# OREGON HEALTH & SCIENCE UNIVERSITY
# ORAL HISTORY PROGRAM

a project of OHSU's Historical Collections & Archives

an interview with:

## Fred Harwin

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by: Lise Harwin

Interviewee: Fred Harwin
Interviewer: Lisa Harwin
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Transcribed by: Teresa Bergen

Lise Harwin: My name is Lise Harwin and I am interviewing Fred Harwin for the OHSU Oral History Program. It is May 19, 2023 and we are recording this oral history at the EdComm facilities in the BICC Library.

So, Fred. Let's start with your early life. Describe your childhood and your education.

FH: Okay. My childhood was, how should I say, grew up in a big city, a thriving area. A lot of children my age. This was right after the war, World War II. And it was a new area in, relatively new area in Detroit, Northwest Detroit. So we had, I had a lot of friends and a lot of kids and a lot of socialization. Played a lot of sports that were in season. I remember we counted the kids who could play on one block and we were fifteen. So that's how dense the area was and how many kids I grew up with.

And I played sports and did a lot of the socialization with everybody. But I also enjoyed looking at things. Pictures and books. Not necessarily reading as much as I was interested in pictorial images. And I remember that I'd sit down sometimes and I would draw them, copy cartoon characters out of comic books. And I just enjoyed that as something that I found relaxing or interesting. That's how I was different.

And then in elementary school, back then we had actual art teachers for complete, everybody would take a class of art. And my fourth grade art teacher said to my parents that there's a special program, downtown Detroit, at the Art Institute, the Detroit Institute of Art, which is the museum. And this is for kids who are really interested in art or have shown some ability that should be taken further. So they recommended that I go, the teacher, to my parents.

And so I went down there. It was Saturday morning. And it was a three-hour class. Started from nine to twelve. I remember a lot of times my dad would take me down, because it was quite a ways in Detroit. Because it was downtown, near downtown, and we lived in Northwest. And the classes were small. Maybe eight, ten of us kids. Kind of two or three classes was all. And we'd go around the museum and draw, copy artists' pictures and sculpture. And we'd sit there with our little easels, in the little crew, especially, and draw. And I remember doing a lot of crayon drawings. I was really enjoying it. People were walking by and they'd look at what you're doing. And I thought about it. And after a while it just didn't bother me. I just felt, even on busy days, because it was Saturday morning at the museum. And I really enjoyed that process.

When I got home, I would fit in with the group and we'd play baseball or basketball or whatever the season was. But that was one thing that I did. I continued going on Saturday morning from the fourth grade through high school. I really enjoyed it. It was the only time that I really was doing art that I wanted to do. And I didn't know what it was that I was doing, but I remember the teacher took one of my drawings that I had done of something and took it and

showed it to the other teachers. And I said to myself, well, I guess that one worked. They liked that one. And that's how I just was interested, and got more and more interested in drawing and painting. And it was almost like having, I was the friend who wasn't available on Saturday morning with my other friends.

LH: So you have an unusual combination of degrees. And your bachelor's degree is not in art. (laughs) Can you talk a little bit about the degree that you did get? And then also your master's degree and how you combined some different things in your college career?

FH: Actually, it is in art. But I ended up going to Wayne State University. Well first of all, I went to a special high school, Cass Technical High School. And that was downtown Detroit. And it was a wonderful school for the arts. Performing arts and graphic arts and architecture. My parents were concerned at that time that I would be an artist and wouldn't be able to make a living. Because that was the common thought about art. Oh, you'll be just painting and you won't be able to do anything. A so [they said], "Why don't you take architecture?"

I said, "Oh, architecture's cool." So I took architecture in high school. I actually, when I got out of high school, I was ready to go into a drafting job for an architect, instead of four years, then take the exam for what's called AIA [American Institute of Architects], I would need to spend eight years. But I could become a registered architect.

So I went and I got a job. But I didn't really like it that much. I didn't find it challenging and in some ways I just wasn't quite that interested in that. So, Wayne State, I said well, I better go on to college. Let me check it out.

So I checked Wayne. Ended up moving downtown. I moved downtown before. Actually I left home when I was young, when I was about seventeen. Got an apartment with a friend, one of the guys I grew up with. And it was right near Wayne State University. The high school wasn't that far away. And I took fine art. But they had a program called interior architecture. And they gave a BFA degree, a bachelor of fine art degree, with that. So I took art courses. I took enough drawing and painting courses, I really got a double degree: one in interior architecture and one in drawing and painting. A BFA.

And then the question was, okay, now what do I do? And that's when things really changed. Because in the summers, I always, I started off, this was something else with my friends. I was always at camp. I started when I was six years old. This is overnight camp. And the first time I went to camp, it was a three-week session. I didn't want to go home. They let me stay another three weeks. So I was away six weeks. Really enjoyed the outdoors and enjoyed the opportunity to really be on my own, make some decisions. It was a beautiful area. They had various things, swimming and all the activities. But more based on outdoor stuff. More like the Boy Scouts would have. I learned knot tying, learned about trees, learned about the foliage. I learned about nature. And really got to like nature. And that's what I did in the summer.

And so I did that since I was six all the way through high school. So I was also gone in the summer. And that became an interest of mine. So I was saying okay, well, I could go into this as something and not use any art. Or well, maybe I'll go on for an MFA in interior architecture. They had that at Wayne State. One of the few institutions that had such a degree. It's not interior design, but it's really architecture where you work with the architect. The architect is more or less dealing with the outside structure. And you're dealing, coordinating the inside

structure and how that's to be used by whatever service or whatever it's providing, residential, you know, what a family's looking for or something.

So I went to camp every summer. And ended up being a trip leader for the outdoor, we would take a group of twelve to fifteen campers who were fourteen to eighteen years old, and they were experienced campers, and take them from Detroit up to Algonquin Park was one place we went in Ontario. About 400 miles north of Toronto. We'd go over to Toronto and we'd go up Toronto. And I would take them there. I did this for about three years. And coming back, I was a junior then working on my BFA in interior architecture and art. And we would go, from here we were outdoors living in jungle hammocks and canoeing and portaging. And we came back pretty, we needed to freshen up a bit, shall I say. So we would do that by staying in a nice campsite near the national Canadian exhibition that they had in August each year in Toronto. And this exhibition was huge and quite beautiful. Different areas and different buildings for various things. So I would, the campers, this was something we did back then. We wouldn't be able to do that today. I said, "Okay, guys, go buy your own dinner. Here's some money. Go on, we'll meet back here in a couple of hours," or something like that. So I said, "Okay, and I'll be here." So I stayed there. And there were about 14 campers. I had one counselor. And I was in charge of this, and then one counselor and junior counselor.

So one of the campers came back to me. And he said, "Hi, I just saw something interesting in the careers building."

I said, "Careers building?"

"Yeah," he says, "it's over there." It was about art as applied to medicine. And he said, "I know you know nature." In fact, I knew enough we used to live off the land for three days and do this kind of stuff. Make our own jerky and do, you know, that kind of camping, outdoor camping. And I just love it. He says, "I know that you like science and that you're an artist. You might be interested in seeing this."

So I'm waiting for the other guys to get back anyway. So here I was. "Oh, okay. I'll go over and see what it's like." That attitude has served me throughout my career. Careers. Is that something comes up that sounds interesting. I could say oh, I just don't have time, or I don't feel like doing it, and stay back. If I never went to that, I wouldn't have known about the field of medical illustration. And more so, the timing couldn't have been better. Because I went over to the exhibit. The exhibit was designed and made by the University of Michigan Medical Illustration Department. Toronto had a school of medical illustration. The only one in Canada. It still is the only one in Canada. So as I was there talking to him, he said, "Oh, Michigan made this." They asked me where I was from. I said Michigan. They said, "Oh, Michigan's opening up a medical illustration school."

"Oh, when is that?"

"I think it's a year from now."

Oh. That was interesting. All of a sudden, hmm. Let me, maybe I should look into that.

So I went back and I looked at prerequisites. I needed to take a couple of science courses. Fortunately when I had an opportunity to take an elective course, I took a science course because I enjoyed science. So I had all but I think it was two. One or two requirements. So I needed to take that in my senior year of undergraduate work at Wayne State to qualify to be considered for the program in medical illustration.

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So I did that. And then I also had that year to do some study. And I went over to the medical school at Wayne State University. Got permission to go into the lab with cadavers and to draw and to study and to look at things. And I was getting more and more interested. So I went and applied and the class was huge. Three people. (laughs) Two of them had already been selected. And these were really good students. I remember one want to Reed, here. And she got a complete scholarship for this, it's a two and a half, three-year program in medical illustration. It was first year.

So I went there, took my portfolio, and I got accepted. And that was kind of like, wow, this is kind of cool. So all of a sudden jumped into that arena. And I talked to the instructor, the fellow who started this program. Jerry Hodge, Professor Hodge. He worked on it for over a decade. Because, back then, medicine, physicians especially, was really sought after. Not that it isn't today, but then even more so, I think. And we were taking the position, because we had a year and a half of medical school as part of our program. And in gross anatomy, which was a year long then, we were taking the position of three medical students. Remember, there were 213 medical students and three medical illustration students. And we were spread around. So I had, my lab partners, the four of us on a cadaver for the year. And my lab partners were all med students. And he was able to get that program through. And I took that course. And it just like, wow. It's the first time I felt academically that I've really learned something. Not just where to look or, the whole thing was so intense and wonderful. What could be more exciting than looking at yourself, what makes you up, and all of these things. So I really got into it.

I'm not the best student, so I really had to work hard on, not the visual, the visual memory, it was two parts. So you would have the lab part. That stuff I didn't have too much trouble with, because the visual recall I had. But in terms of writing and describing what I saw was more difficult for me, because that wasn't my forte. And fortunately I got through the school. I had to, I was working as a graduate student, University of Michigan, you are what's called, the Horace H. Rackham is the school of graduate studies and you have to maintain a B average. The medical students only needed a C. I had to get a B. And I didn't think that was fair. (laughs) Fortunately, I did get it. And ended up going through the program. And it was, when I finished I had a portfolio. And several pieces of the portfolio are now in the archive here at OHSU. And Jerry Hodge said to me, he said, "Some of the best drawings you're going to do," this was during school, he said, "are going to be here, because you're going to have the time and I'm going to see to it that everything is really working." And he was right. There's some drawings that I look at now and say wow, did I do that?

17:11

LH: How do you think having that experience with both an art education and a science education has served you going forward?

FH: In some talks I give, I get asked that question or something similar to that. And it's served me because it opened up the, if I can think of it, on one side, let's go far over to one area, that's medicine. That's just, you know, I mean, preciseness and all of these things. It's a given. The

other side, art, is the opposite. It's on the other side. It's very creative. There's no given. Whatever one wants to do, give it a try, if you have it. So I felt I can go anywhere between the two. So, it's open to me. Whatever I want to do. And that's the way that I approached my field, or fields. Because as they evolved and something else came along, it wasn't a big change for me. Because I'm still within the parameters of art and science.

LH: So you talked a little bit about your path to medical illustration. Could you talk a little bit about your path toward working as an ocularist?

FH: This is another question of timing. Like here's this camper going out, "Hey, you may be interested in this." I was told by Professor Hodge that if I go to an institution, I should get a faculty appointment. Because this is a three-year program. Very intense and very small group. And you should ask for a faculty appointment.

So in applying here [OHSU], I said, "I need a faculty appointment." And that wasn't, I guess some work had to be done to get that because I was all of twenty-six years old. Coming not with a Ph.D. or an M.D., but with a master of science. Even though that's a terminal degree in the three-year program, it still is … And I said, "Well, this is something I'm not interested unless I can get a faculty appointment."

And fortunately, I was granted a faculty appointment. Which I found out that really gave me some opportunities. The major one was, well, besides more vacation time and then research, I was allowed to do some research, so I could extend the vacation and see other people. Like I remember in Sweden, in Oslo, in Oslo and in parts of Sweden, I saw there were medical illustrators there, or somebody was doing work. And you know, I would see what they were doing. So I was making it into, kind of make it into an educational thing.

So what happened is I came back. And I was thinking well, I would love to take a sabbatical. Because we don't have what is called facial prosthetics. There wasn't anybody in the state—there was actually one person, Leroy Nakayama. Very nice guy. He was a maxillofacial prosthodontist. His training was really in dentistry and facial reconstruction. Intraoral, it was called, in the mouth, intraoral. But he also did some extraoral, as it's called. Outside. Like making noses and ears. He didn't make any eyes, but he did some of that. And there was more work than he really could handle. And he was the only person.

So I said, well, gee, I'm kind of interested in that. So I thought that I would take a look and see what the potential was of, you know, doing a sabbatical, going around the country and going into different institutions and see who was doing that type of work. It's called maxillofacial or anaplastology or ocularistry. And see people that would let me look over their shoulder and be on sabbatical and kind of document what they were doing. Look at the population, look at the needs, and work something up.

So I went to fourteen different medical schools, medical centers, and we ended up getting a little motor home, one that was small enough to park at a parking meter. (laughs) We had everything there for a full year. And then getting a full year's, full sabbatical from the medical school. I got a lot of support from the staff who knew my work and thought this was a good idea. Which was quite unusual for, again, non-Ph.D. to get a year's sabbatical like that. It was quite a wonderful opportunity.

And so we traveled around, Sara and I. And I ended up going, we traveled up and down till we hit water, and down till we hit water. Just going back and forth. And at these fourteen different places that I stopped, I found some were really open to the visit. And most were quite possessive about their techniques and what they did. Kind of old school like the Freemasons. "No, I'm not going to show you my technique. That's the way my grandfather did it" or something. "And they taught my father and taught me and you're not part of the family," kind of. So I got mixed things happening.

And so I came back. And there were a couple of people who were really receptive. One was Jack Diner in Little Rock, Arkansas. Really neat guy. Talented guy. He also was, started off as a medical illustrator and then went straight to facial prosthetics. And Arkansas was a really good state to compare our state, Oregon, to, in terms of population need for facial prosthetic services. So I used a lot of data that I gathered from that.

So I came back. The president was really supportive of me. And his executive secretary, John Dupree, was very supportive. I think without John, he went around and checked with the faculty. Dr. Krippaehne and some of the surgery departments. And Dr. DeWeese, who was head of ENT, you know, would use the service. And got pretty good support for it. So ended up getting that.

One thing that, I was thinking about all facial stuff at the time. The prognosis for a person with facial, what would cause it? Well, severe traumatic injury where the individual actually lives, but is so distorted that the plastic surgery cannot do anything. So you need to put artificial, out of silicone and various materials, and something that's nontoxic that they can wear, take off, and take care of. That's a facial prosthetic. And the ocularist part, I had observed.

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I want to go back for a minute. Part of our program at the University of Michigan, they have a natural history museum. And we again were the first class. The fellow, his name was Butch, Dr. Butch. Butch? Yeah, Dr. Butch. And he was in charge of all the dioramas, what's called moulage, which is the casting of like frogs and different animals, and also different types of foliage and stuff to make these wonderful dioramas. And I got into doing that. And he said, "Okay, I want everybody to get a small object and cast it. Any way you want. And bring it in and we'll talk about it." Two or three of us.

So I went and I got a snail shell. I said, this is cool. How can I get, it's so much, and even get inside some. I made an eleven-piece mold of a snail shell. And I thought about that when I got into ocularistry. I liked doing that little stuff. And so that was part of, it was three-dimensional, it was casting things.

And at a meeting about thirty years later, a fellow comes up to me. He says, "Hi, I've been wanting to meet you. Dr. Butch retired. I've taken his position. And he gave me something that he wanted me to use." And it was my eleven-piece mold that he used all that time. So that was like, wow. And I felt so, like something, I did something right (laughs) to have that. And then I thought about that size. And that was not much different than the size of making an ocular prosthesis.

So let's go back to coming back from sabbatical. The institution, the president and executive secretary and staff were leaving the institution. I knew enough about it because as a medical illustrator, I knew so many people on campus. Because they would use the service—dental school, medical school, nursing school—for all their publications, for their exhibits, for communication, animation. And they'd all come to department of medical illustration and graphics, we called it. So I knew a lot of people and I knew that, and I also was safe to talk to because I wasn't part of the group. And so I knew that financially, department of surgery was having some difficulty. I knew that starting a little something that I wanted to do was not going to be even looked at.

So I was thinking at that time, well, let's see, what else? And just the timing again. Springer-Verlag wanted Dr. Albert Starr to do one of his first books in a new series they were thinking about. And this was taking a surgical specialty and getting a top surgeon in that specialty in the world to do an atlas of, atlas or manual, actually it could be both, depending on how accurate the drawings are. I found that's a distinction. And was interested in him. Dr. Albert Starr is somebody I did a lot of work for. He was a brilliant surgeon. And in his publications, he needed illustrations of these procedures. So I was doing them. I was doing them in black and white. I learned techniques in medical illustration in black and white. Because color was too expensive for academic work. It was like four times what black and white copy would be.

For example, pen and ink illustration is white and back. And shoot that with which was called high-contrast copy film. Just shoot it once and then put it in a publication. Really inexpensive.

The other was a continuous tone or half tone. And this was all gray scale. And it made the, but it showed nice, soft tissue for manipulation of surgical technique.

And those were the, those two were the two that were emphasized in the medical illustration school. So what I had done is, those were the kinds of things I did for Dr. Starr.

So Springer comes here and Dr. Starr says, "Fred, you want to do a book?"

And I said, "Yeah, what?"

And he says, "Well, they want my techniques down."

And I said yeah. Timing was, what was I going to do, did I want to stay in my position doing administrative stuff that I didn't especially care for? And I was thinking, you know, I just came back from sabbatical. We weren't going to be able to start this. I said, "Okay. Yeah. But we have to set up a working relationship. But I think it will be very constructive."

Fortunately, I had worked with him before quite a bit and we had a good relationship. And he said, "What do you want to do?"

And I said, "Well," and I gave him a whole list of things, including seeing every surgery, being in every surgery, seeing it at least once. I didn't want to work from anybody else's work. I want to do it from the surgeon's perspective, which had not been done at that time. I want to do it in a way that, in color—and this is what Springer-Verlag, the publisher, wanted this in full color—but not color as has been done before, which is usually teaching. For example, red arteries, blue veins, yellow nervous system, green lymphatic system. We have these keys. And even surgery, they still kept showing that way. That isn't what the surgeon sees. I wanted to do, I said, "I want to do what you see, Dr. Starr. And I want to emphasize that particular step that you're doing from that view."

And he said, “Oh, great. Okay. Come observe. How do you want to do it?”

“Well, let me look. But I need a photographer.” Paul Ramsay, who I had worked with before, came in for certain things I want to take pictures. And I said, “I’ll work up some sketches based on, I’d like you to explain the surgery to me first. In other words, teach me the surgery. And then what I want to do is put this into a visual form. And give it back to you and then do whatever additions or modifications that are needed.”

And for me, the really wonderful relationship and his confidence in allowing me to have the type of input is not usual. Usually there’s a medical illustrator and there’s the surgeon. It’s like the administrator and the person that types for them. And so instead of typing, medical illustrators do drawings, you know, for. Not with Dr. Starr. I said, “I want to see.” And I had suggestions. We actually developed chapters. I actually came up with ideas that he really liked. Because I looked at this differently. And I said to myself as we were working, this is unfortunate that we have a hierarchy system in terms of accomplishing a mission and coming to the best end we can get. And have really qualified people involved. Because one person needs to be or feels they need to by their status or letters after their name or whatever, be in charge. So they start telling someone, “Oh, we’ll do it like this.”

Starr said, “How do you want to do it? What do you want to do?”

“I’d like to help design.”

“Fine.”

“I want to go to where they’re printing this.” It was Donnelly Press in Indiana. “I’d like to press proof this one section where color can actually be diagnostic. I want this to be so accurate.” Because Springer does beautiful work. Main office in Heidelberg. Just wonderful reproduction. Where the surgeon could look at this and say, “Oh, that’s the color relationship where I make the incision.”

And he was supportive of everything that I wanted to do. And was very gracious about that. And the books turned out, two-volume atlas. They sold out right away. And the reviews from all over the world came in. And it just overwhelmingly, after that I said to myself, okay, what do I do with the rest of my life?

Well, same time that I was doing this, I was leaving the school. And I said, okay, I’ll work on a new, had to leave because I couldn’t work on this atlas, go to these surgeries. I went to congenital defect surgeries in the middle of the night to see these. Because these are little infants that you need to see. I was standing on a stool right behind him, looking down. He’s there and I’m up here looking down at him, looking down into the surgery. So I really wanted to be involved in that.

Just so happens, Dr. Dick Chenoweth, Devers Eye Institute, the first retina specialist in the state of Oregon. Another brilliant surgeon. He, head of Devers, he came into my office at the school, same time, with a fellow, Tom Schultz, who was a resident in ophthalmology who I did, I helped him with his resident thesis type, or whatever the project was called. And he came in. And Dr. Chenoweth came in. And he says, “I understand you know how to make eyes.”

And I said, “No, I don’t.”

He said, “Well, you just went on sabbatical learning how to make eyes.”

I said, “No, I went and observed how facial prosthetics, including eyes, are made by some. But I don't know how to make them.”

He says, “Do you want to learn?”

And I said, “Hmm. Maybe. Yeah. Could be.”

He says, “Okay. Is there someplace you can learn?”

I said, “No. I’ve got to teach myself.”

He says, “Okay. What do you need?”

I said, “What do you mean?”

He says, “I’ll sponsor you.”

“Oh, well, if I leave the medical school, I’ll need a salary.”

“Fine.”

“I’ll need to go some places I went on sabbatical where they were receptive to my looking over their shoulder and spend maybe a month each.”

“Fine. What else?”

And I just kept going. And I said, “Are you serious?”

He says, “Yeah, I want you.” He was in a position, and didn’t think about how much is this going to cost, or how much is this.” He said, “I want to fill out my clinic. We are missing a good ocularist.”

And I said, “Well, fantastic.”

So he sponsored me. So I was learning that, working on the book. So I said to him when I started doing it, I said, “I’m going to need at least two years to learn this stuff.” And then I had a patient from Devers, I remember it was Dr. Irv Handelman, I think, yeah, Dr. Irv Handelman sent over this teacher who needed a prosthesis. And I sat down with her and I said, “Okay,” I said, “I haven’t made one for anybody yet. And, I said, but I know what to do, and I would like to, and I’ll probably need to make several until I can find one that really works right and does what I feel it’s supposed to do. It might take a month, it might take two months. And of course there will be no charge for it or anything. Would you possibly be interested?”

She said, “That sounds like fun.”

So I learned how to make an eye with her. And I learned about materials that I didn’t know in making an eye. I knew everything, the anatomy. Ocularists do not have a background in anatomy. They do not have a background beyond, actually beyond high school. What they do is they become apprentices with their mentors. Usually it stays within the family.

And so I had that. I did the casting. I mean, I had my eleven-piece mold from my snail shell. I’ve done this stuff. But I didn’t know methyl methacrylate, or acrylic. Or PMMA, it’s called.

So I learned that. So one of the detail people of Patterson Dental, a salesman, he was my go-to guy. I say, “Okay, now my hands are in plaster. What do I do now? How do I mix this stuff?” Because I really didn’t know. Until I went back. I spent a month with Jack Diner, a month at UCSF in San Francisco with a couple of their ocularists who really gave me a better understanding. Got into the field and I found that I really enjoyed it. And I did that two and a half days a week, and the rest of the time I was working on the book. Or books. It turned out to be a two-volume atlas.

LH: So, it sounds like you had a very equitable relationship with Dr. Starr.

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FH: Yeah.

LH: Talk a little bit about what you think medical professionals can learn from artists, what artists can learn from medical professionals when these careers intersect.

FH: I've said a little bit of this. And I think it has to do with the respect of another person and their expertise. Even though you might not understand their expertise, to give them the credit for knowing what they're doing. Rather than making an assumption that you know best because you're higher up on the ladder. And I think that's where we go wrong in so many things that we do. We assume well this person, they don't know that much. They don't have, whatever their background. Background doesn't matter. What is their expertise? And I think the smartest people, like the smartest administrators, surround themselves and look for people smarter than themselves who have other areas that they know they're not that skilled in or don't have the understanding, and will listen to others. And I think that's how really some of these progress really happens. When somebody comes and says, "Well, I've got the longest white coat here, therefore we're going to do it my way," and they know nothing about this stuff.

In ocularistry, for example, ophthalmologists know nothing about ocularistry. Because once a person loses an eye, the ophthalmologist can't do a thing. The only reason the person sees the ophthalmologist is that's the anatomy. But they can't do anything. So it's a question of, well, you go see this person, technician, will make something. Anything that they do is better than nothing. It's okay.

When I saw what was going on in the field, I really got into it. And I said no, that's not right. What is right is learning how you can make this person feel good and whole again. And there's a lot of work to do it really well. It's like this, what is this? It takes 90% time to do something. I'm sorry, 50% time to do something, 90% well or right. It takes another 50% time to do it 100% well or right. And I'm a 10% person. Because that's what it should be, that's what it can be.

So I got into the field. When I was in the field, I wanted to see if we could get a program going. They asked me at Johns Hopkins to work with them doing eyes. They were doing facial prosthetics back there in their art as applied medicine program, medical illustration program. And they had a fellow doing facial prosthetics. And nobody was doing eyes. And they had this international program. So for ten years I've been on their faculty, and I still am, as an adjunct assistant professor with the school of medicine. And art as applied medicine. He would have students come. And they would be with him for a number of months. And then he'd come out and spend a couple of weeks with me for the eye portion. And we did that for about ten years. And really enjoyed that.

I remember having two people from King Faisal Hospital in Saudi Arabia. And they'd never been out before. And we had a good time. And first very apprehensive. And then saw that this was kind of fun. Their skills in terms of technical skills were really, really high. They were both dentists. And they were asked to make artificial eyes. And so that's how I got involved and really enjoyed that process.

LH: You talked a little bit about making this eleven-piece mold and mixing plaster, and line drawings with pens and the added expense of color and the full range of color. We're now in an era of technology, right, and using computers to do medical illustration. Talk a little bit about, you know, maybe not so much about the evolution, but how do you feel about the technology that's now behind medical illustration?

43:31

FH: Well, Marshall McLuhan wrote a book. The medium is the message was the premise of the book. The medium, and this was done I think in late '50s, early '60s. And the medium became the message. Oh, let's do a videotape, it's got to be great, it's a videotape. It's another tool. Technology's another tool. It's how you show this, what this means. What you don't show. Like in the cardiac surgery books. It was much about what I didn't show as what I showed. So one step, one illustration, would give that pertinent information without being cluttered up with extraneous stuff. That decision could still need to be made by the computer. Okay? AI maybe it'll be able to make it.

A lot of things have changed. Medical illustration of course is not what it was. Black and white illustration, pen and ink and carbon dust. At Johns Hopkins, they still have a little bit of that. But most of it is computer-generated illustration. Most of it is animation. Very high, sophisticated level.

But it's a tool. The problem is, my feeling, is that when the tool becomes the message, you lose. Then quality becomes mediocrity. And the quality, that decision making still is the individual choice. What tool you use? It doesn't matter.

I even had in this transition, and, in a way, fortunately I got out of it before I had to learn too much, because my synapses are pretty full, and I didn't have a lot of room to put all this technology in. But you would do something. And by doing it, you'd feel it, okay, well, this is good enough. And the client would say, "Oh, yeah. That's good." And we have, I think, without getting too political, a lot of things, we've gone to mediocrity instead of quality. We're not going, we're letting the tool take care of more than it really should. It's there to help. But it doesn't tell the story the way it could be told. And I think that that's, that transition, I would like to, I do appreciate those who really use the new technology to do something that hadn't been done before and couldn't be done before.

And we do that in entertainment. The Van Gogh exhibit here, you know, there was animation. There were two different levels going around this entire room. The floor, the walls. They didn't have ceilings here. But if they did, they would have the ceiling. Well, great. That isn't to show a painting, that is to show what this technology can give you, the experience it can give you. Like a painting can give you a certain experience, this can give you another experience. I think that's good use of technology.

In medical illustration, I'm obsolete. My work is something else. What is happening, though, is people are going back to vinyl. They're going back to film. I think we get to a point where possibly, and I'm hoping some people will be interested in the technique I developed for the open heart surgery books, artists and see what was done before. And I really appreciate Maria and the archive, special collections and the archive here. I'm really quite honored to be a part of that. And if somebody comes up, they want to see this old stuff, well, fine. There it is.

LH: Well, let's talk more about that. First of all, those things are collectible. So they're special in their own way. They're important to preserve, right? And as part of that, you donated some of your materials to the OHSU Special Collections. And some of them were displayed as an exhibit. What was that experience like? How did you decide what you wanted to donate? And what do you hope that library visitors can learn from seeing these pieces in the special collection?

48:16

FH: Hmm. I'm going to use, there is an interest after you get to a certain point in technology of going back. And I like to think that some people will be interested enough to go back into what was done then. And will have some meaning. They might even pick it up and want to do it themselves. I don't know what's going on with cameras right now; I just hear there's more film being used. Why are we going back to film? Digital is so much easier. Well, because you can get other things. Maybe you can get other things out of that.

To have this in an archive, I never knew, really, what an archive was. (laughs) I never thought about it. As I say, I feel that it was, I didn't know what to do with these drawings. I was going to give this, say okay, to my daughter. Here, here's a whole bunch of stuff. Do what you will with it. I don't know what to do with it. And I was really pleased that this has ended up the way that it has. Because I, for one, that if I was thirty years old or whatever and there was an archive that had something that I might be interested in, I could see myself going back and seeing what was done. Not what I can do with technology, but what was done before. And it has validity and has meaning.

And actually, that's how the subtleties, learning, you learn a little more. It's like looking at paintings, oil on canvas. A painting, oil on canvas. Well I look, some of them would call the Old Masters. What were they doing? Why is that important? And there's a whole learning process and an interest process for some people. And I think that should be valued.

LH: On a related note, you talked a little bit about going to Little Rock and you talked about the mentorship for you to learn this field that was offered. And I know you have also been a mentor to others, going forward. So talk a little bit about the role of mentorship, both toward you and that you've given others in your career.

50:49

FH: Thank you. That's something I don't forget about. I was part of four faculties, medical illustration faculties. Georgia College of Medicine, Johns Hopkins, University of California, San Francisco Medical School, and Cleveland Clinic, which was all part of the Cleveland Clinic and the Cleveland Institute of Art. And they would have students, by that time, each one of those had a medical illustration program. In the summer, they were looking for internships. So when I was here at OHSU, I had an internship. Every summer, I would take a student, at least one student on. Usually just one. One or two times I could possibly work with two. I felt it was very important to have that type, plus, I look at myself, somebody says, "Oh, you're an artist."

I said, “No, I’m a teacher.” I’m teaching through my visual, I’m teaching through my art. I look at the books. This is a visual language that I did for the books with Dr. Starr.

And so I would bring students in. And they had this internship program. They might come for a month, they might come for the entire summer. And when ocularistry never had anything like that, I would invite people who wanted to improve their skills. I actually had a program that was being sponsored by Johns Hopkins to help ocularists who were already practicing improve their skills. And they would come. I feel it’s extremely important. We can learn so much from each other outside of a formal, outside of a formal sense. I believe we’re always learning. If you’re always interested, you’re always learning.

And so the students I had from ocularistry came from this one program I mentioned for about ten years with Johns Hopkins, of individuals, mostly dentists in different countries, wanted to do facial prosthetics or make eyes. Of course I couldn’t teach somebody in a couple of weeks how to make an eye. But some of them had been in touch with me on a regular basis, had been helpful. Today with today’s technology they can send me a picture of what they’re doing. We can actually accomplish a lot. And I think mentorship is extremely important in all areas.

LH: So thinking about those students who either came to work with you as interns or that you have taught classes over the years, what advice do you give them if they are interested in pursuing a career in medical illustration or in ocularistry?

FH: Pick something that’s easier to get into. (laughs) It’s very challenging in both, because they’re such small niches. I think that, my advice is that if you are a visual person and you think of yourself as a visual communicator or a visual artist and you want to pursue that, look at what there is that society needs in that arena. And specialize. Find a little niche. I found two niches. The ocularistry was actually a smaller one (laughs) than the medical illustration, which was small enough. And I feel very fortunate.

I’ve had a lot of communication with students in art and fine art looking for something to do with their art other than join the gallery circuit, which is very difficult to make a living at. You have to be so committed, like some of the artists that we know of, very famous now, and how much all that stuff’s worth. They’re all gone. They were people who were driven. It didn’t matter. They had that drive. They had to be working all the time. And that wasn’t myself. And that isn’t a lot of people who are looking for something. They just enjoy that. They feel they have something to contribute. But there are not too many areas that one can get into. And I think it’s exploring. It’s also being lucky. I feel it’s extremely lucky timing-wise that when I look back on it, I say, wow! What if I didn’t follow what this kid said? What if I decided I wanted to do this instead? What if I decided, oh, I can’t get a sabbatical, I’m not a doctor. No. So I went after things that I felt I could learn from. And I like when other people will do the same thing.

So I right now, though I’m not working in terms of having, I don’t have a clinic anymore, I’m not doing medical illustration. If somebody contacts me, it’s my pleasure to work with them. And I’ve seen people, now it’s wonderful. You can put on Zoom. And they say, “Fred, I’m having trouble with this prosthesis” or something. Sure. So I still like doing that and helping out. Others have helped me, and I think we need to pass that on. I think mentorship is extremely important. And I feel, again, without getting too political, we are losing some of that because

we have technology to answer—hey, Siri. Whoops. Hey, Siri. (laughs) Tell me something about da, da, da. No, no. That isn't, that's information. It is not knowledge.

LH: So you talked about a few of the different people here at OHSU that had an impact on your career journey. Are there any other memories of colleagues, maybe some stories, of different people that you worked closely with here at OHSU.

57:27

FH: Yes. There are probably a lot of them. Because I do enjoy, I enjoy being in with a part of a group of thinkers and of doers. And I enjoy the research also. I got to know a lot of people who were really committed to their research. Almost like the painter who's committed to doing just that. There were several people in that arena that I got to know fairly well and worked with. And some people who, really enjoyed, actually became friends with. And some of them I worked with, but also became friends with.

And one, I must say, of course, is Dr. Starr. Who is a unique individual, but a brilliant, unique individual. And he is committed. And he is focused and channeled. In some ways I feel oh, I wish I could be like that. In other ways, no, I don't want to. I like the openness of [unclear] But his ability that he has learned by having that determination, his brilliance, is something. And the fact that he allowed me to participate the way that I did was a real honor to be able to do something with him.

Sam Niles, he was a cardiac pathologist. Sam was a fun guy. You know, kind of the opposite of Al Starr, for example. And Sam, though, was doing pathology of the heart. And especially congenital pathology. So at that time he was making, in fact, I think he might have, I don't know if he invented this, but came through. He took tissue and tissue, he would, and wax. Like beeswax. And the tissue changed to the beeswax. The same way they do it now, only using different synthetic materials, different kinds of silicones and acrylics and such. But there was a process that you went through. So he had these wax models of hearts. That was really helpful for me, because you could only see so much. So he would loan me any of these I wanted to take home and have and draw from and turn around. Because we're talking about dimension doing this. And Sam, I just enjoyed him as a person.

Another person was Bob Bacon, who was an anatomist. And also somebody who was very socially conscious. Conscious about all the things that I believe in in terms of environment, in terms of treating people well. And he was, I heard from the students he's the best teacher they ever had. So he did anatomy. Sam did pathology. And I was working for Springer-Verlag then and said hey, you guys should do a book. And they did. And got, a friend Joel Ito, another medical illustrator in town here, illustrated for them. I was busy doing other things. It was really nice because their collaboration was here is what anatomy is, and here's when it changes to pathology. This is the process that happens. And it was a pretty successful book. So it was kind of fun to work with both of them and actually have something. They were also—

Jim Metcalf, another really super person. And he was doing research, what was it? With sheep or some kind of, I forget what his research was. But enjoyed that. Dr. Krippaehne, who was head of surgery, also a very good surgeon and a very nice guy. Dr. DeWeese. DeWeese was his own character. Very good. He was, used to be ears, eyes, nose and throat. And then was

otorhinolaryngology. Then it was ENT. So eyes, when I came here in 1969, eyes were not a separate entity. They were part of, you know, part of nose and ears. It was all together. They didn't break out as a separate. And now we have a whole building here, Casey Eye Institute. We have all these specialists and we're going deeper and deeper into specialization.

A lot of the research staff I got to know. I also got to know a group of residents. The ones I guess I enjoyed quite a bit were the ones in psychology. Psychiatry, I'm sorry. Psychiatry. I actually was younger than most residents. I was younger than all of them when I came here. I was twenty-six years old or something like that. So it was kind of a young crowd. But there was a fellow named Saslow who was the, he was the chair of the psychiatry department. And he also had a reputation. So people wanted to study with him. So those who came here to study with him were really fun. These guys, the residents, interesting.

Urology was another area I did a lot of work for. Depends on what their publishing was. If they were doing a lot of papers, if they were doing new techniques and they needed to communicate that. That's what the service was that we were offering in medical illustration. And I remember one fellow, I'm trying to think of his name. First name, John. He came to the opening. John, did a lot of work for him. Clarence Hodges was the chief at that time. And Harper Purse was one of the staff. This is in urology. And John Barry. John Barry was the other. John Barry is the kidney transplant specialist. Still here! He came up and he looked familiar. It had been forty-five years since I've even seen him. And that was kind of exciting, and that was very nice for him to come. But we did quite a bit of work in that area. Gastroenterology I did quite a bit of work for. Research in otology. I remember, tinnitus was one, Dr. Brummet. I forget. He worked with a couple other people in that. Plus they were all sailors. And they loved making dinner on their sailboat on Thursday. And watch the reflection of the sun setting against Mount Hood. And guess who was invited a lot? Sara and I. (laughs) It was great. I'm trying to think of his name. Yeah. I just forgot. Anyway, just a really nice group of people doing research in these areas. And got to know them.

But [Bud] Dockery taught me. I came here, we used to play a game called paddle ball in Michigan. Came here and Bud says, "You've got to learn squash." So he taught me how to play squash. And some of these guys that I got to know doing work for them, we ended up, you know after work, that they had a little place here. Not like the big one they have now. A student activities building, they called it. And they had one squash court in there and we used to play in that. So it was a good group. I liked the diversity and I liked some of the intellects. I really enjoyed meeting people who are committed, who have studied, who I felt had something to say. And here I am, talking, talking, talking. I do talk a lot. But I also like to listen and learn from some of these people. I learned a lot.

LH: You talked a little bit about your work with Springer-Verlag.

FH: Yes, Springer-Verlag. Yeah.

LH: Do you want to talk a little bit about your work with Gore?

1:06:25

FH: Sure. What had happened is, there was a publication called *Communication Arts.* It is the publication in the world in terms of an illustrator. You make it to that, it's like getting the Oscar. And if they do a page on you, but if they do a six-page spread, you just sit down. You're going to get a lot of people at that time calling and wanting to know if you're available and this stuff.

I ended up, the book itself was entered into a book contest by *CA* magazine, *Communication Arts.* The owner of that company really liked the book. I found out later. But it didn't win some kind of award with it. And he felt, and then someone contacted me, wanted to write something up. I forget the contact with *CA* magazine. And so he contacted them. And the owner was contacted. He says, "Oh, yeah. They did the book. Yes, do something on them." They did a six-page spread.

And Gore-Tex was one of the companies that called up. And I remember the call from them. They said, "I know everybody's calling you. But we really want you. What do you want from us?"

And I said wow, that's cool. It's always cool to be asked to join or do something. When you go, then you become, it's different. They really wanted, and I said, "Well, what do you want?"

"Well, you tell me. Here's what we're doing now. Here's what we'd like to do." And I got involved with them like I got involved with Springer-Verlag. I ended up working for them for fifteen years. I worked for Springer-Verlag because the atlas was so successful. And actually I coordinated nine atlases in surgical disciplines. I was called the illustration managing editor for Springer-Verlag. Their main office is in Heidelberg. And their office in New York and Tokyo at that time. And I really worked for the New York office as illustration managing editor. When Heidelberg found out about it, they said, "No consulting." I wasn't there. I was out here.

And I got involved with these two companies. The Gore-Tex one, I'll go back to Gore-Tex. They were at a spot in their communication where they wanted to show their new products. Now Gore-Tex we know about their outside, everybody knows their outside breathable material. It's a wonderful story of W. L. Gore, who worked for DuPont, and how he discovered Gore-Tex. So you had this breathable stuff.

It turns out it's very valuable inside the body. It is completely non-whatever, and it has properties that do better than any other product inside the body.

So they built five buildings in Flagstaff, Arizona. The son—no, I'm sorry, not the son. Related to Willard Gore, W. L. Gore. He was in charge of the medical division. And there were five buildings. I mean, they were making shunts, tubes, patches, suture material. So much of this stuff inside the body.

And then they needed to show surgeons how to use it. So they saw, this publicity saw the book, *Open Heart Surgery.* And so they wanted me to work with them on a regular basis. And we changed their whole presentation, their whole, what back then, now it's called their whole brand, if you will. Because that's the term that's used now. The other term, I don't know if it was logo or various things. And their whole brand was based around my drawing. And so I became valuable in terms of how I would draw the stuff. Use the same technique. Same vantage point, same concepts of teaching that I use in the books on open heart surgery. And did a lot of work with them. And I enjoyed our relationship. It was great. I have to fly to Phoenix. And then you take a puddle jumper to Flagstaff. Flagstaff is over a mile high. Phoenix is down low. And I remember sometimes the only person on this little puddle jumper going up to a

meeting, because we didn't have the Zoom, that type of communication that we have now. I'd go to these meetings. And I remember with them I had an opportunity to have some input. They were using an ad agency. And I said, well, how many people? Well, they had a half a dozen people working in their graphics, PR, communications area. And I said, "Well, what does your ad agency?" Well, they do da, da, da. I said, oh, okay.

And then they got really interested in having my drawing be the center of this and work the copy around it. And the look became such, when you'd open up the journal, you'd see that look. That was the brand. There was no doubt about it. The palette was the same palette.

And I said, "Well, why do you have the ad agency?"

They said, "Well, we just, you know, cause you have …"

I said, "Well, you know, with what you're doing now, you just hire one person for placement. You don't need an agency." So they dropped their ad agency. (laughs) Now, they weren't happy. But there was no need for it. It was an extra.

With Springer-Verlag, what they did, they would hire illustrators. The illustrators would bid. Now when I was involved in these atlases, they liked my work. We had a good relationship. And I said, there are really brilliant, wonderful medical illustrators out there. I'm talking worldwide. They all come to this one meeting that's usually here in the United States. And I know a lot of these people. And these are the illustrators you want to have to go with the quality of your company and what you go through to really keep it at that high quality.

And they said, "Oh, yeah. Well, we have them all bid against, here's a product. We'll pay you a thousand dollars an illustration or whatever it was at the time."

I said, "Oh. Well, what do you do, who's your printer?"

"Oh, our printer. We've been together for many years. We use the same printer."

I said, "You're bidding for the illustrators. Using the same printer. Why don't you bid the printer, put more money on the illustration end, and get the best illustrators that there are?" And they did. I had input there.

If somebody was sitting here and seeing part of that, "Thanks a lot, Fred." But it made more sense. Because the creative content.

And then what I did is with the illustrators, and with the surgeons that would sit down, or that we would talk to, they would have, I wanted them to have the relationship that I had, because I felt it was so successful. And some of them we could and some of it we couldn't. I'm not going to tell this top surgeon what to do, illustrator. But we still got a really good illustrator for them.

Plus, Springer-Verlag was the first publisher to support medical illustration meetings. Said, "You guys are going to American College of Surgeons. You throw a reception for them. We want the best illustrators. Throw a reception for the medical—" And they did. Nobody's ever asked them that before. So what happened is, the best illustrators wanted to work for Springer. And that was great. Great for me because I had a chance to really get involved in this whole series. And I worked for them for over a decade. And their administration changed. And when the administration changed from the top, and worked its way down, pretty quickly it was time for me to leave. Wasn't going to be the same. And the same thing happened with Gore-Tex. The people I was working with did not want to do anything with computers as such. And of course that was what was coming in. And so the administration decided okay, we have to change and bring somebody else in. So I started talking to people. And I don't know, computers were just

coming in to how you use it and what you can do. I said nope, enough. So I ended up leaving them.

So those were two large clients that I had when I was doing eyes. And I had finished the books on open heart surgery. But I still was doing eyes. And I enjoyed the two and a half days a week. So I ended up expanding that to three days a week. And that was my eye practice. It was always three days a week. And if I did it right, I could be very productive and still give the person a lot of time. And it wasn't about how many I could do; it's how well I could do it. And I figured out this is not something that I'm doing as a product for money. Even though I did get paid, yes. But this is something that is important. And it was like having an opportunity to help another person, and help another person with themselves, with their image, with their life. And it was so rewarding I, well, I was teary with quite a few of them. And it was a beautiful experience. And I was very honored to have that opportunity.

I did eyes for over four decades, over forty years. I did medical illustration for over thirty years. And they overlapped each other. And it's like okay, what do I do next? Well, I go bye bye. (laughs) But what I do next, I'm painting now. But I'm also running into the usual age scenarios. I should not be making eyes now. I would be fighting with myself. Because my eyes are not what they were twenty years ago. My hands aren't. You know, carpal tunnel comes in. Trigger fingers come in. Arthritis comes in. You're just not at that point. I think what's important in any work like that is to know when it's time for you to say okay, I've done it. And go away. What I say is I call it my three-point shot is still going in. I leave. And I was fortunate to do that.

And then I'm honored to be involved here with the archive. Not knowing what I was going to do with these drawings in the first place. And to actually go back over all this stuff. What's been interesting is some people know me as I guess the eye guy. And I've been fortunate there to get some nice visibility and publicity and such on what I'm doing and why I'm doing it. But they didn't know anything about my illustration. Or my dimension. I remember some of the stuff that's happened recently that Maria put out, somebody saw it. "I didn't know you did all that stuff!" So I guess I've been very fortunate to say now I'm painting. And I'm painting large. Because this little stuff I'm not doing anymore. Because it would be, I just don't have that ability to do that quality that I would like.

LH: Just wonder, what do you want your legacy to be? Or what do you want to be remembered for? I mean, in fifty years when you're not here. Because you have a long way to go.

1:19:25

FH: Oh, yeah. A long way to go, right. (laughs) I'm working on it. I really, wow. That's a good question. I feel that, and I think a lot of us do, in terms of reasons for being whatever we're here for other than procreating our species, is that what I've tried to do is I'm a giver. I like helping. And what I've tried to do, so that's why the ocularist meant so much to me. Because I, here's an opportunity where really directly can help somebody. And very few people can help them. So I feel the, that legacy is here's a person like all of us. We have our short time here. My contribution, which is a small one, one person, I've had an opportunity to make a contribution. An opportunity to help others and help our humanism, whoever we are, in a way that I feel very

pleased that I had those opportunities to do that. And to teach something to me, made a lot of sense to teach surgery in a way that really makes it clear.

An example, a fellow was here, he was in Bangkok and was in a horrible car accident and had some chest problems. He went to a chest surgeon in Bangkok. The chest surgeon pulls out this book, *Manual of Cardiac Surgery.* And the guy knows me. This is one of my former campers. (laughs) And he sees this. And he says, "Oh, I know this guy!"

He says, "Oh! This is the only book I'll use." That kind of thing makes it like wow, that's worthwhile. Here's somebody in Bangkok pulling out the book.

The other thing I guess I didn't mention that in doing the illustrations and working out a palette, I want to be consistent with a palette, I wanted the color to reproduce in black and white. To be shot in black and white film. And have enough contrast between items and the subtleties that it actually showed everything well. So I worked out techniques and colors I would use that could also be in black and white and still work. And I think two of the books are in just black and white. I think the one that's in Portuguese and the one that's in Japanese are just in black and white. And there's really, the subtleties of diagnostic color stuff you don't have. But in terms of the information being communicated three-dimensionally and what the step is, is still there. So that was something else I had an opportunity to do. And I felt that was important to do.

As far as a legacy, I don't even know what it means. We all go through this short life. We think it's a long one when we're young. As we get older, we know that it's not that, (laughs) it's not that long. No, I've been, I'm just pleased that I've been able to do what I've been able to do. And I'd like others to think about themselves and what they would like to do and want to do. And not think about how much something is. Not to think about, and all the negotiation that I could do financially, I would have either somebody else do it for me or I would take care of it so I never had to look at it after, after it was. Because it just interferes with what's going on. Because something costs a lot doesn't mean it's valuable.

And I think that we're, we've been ever since, what was it, [George] Odiorne about fifty years ago, *Management By Objectives*. I don't know if people are familiar with that book. It was kind of like, I think the MBA programs were developed from, initially from that, where the bottom line is all that's important. Work out the bottom line, then everything else will fall into place. And we're seeing that it's fallen out of place. And I think that that's unfortunate. And I think, again without getting too political, I think that that has really done us a disservice rather than a service. And I think we're here, we are social animals. We're here. We should be helping each other. And we should be giving.

When somebody said to me, "Oh, well, I've earned that."

Well, what do you mean you earned that? I said, "When you give, then you receive. You don't sit and wait to receive. You receive when you give." And what's better feeling than giving to others? So that's where I've been.

I would like to have, in a way, no I wouldn't like to have, because it wouldn't make it better, is if I had a lot of money—well, I'll tell a little story. I was sitting across from somebody who I know very well, knows me very well. Very wealthy person. Has done extremely well in business. Big company owner. Sold it, millions and millions. And I'm sitting with him. And we're quite friendly and we're having lunch together. And I said, "Wow, I am jealous of you."

He kind of sits back a little. "What do you mean?"

"I'm envious of you," I said.

He said, "Well, what do you mean?"

I said, "You can give away a heck of a lot more money than I can." And that's what I think. If you have that, inherit that, you have a responsibility to help others. And I think that my feeling in this little way helping people, I never thought of the illustration until I heard from people it was really going to help that much in reviewing, seeing something, seeing this master, Dr. Albert Starr, do this and using his technique is very workable. And learning that technique from these illustrations were as helpful as they were to some. So I've been blessed.

Maria Cunningham: Can you ask about starting the center for ocular prosthetics?

LH: Yeah, that's what I was going to—well, oh, you mean here?

MC: Yeah.

LH: Oh. Can I ask one more question?

MC: Oh, yeah.

LH: We were talking about legacy, though.

FH: Yeah.

1:27:30

LH: And this program with Johns Hopkins is legacy, right?

FH: That's right. It is legacy.

LH: Talk a little bit about that.

FH: You're right. It is legacy. The students, if I still had the clinic, now there's two students. There's one that's graduating. They would be out here with me, working with me. They're not set up back there just for ocularistry. For me to come in, the person that took over my practice, this is really hers now. It would be intrusive. It isn't something she wants to do. I would still be doing that. The legacy is yes, I've had a part. This would not be what it is if I wasn't involved in it. The fact that it took over thirty years is unfortunate. Because I think people with backgrounds like medical illustrators that come from heavy academic background of art and science with a level of skill are what's needed in the field of ocularistry. Not something that's passed on because of bloodlines, because it's part of the family. There are skills that are needed. The organization tries to do something at the meetings. But you have at the most four days. Once a year or maybe even twice a year, they have an interim meeting. You can only learn so much or exchange so much. But you also have to be open to learning. And a lot of times if you don't have that experience, you don't know how to learn. If you never, if you learned one

way. I actually had somebody there, it happened two, but I remember this one particular. And she said to me, “Fred, I understand your lectures are really good, and they get credit for coming in. I’d like to attend but I don’t want to change my technique.”

Oh, okay. So what do you say to something like that? I learned it. That’s what I want. I don’t want to change anything I do. So I don’t attend. I don't know if I answered—

LH: Well, I mean, I guess you wanted to talk a little bit about how the program at Johns Hopkins got started. You want to talk more about that?

FH: Well, it got started by being a persistent person keep going after a fellow who was Gary Lees, who was in charge of the art as applied to medicine, and telling them that this was important stuff. And Gary couldn’t quite relate to what I meant because it was not his area of understanding. Juan Garcia, who is also a graduate of Hopkins, he is the one who was doing facial prosthetics. He understood. He wanted to learn. He came out here. He’s the one that started this international program. And he’s the one that I got the appointment through him and his efforts to give me an adjunct position with him and do the teaching.

The difficulty was Johns Hopkins is in Baltimore. Needed somebody who could drive this. Gary Lees was not interested. Juan, is not a driver of, you know, he’s interested in other things. It takes a certain type of extroverted person to go after something and introduce something that’s new. And Juan is a wonderful artist and really good person. I enjoyed working with him on it a lot.

So it was the fact that it got started, it is there. I know that he wanted me to do something. But I don’t want to move to Baltimore. I don’t want to do that kind of thing.

I do have a very interesting story. There’s an organization called the International Anaplastology Organization. It is an international group of those who do facial prosthetics. Some of the members are dentists, some of them are sculptors, some of them are medical illustrators, or that was their original. And then there’s the Association of Medical Illustrators, another international group.

Well, at the Cleveland Clinic, Juan Garcia was the head, he was the president at that time, of the anaplastology group. The president of the illustrators, I forget who it was now. But they knew each other. And the meetings were really close, both of them at the Cleveland Clinic. In Cleveland. The main Cleveland Clinic. And they were a few days apart. So they decided let’s put it together and have it overlap and Fred will give his two-day workshop so members of both organizations could attend. That was really cool. And Case Western Dental School is part of that complex in Cleveland of Cleveland Clinic. And they let us use their complete lab. So we had an ophthalmologist who did a surgery, removed an eye. He was an oculoplastic surgeon is what they’re called now. And he gave an hour presentation of what he does as a surgeon and then talked about this one patient. She came in. And we set up in a room, got in a little room with a desk and everything. And I brought stuff with me. And Juan brought stuff. Juan wanted me to do this. And brought stuff. And I made an eye for her. And it was about two and a half days, solid days. I had a group of I don't know, maybe sixty, fifty, sixty people. And then we went to Case Western. So I was making an eye for her and everybody else was going through a step when we went into the lab part. And we sat down on a desk and all this stuff. And I had enough stuff with me so I could make the prosthesis for her. And it was a person who couldn’t get one

otherwise in terms of insurance, whatever the reason was. So we went through from start to finish. It was completely shot. In fact, I have film of the entire procedure that an archive might want to have. And I didn't think about that. And they shot the two, three days that we worked on it. Finished the prosthesis. Put it in. Worked out well. Brought her some flowers. And we celebrated with a Pepsi, because we were in an institution, you couldn't. And it was successful.

When I heard from one of the new directors at the school of medical illustration, University of Illinois in Chicago, school of medicine has a medical illustration program that the director now reminded me a while ago when I was talking about something else that she was in that class and it was the best class she ever took. So that's really like wow.

But can you imagine organizations, because they wanted people of both sides in those positions wanted to have a class like this. So I've been very fortunate to have situations like that where I really felt that that is my legacy. Those people who were there, who remembered, who touched them. It's like somebody said, "Well, what have you done? What's your legacy? What have you done?" It's not what I have done; it's what I have given to others and what they do. That's the legacy. That's the way I look at it. So I've had an opportunity to do a lot of that.

I also didn't mention, when I came here, I should mention this. My predecessor, Clarice, nothing was in there on that, on the questions. Clarice Ashworth Francone was a medical illustrator from Johns Hopkins, the first school. She studied with Max Brödel the fellow who started medical illustration, brought it over from Germany. They started Johns Hopkins. Three surgeons and they brought their own illustrator over started Johns Hopkins.

She was here for forty-two years. Did really nice work. A wonderful person. And it was time for her to retire. And that's when I came onboard here. And she has some work also in an archive here, I understand. And she's, most of them are, again, academic carbon dust technique and pen and ink that Max Brödel really developed. He developed those techniques. And so she was here and got involved in the art community. Taught a class to staff here with a fellow named [Charles] Mulvey. Watercolor technique. There's a technique where he taught everybody how to paint Mount Hood and put some fir trees there. So people felt really good who have never done art. Surgeons and whatever. Had this going on for a while. She was very well known in the community and well respected.

So when I came here, I had the opportunity to be accepted by the art community. Not only the medical, but the whole art community. I ended up teaching at Portland State University, at the museum art school. I had a show at the museum. I had a show at Portland State. I ended up doing Caitlin Gable. You were there. (laughs) Caitlin Gable did a, I had a show there. I put some of my early drawings when I was a little kid all the way through the books. Had the same thing at OES [Oregon Episcopal School]. And I gave a talk to the entire school body in both those institutions. And the acceptance in the art community. I didn't realize that it was partially because my predecessor was very well respected. And so the field of medical illustration had a nice respect.

And I remember being asked if I wanted to join their life drawing class. It turned out to be a life drawing class of about eight or ten people. Who was there? Louis Bunce, Mike Russo, Harry Widman. All the top artists in this area. Very well known. A lot of them were teachers. Put a couple bucks in and asked me to join their thing. So that was really nice to come to a community where we did not know a soul and actually be that well accepted. And I think a big part of that was the field of medical illustration and my predecessor's reputation.

1:39:40

LH: So do you want to talk a little bit about starting the Center for Ocular Prosthetics?

FH: Yeah, okay. I was with Devers Eye Institute for fifteen years. Dr. Chenowith, when they built a new neural sci-, it was new at that time, neural sciences building, they asked me if I wanted to design the space for ocular prosthetics. Which is a yup. (laughs) There's that interior background, I guess. And I said sure. So I designed this small space of what my needs were as a one-person thing. I had a couple of support staff at the clinic, at institute, the eye institute. And Dr. Chenowith was extremely generous in terms of giving me the space. I didn't even pay for the space. He just, he wasn't that type of, that wasn't important to him. And I was, he let me handle everything myself. I didn't have an administrative boss I had to go to. It was like a separate entity. And he was supporting the facility completely for me. And it was really a nice, a situation that's more fantasy than reality.

And then he retires. The administration comes in and looks at and says, "You're not paying rent!"

I said, "No, that's right. I haven't paid rent."

"Well, we're not getting anything from you. What are you doing? We need your space."

So they decided that they needed my space. So I said, oh, okay. Up the hill at the Lovejoy Medical Building, there were two ophthalmologists that I knew, a Dr. Marvin Green and a Dr. Wilkins, Paul Wilkins. Two older gentlemen. Both nice ophtha-, really nice people. Good ophthalmologists. They had just moved into some space at the Lovejoy Medical Building. They had some extra space. So I ended up moving over there. And I didn't know anything about setting up a business or whatever. We shared space. I had all the rooms that I needed. I put a lab over, they took my stuff. In fact, at Devers, all the equipment, not a lot of stuff, and the materials and everything, they said, "Oh, that's okay, Fred. Just take it." (laughs) It was very generous of them. And this, I was kind of kicked out in short notice. It wasn't very nice what they did. They wanted me out in 30 days after being there 15 years. And having all that stuff. I ended up getting something else, changed to 60 days. Whatever it was. I moved up there.

Then I was looking for a name. Well I could call it, like a lot of ocularists do, they use their name for it. And I said no, I like the idea of being a center, or being something. And I came up with the Center for Ocular Prosthetics as a name. And I like the fact that I was part time and I had one part time employee. And that was the entire center. How big was it? It was just us. (laughs) So it was very small. And I started a business and then found out what it was to be in separate business in terms of licensing and various things I had to join. And one thing hit me after another. I said, but we're only part time! That didn't matter. It was just the kind. So that started the Center for Ocular Prosthetics. And before that, as I say, it was Devers Eye Institute for about fifteen years. And was mostly at the beginning, I didn't have any patients or anything at the beginning, of course, because I was starting something new at Devers. And it was mostly a referral from them, then the referral base spread. So when I moved, it wasn't difficult to continue in this as a separate entity.

But I'm sure if a businessperson sat down and said, well, you didn't do this. You didn't do that. I said, I did as little as I could. Because for such a small operation, some of the structure of setting up a business did not necessarily apply. I didn't think it did, anyway.

1:44:25

MC: Could you just say a little bit about the personalization of the eyes you created?

FH: The what?

LH: The personalization of the eyes.

FH: Oh, sure. Okay. Thank you. I'm going to have my water. Maria, thank you, because this is actually very important.

People would come in to me and they might have a prosthesis and they needed a new one. And it's, or they just had surgery and have to wait or something. But let me talk first about a person who comes in who's been wearing a prosthesis for a length of time. This would vary to one guy that I'll never forget. He actually, his head was turned 45 degrees with the prosthesis side at a 45 degree angle to his right eye. His head was turned over like that, his neck. And that's the way he walked around. He didn't want people to know he had an artificial eye because it didn't work, didn't look good.

I had people come in with complaints. They never … "Oh, well it always bothers me. I just take it out. I wash with it."

"Why does it bother you?"

Well, these didn't fit properly. It was a process of making them that wasn't up to where it should be. And the old prosthetic stuff were stock eyes. And they could still get them! You don't even take an impression of the socket. You put something in. It looks close enough. And you leave. Now you go back with that and you go and you see somebody or you go to your ophthalmologist. They don't know how to make eyes. They look at it and say, "Oh, okay. That looks good." They try to make the person feel better. It looks good. The person knows it doesn't look good. They feel different. They feel left out. They don't feel whole. They really, I mean, the emotional part of that.

And so talks that I would give, I'd go around the room and I'd say, if I don't look at you in the eyes in our western culture, you wonder why. If I look at one person, why am I just looking at that one person? So in public speaking, you're always taught to go around the room and try to look at other people. But it's the eyes. If you feel that that eye doesn't look like the one that's seeing, doesn't look good, you feel different, that has a huge emotional effect on you. And I felt that's something that is most important for me to deal with is okay, how can I make that person feel better?

You come in, and let's say it was a question of a fit or not replacing the eye if it was a good eye and it was done someplace else and it wasn't replaced in time, after a while it needs to. Because your face changes. Your body changes. So I'd sit down with them and we talk about the prosthesis.

And I had one lady, and I did a Crown Zellerbach, a paper company here, asked me to do a butterfly poster. Part of a butterfly poster for them. And I put that up behind me. And she says, “Oh, I love butterflies.”

I said, “Oh, what’s your favorite?” She says a monarch. Hmm. I said, “How would you like a monarch on your eye? Let’s personalize this for you.”

She said, “Really? You could do that?”

I said, “Of course.” So I painted a monarch butterfly on top of her eye that’s covered by the upper eyelid. And that started the whole thing going where people would come in, then I had kids bring me in pictures what they wanted to have on their eye. Made a big thing out of making this personal, and part of.

Then what also I worked with is I found nobody’s really working with this person on how they need to change their presence when they’re greeting somebody, when they’re looking at somebody, that the eye, even in best situation, will not have full movement. There are surgeries that could be done to give better movement. That’s a whole other question because—well, remind me of Guadalajara and I’ll tell another story.

So, they would come in. And making it personal by putting something on there. And then teaching them and their family, especially with a new eye or with an eye that’s only going to be so much, how you use your head. How you change your pattern. Kids have less problem because they’re not set. We’re creatures of habit. And you teach them, you don’t look with your eyes. You never look with your eyes anymore. You look with your face. And you look with your face, nobody’s going to know that that’s not a seeing eye. My job is to make it so you can’t tell the difference. Their job is to make the lack of movement something that is not ever seen by changing your habits.

So I would have families working. Parents working with kids, people working with spouses, people working with each other, about turning your head. Have a sign when you’re not turning your head enough. So you’re always looking straight at them. Your eye stays in the center. It doesn’t go back and forth. It does a little bit. Though even without a good implant, a good prosthesis, you get a little bit of movement. Some of them you get better movement than others. There have been things that have been done where they try to get more. When really it’s a question of that person retraining how they look at people to help them.

So I made that part of my mission. I made the fact of how I can make them feel comfortable about who they are. I just talked this morning to a fellow in Los Angeles been worked on the dilating pupil effect. And making irises for other ocularists because ocularists do not have a background in art. That isn’t part of their, necessarily their background. So make irises so they could pick it out, the closest one. Just the iris, just the colored portion. But with light eyes, having the illusion of a dilating pupil. I worked out a technique where I can do that by hand. And what we were doing with a fellow in Los Angeles is trying to do it digitally. And came up with a pretty good result where somebody with light eyes - light eyed, we call them blue eyes, blue-grey eyes, light eyes - is sitting in, goes out to dinner. The eye is set average size. The pupil set is average size. And stays. Doesn’t change. This is in acrylic. So you’re sitting across from somebody. Let’s say it’s a date. And you want to impress this person and feel comfortable with this person. You’re looking at them. One eye stays this small and the other eye dilates because there’s not enough light in the restaurant. Well, we eliminated that by getting that one eye to be, that is the prosthesis, the area around the pupil to create the effect of a dilating

pupil. I wrote it up. I talked about it. I was trying to get other ocularists to get into that. And to me, it's very important for these people when that eye looks like it dilates. I even took pictures. You can see the difference. And you can see that it gives the illusion of dilating. It's all done with ambient light. It isn't anything that you need to do other than that.

So we worked out a pattern. The pupil would be larger. Then there would be these little lines on top or little dots on top. At a certain candle power or certain amount of light, everything would look darker. Less light, it would bounce off those top surfaces of the little lines. It's effective.

So what's happened with the guy in Los Angeles, and other ocularists are not interested. They don't want to mess with it. So he just talked about, how would you like to do this for people around the world? Like in Iran, now there are people, women especially, they're losing their eyes that are really, it's awful what's happening. And I said, "Great. Get them together. Send them over. Let them use them." Because that's, you know, what it's about. But this, not to, to do that, is unfortunate.

Okay. Guadalajara.

LH: Let me just say, that is also a legacy. Right? This new technique.

1:54:03

FH: Oh, yeah. It is. Yeah, actually it is. (laughs) Okay. This person comes up to me in an ocularists' meeting. And she was told by somebody to talk to me. And she says in a language, she doesn't speak English. And so she said something like, "You teach me."

And I said, "Well, who are you?"

"I am," after we work it out, "I am an oculoplastic surgeon in Guadalajara. I cannot get a decent prosthesis. I'm removing somebody's eye. I'm taking their eye away. And I can't get a good eye to put back in. And there's nobody that can do this work. I want to learn. Will you teach me?" I remember her saying, "You teach me."

And I said, "Oh, okay. And you're in Guadalajara."

"Will you come down to Guadalajara and teach me?" And she said, "to teach me to paint." She wanted me to teach her to paint.

And so I looked at her and I said, "Yeah. How long?"

"Will you come for, let's make it at least a week. Ten days."

Okay! I had a reception going down there. (laughs) A bottle of tequila coming into their casita behind the house. And her lab actually was also part of their home. [Dr.] Arlette Amador is her name. Wonderful lady.

And so she was trying to make eyes. And she was trying to get help from the organization and nobody wanted to give her any information or anything.

And I said, "Okay, well, we're going to paint. Where's your such and such?"

"Oh, we don't have that. Oh, we don't—" She didn't have the makings. So we got two tool and die companies working on special things just so we could make eyes. The acrylic she was using wasn't going to work. We had to get a curing unit for her. So we ended up getting a double boiler curing unit. So painting the eyes was the least of it. Because we had all this rest. So we were down there for about, say, eight, ten days.

She had people coming. Oh, and she scheduled people. I said, “How many do you have?”

“Well, we’ve got two people in the morning, three in the afternoon.”

I said, “I see at the most one person in the morning and at most one person in the afternoon. It isn’t that way.”

So we went through the whole thing. We got help from others around. And she is an oculoplastic surgeon who takes out the eye and makes a prosthesis for. And she’s taught others. And she, we ended up going back. She came up to Portland at least twice to work in the lab with me. And she does very good work. She’s very talented. She calls me “Teacher.” Her teacher. So she calls me “Teacher.”

So here she is wanting to help people and nobody wanted to help her help. And she’s doing some really nice work right now. And one of her daughters is finishing med school and the other daughter’s going to go into her business with her making eyes. And I said to myself well if I had to start this again, I would go to medical school or finish up. I actually had part of medical school. In fact, a couple of guys—oh, Miles Edwards. His dad worked with Starr, was the engineer with Starr on his valve. Miles and Sam Niles wanted to know if I wanted to go to medical school here and get my M.D. degree. Because I had a background already, I could probably get a year’s credit, you know, for it. And I just, I didn’t want to be, that isn’t why I was doing what I was doing. But it was really nice of them to mention that.

But I would have gotten my M.D. degree, gone into oculoplastic and then make my own eyes. Remove somebody’s eye and then, remove it in a way that it would be preparing it for the prosthesis. And there’s not the communication that I feel there should be between ophthalmologists and ocularists. They really do not communicate. It’s just been tradition not to have the communication there. Better results could occur.

Here I’m over, and I saw some surgeries with Arlette. She has her surgery is up there in her space. The ocularist space is the next room over. There she is. And I said, “Oh, what are you doing there?”

“Oh, I’m going to take a suture here. I’m going to tie this up here, because this is going to be better for the prosthesis.” So she’s thinking about the prosthesis. She’s thinking about this person, what they’re going to wear, as she’s removing the eye. That’s the way it really should be. And I think that was cool.

I just spoke to her recently. She’s going to come and visit at some point. Yeah, we went down there a few times and she’s been up here a few times. So I guess that’s a little legacy, too.

LH: Agreed. Is there anything else that you all are thinking of? Perfect. Well, that’s a good, positive note to end on. There are now going to be professionals in the world who really can do both pieces. Thanks to you going to Guadalajara and helping her gain that skill.

FH: I think that’s a big part of what we’re here for is to help others. And I’ll extend it to help our, also to work with other living things, including our environment and everything else. And people who forget that, it’s unfortunate. Getting involved in a small field with a one-to-one relationship, there’s nothing more special than that. I feel very, very pleased that I had these things happen.

And I guess the other thing I would say is one of the most important things is when I went down to see her and spend time with her, she wasn't the doctor and I'm the non-doctor. I wasn't the great ocularist and she was just somebody wanting to learn. That's not what it's about. You have to really have respect for each other and understand we all have a strength and weaknesses. Let's use our strengths to help others.

2:01:21

[End Interview.]