



Oral History with David Morgenthaller

NVCA Oral History Collection

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National Venture Capital Association
Venture Capital Oral History Project

David Morgenthaler

Interview Conducted by
Carole Kolker, PhD
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This collection of interviews, *Venture Capital Greats*, recognizes the contributions of individuals who have followed in the footsteps of early venture capital pioneers such as Andrew Mellon and Laurance Rockefeller, J. H. Whitney and Georges Doriot, and the mid-century associations of Draper, Gaither & Anderson and Davis & Rock — families and firms who financed advanced technologies and built iconic U.S. companies.

Each interviewee was asked to reflect on his formative years, his career path, and the subsequent challenges faced as a venture capitalist. Their stories reveal passion and judgment, risk and rewards, and suggest in a variety of ways what the small venture capital industry has contributed to the American economy.

As the venture capital industry prepares for a new market reality in the early years of the 21st century, the National Venture Capital Association reports (2008) that venture capital investments represented 21 percent of U.S. GDP and was responsible for 12.1 million American jobs and \$2.9 trillion in sales. These figures, while significant, greatly understate the collective accomplishments of the venture capital industry.

I'm pleased to have initiated and given my early support to this project, which is now receiving support and funding by NVCA. I believe these oral histories will advance the understanding of the venture capital industry. This collection, along with Paul Bancroft's Bay Area oral history project at the Bancroft Library at the University of California, Berkeley, and Paul Holland's Silicon Valley project for the Western Association of Venture Capitalists, will add significantly to a growing body of venture capital memoirs available to the public sector.

A special note of gratitude goes to each interviewee who generously gave of his time while candidly sharing his memories. Their recollections bring to life the dynamic story of venture capital in the 20th century, providing a powerful perspective on the history of this industry.

Charles W. Newhall III 2010

VENTURE CAPITAL GREATS



A Conversation with David Morgenthaler

The following is an interview with David Morgenthaller at his office in Cleveland, Ohio. Today's date is April 14, 2010. My name is Carole Kolker. This interview is being conducted for the Venture Capital Oral History Project of the National Venture Capital Association.

Carole Kolker: *I want to thank you for setting aside this time. I know you're busy, having looked over the many things that you're involved in. I appreciate that you're taking this time out to sit and chat with me about your life in venture capital and your life in general. We're going to start with your early years. So, just for the record, when were you born and where?*

David Morgenthaller: I was born in 1919, in a little town in South Carolina called Chester, which was my mother's home. I resided there only briefly, and grew up in North and South Carolina, then moved to Florida; went to school in Boston, came out of Boston and went to work in Pittsburgh briefly; then I got a four-year expense-paid tour of Africa and Italy—

CK: *How did it happen that your parents were living in South Carolina?*

DM: Well, South Carolina was my mother's home, and I was born there, and she went home to have me, originally, and she and my father were South Carolinians, and they lived there in a little town called Winnsboro. And my mother and father divorced early, and I grew up partly in Winnsboro, and then Mother remarried in Asheville, and we moved to Asheville. And lived there and moved to Florida when I was thirteen.

CK: Did you have any siblings?

DM: None. No brothers or sisters.

CK: An only child; a successful only child. As a kid, what were your interests?

DM: I was studious, near-sighted, but didn't know it, in a small town; went to a very good school: the Old Mt. Zion Institute in Winnsboro, they had something of a famous history. Very good southern school. I played all the sports, primarily, and read a very great deal. Just was always a very good student.

CK: Were you a tinkerer?

DM: No, I was not. I did the normal chores, but I was not a tinkerer or a nerd.

CK: You didn't like taking things apart and seeing how they worked?

DM: I was big with erector sets. I worked very hard on erector sets and building things with those, but that was about all. Remember, *this was a long time ago*. Remember how—

CK: These are the 1920s.

DM: Mm-hm. They were the 1920s. One of my grandfathers had a farm and I spent a lot of time out there on the farm. I learned to ride a mule when I was six; I picked cotton and shucked corn and did all some of the farm tasks. The land was flat and out in the farm country, and about every half-mile or mile you could see a house, and every house you

could see was a relative. The broad, extended family — my grandfather's brothers and sisters and so on — owned all of the land.

CK: What was your grandparents' name? The family name.

DM: My middle name, Turner.

CK: Did they farm as a livelihood?

DM: Oh yes. They owned large farms. That was primarily cotton country in those days.

CK: But you said you were also an athlete. You liked sports.

DM: I played sports, I played everything. I wasn't terribly good at anything, but I played everything.

CK: Did you have any favorite subjects in school?

DM: I liked to read. I was just an all-around good student, and I did well in math and science; I did equally well in English and literature, at least. In fact, people asked me — I went to MIT from Coral Gables, Florida, and I was the first student from my high school to go to MIT. And people ask why I went there, and why I went into engineering. And when I was a senior, my English teacher, who was advising me, we were talking about what I should do, and she said, "You're very analytical; you ought to go into engineering." And I went home and told my father, stepfather, about that, and he said, "Well, you should go to MIT because that's the best." I wasn't ambitious enough, personally, to be reaching

for it, because it's a long way, and it was expensive to travel there and so on. So I applied to several engineering schools and I was admitted to all of them, and went to MIT.

CK: So there was somebody in that high school that gave you a little guidance.

DM: My English teacher sent me into engineering, though I had won prizes in English. It wasn't that I wasn't a good English student; I actually won some essay prizes in writing and—

CK: You said you liked to read. What kind of books were you reading?

DM: Everything. Everything from *Tom Sawyer* to *The Bobbsey Twins*— *The Hardy Boys*. All of them. I used to take a book home a night, practically, from the library, and read it.

CK: How would you describe the values in your home in terms of attitudes towards education or success, a work ethic?

DM: Very strong southern Presbyterian values. By very Southern Presbyterian, I mean, I could recite the catechism by the time I was six or seven. Very strong Southern values — very Southern attitude toward things, rights and wrongs are very black and white. My two aunts had gone to the best teacher's college in South Carolina, Winthrop College, which was probably the best ladies' school in South Carolina; they self-schooled me, before my first year in elementary school. I was staying on the farm, and I didn't go into school that year. So I skipped first grade entirely and went directly into second grade —

and they self-schooled me. And very strict. Very loving, but strict — made you feel special, demanded a lot of performance out of you; expected you to do very well at everything. And the southerners didn't put up with any nonsense in raising children, a lot of the nonsense that goes on today just didn't happen around there.

CK: No sparing the rod. So these aunts were pretty influential in forming your—

DM: One aunt was very influential, the older of the two, Sarah. She had a great deal to do with raising me. You're into a great deal of childhood detail here; do you really want all this?

CK: It's who you are. If someone said, "What made this man such a success," I think it starts at an early age.

DM: Well, I was expected to perform. If I didn't come home with top grades and performance and so on, I was going to hear about it.

CK: So when you graduated, you said that you were going to go to MIT, because you were encouraged. Was there anything else that you thought you'd like to do at this point?

DM: My stepfather was a bright man; he had inherited a trust fund that was adequate so that he didn't have to work if he didn't want to. And he was definitely not mechanical, not a tinkerer or anything of that kind. Si in high school, in particular, I played sports and I was far more interested in making the high school fraternity and getting my football letter,

which I barely did, because I was too light and too young. I was a year younger than my class, which is I think not a very good idea socially. But when I moved from Asheville, where they had only eleven grades, to Florida, where they had twelve grades, they looked at my record and everything I'd been taken in eighth grade was ninth grade in Florida, so they put me in the ninth grade. That moved me a year ahead, so I was a year younger than my classmates. I graduated from high school at sixteen, and I entered MIT when I was barely seventeen.

CK: I think that is hard. Like you said, socially — to be on the young end.

DM: Yes. It was a little — I managed to bridge the gap, but it was a mile — I wished I'd been a year older in high school. It didn't make any difference at MIT, other than the trouble was that I had some pretty high scores on intelligence and aptitude tests in high school, and MIT let me in without any exams, without one or two of the courses I should've had. The first three months at MIT were hell, while I was making up for the deficiency. I'd never known what it was to get a bad grade, and I got some bad grades for about ninety days until I caught up in school there. Because the first day in class you used calculus; I'd never seen calculus.(laughs) I had only half a year of physics, and my high school education — the Carolina education was better than the Florida education, and other than English — I won a prize in English the first year at MIT — I didn't win any prizes in math or physics for a while.

CK: Was it a culture shock in any way to come up from Florida to the northeast?

DM: I found I was academically retarded, which had never happened to me before, and socially advanced, because MIT had a bunch of nerds, and in Florida we were dating when you were thirteen-years-old; you were driving when you were fifteen-years-old. So I was socially pretty advanced. I didn't have any trouble at all in terms of being socially ahead. MIT, even then, had a lot of very nerdy people. I had been a camp counselor; I had been a vice president of my senior class; I had been in a high school fraternity, when there weren't many of those. So I found myself socially easily ahead at MIT, just reverse from high school. In high school, I was academically ahead and socially a little younger, and everybody else was very social also. When I got to MIT I found I was very social and academically retarded, for a while.

CK: When you get to college, social skills go a long way.

DM: Well, I found that end of it in college easy; that was easier than high school.

CK: Had you ever worked for money when you—I know you worked on the farm. It sounds like you put in a long hours.

DM: No, I had not worked for money. I didn't have a paper route. Somehow you didn't do that, and people weren't doing that. And I don't remember having a paying job until — I was sort of in the leadership roles early. I went into summer camp and they made me a

junior counselor the first year, and when I was sixteen they made me a full counselor, leading a group of boys. I think I didn't have to pay, but I didn't get paid for it. Or paid very—

CK: Today you would be paid.

DM: Probably so. But I've thought often about this in terms of selecting men. But I got leadership roles early, somehow.

CK: Interesting because you say you were young.

DM: I was young, but I was responsible, I guess. I was always a conscientious and responsible kid.

CK: What were you learning about yourself at MIT?

DM: I learned to work and to study. High school had been comparatively easy. My aunt, who died when I was twelve, was a school teacher that I had lived with for a good deal of the time before Mother remarried, was quite strict. My mother was not strict about school at all, and I did so well in school that they just didn't have to worry. And when I got to MIT, I went into a fraternity where they were quite disciplined about studying. It had been a military fraternity, Sigma Nu, and it originated at, oh, one of the Virginia schools — VMI or VPI, I've forgotten where — but they disciplined the freshmen very strongly, and they made us, at 8:00 at night in our fraternity, and freshman had to be in their rooms and studying, and you had to have an excuse not to be. Radios went off at 8:00. We had

an old house converted into a fraternity house, and I studied in a room the first year with five people studying in it, and it was quiet. If you wanted to talk, you were required to get up and get out of the room. And there'd be a senior in charge of the room, and he would enforce discipline. So it was a disciplined kind of atmosphere in the fraternity. We didn't permit any drinking in the house, if you can imagine. The only time any alcohol was allowed in was on a Friday night party. But nobody was allowed to keep liquor in the fraternity. It was back in the days when you still paddled pledges.

I played freshman football at MIT and found that very easy compared to brutal high school football that I had been involved in; it was very easy to get a letter, and I was bigger by then too. We had a strong class and fraternity, and we had a good group and a good fraternity spirit. The fraternity was the social life, really. MIT was very, very academically demanding. And in my sophomore year I applied for — General Electric came and had a cooperative course, which was the cream of the electrical and the mechanical departments there. This was 1936 and '37, and if you got into that course it pretty well meant that you had a job with General Electric when you got out of school.

CK: Well, that was during the Depression—

DM: It was very much during the Depression, and we had 25 percent unemployment, and we were all *very scared*. I've often said: "my generation knew fear with coming out of World War I into the Depression, into World War II." My father and my uncles were in the army. They told me that they had made the world safe for democracy and I'd never

have to fight a war. And one of the earliest books I read was a World War I history with some just horrible pictures of gassing and corpses and things of that sort. My grandmother had that book in her library, and it made a profound impression on me. We went out of that, we thought we'd never have to do that, then gradually in college the skies darkened and we saw it coming. I was a reserve officer; I took ROTC at MIT. You were required to take two years; I volunteered for four, and I got a commission in the reserves, and I was called to active duty the day after Pearl Harbor, actually.

CK: Did you find any mentors while you were at MIT?

DM: A little. Not in my course. Giving you a little history: I tend to kind of inherit leadership.

I was at the end of my sophomore year — I got picked in that General Electric Course; the whole class applied and they picked seven of us. I had pretty well made up my deficiencies in education, and I was doing pretty well by then. The other six guys were very studious, very bright; they would be called nerds, to be frank. Four of them became mechanical engineering professors. That was some of the academically most severe competition I ever ran into. But not socially — they didn't chase girls.

CK: You had them all to yourself.

DM: That was not a problem.(laughs) I went out for class politics — I was the only fraternity member in my group — I lived in a fraternity. The end of my sophomore year, I got

elected vice president of the house, and a junior was elected president at the end of the year to come back as a senior, and I would be vice president as a junior. He flunked out. When they came back, they elected me president. I wanted to be president, but not my junior year, but they elected me president anyway, and I inherited the fraternity. We had \$11 in the treasury; we had no alumni support, the previous president had spent everything we had. The ceiling was falling down, and I got my first business turnaround experience. A mortgage payment was coming due, the fraternity was in trouble, and we had nobody to turn to, no alumni to give us money or anything. So we patched up the ceiling ourselves and got some of that old-fashioned — they put it in barber shops, this thin tin metal roof, and nailed it over the things, painted it. We've turned around many companies in my business; that was my first turnaround experience. First thing you do is get the revenue up. We went out and recruited a very large group of freshmen; we worked very hard, we got a group of freshmen in, and then we went to work. You ask about mentors, and I'm coming back to that. I was quite offended because getting into school without the courses that I'd had in preparation, my first year grades were average, and I was not used to that, and I did not like that one bit. I made it up and General Electric took me into this special course of theirs. And they gave freshmen quizzes, and I said that many people had their records hurt because they weren't used to studying; once they learned to study, they got their records up and so forth.

When I was president of the fraternity, I hired a tutor, a very successful alumnus, and brought him in, and we trained our freshmen even more, and we brought our freshmen up to where they were number one performers in the school the first year. I was talking to the deans about this — I was quite vocal on the fact that I thought MIT maybe didn't give quite enough guidance to this. So I got to know the deans quite well. They had talked to me in the first term when I was having trouble, when my grades were low, so I had gotten to know the two deans moderately well. Then I became an early president of the fraternity, and then I instituted this training program, and we got to be number one, and they told me it wouldn't make any difference at all. They said, When you take the pressure off, these guys will revert back to performing with their ability. The deans were absolutely right; that's what happened. Then still talking about mentors: As close as I had to anybody I admired was — at the end of my junior year, I was the fraternity's candidate for president, and I got elected. The dorms had more votes, and the dorm president got elected president of the school senior class; I got elected vice president. I thought it was wonderful. I'd made the Honor Society. I had the glory: I wouldn't have any work to do; everything was going to be just great. The president flunked out. MIT had a motto in those days that: "Tech is a place for men to work and not for boys to play," and he spent too much time politicking. The dorms had more votes, and I didn't have any, wasn't known enough in the dorms to beat him, and he campaigned beautifully, but he neglected studying and they flunked him. This is the kind of school, they'd flunk the senior class president out, and they did. So I inherited that job. And the point of the

story in all of this is, I say I kept inheriting these jobs — I wasn't particularly seeking them — I was very happy to be vice president, because it gave me the glory without doing very much work, and I was looking forward to a nice, relaxed time, and I'd been head of a number of other honor things. So it was all going to be fun. But then this guy flunks.

But I got to know the president of the school, Dr. Carl Compton, and Compton was a great man of his day. I had ideas about what we should do, and I would pop into his office, and his secretary knew me, and I'd come in without an appointment, and she'd say, "Sit down, Dave, I'll work you in." So between appointments, she'd scoot me into his office. I was expected with him, no nonsense, state your business, make your point, and he'd say yes or no. About two-thirds of the time, he'd say no. But he'd listen, he'd listen carefully and give you a considered opinion, and "out." He was a busy man; he was going to Washington, serving on war committees — we were getting ready for war at that point. But I respected him, and Van Bush, Dean Vannevar Bush. And they had an Honor Society at MIT, and I'm still quite active in MIT alumni — they had an Honor Society there, they've since discontinued it and I can talk about it — if it were still in existence, I couldn't. It's MIT's poor boy's version of Skull and Bones, practically, or was, where they took about twenty of the class leaders — of six hundred or so people, you had about twenty people that were leading the activities in the school — and they invited us into a secret society where we met once a month, black tie dinner, downtown:

Never mention the name of the club; never mention to anybody that you were there, and you met with the top people of the school. You had drinks, cocktails and dinner, and you talked affairs, and it was open to say anything you wanted to. The one distinction was that you call them by their first names. This is 1930s kind of culture, you know. It seems ridiculous today, but it was the mystique of that day. It was MIT's Skull and Bones.

CK: *What was the name of this group?*

DM: It was called... [fill in . What were we called?] But the point was this: Again, this is mentorship — we talked to those people in that way. Those were about the only people—I found the mechanical engineering professors not good; the whole theory of that group was that they would give you highfalutin terms: “We’re turning out leaders of industry and science,” and so on. Garbage, absolutely garbage. The whole courses were aimed at turning out the best design engineers in the world ready to start this afternoon. That’s what you were here to do, and your aspirations or things you were to look at: If you were chief design engineer for General Electric, that would have been the top job that they visualized. If you’d been vice president of engineering, that was a little suspect. President, you didn’t even think about that.

Well, again, I was always a little bit of a rebel, in that respect. They asked me at the end of my sophomore year what I wanted to do, and I had read a book by Bernard Lester of Westinghouse called *Sales Engineering*. I liked technical things — I still do; I’ve never

gone into a retail or consumer-type business; I like to deal with technical products, though I'm certainly not a nerd, but I, nevertheless, would be very bored at selling men's clothes or shirts or something like that. I like to deal with the technology that we do. This book, *Sales Engineering*, this is working with people about technical things. I said, "That's what I'd like to do." The reaction among my mechanical engineering advisors was like a Wellesley girl with 1930s morals — not current morals, but 1930s morals — a girl saying, "I'd like to study to be a prostitute." "You can do this kind of design engineering, you can do this kind of work, and you would consider going into sales engineering? What a—You're just prostituting yourself!" I said, "Wait a minute. Somebody is going to be running these companies, and that's the kind of thing I want to do." I'd spent time on a drafting board, and this was back in the days when mechanical engineering had a lot of—We didn't have the design machines and drafting machines; we didn't have any computers. You did all your work either on a slide rule or with log tables, and it was drudgery. Slide rules are not drudgery, but if you had to do any precise work, you couldn't do it on a slide rule, and it was just drudgery, and sitting there drawing things, mechanical, I didn't want any part of that. I remember, I didn't have any real aptitude for drawing, and I just didn't want any part of that. They were very offended that I would even consider this when I could do this. And I kept trying to take courses over in the business school.

CK: I was going to ask you about that, because it sounds like you hadn't found your niche in terms of an interest in your schoolwork, in terms of the mechanical engineering.

DM: Well, I didn't want to be a design engineer. Mechanical engineering has really sort of two aspects to it, particularly in that day. One was machine design, which in that day I found drudgery, and thermodynamics: This is more mathematical, more conceptual, more higher-level. I was good at it; I was extremely good at thermodynamics. So I got interested in that end of it. Most mechanical engineers have trouble with thermodynamics — concepts like entropy and enthalpy and things of that kind, they have difficulty with. They're just happier designing machine parts. And with the design tools you have today, I would have been happier, because there wasn't that silly drudgery. You used to have to put ink in pens, and if you slipped at all, you blotted it, and then you had to scrape it out. It was worse than needlework or crocheting or something like that.

CK: What other courses were you finding interesting?

DM: Oh! I got honors in a law course, which is probably more typical of me. I took a course in the law. I got honors in the course, and my law professor, he was a bit influential too—He said, "I have to give you honors, because you turned me in a perfectly reasoned legal paper that exactly coincides with the holding of a judge of the Supreme Court. Always the minority opinion. Why can't you ever agree with the majority?" And he said, "If you can reason like a minority Supreme Court judge, I have to give you honors, but

you never hold with the majority opinion,” I liked that course immensely; I did very well with it.

CK: Did you ever think of pursuing law?

DM: No. I didn’t want to make a career out of it. This was a business course. I’m very good at that, though. My children have started businesses, and with 350 companies in here, we’ve been involved in a few lawsuits. But I watch my children: I have one child that’s brilliant at law, and two that frighten me, they don’t pay enough attention to it. I’m good at it without working at it; I didn’t want to do it.

CK: You didn’t want to do it. You had found something that was—

DM: But I can reason tightly, analytically. So that professor I enjoyed. I thoroughly enjoyed economics and did very well. I did very well in these several business courses I was allowed to take. Then I shocked my professors again. This General Electric course was very intensive. When we were out at the GE plants, we took courses at night. Professors would come out and teach us two nights, and we would take, in six weeks, a course that normally would take about fifteen weeks in a normal semester, because you’re taking only two courses. Then you’d be worked forty hours plus overtime.

So at any rate, so we had that kind of training. And the only time we were away from MIT, we were at the Schenectady plant, two terms [that “lend” Lynn?] professors could

come out. At the Schenectady plant, we did a research project on our own. But I did very well in thermodynamics in particular. Oddly enough, once I got past the incomplete high school math I was pretty good in math and science. I just found machine design drudgery, simply, and I wasn't a gadgeteer. One company that hired me once asked me, Are you inventive? And I said, "No. I don't see myself that way; I'm a problem-solver. You give me something that's broken, I'll get it to work, or I'll make it work or something of that kind, but I don't sit there and dream up a better way." There are people that just take almost anything they're doing and they just think of, How will I make this better. I don't do that. I don't sit there and dream about how to improve it; but if I have a problem, I solve the problem, but then I'll go back to doing something else. I fundamentally work more with people.

And again, as I learned as a sophomore, I want to work with people about technical things. I'm extremely bored if we sit here — and nothing do I regard much as a waste of my time as when: My joke is when you start naming things — you want to get a new name or a new slogan — well, people will go on and on about that, and of course advertising people make a very good living by going over this. I have a principle that all my partners know very well, which is: when we're going to name things, get started and Dave will get up and leave the room, because he knows from his past experience the worse the name you come up with, the better, the more money he'll make. You get these beautiful names, and you get Electronics, Dynamet, Novastar this kind of thing, so forth,

it usually loses money. I give you: For the best computer company in the world, how do you like a literally lovely name like International Business Machines. The major computer of the world. Now they've thrown it away and call it IBM, but it was International Business Machines for a long time, and it did very nicely, thank you.

I'm civically pretty active in Cleveland and the head of Team NEO, the team responsible for recruiting new businesses into northeast Ohio. They went in to get a new slogan for the region, so they invited me to a meeting. They had gotten a new slogan. They spent the first 40 percent of the meeting talking about this — and we can go on for hours about why, and I can go very deeply into why the region is not more successful, why it matured and so on, that's a different story. But I made the point to the head, who is a friend of mine. I said, "Look, I moved a company to Cleveland, that's why I'm here. I was president of a company, and I moved it to Cleveland fifty years ago." I said, "It had a better slogan then than you have gotten now with this new one, and I paid it not the slightest attention at the time." The slogan, I thought, Nice. Wish it were true. Don't believe it. It was called, "Cleveland, the best location in the nation." Lovely slogan; didn't believe it, but it's a nice sentiment; you could make a case for it — about half the population within 500 miles, all these things. He spends tens and thousands of dollars and comes up with, "Cleveland Plus." I said, "And what I really resent is not so much that as you've spent 40 percent of the meeting talking about this as if it were some kind of amazing triumph."

Now, if we're going to talk about a really better computer system, I'm this funny mixture of — I'm genuinely interested in the technical features of products, and I made a point in my days of making sure that our salesmen knew the technical features of our competitors' products as well as ours. But at the same time, it's all done through people. They've got to be bright. One of the many mistakes we've made in venture capital is we've relied too much on ["think bright"] people, but that's another story.

CK: We're going to get to that. I'm curious about your MIT classmates. Have you kept in touch with them?

DM: Some. A few.

CK: You said you're still active in the alumni.

DM: Oddly enough, I declined going on the visiting committee of the Mechanical Engineering Department; I just wasn't that interested. And I went on the Visiting Committee of the business school at MIT, where I really had only three courses, and they've kind of adopted me. Now I'm on the Dean's Advisory Committee of the business school at MIT, and I'm still on it. I've given equivalent support to a professorship in entrepreneurship. I was one of the founding people, and still one of the most active people in founding the entrepreneurship program at MIT, which is in the business school; and I'm also supporting a leadership program, which is also in the business school. You graduate to this from the Visiting Committee. Visiting Committee is sort of a more academically

oriented thing, and we stepped up to this. And frankly, it's just a way of making sure you give more money. I also do this at Carnegie Mellon, which is my wife's school, and we gave a professorship in entrepreneurship there. We have Morganthaler Fellows at the Cleveland Clinic, in research. We have Morganthaler Fellows at Stanford University. These were done originally in honor of my son, who graduated from Stanford, who died. The business plan contest prize is given by my partners in my name in Stanford. I'm an education junkie, is what it amounts to. I'm on the President's Advisory Committee out at Case, as well. I don't do college trusteeships. My wife is a Life Emeritus trustee at Carnegie Mellon, where she went to school, and also at Case Western. But basically, she's retired from that, and she won't go near them anymore. But she was the head volunteer fundraiser and raised, what in those days was, between the two schools, about \$500 million, which was a lot of money back when she was doing it. Not so much anymore, but it was a lot then.

CK: You finished MIT, you were twenty-one-years-old.

DM: I had my Master's when I was twenty-one — Bachelor's and Master's. I finished undergraduate at twenty.

CK: That was quite a feat.

DM: People do it. Not many people that were as little nerdy as I was.

CK: It seems like you managed to have a good time.

DM: I had a pretty good time, yeah; a little more money and I would have had an even better time.

CK: You were playing football, and did I read you were on the swim team?

DM: I was the captain of the freshman swim team at MIT, and I swam three years of intercollegiates, and the senior year I was out, I didn't swim because I was out working at the GE plant in the fall.

CK: You finished at MIT in 1941.

DM: Yes. I'm class of '40, which is when I finished undergraduate; then we had a year of graduate school. In the General Electric Program, we did one big thesis, combined bachelors and masters, and we got so we couldn't get the bachelor's degree until we finished the thesis. We finished the thesis; we got both degrees in '41.

CK: What was your thesis topic?

DM: Modernization of an industrial power plant. I took the MIT power plant and did a theoretical redesign of it, and brought it up to how they could do it and make a really modern plant out of it. I had all kinds of fancy things — topping turbines. Oh, you asked about mentors too: My first job at GE — my first assignment was a very, very junior assistant to the power plant engineer at the Lynn Works at General Electric.

He was an MIT alumnus out of school about twenty, twenty-five- years — wonderful man — and he brought me in for my first assignment — I was about nineteen-years-old, I think. He did the best possible thing: he just gave me all his little crap engineering jobs to do. If he wanted a compressor moved from one place and reinstalled in another place in there, he just said: “Engineer it, do the calculations: how to get it out; how to get it moved; how to get it connected up; get the new connections made; go find the millwrights and have them move it; supervise ‘em; start it up, and let me know when you’re done.” That was my instruction. He was ready to answer any question I had, but otherwise he left it to me to do it. The millwrights hazed me, of course, as they did any nineteen-year-old that was bossing ‘em. But I learned to handle factory workers in that sort of thing and got on very well with them. Lived through the hazing on it and learned to rely on my engineering.

Everything was wonderful, and that was the first job. I was punching a time clock when I was nineteen. We had to use time cards, and I was doing that when I was nineteen-years-old. Everything was wonderful until — I thought my boss was great — until one day I saw his paycheck, and this was 1939. He was making, on his paycheck — and he was twenty years out of MIT, and he was still as good as I was in calculus. I just had the courses, and he could do them as well as I could twenty years out, and he also knew all these practical things about power plants that I didn’t know. I thought he ought to have a big salary. I saw his salary, and it was about what I wanted to start at when I got out of

school. That spoiled my picture of General Electric completely. I had no desire to go to work for a big company in the era of 1939. Wonderful man — he was the best of the GE bosses that I had.

CK: Do you remember his name?

DM: I do remember his name—it was Burt Southwick. He's long dead, obviously. He was twenty-five-years older than I was, probably.

CK: But he certainly gave you an opportunity for you to show what you could do.

DM: Absolutely, and it was wonderful. He'd just throw me the problem and I'd go tackle it, and if I got stuck on something, I'd come back. He'd put it out there. I've always had a coaching style of leadership. I've had a fair amount of success in leadership roles, and I've spent a lot of time on the subject. And as I said earlier, I got thrown most of them without asking for them. Same way in the army: When I was called up to active duty, my first job was assistant engineering officer in a regiment, which is exactly the job I should've had, and a recent graduate from MIT — military engineering's a piece of cake; there's nothing to it. And my boss in the army was an MIT person, who saw me, and when I first came on active duty, grabbed me for an assistant. He was a regular army officer. He'd gone in, became a career officer. I had three months of that, which is exactly where I should've been. Then they promoted me to heading one of the sections, which was all right — it was still technical and I qualified for it. But then, the way the army expanded was we were an original peacetime prototype unit; we were the original

unit for aviation engineers. I was just accidentally assigned there. And the way they expanded was they took our experienced officers and non-coms and took them out and formed new battalions with them, and then they promoted the juniors like us to replace these people. So the result was: I got thrown into being a company commander six months after I went in the army, never having had a day of company duty in my life.

It was more like the MIT experience, you know, and thrown in there, you never had any courses. I was thrown into running a company. And one day — I'm a staff officer, which I'm very qualified to do, and next day I'm a company commander, which I know nothing about. And I have 178 green draftees who, if possible, know less than I do, and that's hard to know less than I do at that point, but they succeeded — drafted in there, didn't want to be there. I didn't have a volunteer. I think I had three college men, and they were useless. One I made company clerk, because he could type; the rest, no leadership. So you had to learn being a company commander on the job.

CK: On the job training. But you seem naturally to have some leadership skills. I wonder where your self-confidence came from.

DM: Self-confidence?

CK: You didn't seem to shirk any of this. You seemed to—

DM: No, I never turned down a responsibility. I talk a lot with my children about this — we're very close and we have a wonderful relationship. They've all founded companies; they're too damn confident. I tell them they don't know enough to know what they don't know. But they see Dad do it and they think it's easy. My generation — you ask about the early South Carolina values — taking responsibility was, you were given responsibility, you took it; you did it, you did your best. My life has not so much taught me that I know so much, but it has frighteningly taught me how little other people know. That's the worrying thing to me. I had a respect for authority, and the southerners commanded it, whether they deserved it or not, and they often usually didn't, but they commanded me.

One of the jokes of our child-raising and grandchildren and so on is: I have a daughter-in-law who would never want to use the phrase: you tell your child to do something and the child says, "Why do I have to do so?" And my generation, the answer would be, "Because I say so, and don't you question it." She would never use that phrase. Her generation would — you reason with them.(laugh) My wife, I'm happy to say — my wife is still on trial — because this marriage has only lasted sixty-five years.(laughter) I have to tell you a joke, in passing, on that — every year she asks me on our wedding anniversary, "You renew my contract for another year?" Several years ago, she was behaving badly about something and I said, "I'll give you thirty days to straighten out."

Ooh, that was expensive.(laughter) One of the dumbest things I ever said. Just one of our standard jokes — she makes me pay every now and then.

CK: I want to mention, this is Lindsay.

DM: Yes, Lindsay. We've been married 65 years. May 17, 1945. Five days after I came back from the Army.

CK: What did you learn in the service about yourself? That experience. You were in the service for four years?

DM: Yes. I ended up, I guess, with a lot of self-confidence because of — well, I mean, you just had to. I had a very successful company experience, accidentally. It looked very patriotic, but again, it was pure accident. I was ordered to active duty the day after Pearl Harbor. Mine was one name on pages of orders; it looked like a general mobilization, and I got this, of course, the first of November, ordered up with a month or two's notice, and I went. My company offered me a chance to stay out of the war, but they said, If you just resign your commission, we'll make you an assistant to the chief engineer of the shipbuilding division — we had a shipbuilding division — and you'll never be drafted; you'll be need to be building ships all of the war. And I said, "I don't feel good about that. I took the training; my mother and father are not dependent on me; I'm not married, I have no children. I feel an obligation to go." So we forgot that. I went on active duty the day after Pearl Harbor. As I said, it looked very patriotic; it was pure coincidence that

I reported for duty the day after Pearl Harbor. You can make a great story with your children if you want: “Pearl Harbor happened December 7th, and December 8th I reported to the army.” But I did. Then I got this company experience.

Somehow, when we hit Africa, I was put out to build an airfield, a strategic air command, my company was. And we were the farthest out away from headquarters. The army, if you were well-regarded, you sort of went out there, some staff officer took you out there and said: We want you to build an airfield, start here, point it in that direction, build a 10,000-foot airfield, get it operating, and when you’re done come back and tell us. Those were about your instructions. Or you got a very cursory blueprint that said practically nothing except what direction to put the field in. And headquarters would be a lot of miles away over bad roads, no telephone lines, usually. We got that done very successfully, and it later became a Strategic Air Command base in Africa. Then we moved up, and they reunited us. I’d been out separate, on our own, and had a lot of learning about running people there, because we were in just a miserable Arab town out in the country. One of the things I learned in the army was: In graduate school I had done a little study of intelligence testing. A classmate had been doing some work in it, and we got interested, and he asked us to come and take some tests, and four or five of us had just finished graduate exams at MIT, and we were waiting for a few days for our degrees. We went over and took the test where they were having it done. It was Northeast University and they weren’t used to people of the caliber they had in that thing, and we

just tore the test apart. They were used to testing lower level people. But I got interested in the subject, and the army gave an intelligence-type test to everybody. So every man you had, you had a record of his intelligence test scores, and you had his family history on a card. With my orientation toward people, I knew the record of every man, pretty well, and I watched his intelligence, and I watched what I could use him for and what I couldn't use him for. And I learned, in the course of commanding two different companies and different men through there — I commanded maybe 1,000 men over the four years, of seeing the records of these and taking a personal interest in each of the 1,000.

What did I learn? I learned the first thing: Intelligence hasn't a damn thing to do with leadership. The high score intelligence people in the army meant they learned new *things*, big emphasis on *things*, faster, and they could comprehend more complicated things than the low intelligence test. I learned: Don't get a supply sergeant with a score below about 120 or your records will get screwed up; he can't keep it straight. One hundred and ten is the basic score for an army officer; you'd better have a supply sergeant that's smarter than that. And if you take a sergeant, a platoon leader, and you give him a task like putting a [mission? Unintelligible hut] together, which is kind of like an erector set problem — you know, you've got a bunch of mechanical parts and you put them together and bolt things and fit pieces together, and you end up with a building. You give an 85 score sergeant a set of instructions, and instead of this, he'll never get the first one up. You get somebody in there to show him how to do it; you show him how to do about two

of them, and the fifth one, his team will put it up faster and better than the smarter guy who will get bored with it, who will figure out how to do the first. You learn things like that. You learn intelligence didn't matter.

CK: How much did family background matter? You said you had information on their background. Did that factor in at all?

DM: Oh, yes and no. I mean you had to factor in the whole thing; If they'd had a schoolteacher in their background or something. Years later I learned — I served on a commission here, 25, 30 years ago, we were trying to learn how to improve schools, and we learned two things: We learned, if you want to measure school performance — and we spent \$1 million of foundation money when this was real money — we had Ernst and Young do computer studies. This was back in, must've been the '70s that we did this for one of the educational foundations here. We learned two things: If you want to measure a school, you've got to classify students according to their basic IQ and the degree that education is valued in the home. The proxy for that is father's occupation, and you subdivide about six occupations. In other words, a schoolteacher is as good as a rich executive, because education's valued in both homes. An unskilled factory worker is sort of at the bottom of the six categories. We found you can measure the effectiveness of teachers very, very accurately. We got to the point where, using Iowa test scores, we could go into a school, run their scores over a few years and go back at the end and say, Your fourth grade math teacher is outstanding in terms of advancing the students; your

fifth grade English teacher is a miserable failure, pointing out by name, in terms of the results that they were getting. We naively thought the school systems would welcome this; it was about the last thing they wanted to hear. We couldn't even sell it. We eventually gave it to some foundation.

So, home background is everything in valuing education, along with the basic IQs of the kids. But we found when school systems started to go down, if a neighborhood changed and basic families came in that didn't value education as much, which often is low-income, and you got lower IQ students, there just wasn't much a school system could do about it. They're still fighting this battle today. We knew it thirty years ago, and we tried, but boy, the education unions didn't want to hear about this.

CK: So we're back in the service—

DM: Yeah. I learned another thing: I applied it mentally in this recent experience that we had with subprime loans. We were untouched by the subprime loan crisis in the sense that we didn't have investments in that area. When the market went down, it took personal investments down with it, obviously, but our firm was not involved in that, so it didn't affect the firm; it just makes it harder to take things public. But looking at that, I often say that philosophically and politically, I'm a very, very — have to say it three times — very, moderate Republican, and I am very much not a right wing Republican, and I'm almost as much at war with them as I am with the left wing Democrats. The only reason I don't fear them quite as much as I fear the left wing Democrats is that they'd mildly like

to abolish the government; the left wing Democrats would like to have the government completely take us over. One is just about as bad as the other.

But the point is, part of what I learned about people in the army proved to be true in this subprime crisis, which is: about 65 percent of the people in the world — and remember, I'm a guy that spent a lot of time on a factory floor; I spent a lot of time with these soldiers. When you're out there inspecting a soldier at 3:00 in the morning on guard duty in Africa, seeing whether he's awake and guarding the camp properly, you talk to people, you get a human feel, and this is a guy that hasn't had much education; maybe he has a little criminality in his background, but he's real human, and he's not one of us that are in the upper one percent of incomes in the world, but he sees the world his way. Well, about 65 percent of the people in the country, in my experience, are really pretty good people. They're trying to do right. They don't take on debts they don't think they can pay; they're pretty responsible. About 30 percent of the people are not bad, but they're easily led into trouble. They're the kind of people that can't handle money; they're the kind of people that, if you say, It's all right to cheat on your expense account 'because everybody does it'; it's all right to lie about your income tax, because everybody does it,' they'll do it; they'll be led into trouble.

I remember, every time I think of that, I remember an incident in Italy: I'm a company commander in Foggia, which is southeast Italy; I send a truck to Rome, which is 300

miles, to pick up something with four or five men. My men get drunk and are raising some hell in Rome, 300 miles away, and the MPs pick them up. I get a letter from the commands that says: You will explain by endorsement herein what your soldiers were doing roaring down the streets of Rome drunk. Your immediate reaction to that kind of thing is, How the hell do I know? They're just soldiers off away from the base.

You can't say that to the commanding general, so you make a tactical answer, say you'll punish them, but that's kind of the way people are. But you have that 25 percent that are easily led into trouble. Then the remaining five percent or so are just criminals; they are wired differently, and nothing in the army controlled them but fear. I brought a lot of those men in — because you always had four or five of them — and the problem is you can't get rid of them. Everybody thinks the army is easy to manage people, because you can command them to do things. Well, commanding people to do things is fine if they'll execute on the command, but one thing you learn very quickly as a company commander: don't give an order that isn't going to get executed; your authority breaks down. Now, the troublesome people we had — here, if it happened, they'd be instantly fired, they'd be out the door. You couldn't do that; you can't fire them. And you couldn't even court martial them and send them to jail, because in many cases they'd rather be in jail than risk — if they were in a risky circumstance, it was safer to be in jail. So you had to find a way to command them. And the point I'm making is: I said I'm a moderate Republican. Socially, I'm pretty much on the liberal side. And I've always felt that home ownership was an extremely good thing, and there I sympathize with the government in getting as

many people as possible into homes. But these lenders just went berserk; because they were getting fees, they got into collusion with these 25 percent or so of people who would not look at it and say, “I can’t pay that, I know I can’t pay it.” But this 25 percent or so type: “The lender will give me the money; it must be all right. He wouldn’t give me the money—” The hell he wouldn’t. He give the money, take the fee, sell the loan and try to have it out.

The only thing I hate worse than crooks are stupid crooks.(laugh) And a lot of our big banks were stupid crooks. And when Bob Rubin gets up and says, “I didn’t realize what was going on.” Bob, you’re either not nearly as smart as I thought you were, or Bob, you’re not nearly as honest as I thought you were. The people that got into this, they just got — it was a 1929 kind of thing. But that was part of what I learned out of the army. One of the mistakes I found that my younger partners make — and we have concentrated on getting very smart people into this firm. Another thing I did was, a professor at Harvard, Howard Gardner — I don’t know whether you’ve done a study of these. Howard wrote a book called *Frames of Mind: A Theory of Multiple Intelligences*; he’s a Harvard professor. He listed seven different kinds of intelligence. I went up and read the book, and in many respects it’s a very imperfect book, but it’s very educational in pointing out the different kinds of aptitudes in people, intelligences in people, and I was looking for a practical set of rules to look for in hiring venture capitalists. I went up and spent an afternoon with Howard, talked about that, and he readily admitted it was an

artificial breaking down. But I came out with three different kinds of intelligence, which don't have much to do with each other. This is my simplification of his rules: Think-type intelligence; people-type intelligence and situational intelligence. Think-type intelligence is just that: it's usually the kids that do very well in school. They don't always, but they're bright, they learn new things fast. I have three kids that did brilliantly in school, three Ivy Leaguers. I'm one of the few people I know that has had a child at Harvard, a child at Yale, and a child from Princeton; they all graduated from each of those schools. My fourth child was at war with the educational system; he's at least as smart as the others, maybe smarter in some respects. Didn't finish at Lehigh and didn't finish at Berkeley. But as an MIT and Harvard Ph.D. said, "he is wickedly smart, but he's just at war with the education." When he was a sophomore he talked them into letting him into graduate courses. That's "think smart." Then there's "people smart." My definition of that is a little gray man — and you may be one of these — just sits there and quietly and draws the other person out, and the other person talks and talks and talks, and you don't say very much, and you get total insight into that person. That's "people smart." I know a psychologist that I used for years recruiting people, very successful psychologist, little gray man, no personality. Couldn't lead a small dogfight, but he'd mercilessly give you insights into people — just quiet questioning, no interaction with them. They were both trainers back in the group dynamics days. You're maybe too young for that. Have you had any exposure to group dynamics? The Bethel experience doesn't mean anything to you? Okay. This is something you missed — you should read

about it sometime. At any rate, he had a psychologist with him who was a great trainer of groups but a lousy judge of people because he started to interact with them all; whether he liked them or he didn't like them would heavily color his judgment when he started to interact. The other guy just quietly sat there and observed. That's people intelligence. Every "think bright" person I know, including some of my partners, think they are smart about people; they're often wrong. They can be 99 percent high IQs in terms of things; they're very fast at grasping a new computer system or complex software or something of that kind, but reading people, terrible. The third kind is the most important in this business, in my opinion: it's situational intelligence, and situational intelligence is high-grade street smarts. It may or it may not be the high IQ, it may or may not be, but it's just kind of "this situation smells funny." I'm a street kid walking down a street, there's an alley down there, doesn't look too good, I don't think I want to walk by that, I may get bashed; I cross the street. I just smell trouble coming.

One of my partners said something that I value, and I wish I could live up to it completely. He said: "You can't get Dave interested in a business proposition if he doesn't smell money." One of my longest partners said that he'd be working on a bunch of things and come and show me, and say, "What do you think of the things I'm looking at?" And he said, "You'd look through them, and, 'Okay, if you want to,' and he'd go away." He said, "You wouldn't pay him any attention if one of them didn't smell like it

would make some money.” Well, that’s what I feel is — that’s the situational intelligence.

A perfect example of that was one of the men that I was wrongest about, which is Bob McNamara in Jack Kennedy’s cabinet. In theory, I was so glad that somebody with his background — high think-type brightness, very high think-type brightness, academically bright, and then he had that Ford experience; he was part of Tex Thornton’s gang that Henry Ford II hired. And they put them in the army, and I knew how many imperfections the army had, and I was, of course, still close to the army. And I was so pleased about that. I was involved because Walt Rostow, who became part of that group, was at the time an MIT professor, and he and I were playing tennis at the Young Presidents Organization; he was a speaker there, and he and I used to get up at 6:30 in the morning and play tennis before the classes. He invited me to his house for dinner and brought Paul Samuelson when Paul was the leading economist at MIT, and I offended Samuelson considerably by — he knew I’d been at MIT and he said, “What do you think was the greatest thing about MIT when you were there?” And I knew the answer I was expected to give, of course: it was the professors. I said the greatest thing about MIT were the students. With a group as smart as that, anybody could’ve taught them, and a lot of them could’ve taught them better than they were. Samuelson never had any use for me again.(laugh) It was true. That insight into people—

CK: Interestingly, I'm hearing, because the story you just told, you're good with people because you're not worrying about them liking you.

DM: Oh, I like to be liked.

CK: But that's not the first thing on your mind: if what you're saying is something they'll like to hear.

DM: Oh, no. I'm a very good politician, but I have a certain degree of integrity. Occasionally I've said to people, once or twice when somebody has implied that I was lying to them— One of the most cutting things I could think of to say: "I might lie to spare my wife's feelings if something was really terrible that would hurt her. Beyond that, you're not important enough to lie to." I value my integrity. I value the fact that people will say when I die, that, "He may have been right, he may have been wrong, but you could believe what he said. That if he said it, he believed it."

CK: I don't think they're mutually exclusive. You can be diplomatic, and still not be overly concerned about what you're saying.

DM: I think I've grown into this. I was a nearsighted kid, and I didn't know it until I was in the sixth grade. That's when they found it out. You tend to have a little bit of an inferiority complex when you're nearsighted. It tends to make you bookish. Nearsighted people often read a lot. I didn't get spectacle corrections. They found out because I always tried to sit near the front, so I could see the board. I didn't know it, but I just

wanted to sit near the front. The teacher arranged us alphabetically, and I ended up in a back seat, and I had had very good test scores, and then I suddenly got poor scores on an arithmetic test. The teacher looked at my problems and found I had done them all correctly, but I'd copied them down wrong. I copied the wrong numbers off, then I did the right things, but I got the wrong answers because I couldn't see. So she tested me and that's when I first found out I was nearsighted. But no, I'm at ease with myself, if this is what you mean. And remember, I'm ninety-years-old, and there isn't—

CK: For sure, you have to remind me.

DM: I've had enough failures to keep me humble; I've had enough success to give me confidence; I know how much of it is luck, how much is chance. I've had things that I did very little on that became great successes; I've had things that I did brilliant work on that became failures or didn't pan out the way I—You just keep doing the best you can. I'm not the least bit cynical in this world; I am skeptical. There's a difference. You come in and everything you're told, you're listening: Is this real? Does this person know what they're talking about? Are they sincere and mean it, but wrong, or are they trying to con me? We get this all the time. All the con games in the world have been tried, and a few have succeeded. I do feel, in dealing with people, and it's very hard to teach this—I told you earlier, my management style is coaching. It always has been. I try to improve, I try to improve everybody. I think I've generally had a good deal of success.

Oh, I was going to tell you a very successful story I had in the army about leadership:

Two things: One day the colonel called me in and said, “I’m going to make you a defense counsel.” Army battalions run what are called special court martials. There are three categories of court martial. And the officers serve. In a special court martial you can give up to six months in jail and six months forfeiture of pay and allowances.

Anything above that is a general court martial, where you can give everything, including death. So you get appointed this as an extra duty; I was a company commander, and this was a part-time extra duty. And I said, “Colonel, I don’t want to be a defense counsel.” I had the reputation of the best-disciplined company in the regiment. I said, “I have no sympathy with troublemakers.” “I don’t care, Morgenthaler; that’s the order.”

I said, “Sir, I really don’t want that job. Please don’t give it to me.” “You’re gonna take it.” I said, “All right, sir, but you won’t like what’s gonna happen.” “What do you mean?” I said, “Your other company commanders [and me] are using court martials very badly. They are doing a sloppy job of preparing them, and the men lose respect for military discipline as a result of it. They lose respect for court martials.” What the other company commanders are doing is that men create trouble, true, they’re the five percent of troublemakers. The company commander eventually gets sick of it and he throws a court martial at them, but he doesn’t prepare it very well; often it isn’t something he can prove; they may be guilty, but he can’t prove it, or they’re not guilty of this particular one, but they’re guilty of a lot of other things, and he’s just sick of it. I said, “The court martial discipline is lousy in this.” I said, “If you make me a defense counsel, I will do a

job of defending these men, and you're gonna watch a bunch of 'em walk out free."

"Out—do it." Meaning the commander. "Yes, sir." So I did it. A whole bunch of them went free, because I was absolutely right.

I got to the point after about six months — the troublemakers in the battalion would go 100 yards out of their way to say good morning to me, because they thought I was going to be their lawyer sooner or later. The nice people wouldn't speak to me. So maybe it was a little more of your point—But we straightened that out, and I only did one general court martial, and this was a bit of my view toward leadership. After that, then one day I was called in by the battalion commander, and the commander said, "The regimental commander has told me to send my best company commander up to command the headquarters and serve this company," and he said, "I'm sending you."

And I said, "Colonel, I don't want that job." I'd been used to being 100 miles from the regimental commander. I was pretty successful at building fields on my own, and I was used to—And a company commander in the army is a little tin god if he's away from headquarters. I said, "I'm gonna go from being 100 miles over bad road, and I don't see the regimental commander once a month; you're gonna seat me within 100 feet of him up there; he's gonna be on my back every day; I don't want the job." "Don't care; you were told. Go." So I reported in. One of the biggest engineering units, companies in the Mediterranean. 300 people, all kinds of equipment. I had been in there six months when

I first came in the army, so I knew a little about the outfit, and I'd been using these people out in the field.

Well, the commander, a 37-year-old West Pointer—I'm 24-years-old—I report in, "Captain Morgenthaler, reporting as ordered, sir." I'm a pretty senior veteran at this point; I've been through the whole African campaign; this is Italy, and I'd been in Italy for a while, building airfields. "Morgenthaler," 37-year-old hot-shot, he was a West Pointer, only West Pointer in the regiment, Irishman, Cassidy, his name, and they called him Wild Bill Cassidy. He later became Chief of the Corps of Engineers, he was a smart guy. Something of a shrewd—I saluted, reported, "Morgenthaler, I hear you're the toughest company commander in the regiment. This headquarters and service company is all blanked up." And he did not say "blank;" it started with an F. "Straighten it out; that's all." "Yes, sir," saluted, about-face and out. He was right, it was all blanked up. It was easy to straighten out because I had been a line commander. (I could be telling war stories and then we'll be all day.) So I called them in together, said, "Men, this is called a headquarters and service company; I've been a line company; I will tell you that what you have been is all headquarters and no service; this is gonna change. Those line people are out there, and I've been out there through a campaign not getting any service from this company. We've got the equipment; we've got the men; we've got the training; we're gonna service them." I said, "Now, in terms of getting along in this place, don't get the idea that I'm gonna treat you all like. If you help, I said, "I didn't bring you over

here and I don't have the authority to send you home, but if you help, I will do everything I can to get you home safely and in one piece and not get you killed. If you cooperate, we'll do everything we can for you; if you give us a hard time in operating this thing, we will do everything we can to you, and that is quite considerable, and we're sending one man home a month." The army was smart enough to, out of 300 men, you know, they'd draw lots and let a man go home, or the company commander picks a man. I said, "You're aware and I'm aware, some companies send their troublemakers home to get rid of them." I said, "You can count on it that will never happen here. If you are a troublemaker, you can forget it; you will have a long, gray beard before you get home because I will never reward troublemaking by letting you go home."

So that ended that, and the morale and discipline performance just shot up. I was given superior ratings as a commander, and I was offered regular army commission, which I nearly took, because the regular army officers got the best jobs. I was a senior captain with superior ratings, so I would've been — as it was, a colonel. I came home at twenty-five and they were going to put me in a job that would've had me a lieutenant colonel by the time I was about twenty-six, and in the engineers that's very rare. But bottom line, though, we had one experience — and again, this is the way I feel about and leadership — you're a headquarters and service company, you loan your troops out to various staff officers. You were their boss, but they did their work for the day for the various staff sections, who are not really the boss.

We sent one out on a scouting party. By that time we were well behind the lines. We sent them up to the lines, near the lines on a scouting party, and they were in an abandoned house, and they had some trouble. They had a young, green lieutenant in charge who was no leader, and came back and he'd gotten into a fight with some of the men in the detachment, who were under my administration, but worked for the staff section that he was there. So the colonel called me in, and this was the second colonel, not the first one; Also a very good one and a very major guy in the army. I was lucky to have two good colonels. And he said, "Morgenthaler, I want you to court martial two of your men." I said, "What for? What's the charge?" He said, "Well, they got into a difficulty with the officer, and he wants them court martialed."

I said, "Well, what charge do I charge them?" He said looting. I said, "Looting?" This is late in the war. I said, "Colonel, that's the silliest charge I can think of. Looting?" I said, "Where do you think we got the piano in the officer's mess? We looted it. Where do you think we got half the furniture we have around here? We looted it." I said, "All of us are guilty." "I don't care. These men—" I said, "Well, what are the circumstances?" Well, the men had had an argument with this lieutenant. He put a room off-limits. They had some very cheap dime store-type scarves in there, you know, the sort of cheap women's, the poorest dime store you can think of. They're all over Italy, there are millions of them, and they're dirt cheap. There were some in their room.

Those scarves were seen later in the men's packs outside the room. They were never seen in the packs, they were never seen in the room; they were never seen taking it out; no way of proving they were the scarves that were in there. I said, "Colonel, you cannot possibly... I have been a defense counsel; you cannot possibly make that charge stick." "I don't care; I want them court martialed." I said, "Well, sir, I'm a troop commander and I have some standing with my men. They know that they must do their duty, but if they'd done their duty, then I will protect them, I will do my damndest for them. And with all courtesy, sir, you cannot lawfully order me to court martial these men and I will not do it. And furthermore, if you do court martial them, I will volunteer to be their defense counsel, and I will guarantee you they will walk out free men." I had defended enough people to know you can't make this stick.

Well, so he got somebody else to court martial them. We went to the men, they were court martialed, general court martial. They could've been shot. General court martial. We went to the men and said, "We do not know whether you're guilty or not, but we do not think this is a legitimate charge that can be proven, and if you want us to defend you, we will defend you." Well, you don't have to have—You could have a professional. Well, one of the men picked me; the other man picked his boss to defend them, and then they asked we conduct the trial together. And so we had the trial, general court martial, and anything can be done. Thirty-five minutes, acquitted. We walked out together and the colonel said, "Goddamn you, Morgenthaler, let's go get a drink."

That's the way I feel about people. And of course, I had talked to my first sergeant and said—I had a very good first sergeant—and said, “Sergeant, go find out what really happened here and come back and report to me.” He said, “Sir, they're all guilty of looting, including the lieutenant.” I had told the colonel, I said, “If you court martial everybody, including the lieutenant, I will prefer that, but I will not single those two men out. This is just a fight between them and the man.” Anyway, I told you if you got me in war stories—

CK: I think it says a lot about what you took from that experience, and I'm sure applied it in your work. And that's why I think this is relevant to your story.

DM: As I said, these are later in life learnings that I just applied that fraction of people to this subprime crisis that we've been in here. And where I was wrong on that was that I'd been a strong believer in—as the government has been—in getting people into housing. I feel that it's a great social stabilizer. But I do feel that 25-30 percent rule comes into effect where these people—I would never, you would never, the comparable people—you would not take on a loan that you were not pretty sure you could pay. I've borrowed a lot of money in life. I got my first credit when I was twenty-two-years old. I went to a local bank and got a little credit—no guarantees, no nothing, just talked them into lending it. And I borrowed money, a lot of the money that I've made has been made because I borrowed money. I'm very used to it. But never failed to pay it back, never failed to pay

it back on time. Never remotely—only once, a joke in our family, probably we got a little richer a little earlier than we expected. My first company that I made any real money out of, the owner wanted to sell some stock, he wouldn't give us options, but he wanted to sell some stock, and he was willing to, in effect, get paid with a subordinated loan. He sold us the stock, and the bank loaned what it would on it, and he loaned us the rest. I didn't have any money. So I borrowed it. I figured out what I thought the bank would lend me, and then I asked about half as much again. Went to the bank and asked for the amount, and they gave me the whole amount, and I didn't expect that; I expected to get cut back a bit. I was ashamed not to take it, so I took the whole amount and bought the stock. Then we had a joke in the family that for about a year or two my wife was hiding from the paperboy because we were paying the loan back, always on time, and all the rest of it, until my salary and bonus came up, while she was having to hide from the paperboy, practically. Money was pretty tight for a while. Now, that eventually, that stock, in a few years it was paying me as much in dividends every year as I had paid for the stock. In other words, it was a 100 percent return on investment. And the stock went on up and I sold it eventually for a lot of money, when the company was bought; I didn't sell it 'til the end. Lord, we have spent a couple of hours me telling you stories.

CK: You were just talking about that although you thought of your army years as wasted, you realize how much you got out of it.

DM: From industry source knowledge, I felt that if I had my life to live over, I would not spend any time in the power plant industry; I would not spend any time in the porcelain enameling and stamping industry, which is the first company we started; and I wouldn't spend any time in the Army. I had a very successful career in jet aircraft fuel injection nozzles and a very successful career in metallurgical chemicals, and I made a good deal of money in both of those. I made the money that enabled me to start this business, because I'm one of the comparatively few venture capitalists that started with nothing, inherited nothing, and made enough money to start his own venture capital firm, using his own money entirely. I had no outside money in the firm for thirteen years, until we were highly successful and didn't need it, but we put a fund together because we were able, based on our successes, to literally raise the money by telephone. I phoned and invited a number of people, and not a soul turned me down, everybody I invited put money in.

CK: Can you just imagine having gone from MIT into business, missing the Army? Would your life have taken a different course in any way?

DM: I probably would have been a vice president of a medium-sized company, maybe president. Getting to be president of a company like that partly is being the right age when the vacancy comes and that kind of thing. I'd have made a vice president pretty easily. I could've easily gone to General Electric — they had so many vice presidents, I probably would've made that.

CK: Would that have been a satisfying career for you?

DM: I'm awfully glad I didn't. There were a lot of times along the way I wished I had.

CK: You got married in 1945 to Lindsay Jordan. You were just out of the Army. How did you plan to make a living?

DM: My old boss wrote to me while he was in the army that he was going to start—he had been running a porcelain enameling and stamping plant during the war, and he felt that there was going to be a large market for porcelain enamel, rationally, because it was the only finishing material that had held up. We had four years of not making any consumer goods, and all the paint finishes — just things rusted out, and there were four years of not making any automobiles. The only things that stood up were porcelain enamel finishes.

He's dead now, I'll bet, but he had been my boss before the war. He started this. He put together a dream team of five people, with me as, by far, the weakest. I had no experience in the industry. The other people all had—he had the leading technical man in the industry, he had a leading production man, he had a leading plant engineer.

CK: And your responsibility was—

DM: I was to head sales and marketing and application engineering, and we were all at the vice president level. The problem was the team fragmented. The number two man, who was a technical man, a pretty knowledgeable technical man, got into a fight with the number three, the production man, and the number three man got fired, and the quality of

our production went down. They hired a weaker replacement. Then the number two man, the technical man, who was quite moody, got into a fight with the boss, and he got fired, so we lost our technical talent. The boss did not really replace him. Then I had a small salary and an uncapped commission, and because they felt that I'd have trouble selling, I wouldn't have any trouble, they didn't cap the commission, and I persuaded an outside plant to buy equipment, and I persuaded a customer to pay for some tools, and I got my father-in-law to get us some steel, and we were able to do a lot of business where we were having work done outside, passing it through the plant, and not having to do very much work ourselves, and it was relatively low quality, so that we were able to handle the production problems. When we came down to it, in the army I had had, with 300 Americans and I had 600 Italian civilians in two factories reporting to me—I had really run a bigger operation than the boss had in this, and I felt he had sort of a Cub Scout attitude toward everything. We did things like we went in, and when the furnace lining was in trouble, the executives went in, we went in and re-lined it with 400-degree temperatures around us. I used to go out and make sales calls in the morning and go back at noon and put on coveralls and lay concrete block, building the plant. I didn't have any particular objection to that, but it was all do-it-yourself. Because people would perform badly, we'd go out on the line late in the afternoon and help with production.

Well, you need to do some of that when you're starting up, but we were having to do these because we were tolerating people doing poor work. I got this straightened out and

then suddenly I started to—the other two guys had been fired, and it looked like we might go broke for a little while, but I got this work in with the outside work, and I did that entirely alone. And then along with my unrestricted commissions, I started to make more money than the boss did, and that wasn't tolerable.

CK: Where were you living at this time?

DM: Erie, Pennsylvania. So they demanded to cut my commissions back, and I had no money. I refused to accept that, and they refused to honor the agreement that we had, and I left at that point. I got another job. I was the third man of the five to go. What had proven to be was that the world—it seems silly today, but at that time, there actually was a factory started in Columbus, Ohio to make porcelain enamel houses, make the entire house out of porcelain enamel. Rationally, it's a very sensible thing to do because nothing wears out, it never needs paint and it always retains its luster. All you have to do if it's the least bit dirty is wash it. To repaint your house you just turn a hose on it outside. But the problem was people didn't like porcelain enamel houses, and the company was named Lustron; it went out of business. But I felt it was not getting anywhere. I had never liked the feel, but that's one of those sectors that I said I felt I wasted my time in.

CK: But along the way, how long were you with Lustron?

DM: I wasn't with Lustron; the company was Ervite. Lustron was the name of the company that made houses. I had nothing to do with it. Simply, people are incredulous today that

anybody would dream of making a house out of porcelain enamel. Totally, I mean roof, everything, the sides, the whole—

CK: And they never have done it, right?

DM: Lustron went into business, took a government factory over and set it up.

CK: You're pretty young, you're out of the army.

DM: I'm twenty-five.

CK: What were you learning about yourself? Are you learning something about yourself that you want to do, don't want to do?

DM: Well, I went out and sold for a company that hadn't started yet, got contracts, got jobs, got on the road, used an old pre-war car and had all the struggles that we had there. Had struggles getting a house and a place to live. Had a child about eighteen months after we were married. Didn't have any money. Parents were not in a position to—neither mine nor my wife's parents were in a position to help very much. And so we struck out on our own.

CK: What were you learning about your business skills or what you wanted to do? Did you have the luxury of thinking about what you wanted to do, or what was going to be your next job?

DM: I wasn't planning for another job at that point. Leaving was a shock. I was angry and felt mistreated when they wouldn't honor my commission. I was perhaps irrational in thinking, in the mores of that day, you could make more than the boss. Today it would be very common, I mean, for a highly producing salesman, producing as I was. I'd done everything that kept us in business at that point—persuading the outside plant to get the equipment to make this stuff; getting the steel from my father-in-law, and finding the customer, and getting him to pay for the tooling on it. So I kept us alive, and I didn't feel I was given adequate credit for that. And then the other thing was anytime somebody cuts my pay, I always was hard to get along with on that subject.

CK: Where did you go next?

DM: Well, I needed a job, and I had a wife and a child by that time, so I had to take a local job. I took a local job reverting back to the power plant industry, nearby. In Erie. I spent several years being a serviceman at—the bright young guy that supposedly headed up in an old-fashioned company that had been the very promising company in control equipment in power plants, and I became really an engineer; I practiced engineering for three years, and service application engineering, factory, spent some time on the factory floor, making the equipment, learning how to do it, a lot of time out, servicing it in the field, repairing it. Went all over the country; we had some new equipment, and I gave a series of lectures up and down the west coast. Very successful, except weren't paying me very much.

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CK: You were living in Erie and you said you moved to Iowa in a new position. Obviously you were out of a job at this point.

DM: I left the porcelain enameling company unexpectedly, had to look for a job, found it locally. Then I got into the new position—needed a job, so I took a local one. Had a very hard time getting good advice, at that point. One of the things that's been one of the hallmarks of my life is, since that time, I have been very willing to take time and give young people advice. I get called on to advise a lot of people, free, but there's a picture around Cleveland that every business activity of any major nature flows through here. It isn't true, but there's sort of an impression that there is. So executives are being transferred out of Cleveland whose wives don't want to leave, and that happens. One of the interesting things, digressing, about this neighborhood, is when people get transferred in here, the wives often come to Cleveland kicking and screaming — they don't want to come. When they get here, they find what a nice place it is to live, and outside of our cloudy weather it's nearly ideal. Then the husband gets transferred out and they don't want to go. The schools are good; the medical facilities are some of the best in the world; it's an easy place to live; people are friendly; there's lots to do. So they don't want to leave.

So their husbands come in here looking for jobs. What do we know about? They think we know more than we do. I talk to a lot of these people. And my point is, I tell people

regularly — I ask them, “What’s the hardest thing in the world to get?” Many of us say “borrow money.” No, it’s easy to borrow money.

The hardest thing in the world to get is good advice, because—and I’ve developed a saying on that that illustrates it: Why is it hard to get good advice? Because those who love you usually do not know what you should do, and those few who know what you should do usually do not love you enough to take the trouble—

So you have a very hard time getting the two together — somebody that cares enough about you to give you good advice, and also knows enough that the advice is worth anything. Nobody loved me better than my mother, but her business advice was absolutely terrible. Fortunately, I never took it, never paid any attention.

CK: So you didn’t have that person, the Dutch uncle, or that person to turn to who was going to—

DM: I did not. And I’m the kind of person that likes to talk to people and talk things out and have inputs, and I will consider input. I don’t have trouble making up my mind. My wife has been frustrated with me many times, because I can have to make a decision at noon, and I can go up to — 11:30, the day before she says, “What are you going to do?” “I don’t know, I’m thinking about it.” And I can go up to one minute to twelve and then make a decision, and I’ll make it on-time and so forth, but I can keep an open mind as long as it’s not the time to make the decision. I’m not indecisive, but I can keep my mind open. Many people can’t stand indecision. I asked this great psychologist that I was

talking to you about once, he said he had hired what was a huge number of salaries for one of the companies of that time. I asked him what were the characteristics of a great executive? And he said, “Not what you would expect.” He said one was role flexibility, the ability to play any role you needed to play. I’ve forgotten what the first was; I’ll have to think about that. But the third one was an ability to bear uncertainty. And believe me, in my opinion that is one of the—And the other thing is, as a manager, I always found and I always teach: a manager, a leader walks in in the morning, and you basically look at what your people—your people need one of three things: Most of them need their hand held. In other words, they need to be led and shown what to do, coached. A few know what to do and just aren’t moving. They need to be encouraged, patted on the back. And a very few need a strong kick in the tail. And the leader has to diagnose what the person needs, and impartially and capably give them any one of the three, and don’t get mixed up. Don’t kick the person that really only needs coached. You ruin that. At the same time, if you’ve coached and coached and coached, and the person just needs to be kicked, then you’ve got to have the fortitude to administer the kick.

CK: So you don’t see these as negatives; you just see these as personality types, in a way.

DM: Negatives?

CK: Yeah, that the person that isn’t a self-starter, who needs a little coaching, isn’t viewed in a negative way.

DM: Well, you're a manager leading a team. You've got to extract from that team performance; it's management. Another thing is it's the art of getting extraordinary results out of ordinary people. And you've got to get the absolute best out of people. If you give Sally a severe criticism of some kind, it'll crush her. At the same time, she's a southern lady; she's very eager to please; we have an agreement. We are here, we come together to do some work. The work must be done, must be done in high-quality, best standards. Then there's you and me and then there's this piece of work, and we're talking about the work, we're not criticizing your personality; I'm not attacking you; we talk about the work. If she leaves a comma out, I'll show her. I'm a very good proofreader; it's just a useless knack. I'll show her. The point is, that's the work that needs improved. And what I've said is not, "You're worthless," not, "You're careless," but, "There's a comma missing, so put the comma in. And I value you very highly as a person and pay great attention to you," and all that sort of thing, but the work's gotta be done, gotta be done right and on time, and this is fine.

It is not, you're careless, it's missing a comma; we don't miss commas; fix it." So we come together to do some work. If we don't do the work to high quality, the reason for coming together's going to disappear. So that's what most people need. Need some pleasant bluntness, and I cannot get people to—They think if you have to get blunt, you have to get unpleasant, you have to get mad, won't get people to just face facts.

That's how I look at it. Managing — you just come in there and you figure out— I wrote an article for the Sloan School, which they published. I published a condensed version of

it. It has a lot of my views on what an executive needs to do to be successful. And the things that if you don't get done—an executive's job to me is come in and see what needs done, and see to it that that gets done. You're paying attention to what's the mission, what's the goal, what are you trying to do? What constitutes success? You prepare plans, you assemble the resources, you get the people. You coordinate, all the rest of it, and then you are constantly inspecting, and you get everybody else to do anything you can. If you can't get anybody else to do it, you have to do it yourself, and there are a few things you have to do yourself, but the one thing you cannot do is let it fail to get done.

I had a principle in the firm for, pretty much, which is we had a problem, we come together as a management team to solve the problem. We see the problem, get somebody to state it, and then go around the table, ask the people, starting with the juniors, What would you do? And the only way they can get into trouble is if they don't say what they really think — if we catch them — they're not allowed to come back and say, "Well, I really didn't think this, but I didn't want to say so because I'd be in trouble," or whatever. Then you are in trouble. I've taught them totally ignore what they think I think, because if I think they, I know they disagree with me and they're fudging on that, I'll pull that out. I want to know what they really think. I said I think I've been too successful because they not only don't mind saying what I think; they don't even care what I think. They were so trained to say what they really think.

CK: You were talking about not having an advisory, and here you had to go and decide on the next job you were going to accept. Which direction you should be going in.

DM: I do and have since, as my pro bono, I will give time to students in particular, early stage people. What I really hate is to have somebody who's 55 or late 50s come in and say, "You know, I'm a junior vice president of this great big company, and what I've decided to do is that what I really wish I'd had is that I run a small company, and since I've been a junior vice president of a big company, I'm easily qualified to be president of a small company." Which is absolutely silly, but many of them will start that. "What do you think I should do at this stage of the game?" Then you come out, "I'm being laid off," or, "I've been told I'm not going any further, and I want to tackle a new job." And I said, "Well, what company do you think you ought to buy?" "Well, I don't know. What job do you have for me?" "What sort of business do you think you ought to go into?" "Don't know; what kind of job do you have for me?" "What do you think is a coming field?" "I have no idea; what kind of job you got for me?" "What's an outstanding supplier to your company that—?" "Don't know; what's open?" Then you say, "What company do you think we ought to buy and have you run it?" "I have no idea; you ought to know that kind of thing." Oh God, that's what I hate, because you just tell the guy, "You're 30 years late." So I'm a strong believer in advice; get it early, get somebody. So part of my give-back in life is to give time to people in regard to that.

CK: So you moved out to Iowa, you were telling me.

DM: Seven years.

CK: What were you doing there?

DM: Building up this jet engine component company; my wife hiding from the paperboy.

CK: You said something about seeing an industry early, which I thought was very interesting.

DM: Anybody in this business ought to understand the S-curve theory, which I think was articulated by Princeton or MIT writers in the '60s, heavily written up in the '90s by a McKinsey consultant. Everything about a human being: a baby's born, grows rapidly, child goes through a high-growth period, levels off mature, runs along for a long time mature, heads down. This is true of industries anywhere. There was a day when making buggy whips was a very respectable business; making buggies was a very respectable business. You don't sell very damn many buggies anymore. That industry metamorphosed into the automobile industry, and there were 2,000 automobile companies formed. There are more or less three left in America at the moment, and the foreigners, and it's true of anything you think of. The canal business was pretty—I look at it this way: A way of looking at history is: if it was 1700 and you were European and you wanted to better your economic station in life — you didn't own any land or you weren't part of a noble family or whatever — wanted to better your economic station in life, what did you look for? Opportunity? Go to America.

Skip to 1820. You wanted to get into an exciting growth business? Get involved with the canals; that's where the innovation came. 1840—I may be wrong on the dates, because I haven't historically researched it, railroads. 1860—telegraph. 1880 or so, somewhere in there, telephone, electrical industry, street lighting, those kinds of things. 1900 — you didn't get involved with the automobile industry, you were an idiot; you missed the greatest opportunity. And the automobile industry just went straight up. Huge. All kinds of places you could go: automobile industry, tire industry in Akron, glass industry in Toledo, but all automobile-driven. All these were the opportunities.

Since then, everybody that's tried to go in the automobile industry knew — except the Japanese — are idiots. We watch people trying to start automobiles now — electric cars. I'm strongly doubtful — some of the West Coast boys conned the government out of a lot of money, but I am unconvinced that those are going to be survivors. They'll be a special small model kind of thing. But I've seen too many people try to start automobile companies. I think it's too late. Anyhow, maybe one of them will survive. You would not have thought a Google would've survived against the companies that went in, but it has, and so every now and then one makes its way up — maybe one; it won't be ten; it won't be five. So you look for these opportunities, and the opportunities come and they go, and what somebody my age in diversified industry sector experience realize is, those opportunities are not there, then something opens them up, something enables them, and then they bloom for a while, some of them run up their S-curve, some of them never go

up the S-curve, it never goes anywhere. All of us have something we thought ought to have panned out — bubble memory, for example, was one that I watched for a while and I thought that was a real mover — just didn't go. It never took off. Had a friend that watched the atomic energy. And the atomic energy has been a place that in 1945 when the atomic bomb was exploded, I thought, "My God, this revolutionizes everything; even my wristwatch is going to be atomically powered. Everything I learned about thermodynamics and power generation is wasted; I better go back to school on the GI Bill." Fortunately I didn't do it; would've been a big waste of time, because the atomic energy field, by its nature, has offered very few opportunities. Westinghouse, GE, and a few big European companies, but it has not produced the opportunities.

The invention of the semiconductor in 1947, for example, greatest opportunity probably the world's ever known. Nothing but the automobile compares with it in terms of enabling. Now, I give you a box of loose semiconductors, and you look at it and you say, "What's this? What do I care about this mish-mash of stuff you've got here?" But assemble those into a television set, or to an iPod, or to a computer, and benefits the world, greatest the world has ever seen. So it's what the semiconductor enables, and the semiconductor has been the greatest enabler that you can just possibly think of. I was in school just before it was invented, and everything we had to do, we had to do with vacuum tubes. So many things we couldn't do with vacuum tubes or weren't practical, when the semiconductor came along, it replaced them. I was out at Silicon Valley in

1949, giving lectures for this Erie power plant company. I talked to every technical society up and down the coast, there was a bunch of them. I gave several lectures in San Francisco; I was about twenty-nine. I was on the Stanford campus on a Sunday in January. My wife and two children were back in Erie in six feet of snow. I'm out there, January, beautiful day, beautiful Sunday, walking around the Stanford campus; boy, what a nice place; love to get a job here. So I inquired around with our representative, and he said, "Hm," they said, "Well, we'd love to have you, but we could never afford you." I had a good job in Erie. "We could never afford you." Our company regarded them as a little, "This was San Francisco diddly-poo, backwash." Real markets were Chicago, Pittsburgh, Cleveland, New York, St. Louis and overseas—we sold all over the world—but this was, San Francisco, little backwash, power plant, power generation and a few little things. And they said, "If you want to raise fruit or pick grapes, great." 1949. Nobody even mentioned Hewlett-Packard, who, they maybe had \$5-10 million in sales. And I look at it, and I had a pretty decent salary, but a phone call home cost about five percent of my month's salary. The airplane, if the company weren't paying for it I could never afford the airplane ride. The families are on the East Coast, everything—I forgot about it, went home. 1955, Bill Shockley moved out there. Why did he move to Palo Alto? He went to school there and his mother lived there. I decided one of the biggest factors of deciding where a new industry locates is where Mother lives. Because Bill Gates started Microsoft, where? In New Mexico. When the company was sold down there that he was trying to sell to, where did he go? His father, his mother said, We'll

finance you in starting a company if you come back to Seattle, so he went home. He was a sophomore at Harvard when he started this.

CK: That's an interesting theory.

DM: You get down to why did they get started there, you often get to for some reason like that. I was five, six, seven years too early — wrong time — opportunity wasn't there.

CK: But you had the wherewithal to see something; it just wasn't the right time for you.

DM: Yeah. I'd been at Foseco, the metallurgical chemical company — we went public in '64 — and very happy up until then, and that's the first time I had some money.

CK: How did you get the job with Foseco? This was a Whitney—

DM: Whitney was looking for somebody to run one of their earlier companies. One of the reasons I have been involved in venture capital a long time is that one of the young Whitney partners had the same course at MIT that I did two years later. He knew me.

CK: Who was this?

DM: His name was Nat Owen. He was one of Whitney's bright young partners. Whitney went out after — Jock came home from the war. You know that story?

CK: No.

DM: Jock was a colonel in the Air Force, in intelligence. He was in a bomber; it was shot down. He was on some kind of intelligence run. He was shot down, captured by the Germans, and with two Americans, made a prisoner. The Germans asked him what his occupation was, and he said, “I guess I’m a capitalist.” He had inherited family money. The Americans were sort of shocked, almost more shocked than the Germans were about this. He came home and he resolved, at least as he told the story, he resolved to take his fortune — he had supposedly about \$40 million, which was a big fortune in those days — and he divided it: two parts he put into conservative investments, one part he put into the John Hay Whitney Foundation, and one part he put into JH Whitney, which was to be a venture capital firm. Now, he had done some kind of angel investing before the war, as such, but he hadn’t been an institution. And he got a bunch of his friends, who were mostly heads of big companies and various types of businesses. None of them were what we would regard as venture capitalists. Then he asked about some younger people, and somebody told him about Benno Schmidt — you know Benno?

CK: I know about him. I spoke with Walter Curley.

DM: Well, Walter was virtually Benno’s protégé. Benno was a very good friend of mine, because Benno hired my son later, and Benno and I knew each other casually long before that. But we became friends in his later years, particularly. Loved Benno. He never spoiled a story by sticking strictly to the facts, but he was a wonderful Texan.

Benno had been very successful as a lawyer and been very successful in the Army in England. A couple people told Jock about him, and Jock went down and hired him.

Benno came in and hired a bunch of— Benno had been a dean of some law school when he was about 30 years old. Benno was a little older than I am.

So Jock hired him and then they went out and hired about a dozen bright young men with two or three years out of school from primarily MIT, Harvard, the best schools kind of thing, the bright young men. He sort of turned them loose, and the Whitney partners — the partners were Jock's friends, and they were like Dick Kroft, president of Great Northern Paper, and Bill Jackson I think had been a manager/editor of *TIME* or managing person at *Time* Magazine or something, had that kind of people in there.

Most of them didn't know beans about particularly high technology venture capital. Nat Owen was one of the bright young people out of MIT, same course I had; a couple years after me, knew me better than I knew him, because I was younger than that, but I was way ahead of him in school. They hired him. Nat proved to be a good partner at Whitney. When, in 1950, they made an investment in a company and they were looking for somebody. And , by that time, I had listed my name for placement with MIT, and Delavan [Manufacturing Co.], the company I was with, had actually found me through the placement department at MIT, and I had just gone to work for Delavan, just a few months, and Nat looked me up and asked me to join his company. And I looked at it and turned it down. I wasn't too interested in the company, but I was quite interested in what

Whitney was doing. I had never heard of a venture capital firm before. Whitney had been formed in '45; Jock had founded his company.

And an interesting story, very few people know: Last year or two or so of his life, I'd say, I was in Benno's office one day, and we were talking about the founding of Whitney. Theoretically, Jock had put \$10 million into founding Whitney, which sounded like a lot then. Ten million sounded like all the money in the world; You could start a company for less than \$100,000. We were talking about that, and Benno said to me, just the two of us across his desk, he said, "You know, I was looking up some of the old records the other day, and I found where Jock put \$5 million in," he says, "but I never could find where he put that second \$5 million; I'm not sure he ever put the second \$5 million into the firm." Because they caught Spencer Chemical very quickly, and that was kind of a build-up; they took a government plant over and built it up. I'm not sure Jock ever put more than \$5 million in.

CK: I'm glad you corrected the record.

DM: Well, we don't know whether he did or he didn't, and I don't know. Well, this was long after Walter Curley was gone from Whitney, so I'm not sure. Benno didn't know, and Benno hadn't found it, so Lynn and Waldo wouldn't know either. Anyway—

CK: So they're wooing you and—

DM: Whitney was wooing me. Whitney came back about four times in the next seven—we had a seven-year courtship. They came back with about four companies, about every two years they came back, and finally I said, “I don’t think you guys think much of me.” “Why not? We keep offering you jobs.” “Well, I know, but these companies you show me are dogs.” They said, “You know, we have had trouble with everything you turned down; maybe you do know something.” They came back in ’57 with Foseco, said, “We got one this time we don’t think you’ll turn down.” They offered me the presidency of Foseco, and I was at a stage then—Delavan had gotten to be very successful. That’s a long story of strategy, and I did some things there I was proud of, and Delavan had told me that I’d be the next president. And we were getting along beautifully, and finally got the paperboy paid and made enough money that I was very comfortable, and we were going very nicely. And they had told me I’d be the next president, and I said, “Well, fair enough, but you got a perfectly good president and he’s only 45 years old.” “Well, we’ll make him chairman and you be president.” Foseco offered international operations, it offered a chance to get closer to Whitney, because I thought that if Foseco didn’t work well, then I could move into some of their other operations. But it opened up the scale, and I was just ready to be president. We had a surprisingly good management team. We supplemented each other very nicely. The chief financial officer, who was sort of a full partner in the operation there, we were the aggressive ones; the president was very conservative. Nelson Delavan, who founded it, was a visionary, an amazing guy, a remarkable guy in many ways. One of the most important decisions we ever had to

make: we were sitting in a conference when he was chairman — we were making an almost “bet the company” kind of decision, and we debated it back and forth for a while, and then he got up and said, “Well, I’m leaving for my plane; let me know what you decide to do.” Wait a minute, where are you going? We haven’t decided. “Well, it’s up for you to decide. Tell me what we’re gonna do.” And he left without knowing what we were gonna do. We made the decision, “bet the company,” and won. But those were life and death decisions, and we had ups and downs, but I got on very well with it.

But Whitney ended up hiring me into this British company. And I visited the company, and the day I visited the company they had a fire. Had a little plant down in Columbus, and I went in and took it over. The British had done almost everything wrong. The company should’ve been here; they put it in Columbus. They had brought in an Englishman, then they found an American they fell in love with, and they hired him. He was one of the most convincing guys you ever ran into. And then they told the Englishman and the American, “You’re competing for the presidency.” You can imagine what — of all the stupid things to do. Then they finally decided after they watched them for a while, they didn’t want either one as president. Then they hired me. This is what they hired me to do. The English were sort of half-scared of their people over here, scared they’d leave, so I had to do another one of my army-type experiences, go in there and straighten out this armed camp that went on.

The American they'd hired — I learned a good deal just dealing with him. The first day he picked me up — he was an absolute knowledge encyclopedia about the steel industry; he knew more about the steel industry than anybody, could just recite off names, backgrounds, children's names, wives, capacities, everything — and was driving me down to a plant that was about an hour away. The first half-hour listening to him, I started to question him, and I was listening. I thought that they made a mistake in hiring me; they should've hired this guy; this guy really knows the picture in a way I'll never know it. I'm not out of the industry; I'm thirty-seven-years old." That's thirty minutes. Fifteen more minutes, I was making bets with myself whether I was going to fire him before I got to the plant that was fifteen minutes away. He just went off the rails, he was just that kind of guy — an encyclopedia of knowledge and no judgment whatever. He was creative, he was inventive, he knew a ton, but he's one of these people that knows everything and understood the value of meaning of nothing. I demoted him, kept him. He was always bitter, never left; was still there when I left eleven years later.

CK: Why did you leave Whitney? I know you were there eleven years, you left in 1968?

DM: Well, I told you earlier, yeah, Whitney sold out in '67.

CK: They sold Foseco.

DM: They sold. They made a huge amount of money, cash on cash. Small amounts of money, but large returns. They were very happy. We had sold out to the British. I had public

stock in the London Exchange from '64 on. I was tired of shuffling back and forth to England in the first place; second place, I thought the product line was mature. I felt that there were a number of technical developments coming in the steel industry — they're changing the way they were making steel. We had nothing to do with that, but it was not good for our business — it was drying up some of our markets. The British were using some materials I wasn't happy with, and I'd gotten very active in the Young Presidents Organization. I was the first international senior vice president of the Young Presidents. They asked me about being president of the Young Presidents Organization. I had to turn that down because you really have to own your company to take that job on, because it takes so much time. But I did every other job but that in the Young Presidents. Then there's an honorary group called the Chief Executives Organization, where they pick the cream of leadership out of YPO and invite only those people into it. I moved out of YPO about the time I started my own company. I was president of my own company and was taken into this honor society. I was asked to be president of it also, and I did take that on. That's the chairman or CEO, and that's sort of the cream job, because there you are a president of the pick of YPO. So I took that job on, and I was president of it.

CK: Is it with the Young Presidents or with this executive group that you admitted the first Jewish businessman?

DM: Oh God, that got out too. Somebody pushed that. That was local. I admitted the first black nationally. I led admitting the first Jewish guy locally. Somebody put that

someplace. One of my sons, I guess went into Wikipedia or something. I'm always concerned about releasing that story. Anyway, but it's out. In the local chapter, I was chapter vice chairman, the chairman, YPO got a Jewish president in New York. We met at the Union Club. At the time the Union Club wouldn't admit Jews, but they had a policy that they could come to meetings there, but they couldn't be members. I was a Southerner and I had been through all the segregation end of—Lord knows I was raised a segregationist, but I thought this was silly. So the national president put pressure on the local chapter to admit a Jew, and we'd never had a Jewish member in the chapter. The chapter chairman was an investment banker, locally, and he didn't want to antagonize anybody, so he went to Florida. He had to be out of town the night we were going to take the vote, and he said, "You handle it." I'm vice chairman. So I run the meeting, said, "This is silly; admit the guy." We admitted the first Jewish member to the local chapter. Several years went by, and I am made national—this was before I was senior vice president, I guess—but I'm membership chairman for YPO for the world.

A Jewish member and a fuzzy head out of the Philadelphia chapter — somebody invited a black man to speak at a convention in Puerto Rico. There was an uproar on that, and they won't let him come to social events. But he comes anyway. I mean, he comes to the convention and doesn't come to the social events. A bunch of us are annoyed. First, the question about inviting him in the first place, but inviting him and then making him sit home, we think this is silly. So then somebody gets upset about this and goes out and

recruits a black man. They don't go to their own chapter, Philadelphia, where he'll never make it; they take him to the New York chapter, and they're bringing a black man in. This comes to me as the national chairman, and I say to the executive committee, "All right, fellas, we've never admitted a black man; what's the policy here?" Well, the policy is — the president gets up and he was and became a great friend of mine, but I never saw less guts in anybody. He said, "The policy says you decide." I said, "You mean the committee won't take a, the board will not express an opinion on this?" "No. The rules say you decide; it's up to you." I said, "All right, I'll tell you. You better mean this because what's gonna happen is this: I'm gonna interview this guy. If he is just another president, wants to become a better man through education and idea exchange, which is our rule, he's in; if in my judgment he is a torchlight, he's just a buster of organizations, he doesn't care about us, he doesn't want to be a good member, he doesn't want to act like another president, he just wants to bust the organization, break our rules about publicity and everything else, he's out, and I don't care who is unhappy one way or the other, but that's what it's going to be."

The southern chapter leader calls me up and says, "If you bring this man in, the South — which were a lot of strong YPO — was going to secede. "We will secede from YPO and form a separate organization." He was from Atlanta. I said, "Come on, you're a Southerner; I'm a Southerner; don't give me that southern crap. You're not gonna secede." I said, "You may convince some New Yorker of this, but remember, I grew up

in South Carolina, and this is garbage.” So I go see the guy. He and his wife, a very sweet guy, he’s a very straight, he’s black as the ace of spades, but he’s a very straightforward, honest guy and so forth. We come back and we admit him, as we should, and we bring him to the first convention and then make a pet out of him.

CK: What year was this?

DM: Somewhere between ’65 and ’67 or ’68. I acquired a lot of respect for another man, Bo Callaway, who was congressman from Georgia. I called him up and said, “Bo, I want some support on this.” And he said, “Dave, I won’t tell you I like this and I’m happy about it,” but he said, “it’s the right thing to do. Admit him and I’ll support you.” He did. Today it seems silly.

CK: I know, but it was history — history-making, certainly in the organization. So Foseco is sold and you—

DM: I sold out, largely, and I would say it was a disagreement with the British, and that I wanted to do acquisitions. They originally agreed that I could. Litton Industries crashed, the investment bankers told them that the market was over, that it was a conglomerating era. They said they wouldn’t do it; I told them I would leave if they didn’t. So I left. You could make a point even they fired me, because they knew I’d leave if they said no.

CK: This is your pattern. When you don't get what you want... I don't mean it in an arrogant way; I just mean a man of principle.

DM: Yeah. I said I had no long-term interest, that was a shock to them, but that I felt at the time had come to do something else. I was never ecstatic about the products. You notice one of the things I have not done, other than the power plant company in Erie, where I just needed a job, I've never gone back, because I didn't see the opportunities there. They were concerned whether I'd go and compete with them in a business. I never considered that. We bought companies. I knew the obvious thing to do at that point would've been to buy a foundry, take some of my money and buy a foundry or go be president of a chemical company—this was a chemical company—and go run a chemical company or buy a foundry and run it as a family business. I didn't like the businesses. I thought the foundries, the environmental rules were going to get increasingly unfavorable for the foundries. I was one of the people that, in 1965, I had some cash from when then companies had gone public. First time I'd had any cash, and I hired an investment manager, and one of the early things they did was put some General Motors stock in my account. They had discretion. When the account came in and I saw it, I called up and said, "What the hell is this? Why are you buying General Motors?" Well, like an American bond, five percent dividend—I said, "They've got 58% market share. If they get any more they're in trouble with the antitrust people." And I had my first directors, one of my directors was the head of a New York law firm who had been an assistant at, an antitrust lawyer for the United States government under Harry Truman — he used to

give me free lectures on antitrust all the time. That's another story, but we haven't time for it. But I said, "They'll get in trouble with antitrust." I said, "Furthermore, we sell to them. They are arrogant, their costs are ridiculous, their unions are too high. They'll never do better than they're doing today; get it out of there." "You can't do that; that's un-American." "Get it out of there." They got it out; never done better since then. To me the automobile companies have been on a downhill grade since '65, and all that surprised me is it took so long.

CK: Obviously, this foresight has served you well, and—

DM: I decided at that point. I bought a computer for Foseco, and I hired a specialist to set it up. I watched what it would do. Basically the semiconductor industry was about ten years old when I bought the computer. I didn't know very much about it. Another of the mistakes I made, if I were back in school I wouldn't take mechanical engineering, I'd take electrical engineering. But who knew that at that time? In 1936, electrical engineering was power plants and motors and lights, generators and things; It seemed a pretty mature industry before the semiconductor was invented. Radio was coming up; television hadn't really been [practiced in].

I took a look when I got this computer, and watched it. "Hot damn," this is the IBM 360, I said, "This is doing what I always wanted," because back at Delavan, ten years earlier, I had been one of the early model-making people. I was pushing the company to have

business models. And you had to do them by hand at that point. So I'd set up the assumptions that we made and turned it over to the accountants, and they'd crank them out by hand, and I did that at Foseco, in particular when I went in in '57. You give the guy your business model and you crank it out. And the first time you do it, they groan; the second time—You know, when you do them by hand, the only way you can tell whether you've made any mistakes or not is cross-footing. You add everything up this way, and then add it down that way and see if the numbers check. And if they don't, you've made a mistake, but you had no idea where. So it's agonizing. Well, the first run never works on those, and you go back and you change the assumptions, and they really groan and do it again. Then they bring that and you want to change it again and they say, "You make me do it again, I quit." The sheer drudgery of going through all those numbers. So suddenly the computer comes along and we'd spit these things out. I'd think, "God, this is going to spread to small companies." Tom Watson himself had said, "Computers? There'll only be a few people who'll buy computers." I saw this computer in this place, I said, "That's nonsense; this is going to be very widely done."

So I was looking from then on, on the side. I got to be a director of an electronics company, public company here in Cleveland; they asked me to be chairman of the board of that company. My board asked me not to take that on because it was public, it would take too much time, which was a fair thing to do. But the day I sold out of Foseco, I also announced as chairman of the electronics company, as a part-time chairman. So I had directorships, and I had places to go. I didn't have any money. Sorry, I didn't have any

real important salary. The electronics company asked me to spend all the time I wanted to on it. One of the things that has struck me was one of my present economic advisors that advises me personally gave me some statistics on inflation since 1967, and I'll ask you, what do you think your dollar in 1967 is worth today? If you were making a dollar of salary, what do you think it's worth today?

CK: I'm not going to answer this.

DM: Take a guess.

CK: 50 cents.

DM: 50? How would you like to try 15?

CK: 15 cents.

DM: In other words, for every dollar that you, your purchasing power of a dollar, you have to have seven dollars now to be equal to your 1967. I had a good deal of income in '67, and I sold out and my salary and bonus stopped. I had no income except investments and other things of that kind, and I made a good deal of money in '67. If somebody had asked me hypothetically, Would you accept an annuity for this amount for the rest of your life? I might've taken it. Nobody did. I didn't consider it. But the point is if my income

hadn't gone up seven times since then, I would be behind where I was in '67. So I'm really conscious of inflation.

CK: How interesting. And you're talking fifty-years-old at this point.

DM: I'm forty-eight-years old.

CK: Why did you decide to go on your own?

DM: I had started out with this idea of buying companies. I was tired of working for other people. I guess I spent a fair amount of my life being the fair-haired boy. I liked that role, but I thought it was about time to—Mainly, I separated from Foseco without having fully decided what I was going to do. I had enough money that, if I wanted to retire and just do directorships and be chairman of that electronics company that I was chairman of, I wouldn't have been as well off as I was. I probably could've gotten some more directorships and been a guy that lived off his boards and his directorships at age forty-eight. Money was not absolutely free, and I had kids in college and things. But I probably could have nourished it and retired and not worked anymore, but I wouldn't dream of that. And one of the investment banking firms—I had borrowed a lot of money—One of the things, neither Whitney nor the British would do was put any more cash in. Entrepreneurs today have no concept of how little money we operated with. In those days, one of the great Whitney jokes was: When we were going to build a plant, I went to JP Morgan, they sent me to Morgan and I persuaded Morgan to lend me money

to build the plant. And Morgan said, casually, at the end of it, they said — Whitney was surprised I got the plant approved — but Morgan said, “Of course we would like to have Jock guarantee the loan.” Well, I never had a rich backer before, and that didn’t sound too unreasonable to me. Jock was rich, why not? He or the British ought to guarantee the loan. Well, I took it back there, and they were surprised I got it approved, but then I told them, “Oh, they want Jock to guarantee the loan.” They laughed for about five minutes. They said, “Dave, you don’t understand; Jock is a sportsman; he’s a ten-goal polo player,” or whatever. “And Dave, it’s unsporting to use money. If you use money, anybody can do it. But Dave, it is unthinkable to use *our* money and to guarantee, using *our* money; that’s unthinkable.” So I sadly went away, came to George Gund of Cleveland Trust, went in and told him the same story about the plant. George said, “Riskiest thing I ever saw; wouldn’t dream of investing in it.” I said, “George, I’m really surprised. As a local business, we’ll give you the business here.” I said, “JP Morgan approved the loan, but I think as a local business, I thought you’d charge me less than they would.” He says, “You mean Morgan approved this loan?” I said, “Yeah.” “Oh, well, I’ll do it cheaper than Morgan will.” So I borrowed millions from him, and the subject of guarantees never came up. He didn’t ask; I didn’t mention the subject.

CK: How did you end up in Cleveland?

DM: Because that was the place for the business. The company, Foseco, was in Columbus; it should’ve been in Cleveland. That’s how we ended up in Cleveland. Should’ve been

here in the first place, but the British were too dumb to put it here. They looked for a building here; they found a better building in Cleveland, and they were dumb enough to, because they could rent a better building, 20,000 square foot warehouse—God, you could do that one-hundred places.

CK: So you start in 1968, you start Morgenthaler Ventures?

DM: Exactly.

CK: It's a year before Venrock starts.

DM: Yeah. But they were, I mean the Rockefellers were doing investing formally—

CK: Not as venture capital firm.

DM: Yeah. Teddy Walkowicz, one of their partners, was a contemporary, more or less, of mine at MIT.

CK: What made you feel you were well-suited for venture capital?

DM: Well, I'd watched the venture capitalists. Nat Owen kept in touch with me and kept coming back to me, looking at their companies, from 1950 to '57. And then '57 to '68 he and a partner were on my board. I was sort of Whitney's fair-haired boy to some degree. I was invited to meetings they were at, played bridge with Jock, for example, and that kind of thing — once or twice; not a lot, because he didn't do a lot of it.

CK: Did you see yourself as competitive? Is that your nature?

DM: I'm competitive with people, no. Just beating somebody doesn't mean anything to me. If I do mediocre-ly but win, I'm not very happy; if I do extremely well and somebody does a little better, that's all right with me. I'm competitive in the sense that I want to — do I stay up nights because Bill Gates has made a lot more money than I have? No, that doesn't bug me.

CK: Are you a risk-taker?

DM: I am a moderate risk-taker; I'm a risk-reward ratio person. US Trust, who manages the majority of my personal money today, says I am the biggest risk-taker they've got, client. I say that's a badge of honor, because they've got a bunch of very, very rich little old ladies down there. They think if they invest in a long-term Treasury bill, they're taking a big risk.

CK: I don't have to ask you about your energy level. Have you always had a high energy level?

DM: I think of myself as a loafer, but by most standards, yes, I have a very high energy level.

CK: How about a sense of exuberance about what you do? Do you have passion for what—

DM: People would say yes, and I'm an optimistic realist. I'm biased optimistically. Again, we gotta remember age. I mean by age—I can look back on almost— It doesn't matter if I do anything more; it doesn't matter if I make any more money; it doesn't really matter if I get another honor. I've got several lifetime achievement awards. One more would be nice, but what it would be, I don't know. I've won every honor the industry has to offer.

CK: I know you were the recipient of the first lifetime achievement award for the National Venture Capital Association. Being recognized by your peers—

DM: It was very nice. The first one was nice; the second one, it's nice, it makes you feel good. It's one of those things that, if you get them, they don't mean much; if you don't get them, it hurts. You also recognize how little they mean. But they're nice, they're nice to have.

CK: I'm going to jump into investments and see if you can pick out something that stands out in your mind as “this is a company that I bet on and people were with me or against me, that I spent a lot of years working on.” Maybe you can take me through a story of one of the companies that you backed.

DM: Successful or unsuccessful?

CK: A good story, how about that?

DM: I can give you a couple of.— An improbable one:

One of the great stories that made the firm was Manufacturing Data Systems. That was a very improbable company that I had to save a couple of times. As a venture capitalist, I did more — management made a couple of mistakes that I was able to correct.

CK: How did the business come to you? How did you get involved?

DM: Two ways. Came in twice — it came in from two different sources. One was that I had made, basically, an angel-type investment in [Cincinnati sp] before I left Foseco, and that company was looking for a number two to operate it, and they ran across the man who became the entrepreneur and talked to him about a job, and I met him in that context. And then secondly, a time-sharing company that was spinning this idea out and wanted part of it came to an investment banking firm. When the investment banking firm heard that I was starting a business, they had a program where they invited basically what was an executive in residence, and they invited me to come in and start my business within their firm. They didn't pay me, and I didn't become a partner.

But with an implicit understanding that they'd provide me an office and services, and I would let them look at what I was doing, and we'd sort of help each other. And if they wanted — and we could get together on terms — they could invest with me. And if they didn't want to, they didn't have to. They weren't guaranteeing and I couldn't commit them. So I started my business within an investment banking firm, a regional firm. One of the very useful things, I learned a lot about the investment banking business from the

inside. I think I understand it better than many venture capitalists do, because I lived inside for a long time.

If I had nothing else to do, no business—I'd take one of their people to lunch. I'd take a syndicate manager to lunch; I'd take an account manager to lunch; I'd take an analyst to lunch; if life was really tough, I'd take a broker to lunch. I bought a lot of lunches. But I learned in talking to these people how they thought. My office was across the row from the traders, and I used to go lean over the trader's shoulder and watch him do trades. So I learned something about investment banking. I never became a partner in that firm, I didn't want to. But I became a limited partner in Hambrecht and Quist, a West Coast firm, and became very intimate with them, and Bill [Hambrecht] and I did a number of deals together.

CK: You were talking about Manufacturing Data Systems. When a company comes to you, how do you vet a company? What are you looking for? We've been talking about this S-curve and looking for an industry in its infancy, more or less.

DM: Carole, my theory is a company is like a four-legged stool. It rides on a technology, a concept, a reason for being in business. What it does, this is the inanimate thing about it: A McDonald's has a business concept; a Microsoft has a business concept. That's the technology. McDonald's, you can figure McDonald's technology isn't very technical, but they have a very definite way. So that's the idea of the company; that's one leg. The

second leg is the entrepreneur, the team that's going to do this. The third is the market that it's addressing, and the fourth is, is it financeable? Can you get financing for it?

One of the reasons I invented that, and I'll give you another one in a minute, I invented that particular analogy, is because people around here said. I was the first venture capitalist in this area, and people said, Oh, you only invest in wonderful technologies; or, You only invest in highly successful people; Or, You only invest in big markets. And I say, "Wrong; I want all those. If I'm missing one of the category, I'm a stool without a leg or I'm a stool with such a weak leg, it's gonna collapse. I want them all."

There's another analogy I used locally, I developed it first, which is a horse rider in a race, which is, The horse is the concept, the technology that you're riding. It's also, again, McDonald's has a concept. If it's a "me too" concept, if there are three hamburger stands on a corner and you've got a vacant lot — you say, "Oh, they like hamburger stands; I'll put one in too." That's a "me too" concept. If you don't do something different, at best you're just going to split the business with the other people, and you have a very weak concept, you have a very poor horse. On the other hand, you decide, "We're going to put a Mexican restaurant in there and add a tortilla and sell tortillas and things, because we know people will be coming here, they'll get tired of hamburgers and we'll get some business." That's a little better concept. But maybe a better still one is something that's more different. Maybe you put a high-grade bar in, or maybe you do something different. But it's the concept, it's the thing you ride, it's inanimate. Then there's the horse, there's the rider and the race. The race is obviously the market. The

beauty of this analogy is you have an excellent horse, poor rider, poor jockey, which is most of the time the trouble — he falls off the horse; doesn't matter how good the horse is; the jockey falls off the horse. Or you have an excellent rider and an excellent horse, but you're running at the county fair. You win easily, but your prize is \$50. That's the small market problem. This is the trouble with, Jumpstart here in Cleveland has started 40-some-odd companies, I financed those. I, as a pro bono activity, am vice chairman of Jumpstart's fundraising activity. I won't serve on the board, I don't want to waste that much time with administration and so on, but I do help them raise money. I watch them to see if anything is coming. We haven't gotten out of the 40-some-odd companies. We haven't found one yet we want to invest in. And it's all mostly they're aimed at small markets. They won't get big enough — I'll be wrong on maybe one or two, but I'll be right on most of them — they won't get big enough to enable us to be worth our time, a fund that's as big as we are. So I'm mostly helping the region and doing some pro bono good.

But I look for all those elements in there, and the horse rider and race. Again, the most common failure is in information technology. I studied failures some years ago. Only about ten percent of the time does the technology fail. I was surprised we were that good, that we got it right that often, but we get a lot of outside help and we have some expertise on it. So we usually judge the technology right. And we'll take a technology risk on occasion. Market — you better get the market right. About 30 percent of the time, the

market does something you didn't expect. Like let's say somebody has an Internet service that they want to run, and they're going to run a subscription model, and someone else comes along and gives it away for free — that's where you misjudged. You don't think that's going to happen and it does; you've misjudged the market. Or the entrepreneur just can't plan or can't manage and falls off the horse. Our failure rate at that time was about [10 percent, 30 percent,] and 60 percent the entrepreneur fell off the horse; he just didn't manage well. So people are always a big criterion. That's how I look at companies. Somebody comes in here today, and first, what's the concept? What are we going to do? You want to run a clothing store? Politely, Out. I don't deal in that concept. You want to make bread? Out. You want to run a night club? Out. You want to finance a play? Out. I don't do that. You have a technology of some kind. What's unique about your technology? My Erie company, the power plant company I mentioned to you. I decided on it. We have an old technology. The winning technology was another company elsewhere. It will get all the big business; there's no way we can evolve our technology to that technology; there's no way we can get that technology; we're just doomed to the smaller units here that's constricting our market; I'm done. I went on — the market is not there, this horse is not for the big races. We're only going to win the county fairs. That's how I look at—

Now, you have all kinds of sophistication and other things, but the clear thinking on this is: Why should we win? I don't want to go into something that I don't have a good reason for thinking I'm going to win. Am I coming through?

CK: Yes! Yes! Yes! How do you sense the change in the market, the change in an industry so that you can get in in the beginning, or you recognize that this is the future?

DM: Very hard. This is the real problem right now, in my view. And I hold this view more strongly than many people, I think. Because when I came in this business, as I told you, in the mid-‘60s I figured out that information technology was a place to be, because the semiconductor had enabled a huge industry to be built up that could not have been done, or not nearly remotely as well with the vacuum tube. So the semiconductor was an enabler, opened up all these opportunities. Atomic energy, the ability to fission the atom should’ve been an enabler, but it wasn’t. It just didn’t open up all those things, that’s just the nature of things. There comes a time, then, when you run out of opportunities. We are in a point right now where it isn’t clear what the next opportunities are. When I came in the business I looked at, What are the opportunities? Should you go be a mainframe maker, whether it’s IBM, Burroughs, National Cash Register and Cray Computer in Minneapolis — that was about it. It was too late to be a mainframe manufacturer. You weren’t going to knock out one of that group, and a couple of them are gone now, but IBM is there.

But Digital Equipment was coming up in the minicomputer field and Data General was coming up in that field, and several others had gotten started, and we found one in Fort

Lauderdale in Florida that was a specialized minicomputer company, that was a wonderful opportunity, Modular Computer Systems, and we invested in it.

CK: How did that come to you?

DM: Bill Hambrecht brought that to me. I decided to start my company here in Cleveland.

People asked me why and I gave them about five reasons. I said, First, I was here and I liked it; secondly, I'd borrowed a lot of money from the banks, paid it all back, so my financial reputation was very good. Thirdly, I wasn't clear whether Boston or Silicon Valley were going to be the winners, and I was in between. I had a foot on the ground in Boston, and I went and cultivated one on the West Coast. Fourthly, I sort of wanted to do it, and fifthly, I'm a little dumb. I didn't know how hard it would be, or I wouldn't have done it here.(chuckle) So I started it and made it work. I fooled myself to some degree. But I was smart enough to know I can't find all the opportunities I want in this region. This is one of the big differences: The West Coast people, there's a horribly provincial attitude in the West Coast people, in that they think there are no opportunities anywhere else, or they're not worth it, not worth going elsewhere. And in the information technology area they have generally proven to be right.

When I started, remember that's forty-two-years-ago, it wasn't clear whether Boston or Silicon Valley were going to win, so I put a foot down in each and went there, and just rode the airplanes. The first money we made really probably was Florida; the second

money we made was Ann Arbor, Michigan; we never made a lot of money around Cleveland. We just didn't find the opportunities, and we made money on the West Coast, we made some money almost everywhere, and we've also lost some money in a number of places. But you found where the opportunities were going to be. I think the opportunities come and go. I decided it was too late for mainframes. I went in the minicomputer business and we were very successful in that. I went in the computer-assisted manufacturing business, which was our biggest early winner in Ann Arbor. That was Manufacturing Data Systems. I went in the personal computer business. We invested in Apple. When we invested in ModComp minicomputers, then the integrated circuit and the microprocessor got developed after we'd done that, and the microprocessor enabled the personal computer, and that enabled Apple, and we saw that coming. We were a little late, and we should've gotten in a little earlier, but we still made a good deal of money out of it. We got in there; we looked for that because we saw that coming. We looked for the next one. Then one of my sons was a hardware person. He'd been a consultant with McKinsey, and he went to work for the company that Fujitsu bought, Amdahl, as a mainframe maker, sort of the last of the big mainframe makers that got started. He worked for Gene Amdahl. He thought software was nowhere. His brother, Gary, went in the software business, helped start a software company, and his brother Gary has created two software companies that were sold for aggregate of about \$1 billion. Software became the opportunity. He hadn't seen that coming.

We didn't see the fact that IBM was going to make its software available, an open system, which enabled—Microsoft would never be what it was if IBM hadn't done its PC the way they did. So all these things just kept on evolving, and you look for what's the next one. Now, right now we were, it is unclear what the next big thing will be.

Will it be nanotechnology? We've got a nanotech company. Nanotech is a very interesting horse, but we ain't found the big races for it to run in. I can make you a lot of very small particles of things; I can't find anybody that wants to buy tons of them. We're out there struggling right now; we can make you nanotech; we can't sell a lot of it, can't sell enough of it. It's been hyped to hell and gone, the government's spending billions on it, and so forth, but nobody's buying tons of it yet. We hope there will be, but we're just not sure. Is it social engineering? Will there be something that comes after Google? We just sold a company to Apple yesterday, literally; my son was the lead director on it, Gary. We're not allowed to announce the amount, but it was a very successful sale. It's an advancement of computing. Apple bought this company from us, and we have a number of times our investment in it. Yesterday, literally.

CK: Can you say the name of the company?

DM: The name of the company is Siri. It will be announced around. Where else? Energy, alternative energy. My daughter is trying to start an algae company. I'm very concerned whether they'll make it or not. People are putting all kinds of money into it. We don't know whether we've got a horse or not because nobody's found a technology that will

make alternative energy cheap enough. She's at a conference right now; I talked to her last night. She's in Albuquerque, New Mexico. She's just back from another one in Hawaii, where they're doing algae in both places.

Where else? My people have reached the conclusion that semiconductors are not really a place for venture capital to invest at this point, because they're like the mainframes. Intel is going to continue to do very well, all the big people are going to continue to grow, but it's like trying to start another automotive company. They may be right, they may be wrong. There may be a niche in there for electrical vehicles or something like that in the analogy. There may be another semiconductor-type company. But our guys don't think they can find it. Enterprise software: Gary started Ingress. Ingress was a principle competitor to Oracle. Larry Ellison got started three years before he did, and they got one technology thing, they bet on the right horse on the technology language.

So Ingress got sold for several hundred million, but Oracle went on to glory. Our people think that kind of software is, again, going to come mostly out of the big companies — SAS. They don't think there's an opportunity for the smaller.

Right now we're doing, in life sciences we're [farm clubs] for the big companies. We're starting companies for \$50 million and selling them for, if we're lucky, 100, 250 to as much as \$500 million, to the big pharma companies, and the big pharma companies can pay us that because we've taken so much of the risk out, and they can't maneuver, and

we get the creative people, and they can't maneuver. They'd rather pay us several hundred million and save several years, save many years, maybe, and take that risk of loss out.

CK: Do you partner with other venture firms?

DM: Oh yes, all the time.

CK: Is there a network of people that Morgenthaler tends to partner with, and vice versa?

DM: Yes. We partner with different people on different things. There are some people we partner with more than others. If we need partners, we show the investment to several other firms, and different ones will accept it depending on whether they're interested in that kind of company or not.

CK: Chuck Newhall uses the expression "a band of brothers" for the early venture capitalists who were out there trying to get things done. Did you have that sense of —

DM: Very much. Very much. It used to be more — we all had less money. Remember, we all manage so much money today in comparison to where it used to be, that there usually wasn't enough money to go around previously. There were pretty high ethics. One of the good things about this business has been that most of the people have been quite ethical. Once in a while there are some sharp elbows that go on, but any downright criminality is very rare in this business. It doesn't lend itself well to that.

CK: Pretty long-term investments.

DM: Mm-hm. And there've been those that have violated the ethics of it, generally one finds a way, they usually don't see the good deals. We have seen cases where people mistreated our companies, and we saw to it that the next good opportunity that we had to show to somebody, they did not get to see.

CK: Can a person be trained to be a good venture capitalist?

DM: Very good question. You can argue about it all night. I answer that like, can you train somebody to be a leader? Can you train somebody to be an entrepreneur? Can you train somebody to be a venture capitalist? The answer to me is if somebody wants to be one, you can teach them an awful lot that they ought to know and they'll find very useful. I would never try to make somebody a leader that didn't want to be. I would certainly never try to make somebody an entrepreneur that didn't really want to be one. If he wants to be one, I can teach him a lot. I've helped start two entrepreneurial schools, and I told you, I financed a professor in one, and I gave an equivalent amount of money to the other one. We're talking seven-figure money. The object is, if you want to be an entrepreneur, you can learn so much. Remember, I was an entrepreneur, really, an entrepreneurial manager until I was forty-eight. I didn't sit on the venture capital side of the table until I was forty-eight. Oh, there was so much that I could've been taught in

college that would've been so helpful, and I had to learn on the job. So yeah, you can teach them an awful lot of them what they know.

CK: If I rephrased it and said: Could they be a successful venture capitalist?

DM: We've seen both examples. In the first place, it takes a few years to know, usually, if you've got a success. You know you have a successful venture capitalist when he or she has a number of successes.

CK: What does it take?

DM: It's some of everything that I told you there. First place, they've got to find the deals. You can't do the deal you never see, so you have to have somebody that will get out there and find the deal. And then remember, Carole, what's success? Success is a mean, unpleasant, hard to get along with, stupid person that has stock in a company that does extremely well. An unsuccessful company is a loveable, smart, intelligent, helpful, friendly, courteous, kind venture capitalist that doesn't have a stock in anything that does very well. So the criterion that does very well is: do you have stock in a company that does extremely well? Or do you not? Having said that, then you're looking at the person—What makes a successful venture? What makes it likely the next one's going to be? Is he or she the kind of person that's going to get deals brought to them? Are they in the deal stream? Are they out there working? Are they working in the right places?

Interjecting: If you came to me today and offered me a lot of money, and I were looking

for a job and younger, offered me a lot of money and said, Go back to the steel industry and do another Foseco; go back to the jet industry and do another Delavan. I'd say, "Forget it; it's done; you can't do that anymore." Those opportunities have dried up and don't exist.

CK: They have to have a vision?

DM: It's a big help.

CK: You said earlier that luck is part of this. You said that you were a little lucky, but I think that luck has to ride on something.

DM: Take a look at it the way I looked at it. One of the reasons that I didn't like most of my early assignments in life, and one of the reasons I like this business, is that I felt I was not—you're trying to make lightning strike, and how do you make lightning strike. You go to a place where there are a lot of thunderstorms, you get up on the highest building there is, you put up a steel spike that sticks up in the air, and lightning is more likely to strike there than you go out in the desert where they don't have any thunderstorms, you dig a hole and get underground, you don't put anything up, and your chances of getting hit by lightning in those circumstances are very, very poor. On the other hand, the Empire State Building gets hit by lightning a lot of times on that conductor they have up there. Another way I said was, when I went in this business, when I was in the porcelain enameling business, I thought, Oh my God, all these opportunities are going in life, and I

can't do anything about most of them. I felt even that way at Foseco, although it was much more flexible. Today we can do anything. We have to stick to what we've said we would do, and we're better off there, but I want to make sure I've moved to a place where I'm as nearly on top of the Empire State Building. And I probably made a mistake by not moving to California, because it became clear that's where all the thunderstorms, or a lot of the thunderstorms were going to be all along.

CK: So location is even important with venture capital.

DM: Absolutely. Absolutely. But I can think of two companies—one very successful; the other one, I had Nobel Prize-winning technology; I didn't make a single mistake. I had a former college — he was first a chemistry department head; he was secondly a college president; he was thirdly a senior vice president for a pharmaceutical company, then he was senior vice president for a larger pharmaceutical company. I brought him in as president. Highly respected, highly knowledgeable man, Nobel Prize-winning technology, and I didn't make any money.

CK: What company was this?

DM: Ribozyme Pharmaceuticals. He retired from his presidency, came in, runs our life sciences business, has made us a ton of money in doing that. His successor came in. I was chairman of Ribozyme. I hoped that would be my hallmark, because I didn't need to make more money, but I wanted to have had a part in curing a major disease. We had several drugs in phase two trials that looked extremely good. None of them made it into

successful drugs. Later on, after we retired out of it, and after he'd retired, a new president came in, another technology developed, it needed something we had developed in this, and that company got bought by Merck for \$1.25 billion or so. Still hasn't cured a major disease, but it became a great financial success. I didn't do a damn thing wrong. The drugs, when you put them in people, just didn't work.

CK: How emotionally do you get involved in these companies?

DM: Not as much as I used to.

CK: Well, let's talk about "used to." How emotionally did you get involved?

DM: I've been emotionally involved many times. But I remember one of my most successful early stage companies started to cheat on accounting, and I caught it, tried to put a stop to it. They said they'd stopped the practice, and then finally called me up and said, We have to come clean, we hadn't stopped, and we are in serious trouble. It took me half an hour to believe what they'd done; it took me three days to accept the fact that anybody would do that. It was complicated, and I kept going over it and saying, I don't think I understand it fully. Nobody would do that; then I'd go through it again: Nobody would do that, but they did it. No, I must be mistaken. I went over it again and again and again. I'd wake up at night and go over that: Nobody would do that, but they did. I'd go through it again, but they did. Eventually, the board was cleared, because I caught the

problem that they were doing and put in the board directive, and we directed the management to change the practice and replace the chief financial officer.

CK: You fired him.

DM: Yeah.

CK: Which company was this?

DM: This was Modular Computer Systems. The SEC later came in, censured all the officers — and we'd fired all of them — cleared the board, because I caught it and had stopped it. We had a very intelligent director that for six months he wouldn't believe anybody'd done that. They were just falsifying accounting. It was premature revenue recognition. Another case, Gary, my son, founded a company, sold it to Illustra for over \$450 million, and Illustra pulled a similar stunt. The president of Illustra went to jail for a month for a symbolic slap on the wrist, but we lost \$60 million in a single day in the stock market value, that we had attained, and the stock just went down that much; we couldn't sell.

CK: It's a rollercoaster at times.

DM: Well, we've hardly talked about the early industry here, and I've talked too much otherwise.

CK: About?

DM: NVCA

CK: Could you tell me about starting NVCA.

DM: My recollection of it — I'd be interested in what you were told otherwise — Ned Heiser certainly deserves credit as being the founder of NVCA, because Ned raised that big fund in '68 or so. In the early '70s he called a number of us and said he wanted to put an association together. And we had a meeting, and as I remember it, we were in, I think we probably were meeting in San Diego, and we were talking about an early director's meeting, we were saying what were we going to do? And people were jokingly saying,

Well, we might get together and go play golf. We didn't need that and socialize. We didn't need more socializing. Somebody else said we ought to get together and fix the prices on deals that we'd offer. And some of us, including me who had had antitrust lawyers said, That's illegal; we're not gonna do that. Then Dick Hanshen stood up and said, "We ought to get Congress to give us incentives. We invest in these risky companies, and we're not getting any credit for it." And the capital gains rate had been put up — it was 25% when I went in the business in '68, and it had gone up, this was '72 or three, whenever it started, it had gone up to 49% at that point. He said, "We ought to get in there and have them give us incentives." He said, "I would go to Washington to work on that if you would help me." He was asking me. I said, "Well, golly, I've never

had a Washington experience, and I've always had a little interest in it; I'd be interested in doing that." So Dick and I — and we — they were glad to give us the mission and—

CK: Do you remember who was in this group?

DM: It was the founding group of directors of NVCA. You can find that from—somebody would have that in MBCA. I remember it as being in San Diego; I could be wrong.

CK: Could it have been Chicago.

DM: Well, Ned was in Chicago. But this is how the incentive group got started.

CK: So this might've been prior to meeting in Chicago.

DM: Well, I don't know. But I know when this happened, because [Hanshen] asked me. We met — I think it could've been Chicago; we had many meetings, I don't remember for sure. But I know the circumstances, because I remember Hanshen turning to me in the meeting. It was Hanshen's idea. I didn't found NVCA; Heiser did. And I didn't have the first idea on this, but Hanshen asked me to collaborate. Well, Hanshen and I went to Washington, green as grass, and oh, were we green. And he had gotten the name of a lobbying lawyer from somewhere. And the lawyer worked for Nelson Rockefeller, and we went in to see this lobbying lawyer. The first time we'd ever done anything like this. We went in there, and he let us in. We had no money, and the association had no money. He let us in because we said we were venture capitalists; he knew Rockefeller was a venture capitalist. I never saw him when he didn't get called out of a meeting by a call

from Rockefeller's office, *he said*. We were convinced this is a way of conning your clients, of getting important calls. About the only thing he did for us was: he said, "You're an industry; you ought to be allowed to testify." And he got us an appointment to testify before Lloyd Bentsen's committee. And Dick and I went up and testified before the committee. And it was a joint economic committee, Senate and House, and Bentsen was chairman, and we testified on some subject or another. Well, we thought Congress was ignorant about this. We found that they were not so much ignorant as they didn't believe; they just had no faith. We both sort of equated ourselves with these big financial types in New York. We suddenly found that, when they heard about us, Oh, you're this individual investor from Cleveland, and you're this little guy from Texas down here, and you're good guys. Oh, suddenly we became good country boys. We didn't want to identify with those big New York types anymore. We could not get anywhere. I had very good relations with Whitney, of course, because I made him a lot of money, and Rockefeller thought well of me, because they knew about this. But they laughed at him and they said, "Dave, you're out of your mind, going in to ask Congress to reduce Nelson Rockefeller's taxes? Going in asking them to reduce Jock Whitney's capital gains tax? You're silly, you'll never get that." Well, we kept on, and we kept on persisting. Hanshen fairly quickly dropped out because he got the idea, as I recall it, and I haven't seen him since — I don't know what happened — but he got the idea that he wanted to be a venture industrialist, and he bought a company and got his sons involved in it.

Bought some small company himself, put his money into it or something, and he dropped out of the whole thing. And I carried it on, and I kept on the incentives committee.

We wanted the big firms to be president. Ned was the first president, because he had the biggest firm; Charlie Lea, was the second, because that firm was supposedly the second largest; Pete Bancroft was the third. Pete, shortly after he got elected president — he had been president of venture capital activity — but he got made president of the whole Bessemer, and he said, “I’m not going to be able to do very much.” So one thing he said, “Will you take over for most of the duties?” So I inherited another job, so I took over that. One thing Pete did, he was responsible for writing that publication, “Emerging Small Companies and Endangered Species.” That was a *very* key thing, and Pete was responsible for writing that. Some of us helped, but he really got it done. I found, we just had no money. I mean, today any of us spill more money than we had at that time, and our firms were very small, of course.

This emerging small company—I found if you testified, they’ll always asked you to put a written statement, and if you had any material you give them, they’ll reprint it. So I discovered the government would reprint it at its own expense. So I got everything I possibly could testify; I go testify and introduce this paper of ours. And we’d show it everywhere we went. At that point, I don’t remember whom I was working much with. The one who really worked a lot with me toward the end was Reid Dennis, because Reed

succeeded me as president; he was executive vice president when I was president, and he and I did a lot of the '77, '78 running around Congress working on this thing. And we found very quickly that we got this thing well enough distributed around the House and the Senate that we'd go into a congressman and they'd start quoting from our paper. But we got this thing widely distributed, the paper that Pete had written. And that was the story on it. And then Reid took over from me, and then the thing kind of got its own legs going.

CK: Did you have support? Could you find any congressmen supporting you?

DM: We found the Wisconsin congressman, Bill Steiger, he was a Republican, he was going to introduce it co-sponsored with a Democrat. Then he decided it was so good that he wanted to do it on his own, but it was an idea whose time had come. And I had worked, oh, steadily over the years. For instance, I spent a lot of time with the Treasury. I had written an ideal bill. They asked me to write a bill the way we wanted it. I wrote it around the venture capital industry, aimed — I got - some Senator agreed to introduce it, and to my amazement, he introduced it without changing as much as a comma, and I learned something about Congress: He didn't push it. And it doesn't matter—any fool can get a bill introduced; pushed is the difference. He came back at the end of the session and said, "The leader said, 'Don't introduce any new tax bills.'" So he made me feel good by introducing my bill, but he didn't do anything; nothing happened. You had something in there on it?

CK: No. What finally—?

DM: Somehow Steiger got excited about this. Reid and I had walked the halls. He was generally kind enough to give me credit for teaching him a lot about lobbying, because we worked like dogs in there, and he always asked me if I worked that hard.

CK: Did you enjoy this?

DM: Oh yeah. Today I'm one of a dozen people that are the major supporters of the Northeast Ohio Republican Party activity here. I'm one of the principal supporters. So we meet all the political people who come through. I enjoy it. I wouldn't want to hold political office. The Governor was in here a week or so ago, though he's a Democrat, and he still expects a little support out of me, and the lieutenant governor's in fairly regularly. Rob Portman, I'm very close to, is running for Senator, and I'm supporting him. Lee [Fisher], the Lieutenant Governor, is running against him, and I'm supporting him in the primary; he knows I can do it in the [], but he's a friend. I know them all; they all come through here and they all cost me some money. It's a civic duty to me.

CK: I know you're involved in the Cleveland Clinic.

DM: I am a life trustee, and I am what they call a distinguished fellow. I got an award. I established a fellows program there that recruits bright young people into the Morganthaler Fellows in their research activity.

CK: This might be putting you on the spot: Are there any venture capitalists that you have truly admired for some reason, and why?

DM: I'd say most of the winners of the Lifetime Achievement Award have been outstanding venture capitalists. They've given the award more liberally the last year or two, but I'd say the early winners — most of these people, in one way or another, contributed to the industry and were generally outstanding venture capitalists. And there were others that didn't get that award that contributed. I got the first award. I think Peter Brooke and Tom Perkins got the second award, because I handed that out to each of them. They were both obviously outstanding people, and both made very different contributions, but very very, very real contributions. I've forgotten. I think most of the obvious founders were pretty exceptional venture capitalists. I did deals with some of them, and would've done deals—I can't think of any of the first half dozen I wouldn't have been glad to do a deal with.

CK: What were your personal rewards in the work that you've done?

DM: It's interesting, it's stimulating. It's made me as prosperous as I am, and lost me money so I'm not even more prosperous. I can only wish I'd been in the industry earlier. The only change I would make would be get in it earlier. What would I do differently? Of the five industry sectors or so that I've spent time in, I wouldn't have spent time in three of them. I'd have majored in a different course in college. I'd have gotten in the venture

industry earlier. I didn't have the opportunity to do that. I wasn't used to raising money. I probably would have raised money earlier. On the other hand, I can make a very good case that if I had never raised any money at all, I might be rich — and hadn't taken a lot of the early money I made and put it back in the business — I might be richer rather than poorer today. I don't have any hang-ups on money one way or the other. I will eat the rest of my life, whether I work anymore or not, which may not be too long.

CK: What do you do when you're not doing business? What do you do for relaxation?

DM: Spend time with my wife; spend time with my children; swim, read.

CK: You still swim?

DM: Oh, sure.

CK: You said you were on the swim team in college.

DM: I was captain my freshman year. Oh yeah. In the summer I swim every day. In the winter, we have a place in California and I swim several times a week out there.

CK: How about reading? Are you still a reader?

DM: I bought six books at Christmas, primarily new books, in addition to the ones I already had going. I keep a half dozen books going at any time.

CK: What do you like to read?

DM: Business, economics, politics-oriented books. I don't read much fiction anymore. I just don't have time for that. My wife and I watch a lot of television, news in particular. She likes movies and we watch a lot of old movies.

CK: Travel?

DM: Well, for thirty years, approximately, a little more, we've gone to Palm Springs every Christmas, and we collect the family at a resort there. We have up to fifteen or twenty people in for Christmas in different cottages around at a resort. We go to the [Deep Water Cay] Club for about the same amount of time in the Bahamas in February/March, collect a smaller number of the family. We have the place in California. My daughter says I've taken her to fifty countries. I wouldn't have thought that, but maybe so. Gail Elizabeth, we call her Lissa. Gary and Todd are my sons.

CK: Todd's an entrepreneur also?

DM: Yes.

CK: What's he doing?

DM: He's just cleaning up a company that has not been successful. The banks have engaged him to sell off the equipment and he's doing that.

CK: I imagine that they, unlike you, are very fortunate to be able to get good advice.

DM: We'll see. We'll see how it works before we know whether it's good or not. They get advice, some of which they pay attention to, and some of which they ignore. But we do have a wonderful relationship with our kids. We are very grateful for that.

CK: And your grandchildren.

DM: Um-hm. Some of them are still finding themselves, the grandchildren, they're college-age, and this group seems to — a couple are too young, but they're doing very well in school. One granddaughter is doing very well; the other two are finding themselves a bit.

CK: Well, that's the times. I want to thank you so much for your time. And a thank you for National Venture Capital Association how much we appreciate what you're contributing.

DM: Have we gotten to everything you wanted? I fear that I gave you so much of the early stuff. I'm concerned about the Association. The Association has been very important, I put a lot of time into the Washington end of it. I was the guy who moved — we had the guy in Chicago, and I created the first Washington office. I didn't particularly want to be the fourth president; I wanted to be president someday, but I didn't have the fourth largest fund, and I was always afraid if we didn't keep the big people in the leadership positions that we wouldn't continue to hold everybody. Now it's a different story. The organization's so strong. And Pete made a good contribution, but he had to drop his time away so early. And then I think Stan Golder succeeded me, and then maybe Tom Perkins. I remember asking Tom to get ready to take on the chairmanship, and we

recruited Stan. And then Reed came in there somewhere; I've forgotten what the sequence is. But the association has done about as good — and this has been about as clean an industry — and I've been in enough industries that — when I was in Foseco we had to buy from the scrap metal industry and deal with them — oh, what a horrible industry of ethics and corruption and all sort of things. When I took over Mexico for Foseco, when they made me chairman for North America, went down there and found — did just the reverse. I found that, before I came, we sent an Englishman in to open up Mexico. He heard you to had to bribe to do business in Mexico. So I think anybody who just put out their hands to shake hands, he put money in it. So we had a bribery situation. And I got a Mexican president in, and we cleaned that up — had a very clean operation. I do not bribe. I've been on boards where we've turned down acquisitions we wanted to make because you had to—"You're an Italian company, and we'd love to merge with you, and oh, by the way, I own the showroom in Milan, and you pay rent to my account in Switzerland."

CK: So you don't go along with their cultural way.

DM: No.

CK: Has to have been a challenge.

DM: It has been a challenge. We lost that acquisition because we wouldn't bribe. I've been very fortunate in that we've been able to run a clean show.

CK: Do you see venture capital in a way as a romantic quest?

DM: There's an excitement to it. We think this company we sold Apple yesterday, Gary's company. Gary is a visionary. Gary is one of the exciting people in the industry; He thinks that will radically change some of the use of the Internet. I'm still disappointed that I'll die without having improved on a disease. I don't have any patents. I haven't improved on a disease. I made a lot of people rich. I don't have any tangible accomplishments that I can wave, but it's been a very happy career, and it's been intellectually stimulating, and I still find it fun to come to work.

CK: It still excites you.

DM: Oh, absolutely. I'm going out to California this weekend, and I have a program I want to see — try to persuade our now managing partner of a team to put into place out there. I can only persuade today; I don't control. So I will try to persuade him. I'm waiting now—People don't seem to realize that innovation is a series of waves. There is a wave of innovation that none of us create. We only ride that wave. And the computer was an innovation, a wave. When the wave I saw coming in the early '60s when Tom Watson created the 360 series, the minicomputer wave, all the waves I've mentioned, those keep coming along.

We don't see quite what the next wave is. There'll be something. Maybe it's energy. In other words, we have a bad need for energy, and another of my sayings is 'we have a

market hunting for a product and we have technologies that are looking for markets. You have to get the two together.’ You want me to create a billion-dollar company? If you’ll do one thing for me, I’ll do it for you without any argument: Get me a cure for heart disease; get me a cure for diabetes; get me a cure for any of four or five major ailments. They keep saying space is the final frontier, Captain Kirk’s space, Star Trek, space is the final frontier—the hell it is; Life is the final frontier; health. As long as we get sick, as long as we age, as long as we hurt, as long as we die, there’s going to be a need. To keep on, medicine is the final frontier. And if I weren’t doing what I was doing, I’d spend my career in medicine, trying to find cures for things. Eighteen-year-olds come to me for advice today, I say, “Information technology or life sciences, one or the other. Train yourself in one or the other.”

CK: Again, just let me thank you so much, again. I just enjoyed spending the day with you. I think you’ve made a wonderful contribution here to National Venture Capital Association as well as future historians, and this will be mined in many ways. So, good luck to you.

DM: Thank you very much; thank you for the kind comment. Carole, don’t hesitate if there’s anything specific that I can do, call me. There are a lot of people that contributed. We really did a wonderful thing for the country, we collectively, the group — I just happened to be the head of the incentives activity. And as I said, there would’ve been two of us if the other guy hadn’t dropped out. I try very hard not to take credit for something I don’t

deserve. And as I said, I tried repeatedly to get NVCA to give Ned Heiser a Founder's Medal for this, because he founded this thing; the rest of us should've gotten co-founders medals. We weren't equal. If it hadn't been for Ned, it wouldn't have happened.

CK: I'm sorry, I was supposed to interview him and he just passed away.

DM: He deserved the Founder's Medal. In many respects, after Ned founded it, he didn't do a lot, but he had the idea and he put it together, and he had the big fund that attracted everybody. He had the wrong idea of the way to do it. He did it his way, just didn't work, whether it was managing or not. And in the end, Ned wanted to use the Association to sponsor business development companies, the kind of company he was trying to develop, rather than what we were doing. But he deserved that, and [Hanshen] deserves credit for the incentives. I didn't originate it, but I sure—

CK: You got on board, and as usual, I think, in your way, contributed an enormous amount, and seemed to enjoy it. Fortunately, you've enjoyed what you've done in life.

DM: I enjoy life.