



Oral History of Finis Conner

Interviewed by:
Grant Saviers

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Saviers: I'm Grant Saviers from the Computer History Museum as a trustee, and I'm here this morning with Finis Conner in Austin, Texas, to talk to Finis about his history in the storage business and other things. Finis has been named the epitome of Silicon Valley serial entrepreneurs, fast cars, big boats, airplanes and multiple houses. Well deserved, I think, in history, and because of his huge successes in three successive storage companies, in Shugart Associates, Seagate Technology and Conner Peripherals. Good morning, Finis.

Conner: Good morning, Grant.

Saviers: So we usually like to do this as a timeline, start in your early life. I understand you were born and raised, part of the youth, in Gadsden, Alabama. That's a long way from Silicon Valley.

Conner: We couldn't even spell Silicon Valley in those days. Yes, Gadsden was where my family grew up and I was the last of five boys in the family. Dad was a carpenter. We had a good life, happy, and moved from there to Dallas, Texas, for a few years with the family and then Florida. Florida was nice except for the mosquitoes and things like that, so...

<laughter>

Saviers: And that was Orlando prior to Disney?

Conner: Orlando before Disney, that's for sure, and before they messed up all the good fishing lakes.

<laughter>

Saviers: So the next step was Silicon Valley, San Jose, so how did you get there and why did you go?

Conner: Well, when I got out of high school and I had a summer job where I was working loading conduit piping in the morning to go to Cape Canaveral and then bakery bread at night, I thought there might be a better way to make a living <laughs> than that. My brother who lived in San Jose invited me to come out there, so I bought a one-way train ticket and two days later I was in San Jose.

Saviers: What was the train ride like in-- this is what, 1963 or so?

Conner: '63 or so. Yeah, it was interesting because I'd obviously never been on a train and certainly not that long. Had never had any beer to drink and I met soldiers on the train and I learned how to gamble, poorly, I might say, and drink some beer, so <laughs> it was an education just in itself.

Saviers: So Silicon Valley became the home for quite a while, and how did you find a job there and how did that go?

Conner: When I got there, my brother-- I stayed with him and his roommate for a while, sleeping on the couch, and someone said I should go down to a company that places engineers and technical people in different companies and it's called I think it was ElectraMet, so I went down there and they said, "Well, what can you do?" and I said, "Well, I can do anything," and they said, "Well, can you type?" and I said, "Of course." Had never seen a typewriter or worked on one but learned how to type and I got a job at IBM typing engineering specifications down there.

Saviers: And that was in the IBM Storage Division at the time?

Conner: I believe it was, and in the Engineering Department, so that was an interesting trip for me.

Saviers: So that began a job career. Where did that lead to?

Conner: Well, it-- it led to a lot of different areas. One, is I felt I had to get a college degree and I went to San Jose State and got a degree there, but I tried different kinds of things. I was a salesman for a semiconductor company and I was very poor at that. Slowly but surely, I found a job at Memorex, in their Engineering Department, again, and that's where I met Al Shugart. Actually, that department reported to him, and so I got to know Al. We became good friends and that was the beginning of my trip in the storage industry.

Saviers: Al Shugart is quite a legend and you and he went on to bigger things later, but what was Memorex like in those days?

Conner: Memorex was interesting. Al had a lot of people out of IBM in the Engineering Department. They were doing some great things there. One of the products he had was a floppy disk that they used as a program load device, and he got it and he said, "Well, maybe we could turn this into an OEM product," because they had sold six already at around \$1500 apiece.

<laughter>

Conner: So he said, "Finis, can you do something about this?" I said, "Well, let me look into it." First thing I recommended, "Cut the price in half." <laughs> So we sold a few more, but what was happening in that time frame was IBM was replacing the key punch with a floppy disk-based system, and we looked at that and about six or seven of us decided to leave Memorex and form the Shugart Associates.

Saviers: And who were those founders?

Conner: Well, if I can remember them all. Of course, Al, myself, Don Wardner, Herb Thompson, Otis Paige. Dave Scott and Al Chow. Al - Sorry I can't remember that one.

Saviers: Doug Mahon, was he--

Conner: Doug. No, Doug Mahon was not.

In the Shugart Associates.

Saviers: Okay. And so that company gets started in Silicon Valley nearby IBM?

Conner: It was nearby Memorex, .

Saviers: Nearby Memorex.

Conner: So we were-- had a little small place nearby and we got that going. We had a little funding for it, and had some interesting times in getting that company started, but the problem with that is they tried to do a printer and they tried to do systems and all kinds of things, and really what I thought we were doing is starting with floppy disk, but quickly other things came on the plate and consumed a lot of the cash we had.

Saviers: And then the market exploded for floppies. I mean, everybody had to have floppies in their computer or desktop almost at the time.

Conner: Yes, we had eight-inch floppies at the time, and some people were using those as program load device and using them in desktop computers and things like that, so it was a good business. But finally we came up with the five and a quarter inch requested by Wang Labs. People said they needed a smaller one. You'll have to correct me if that's wrong.

Saviers: I remember Al came to DEC at the time I was running storage and this was his prospecting, I think, to see if the eight-inch floppy was going to have any demand, and he put out a number like, "Would you buy 10,000 of these?" and I said, "Well, we'll probably buy almost that many a month."

<laughter>

Saviers: I think that quite surprised him in terms of the opportunity, which turned out to be much larger than that worldwide.

Conner: The floppy was quite successful in earlier days, and that was a period where things were getting smaller, computers and systems were getting smaller, and so although it didn't have a lot of capacity on it, it provided the interchange capability of data for people to use.

Saviers: Let's back up for a second. I think at one time you served in the Navy Reserves also; is that true, or...?

Conner: Yes. I was in the Naval Air Reserves out of Moffett Field and got trained back in Memphis, Tennessee, and I went to the meetings every month and we had to go away and do a week or something at the time, so that's-- I went through that.

Saviers: Well, thanks for your service.

Conner: Yeah.

Saviers: So Shugart's going along. Printer business, the floppy.

Conner: and System business.

Saviers: Systems business. A whole bunch of things.

Conner: Right.

Saviers: And at some point you and Al and the other groups decide, "Well, maybe there's another opportunity we ought to pursue."

Conner: Well, Al left Shugart Associates, and Don Massaro took over as CEO, and the business was going along well, and that's where the mini floppy came from. I left there a little later because I needed to move on and I wasn't really doing what I wanted to do, and that's when I went over to a company called IMI, International Memories Incorporated. They were building a eight-inch hard drive, but it was a big, bulky one. So I was there for, oh, I don't know, eight months to a year, and that's where I thought about the idea of a smaller disk drive, the five and a quarter. Basically the same size with the same mounting holes and the little red light on the front of what the mini floppies had, because mini floppies were being used now in many of the computers as well.

Saviers: And five and a quarter was a very important form factor to get into particularly a tower or a desktop computer.

Conner: Yes. The five and a quarter was much better because they were building tower computers that goes under the desk and it could also be a program load device and it could be a data transfer device as well.

Saviers: And tell me little bit about your role there. Was it marketing and selling, customer development?

Conner: At IMI I was in charge of the sales and marketing side of the larger eight-inch drive, and basically I got to think about this five and a quarter inch size coming out of the mini floppy market. I said, "What if you could put a hard drive in a form factor?" and I asked the engineer, one of the engineers at IMI, if he could put a disk drive in the form factor of a mini floppy. So I gave him the mini floppy and so he had a reference. I said, "It's got to have the same mounting holes. It's got to have little red light on front and it has to be used in those computers," and he brought me back a mockup a few weeks later. He had cut down an eight-inch disk and put two of them in this form factor and that's how it became. So the owner of the company, Carl Berg at the time, wanted me to stay focused on the eight inch. So we had a meeting with the board of directors and we arrived at a decision that I should leave the company.

<laughter>

Conner: I said, "Fine. You can have your stock back, but I'll have the design and the concept of the mini- of the small disk, the five and a quarter inch disk," and he said, "Fine." So I call Al, and Al was in his restaurant bar in Santa Cruz, and I said, "Hey, I've got this idea. You want to do something with me?" So we met and I showed him what I had and that's how it all began.

Saviers: And was it Syed Iftikar who was involved in that early mechanical design there or was another mechanical engineer?

Conner: Yes, when we started, <first named Shugart then Seagate> just Al and I were trying to figure out what kind of business plan we'd have and where it would go and what markets and things like that but we knew we had to have some engineers. We needed to have somebody who knew how to design disk drives and we needed some operation, so the founders really of t Seagate, were myself and Shugart, Doug Mahon, Tom Mitchell for operations, Syed Iftikar.

Saviers: So now you've left the IMI and started this new company. How'd you find money?

Conner: Well, that was a challenge because I had not been involved in that before, and Al and I were basically funding it off our credit cards for a while, <laughs> and we said we had to get some money. So we found a company, I think it was Oak Investments , a venture capitalist. They knew Al from before at IBM and different places, and so they invested the first million dollars into the company, so that gave us a breather. Subsequent to that we did license design and marking rights to a few other people. We licensed TI to manufacture and market the product, Honeywell Bull and one other company, which gave us another I think it was about three million dollars of nonequity funding, so that was good.

Saviers: But there's a story behind how you decided who those licensees should be, isn't there?

Conner: Well, I knew Rod Canion from before and he was-- when he was at TI, and that's where we licensed him to do that. I assumed that TI would have difficulty being a major threat to us because these are moving items and the products that they had primarily do not move.

<laughter>

Saviers: Semiconductors are different than disk drives, aren't they? <laughs>

Conner: By far, yeah, - and a couple other people. Honeywell Bull and one other one, and so they were looking to how to expand products in their line. So technically they could've been a competitor because it was a license to manufacture and market, which was unusual in those days, and so that helped us move to the next threshold.

Saviers: Did any of them actually start selling a product that they manufactured?

Conner: No.

<laughter>

Saviers: So it was free money, in a way.

Conner: It was free money.

Saviers: That's terrific.

Conner: Yeah.

Saviers: What deal no dilution of the equity and <laughs> you have plenty of cash.

Conner: The original shareholders liked that.

<laughter>

Saviers: All right. So you start developing this five and a quarter inch drive and I met you, I think, at that time, and-- you and Al, and you showed me the mockup. Tell me about the mockup and the early sales process.

Conner: Well, the mockup was something I had the guys build for me and it had a nice, pretty, shiny disk in there and it was in a little carrying case that I could show people. They could see the Plexiglas on top, see what's in it, so was an interesting sales tool, and so we talked about the storage capacity, where it could go and stuff like that, and where people were using mini floppies, two or three mini floppies per system, this was an ideal and timely solution for them for more storage.

Saviers: Did you realize at the time how big a game changer it was going to be in small computers?

Conner: No. We didn't have the faintest idea. We knew that if I could find enough people using mini floppies, they could replace one of their or two of their mini floppies with this, it would be a good business. It was really when we ran into Compaq that really set us off, because Compaq was moving into the mobile computing, and so Rod Canion, we showed them what we had and they wanted that. So they were our first customer and a major investor.

Saviers: And Apple and DEC were other customers at the time?

Conner: I need to correct something.

Saviers: That was three and a half with Compaq

Conner: Yes

Saviers: . So you want to back up?

Conner: Yes.

Saviers: So you're out prospecting with the mockup of the five and a quarter among various customers. How'd that go?

Conner: Well, it was interesting because some of the people that we had talked to were already using mini floppies and so we would just go in and show them, "This is a product that could replace several of your mini floppies and give you more storage capacity." Five megabytes in those days was a whopping amount of data. Quite often I was asked, "Why do we need that much storage?" We know now that's not a good question to ask.

<laughter>

Saviers: Programs fill the available space.

Conner: That's for sure.

Saviers: I remember programmers thinking they'd died and gone to heaven when they had five megabytes instead of a floppy drive. <laughs>

Conner: Well, we had an interesting conversation. We were fortunate to meet Dr. Noyce at Intel and had a meeting there and he said, "Finis," he says, "there's this number of programmers can program in one megabyte." He said, "There's a larger number that can do in five megabytes." <laughs> So that stayed in my mind, that you can't ever have more storage capacity for programmers than they can consume.

Saviers: Well, and now we have Windows 11 that takes how many gigabytes to just get started?

Conner: Oh, I know.

It's crazy, isn't it?

Saviers: I remember, we invited you and AI to DEC, to come and show the wares and make that impression that this is really a game changer, and that led to an interesting story about an order with DEC.

Conner: That was a great meeting because I think it opened up the eyes of many of the DEC people there. This is moving, storage is moving, and size of computers are getting smaller, so we worked and we were able to get to a point of having a contract with DEC, but the people that I was dealing with, the purchasing agent, and the engineerings there, we had dinner one night in the Crow's Nest, which is in Santa Cruz, and I gave him a quote of a price for three years and they wound up signing it, so I have the napkin today that shows the agreement there. Was not agreement but it was an idea of what the price was.

Saviers: Basic order agreement.

Conner: Right.

Saviers: And so promise that we're going to buy some.

Conner: Yes . Some day.

Saviers: And the napkin story is one of those iconic Silicon Valley stories where the deal is made at a bar and the purchase order is made on a napkin, and it's one that really happened that way.

Conner: It really happened, and in those days you could do those kind of things because you're dealing with people and they learn to trust you and to communicate well. It worked out perfectly.

Saviers: That's great. So you start ramping production. Start finishing the development, and what were the big problems in getting going in the five and a quarter business?

Conner: Well, the five and a quarter was interesting because, one, there were a lot of disk drive companies out there and we had some people following very quickly from Quantum and Maxtor and all the others and so-- and MiniScribe, so we had people-- I think that-- no, that wasn't right. MiniScribe-- were they five and a quarter?

Saviers: I'm not sure. I think they were, yes. Wasn't there a big scandal at MiniScribe, with the shipping the bricks at one time? — Am I correct on that?

Conner: Shipping bricks, yes.

<laughter>

Conner: Yeah, they were aggressive and I think it was new management that took over and they needed to make some shipments and they were shipping bricks to different locations and things like that. One of the interesting things, IBM was one of our customers and I would get a call from IBM said, "Don't ship any more," and so did MiniScribe, and so we'd go, "Wow," and the background is that MiniScribe panicked. We got on a plane, Tom Mitchell and the guys did, went down to Boca Raton, and what had happened, they saw all these drives in inventory and so somebody panicked and called, "Don't sent any more," but in fact if you look at their production level, that was only about a week's of production.

<laughter>

Conner: So we got the other orders that they had canceled from MiniScribe's.

Saviers: Interesting.

Conner: Yes.

Saviers: That was a interesting byproduct of that scandal. <laughs>

Conner: Very fortuitous. <laughs>

Saviers: Well, I remember how they did that. They shipped the product, a truckload, just before the end of the quarter and they could put it on their books, and of course then it arrived with the customer the beginning of this quarter and they'd say, "We didn't order this. Send it back." <laughs>

Conner: That's right. That's right

Saviers: I think somebody went to jail over that eventually or they just got fines.

Conner: I don't know. Probably did, yes. .

Saviers: So that was one of the big scandals in the storage business over the years. So for the big customers at that time, and of course, you start migrating upward in capacity. In terms of the five and a quarter, and how was that going?

Conner: We were able to get some OEMs that were really helpful for us and they, the OEMs, really drive the direction and the changes in technology, and so we had, course, DEC and we had Hewlett-Packard and IBM and many of them that were integrating the product.

Saviers: And they wanted more at some point?

Conner: Yes. Of course, once they get used to storage and they fill it up it's, you know, my wife hates me to say this, but it's like a woman's closet. You can't give her enough that she can't fill.

<laughter>

Conner: At least my wife. That's probably sexist. I can't say that anymore.

Saviers: Well, it's true in many marriages, I can assure you.

Conner: Yes So we had to go up the capacity curve and at that time competitors were moving in. Atasi was one of the companies that were moving up in storage capacity in different technologies. We were using some stepper motors and they were using voice coil actuators and things like that.

Saviers: So apparently at some point you and the other founders,. Seagate founders, are seeing the world, the future of the world a little differently, and how did that go? What was that discussion about?

Conner: That was a difficult time for me and for the company, because we were very successful in selling that product and had lots of customers but the competition was moving up in storage capacity and our engineering team felt they didn't want to move that quickly or couldn't. So I was a little bit frustrated being the face to the customers where they're asking for more and more, that we couldn't move them more quickly. So along about that time I felt that, "If I can't direct the direction of the company then I probably should just move on," and that's what happened.

Saviers: So now you're working on your golf game; is that the next step?

Conner: Well, next step is I said, "Wow." I left there and I had some fun and my wife, traveled. We went to Europe and we had our first child and I said, "Dang, this is pretty good."

<laughter>

Saviers: So all this time you're thinking about, "What is next?" and...?

Conner: Well, it's actually kind of frightening because if all of a sudden you wake up and you don't have a job, you have no place to go to and all my pals, I'd say, "Hey, let's go play golf," and they'd tell me, "Quit calling me. I have to go to work."

<laughter>

Conner: So after I left Seagate and I traveled a lot with my wife and had a lot of opportunities to look around, enjoy ourselves, I got a call from John Squires and Terry Johnson. They would like to talk to me about a product that they were considering, or working on, and I said, they were in Colorado and I said, "Well, I'll come see you," and I flew out there to meet with Terry and John and they showed me the product. It was a small, three and a half inch, and I go, "Wow. That's kind of interesting." I said, "I don't know where the market is for that," and they reminded me that things are getting smaller, computers are getting smaller and that would be a good market segment, and so I thought about it a bit. We talked some more and I went on to my home, back home, and about a week later John said, "Well, can we come talk to you some more about that?" so they flew to my home and we met and talked about it some more, and I'd looked into it and I thought that was a good product for the trend lines in the marketplace where computers are getting smaller. Moving from the computer room to the desktop to mobile was the trend line that was happening. We didn't do it; that's where it was going. And so we discussed this and I said, "Okay. I'm willing to do this," and I said, "John," I said, "I need to be kind of in the left seat. I need to set the direction and course and strategy. You give me the product and the technology, then I think that'll work." I said, "You're living in Colorado and I'm not going to move there. I'm living in California. You're not going to move there, so we have to figure that out." So it worked out good. Terry Johnson said, "Well, where do I fit in?" and of course there wasn't room in that cockpit for three people.

Saviers: Terry Johnson in his CHM oral history said, "Finis came in the front door and I went out the back door."

<laughter>

Saviers: But John turned out to be a real wizard in the development of disk drives, didn't he?

Conner: To me, he's been the most under recognized person that contributed probably the most to disk drive industry. John was a software guy and worked at Storage Tech and did a lot of things and he always tried to do things in software and firmware as opposed to hardware. I used to say John would try to build a disk drive in software and where it wouldn't work he added hardware, <laughs> so he was just brilliant in his thought and what happened.

Saviers: We can come back to that little bit

Conner: Yes .

Saviers: So you've decided you're going to start a company. You're going to call it Conner Peripherals, put your name on it, and now you need to go find some money?

Conner: Yes. We had to figure out how to get some money and what to do about that, and so I put some money in to keep it going, get started, and so we looked around and tried to get some money and-- I need to pause here for a moment.

Saviers: Sure.

Conner: I'm trying to get the funding that I got from--

Saviers: Compaq.

Conner: Compaq. Yes, that's right.

Saviers: You knew Rod Canion back all way to IBM apparently, right?

Conner: No. I knew him from TI from when we licensed them.

Saviers: Oh, from TI.

Conner: Yes when I was selling the —Seagate license to TI.

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Conner: So on the funding side of, we had to have some funding, and Rod Canion was running Compaq at that time.

Saviers: He was the CEO of Compaq.

Conner: CEO of Compaq. Ben Rosen introduced me to him and I knew Rod, so I showed him our mockup of this product. That was the three and a half inch, and he was just making the first luggable computer and course, he previously he had two five and a quarters in and that made a significant improvement

Saviers: More than a luggable.

<laughter>

Conner: It was more than luggable, that's for sure. So Rod said, "Look. We need that product," and I needed money, and we decided that they would make an investment, and they said, "How much are you looking for?" They put six million dollars, I believe, at first, and then later put another six million. Two conditions. One, I need to vote all their shares, and two, I committed for the first year that they would get 80 to 90 percent of my production output, but I had to have some left to salt other customers, and they agreed to that. So they helped us tremendously because they helped guide us in what ships to have and where to go, and John Squires worked with that team greatly and it worked out great.

Saviers: How'd you cross paths with Ben Rosen? Because he was in the venture capital business at that time.

Conner: I met Ben in I don't know, one of the trade shows or something like that, and he was a investor in early days of Compaq.

Saviers: Yes, at Compaq,...

Conner: And he was a great guy. Still is, I think.

Saviers: Yes. So you've got a big order and a big customer and now, how do you deliver?

Conner: Well, that was a real challenge because what Compaq was doing, they were launching their new product and they needed a lot of product, and so Mitchell and the engineering team all really pulled together and gave us the ability by selecting the vendors we needed to be able to ramp. We didn't have an idea it was going to be that big, to be honest with you, and-- but I think it was like 113 million dollars in revenue in the first year.

Saviers: In the first year. Wow.

Saviers: So that was a record, right, in terms of a company startup, reaching a revenue of that magnitude?

Conner: It was, and a funny aside on that. Rod called me when the announcement-- when they showed him the Conner sales for the first year and Compaq represented about 90 percent of that, and previous Compaq held a record for the first sales record. I recall is Rod telling me "If I'd known you were going to ship that much I would've cut the orders." I said, "Wish you had. I'd have made more profit."

<laughter>

Conner: That may be a figment of my imagination, but that was the impact that we knew we were dealing with something really big, and as we got more customers, more OEM customers going off the base of what Compaq was needing, it was phenomenal.

Saviers: So, the whole problem of a startup to ramping production is a really big problem. You started opening plants. Who helped you with that and how did that go?

Conner: Well, Mitchell was the one that took care of the operations. He did a brilliant job, to be honest with you. I mean, I don't know many people that could've done that. I mean, if you think about it from the first year was 113 million and the second was 256 and then 700, and then 1.3 billion, those are not numbers that most people see, and so we had to have factories. We went to Singapore, we had factories all over the place trying to do something. We were getting customers all over the world, and so we had some real challenges there getting our vendor base up to support that ramp, and along the way we had to go buy a disk company because we couldn't get enough media.

Saviers: And who was that?

Conner: That was Domain, and I can't remember who.

Conner: It was a media company, Domain, and I can't remember who was in charge of that. Greg Reyes was on their board and he negotiated the deal with us

Conner: I just knew great from a period of time, yeah.

Conner: It was really the two of us, John and myself, who were the founders of it, and then we brought in other people

Saviers: So in his oral history, Terry Johnson said this about John. "John was an incredible microcoder who basically set up a kind of matrix of microcode basically and very economically done, but in a way it turned out that Conner was able to introduce product after product on a very rapid basis." So that was really-- this whole rapid evolution of technology, really started going great guns at Conner.

Conner: That was the enabling technology, I believe, to allow us to make those quick changes and adjustments to meet customer needs, and those were the days where the OEMs were moving fairly quickly in recycling products, one upping each other, so we had to keep track of that. So that's, that's a

good observation from Terry because John gave us the tools to be able to make changes without major redesigns, and so we could enhance it in capacity and function and even in form factor.

Saviers: Now, at one time you were known as the proponent of sell, design, build.

Conner: <laughs>

Saviers: Tell us a little bit about where that came from and what that really means.

Conner: Well, it became really relevant to me when we had a discussion when we went down to Compaq and met with Rod Canion people. Our thought was the interface should be SCSI interface because that was the next high-performance interface, and we said, "This is our idea, our drive, and it'll have a SCSI interface." They said, "No, no, no. We don't want SCSI. We want-- we have to be IBM compatible." I go, "Okay. It's an IBM compatible interface."

<laughter>

Conner: What that crystalized in my mind is you have to listen to the customers to what they want, what they need, or sometimes what they don't know, and so that becomes, in my idea, the selling process. If you can sell something that they want to buy, it makes the design stage much more crisp and less risky. Once you have that design that the customer wants, then you go build that design. So the risk of operation goes down dramatically. So that's how I came to that tagline, but it's not new. I mean, Boeing has been doing that for years, right, and so we used it as our mantra. If you can't get the customer to understand what he wants or what he will need, then he's not ready. So we used that as our mantra.

Saviers: And one of the other mantras was "If you don't have the OEM customers you're done."

Conner: Well, you know, I've seen companies with hundreds or thousands of salesmen all trying to sell small pieces, and I said, "We can't do that." One, I didn't know how to do that, so it may have been just because I didn't know how to do it. So working with OEMs where you could work with them, get designed in and manufacture it to their schedule, and what happens is once an OEM buys it, his competitor starts to look at it, and so it kind of perpetuates itself that way.

Saviers: So now you're the boss, the CEO of a very rapidly growing company. What did that mean to you personally to grow into those shoes over time?

Conner: I had very little time to think about it, but occasionally I did, and I realized that with the growth that we were seeing, I didn't have the skill sets that are needed to kind of be there, so Bill Schroeder who had a company, I think it was called Priam, disk drive company, I asked him to join us because he was a professional. He's a manager. He's been in that business, and I felt I could get a lot of help from him, so he joined us as the president and did a great job for us. Bill and I had different styles and things like that but he was a good sounding board for me. As we went further along, an additional person that we hired later on was Bill Almon, and Bill Almon ran a big division of storage at IBM. I go, "Wow, if I can get

somebody who knows how to do that out of IBM I can learn a lot from him.” So he came on as the president of that. Bill moved to vice chairman and helped to continue things and then he left, so it was a continuous challenge.— At one time we were hiring 3,000 people a month around the world. You can't be very accurate in all of those hires, and so it was a challenge keeping the staffing going, training them and getting it going, but we had to do that. Harvey Kroll was instrumental in supporting this effort and conveying the culture we required.

Saviers: One of the pieces of advice I got in my career is the CEO sets the tone, kind of establishes the culture. What would you say the culture of Conner was like?

Conner: Customer first. That's been my driving force all the time is that if you can understand what he wants or needs or will need and if you have the relationship that he can trust you and you have the ability to perform, you'll have a customer for a long time, and that proved to be true for us, and that worked through European customers, Asian customers, Japan, all over.

Saviers: So ramping Conner, you had set up factories around the world, but the first one was in Longmont, wasn't it?

Conner: It was in Longmont. John lived there and we had a small little factory there. First time after we merged the two companies I went back to meet the other employees they were-- that they had been hired already. Interestingly, a young lady came up to me and said, “Mr. Conner, I get stock options from different companies that I've been with and none has ever paid off,” and she said, “Is this going to make me some money some day?” I said, “You know, that stock you hold onto, it'll be worth a million dollars someday.” She kind of snickered. She says, “Okay.”

<laughter>

Conner: Two years, three years later it was worth a million dollars.

Saviers: So you're consuming cash, obviously growing, buying inventory, building factories. You need money.

So raising money.

Conner: Raising money is interesting and what we did is we got the first round from Compaq and it totaled about 12 million or something like that, but given the ramp and what we were trying to do, we need a lot of working capital. Steve Doyle, who was with Montgomery Securities, I went up there and made my presentations in San Francisco and he became the lead to help raise money. So we went to Wall Street, we did all those kinds of things and we raised money from Wall Street more than investors than VCs. It was interesting at one time about five years later, four years later, I was back there to raise another big round convertibles, and one of the investors who'd invested with us all along, he said, “Finus,” he said, “you were just here a year ago raising money.”

Saviers: <laughs>

Conner: And I said, "I told you then that the reason I need money is take advantage of a bigger opportunity," and I said, you know, "You've made a lot of money so far off of us. This might be something you want to consider." He said, "Yeah, okay. I'm in."

<laughter>

Saviers: Great.

Conner: But it was interesting. In the early days we made a lot of profits. Not a great margin but we made a lot of profits, and I think by the sixth or seventh year we had raised about 1.7 billion of capital and I got a call from one of the investors and got the reports. Course, they're public by then. He says, "I see you have about 1.7 billion in cash."

Saviers: <laughs>

Conner: I said, "Isn't that good?"

<laughter>

Conner: So we had as much money in cash that we've raised over the time.

Saviers: That's terrific.

Conner: Which was kind of something.

Saviers: That makes the shareholders smile, I think.

Conner: We had a lot of happy shareholders.

Saviers: Yes. So along the way you go public. When was that and who helped you with that?

Conner: A gentleman named Tommy Unterberg, with Unterberg, Towbin I think was the name of his company at time, he was going to take us public, and we were having a meeting, a final meeting to talk all about it and what we needed to do and stuff like that. On that day the market was crashing, and about an hour through the meeting Tommy got—looked at his—not his phone but he got a message that the market's crashing and he said, "Look. We don't need to have any more meetings. This is not going to go for right now because the market just crashed," and it took—I can't remember. Maybe it was six months later, something like that it worked out and we went public.

Saviers: And did the road show primarily on the East Coast or...?

Conner: We did San Francisco, we did a lot of time in New York. I don't know if we went to Europe on the IPO.

Saviers: On the IPO?

Conner: I don't think we did. But subsequent to that we did go to Europe often.

Saviers: And how'd it go when the opening bell rang? Did you ring the bell? Was it--

Conner: No, I didn't.

Conner: I didn't get to do that, but it was very interesting to see it happen. We were back when it happened and we were on the OTC, and so it was exciting and especially as the stock started going up, course, everybody gets excited about it--

Saviers: Oh, yes.

Conner: --and starts counting up how much money they have.

<laughter>

Saviers: So all that growth and I think you said there were like four records, fastest to a hundred million and fastest to a billion, and maybe there're some other ones? You got some recognition along the way.

Conner: Well, Fortune Magazine did an article on us, the fastest growing company in U.S. history at that time, and -- I think we were like 1.7 billion or something like that. That was quite interesting because managing that growth, both in people, resources, vendors, production, sales, everything, was a challenge, and-- but we did it and part of it people say, "Well, how'd you do that?" I said, "The market just pulled us through in spite of ourselves sometimes," <laughs> you know. You just have to go do it.

Saviers: So you were named Entrepreneur of the Year by two institutions, I think?

Conner: We were fortunate enough to get the Entrepreneur of the Year from Stanford and Harvard in the same year.

Saviers: Never been done before.

Conner: Never been done before, as I was told. Little side story on that. In San Francisco we were going to receive the award from Harvard, the alumni and the people there, so I get up to speak and talking about all these graduates from Harvard out there and Bill Schroeder was a Baker Scholar from Harvard, just a brilliant guy, so I'm always kind of kidding around. I said, "You know, the difference between Bill and I is we're in the men's room doing what we're supposed to do and I start to leave and Bill

says, "Hey, you know, at Harvard they teach us to wash our hands after going to the bathroom." I said, "Well, I went to San Jose State and they teach us not to pee on our hands."

<laughter>

Conner: My wife just turns beet red. He turns red. So everybody laughs, and we had a good time with that.

Saviers: <laughs> It's great to celebrate those moments, isn't it?

Conner: Oh, it is. It really is.

Saviers: So things progress at Conner and the competition really starts heating up. Everybody else is getting into three and a half and even two and a half. What did you think about the two and a half inch opportunity?

Conner: The two and a half was something that I didn't see at all, but I was led there by one of our customers, Toshiba. A gentleman named Mizuguchi. We had a meeting with him, a strategy meeting, and he was always a funny guy and he says, "Finis," he says, "I have a rule of twos." I said-- "Mizuguchi said. "And what is that?" He says, "Two inches, two hundred megabytes, and two hundred dollars. That's what I need."

<laughter>

Conner: I go, "He just defined what we needed."

Saviers: <laughs>

Conner: He worked with us on what he needed and stuff like that but he was instrumental in really directing us in that direction.

Saviers: And that was a two and a half inch--

Conner: Yes.

Saviers: --hard drive for--

notebooks, I would assume, , at the time?

Conner: Right.

Saviers: Toshiba's in the notebook business.

Conner: They loved it.

Saviers: And other customers that picked up on the two and a half?

Conner: A lot of the laptop guys. Laptops, of course, were there but they didn't have that kind of storage then. We sold to NEC and Toshiba and lot of people in Japan and throughout the world who were bringing those out.

Saviers: So the relationship with Toshiba really helped you open up the Japanese market.

Conner: Oh, totally. Totally.

Saviers: that's terrific.

Conner: And we had some great people giving us some referrals. Giving us some guidance as where markets are going, so we had a lot of insight with all the OEMs as where the overall market was going, and that helped us do proper job of planning.

Saviers: So we talked about the 1992 planning book, which looked like it summarized every aspect of Conner's business and the future product plan and the-- and amazingly deep competitive analysis. What were you doing then? What was the purpose?

Conner: Well, the purpose of that, we could see that the market for our products had really substantially growth ahead of us, even though we'd been through a lot. I think that was like our fourth year or something like that. If it was, that was like 1.3 billion dollars. I mean, where's it going from here? And so we had to do a better job of planning because we were hitting against a wall with vendors and employees, you know, skill sets, all that kind of stuff. So I asked them to put together a plan of everything that we need to know, in a competitive market, customers, employees, all of that, and that's-- that book came out of that. It was a little larger than I expected, but I think the management did a great job pulling that together.

Saviers: I think it's on the order of 300 pages.

<laughter>

Saviers: It's quite something you should donate to the computer museum at some point in the future.

<laughs>

Conner: I hadn't at that time read a book with 300 pages.

<laughter>

Saviers: So I need a little break here to think about where we're going next.

Conner: Yes

Saviers: Where we should be going next? There was a point f that that I missed. So your growth continues to more billions of dollars and along the way things change a bit. What's happening in the market?

Conner: Well, the key things that changed was really the size and scope of what we had and the global breadth of what we had to do in getting communications and stuff like that. It's hard to keep everybody headed in the same direction, and so communicating to the employees, to the vendors, to the customers, was a big challenge that I felt I had to be out front and I was flying all over the world. Every quarter, for instance, I would fly around the world seeing customers and employees and vendors and things like that. I think that's about the-- when we reached about two billion dollars I was doing every quarter around the world for about two weeks. I was flying 500 hours a year <laughs> in an airplane, and so that was probably the biggest challenge. Our growth had slowed down but our efficiencies didn't stay in place like many companies. We had too many employees in the wrong place or too many vice presidents and not enough workers, <laughs> you know. That's what big companies do, and so we worked hard to bring that in sync.

Saviers: It's always a challenge when you're anticipating the growth and then the line bends over and now what do we do, right? A number of companies right now are going through that in the information business. It's kind of interesting.

Conner: Well, when you reach that point and the first thing that everybody looks at, "Well, is the factory being utilized?" Well, no, it's not. So what do we do with all those people? And you have to take action to scale that back. The biggest and hardest decisions sometimes to make are the people in headquarters and they've been there a long time. So I tried to get every employee to see what he does, what he contributes to that dollar of sale and-- from the invoice to anything out there, and it helped somewhat, because if they don't know how they fit in, what they contribute to the company, the management can't tell, "Why am I paying them then?" So it's an efficiency model that I tried to do. It didn't do very well <laughs> but...

Saviers: I remember trying that. You think about what you're doing and is that for the benefit of the customer? And it helps get people into a different mindset about, "Well, is this just paper pushing, I'm doing or bureaucracy, or is it really value added -"

Conner: Right.

Saviers: "--moves our position with the customer forward?" So how do we-- at some point the company merges with Seagate, and that's down the road.

Conner: Yeah, it was like our 10th year. I

Saviers: Ten years?

Conner: Yes, I think we were doing about 2.7 billion that year, I think, and I knew we were running out of gas and it was a big issue, but also I saw Seagate as a big company, us as a big company. The margins weren't great, and Seagate had high-end products, high-capacity products, and we had the lower capacity but smaller form factors and things like that. They had heads, we had disk, and AI was still heading up that but he and I weren't talking about potential mergers. He had a person that he worked with and it just seemed like it was the right time, bringing them together, and with all of our market shares added to theirs and our components-- our components adding to theirs, seemed like the right combination. As we sit here today with only three suppliers in the world, it was probably very fortuitous to do that.

Saviers: So that happens I think in 1996?-

Conner: I think it was '96, '97, yeah.

Saviers: '96, '97, and are you going to take a role in Seagate at that point or not?

Conner: No. No, there was a lot of competitiveness between the two companies across the board. Once we got the final merger done I think the Conner names on all the buildings were down in like 48 hours.

<laughter>

Conner: One of the things they did, which I was disappointed in, that they fired most of the Conner salesmen, which had the relationships with the customers, and so correspondingly the sales went down but they recovered from that, and I have to say, today the management they have in that company is amazing. It's amazing, and many of the people that were at Conner are in senior management over there, so it's-- I'm pleased to see that.

Saviers: Right. But AI was in charge at that point when the merger occurred.

Conner: Correct.

Saviers: AI Shugart. then AI leaves Seagate at some point.

Conner: Right.

Saviers: Steve Luzzo comes in?

Conner: Correct.

Conner: Steve was a good people person and very astute financially, and so I think he brought some discipline to the company that they didn't have.

Saviers: So when you look back at that storage, in fact, it's little hard to look back because things have changed so much. Anyway, I won't go there yet. Let's talk about, let's talk about leaving Conner and what's next for you.

Conner: Well, left Conner, and again, when you wake up and don't have a place to go or people to go play golf with or anything like that you kind of wonder, "What do I do next?" and it was in '97. It was a few years ago for me, so I looked around and I said, "What can I do?" and typical of a lot of entrepreneurs you think because you did well there you can do well here. It doesn't work that way.

Conner: And I started another little company and to try to make a lower-cost disk drive, and that was fine and we were doing fine, but the market moved away from that.

Saviers: This was the \$100 disk drive vision?

Conner: Right.

Conner: So that one shut down and then I looked at some other things. I made some investments in companies and a couple occasions they would bring me in thinking I could be the savior and I couldn't do it either. So I had several investments like that and didn't work out. The one that I think will be successful is a company called Sentry [ph?] Card. - I started called BluStor. It was a credit card size with a fingerprint detector and large storage capacity and things like that for security, personal security and identity. I left there a few years ago, the management team, and they got more money from the investors. They scaled back what I had identified as what the product should be and it was the right decision. Today they're doing very well, so I'm hopeful that'll bear fruit sometime.

Saviers: Well, it's like, what, the 10 investments yield 1 homerun and 2 living dead and 7 failures?

Conner: That's exactly right. I've learned that.

Saviers: Me too. <laughs>

Conner: I was sending a note to somebody, my tax person actually, about the companies I've started and companies that have failed and there are more failures than successes. I said to her, I said, I think I've found my calling of starting a company versus investing in companies."

<laughter>

Saviers: Yes a little more of the control in maybe what the outcome might be

Conner: That may be the commonality of it.

Saviers: So is there some general advice for entrepreneurs that you could share?

Conner: You know, having the spirit of an entrepreneur is-- you have to learn what that means, and it's risk, it's management of risk, and these are silly little things but I always tell my guys, "What I would do, when I go in the front door of someplace or some opportunity, I want to know where the back door is, because you never know when you might need that," and so you have to think longer than just the up side. "What could go wrong? What's the alternative to that?" and I still see that today with big companies. They still don't grasp it. Successful companies still aren't looking far enough ahead to know the consequences of changes in the industry.

Saviers: Yes. When you look back at the storage business, you've shared some thoughts with me about where we're headed in terms of the amount of data that's needed in the world and where we are in terms of the food supply of storage for that. What are you thinking there?

Conner: Well, it's interesting. A lot of the analysts and a lot of people in the drive business are talking about the potential growth of data. They're talking zettabytes. In my day we didn't know what a zettabyte was, but they're talking 150 zettabytes of storage-- of data, -- that's being created, and if you look at where it's all coming from, predominantly from us, the individuals. When you look at a company like Google or Facebook who take that data, they get it for free, and they remarket it into digital advertising, and they're billion and trillion-dollar companies. So something has to change there both on the source of it, the storage of that data and the payment of that data back to the people who created it, and that's going to happen. But what's missing in my mind is that with three disk storage companies and everything dealing with data has at some point in time required a disk drive. With three sources of disk drives any disruption in the source of that-- and we've had several in the last few years-- will have major consequences because the total dependency on storage by many applications in cars and planes and everything else is there. So - my concern, and what I'm looking into, is what is the magnitude of that potential disruption and what could it cause, and what-- and then consequently what can you do about it?

Saviers: And you have a company you're advising now? I think it's called Cirus?

Conner: I'm advising on a board of a company called Cirus, and-- C-I-R-U-S, and they have come up with a process and a plan where they can capture your data. They can resell it into the digital marketing world and send the value back to you through cryptocurrency or regular currency and pay you something for that, and that could be done by a big company if they chose to. If you look at the margin they make on their data, they can certainly afford to pay you, the creator of that data, something for it. So I think that's going to happen and it's getting more popular, and, course, with the cryptocurrency fad it's a good mechanism to get people involved in that.

Saviers: And of course EU is moving pretty strongly into protection of private data, so that's going to put pressure on that whole ecosystem of you're the product, right?

Conner: That's right. And that's a good point, because Europe is putting a lot of pressure on it, and, you know, of course, the pressure on all the social networks here in the U.S. in government and who's-- and

the other social networks come into the U.S, are they a threat to people? You know, it has to be somewhat modified on social networks.

Saviers: And you'd go along on investing in disk drive companies now too.

Conner: Absolutely.

Saviers: <laughs>

Conner: I'm an investor and if you look at the disk drive industry in the last year their stock has dropped about 50 percent. But demand is going up and there's only three suppliers. I don't understand that.

<laughter>

Saviers: Sounds like an opportunity.

Conner: Well, if I read the analyst reports, historically in the disk drive industry their view is very short. What's going to happen this quarter? Or did they miss it by a penny or things like that. The disk drive industry is not something you want to invest in unless you're a big trader and you can trade it that way, but I think they will get recognized as being a major contributor to the whole infrastructure of data.

Saviers: Sure. When you look at these data centers that use tens of megawatts of power, and some very substantial part of that's going into disk drive...

Conner: That's right.

Saviers: It's an interesting way to look at the market.

Conner: I saw a statistic that about 1.8 percent of the global energy is servicing those servers.

Saviers: Amazing. What else is-- you'd like to tell us about yourself and the future?

Conner: Well, the good thing about the future, it's always coming.

<laughter>

Conner: And just like anything, whether it's family or friends or anything you do, you have to look ahead to try to anticipate what's happening, take the best data you can, and you need to find that back door, some opportunity. So there's opportunity and there's challenges, and I think I've, with my own family, I've recognized I have to do that better than I have in the past, and so I think that's something that we'll have to spend a little more time in as we move forward.

Saviers: And personally you've moved-- think you said to me you've moved 25 times in the course of this business career. And there's one more coming?

Conner: There's one more, and I hate to call it this, the final resting place, but...

<laughter>

Conner: But it's-- yeah, we're moving back to where our friends and family are and enjoy life.

Saviers: Great. We wish you well on that.

Conner: Thank you. I appreciate it.

Saviers: Thanks very much for this.

Conner: You bet.

END OF THE INTERVIEW