common, and that's a really powerful thing. And, if you enjoy that kind of stuff, then it's the place for you. If you're a recluse, and you want to sit in the back room and never talk to anybody, then maybe it's not so much for you. Very few people in the mining business look at it as a reclusive industry because the guy who you're working next to, his life depends on you getting your job done a lot of times. We work as teams, and, that sense of team and being on the team, is an important part of our industry.

36:54 Honors and Awards - The Wall of Shame

Arnold:

So, have you received any honors or awards in your career, and, if so, what have you received?

Filas:

I'm almost embarrassed to say that I've got a lot of awards, and I don't have enough wall space anymore; so, I have to prioritize the ones that are most important to me. I've been honored many times, and whether it was for chairing a keynote session, or whether it was for being the Shoemaker lecturer at Penn State, or whatever. There's just lots of opportunities and lots of things. You can even buy your way in, if you get a plaque for giving enough money to the [SME] Foundation.

Arnold:

So, what is the Wall of Shame?

Filas:

The Wall of Shame - a very special thing. The Wall of Shame is this shadow box that I had made because, when I was in high school, my buddy Tim, who's interviewing me here, we always liked the... oh, tell me the band.

Arnold:

Oh, Dr. Hook and the Medicine Show.

Filas:

Dr. Hook did this song called "The Cover of the Rolling Stone." And, "The Cover of the Rolling Stone" is about these guys, you keep getting richer, but you can't get your picture on the cover of the Rolling Stone. Tim and I always used to jest because we're both mining engineers that getting your face on the cover of Mining Engineering [Magazine] was to a mining engineer what getting your face on the cover of the Rolling Stone was to a musician. And so, when I became President of SME, I have the picture of me on the cover of Mining Engineering magazine, and then Tim photo-shopped me onto the cover of the Rolling Stone. So, that's the Wall of Shame. It's got a picture of me, and Tim and I at the Scotch Nightcap where Dayan Anderson had written a song and played that at that. It's got a picture of my Dad because that always chokes me up. And, it just was a very special time. And, I played "The Cover of the Rolling Stone" in a PowerPoint video for my SME Dinner of my evening. That's my favorite, and it is on my wall in my office.

39:43 The People Make Working in the Industry Meaningful

Arnold:

So, what's made working in this industry meaningful?

Filas:

The people. To me, you will never find a better group of people. And, I tell people that you will always have boneheads, and we have our share of boneheads in this industry, but, by and large, the people in this industry are the salt of the earth.

40:10 Working with the Colorado School of Mines - A Quantum Shift

Arnold:

So, you're working with the Colorado School of Mines right now. Why don't you explain the program you're working on?

Filas:

You know, that's a real quantum shift from anything I've ever done. And, I will tell you that I've worked in industry, I've worked in consulting, and academia is an absolute third point on the triangle that there's no comparison. I started as a Professor of Practice with the Colorado School of Mines almost two years ago now. We were working on putting a curriculum together for Nazarbayev University in Kazakhstan. That was a course program where we [Mines] put together the content, and then the faculty at Nazarbayev would actually deliver the content. The agreement was, I wouldn't have to go to Kazakhstan to do this job. I could do it largely from my house. And, that worked out fine. We got our work done and got the courses over to the university. I had signed a contract from May to December, and I was done with my work in about September. So, we got to meeting with the [Mining Engineering] Department Head, Priscilla Nelson, and Rob Reeves, and we started talking about doing a professional master's program. What they were hoping was that we would do the work that we were doing for Nazarbayev would be kind of more cutting edge and forward-thinking towards the industry. But, Nazarbayev, in the 11th hour, decided they really wanted more of an ABET accredit-able program. So, it went back into the standard programs that Mines already had. It wasn't the program that we were hoping to develop, that we could move over into the Mines offerings.

42:10 Creating Our Own Program - The Professional Masters in Mining, Engineering, and Management

Filas:

So, we decided we would create our own new program. It's called the Professional Masters in Mining, Engineering, and Management. It's akin to a mining applied MBA program where we have- There are three different compartments that we address in this program. We have what we call the cross-cutting disciplines. The things I commonly refer to it as, everything I wish I would have known when I took over as President of Knight Piésold, President of Geovic Mining Corp, which we didn't talk about much, but that's okay. But, I didn't have a good background in the finance and accounting and that sort of thing. There are a lot of things that- I spent most of my time on the peripherals, what I call the cross-cutters because I worked in environmental and social responsibility. I worked in the water, waste, and closure areas. Those are the areas that are kind of peripheral to the typical mining engineering disciplines in the university. So, we have what we call the mine services, and that's the environmental, social responsibility, closure, water, waste, health and safety, project management, and the information and systems management. And, those are the ones that apply to everything you do in the mining sector. But, we usually don't have courses on those [in the normal mining curriculum]. Then, you get into the traditional: we've got a course in- the mine engineering courses, which is geology, mining, and metallurgy. Then, you get into the accounting, finance, mineral economics, and investment analysis. That's the program, in general, and it's a professional program. So, it's what do I need to know to go to that next level of advancement in my career? It's been a fun ride. University politics are absolutely beyond me. I hope I never learn them. I'm just having fun doing what I'm doing and having a chance to give back on some of the things that I've learned in my career.

Arnold:

So, what would your old professors at the University of Arizona say about you being a professor now?

Filas:

[Laughs.] Well, they're probably rolling over in their graves. [Laughs.] I've never asked one what they thought about that; but, I was never a strong student. I was always one that was going to get through. I did okay. I was never that "A" student like I mentioned for when Exxon was hiring all the "A" students. They hired diversity, too. That's how I got in. I knew that I was going to get a job because I knew that the companies would be hiring the women. I was the first or the second one to get out. So, I think my profs would all be standing there with their jaws a little slack.

Arnold:

So why is "Happiness a warm toe"?

Filas:

[Laughs.] You said you'd ask that.

Arnold:

And, I did.

Filas:

And, you did. I don't think I need to answer that.

Arnold:

No, you don't have to answer that one.