

# Oral History of C. Richard "Dick" Kramlich Part 2

Interviewed by: David C. Brock

Recorded: July 21, 2015 Mountain View, California

CHM Reference number: X7447.2015

© 2015 Computer History Museum

**David C. Brock:** Well, last time I had the pleasure of interviewing you we really-- we went deeply into the story of PowerPoint and Forethought and I wanted to talk to you about some of your experiences with some of your other investments, but before that I realized last time we hadn't really talked about your profession as such--

# C. Richard "Dick" Kramlich: I agree.

**Brock:** So I wanted to-- if we could, I thought we could start with talking a little bit about venture capital in the 1970s and then move into some of your New Enterprise [Associates] investments over time.

# Kramlich: Okay. Sure.

**Brock:** So I wonder if you could talk to-- tell us about just what the landscape of venture capital was like in Silicon Valley in the 1970s in terms of your greatest rivals, maybe your partners, people you worked with, different types of venture investors, and themes in their investing-- if you could just paint us a picture, if you will.

**Kramlich:** I came to San Francisco and environs of Silicon Valley from Boston in 1969 as a partner with Arthur Rock.

Brock: Right.

Kramlich: And he and I had a seven-year partnership and in '69 it was like '99. It was the peak.

Brock: Okay.

Kramlich: And, suddenly, we dropped into a horrible ten-year period.

Brock: Mm.

Kramlich: In fact, I think in '74 one technology company went public.

Brock: Wow.

**Kramlich:** And that was it. So we raised ten million dollars from the likes of Gordon Moore and Bob Noyce and Alex Zaffaroni and Henry Singleton and Jay Last and a group of very-- a distinguished group of limited partners. I brought in about a third of them and Arthur brought in two-thirds. And I was the one-third partner; he was the two-thirds partner. And Intel had just been formed the prior year--

# Brock: 1968.

**Kramlich:** We raised ten million dollars but we never invested ten million. We invested around six and a quarter, because it was such an awful time. We distributed around forty million. So it was a very good outcome and it was a period of time that was characterized by survival.

<laughter>

**Kramlich:** Stay alive and play [sic] for a good outcome. And most of those companies were private and were acquired.

Brock: Okay.

**Kramlich:** That was the time period where that happened. The environment in this area was an old boys' club.

Brock: Mm.

Kramlich: Some people liked Arthur and some people hated him. That was the way it was.

Brock: Mm-hm.

Kramlich: Which I didn't actually, totally appreciate when I was coming from Boston.

Brock: Oh. That there was that--

Kramlich: Schism.

Brock: I see.

Kramlich: Arthur wasn't a member of the old boys' club.

Brock: Mm,

**Kramlich:** First of all, he was his own man. He had his own precepts. He had come out to California from New York with the organization of what became Fairchild Camera and Instrument.

Brock: Right.

**Kramlich:** Fairchild Semiconductor, which was really a foundation of the semiconductor business in Silicon Valley. And he's not extremely a gregarious guy. I found that to be an acceptable way of doing things. I learned a lot from Arthur. Arthur's a very intelligent guy. And so at the end of that time period-- and that was during the period where the United States was in very shaky form economically as well as militarily. We were at the end of the Vietnam War.

Brock: Right.

**Kramlich:** Nixon resigned in the middle of it. Inflation was in the high double digits. And at the height, up to twenty percent.

Brock: Right.

**Kramlich:** Interest rates were equally high. It was a very uncertain time. So our partnership ended in 1977 and we talked about forming a second partnership. I really wanted to grow as an individual and grow the partnership and Arthur really didn't want to do that. So we officed together for a few years. In that time I investigated a number of alternatives, including teaming up with Tom Perkins, and Bill Hambrecht was another one, and so on. We had very good engagements and discussions. And at the end of the time I elected to join two fellows from the East Coast and form the first bi-coastal venture firm. And our first limited partner was T.R. Price in Baltimore, Maryland. My two partners were Frank Bonsal, who had been with Alex. Brown, and Chuck Newhall who had been with T.R. Price and whose father had been with Laurance Rockefeller. He knew a lot about the venture business. The name, "New Enterprise Associates," which we adopted, had been dreamed up by General Doriot originally at American Research and Development and he gave permission to use that name to Chuck.

Brock: How about that. <laughs>

Kramlich: It was very wonderful of him to do that.

Brock: Very nice.

**Kramlich:** I knew General Doriot as well and thought the world of him. He was a great man. He brought the spirit of the venture business foremost into the the American public's understanding, because AR and D was a publically held company that he headed up. We were at the tail end of this very difficult time economically and the venture business had been really going through some hard times itself, because there were no exits to speak of. Very few. So we organized the firm and, before that happened, Arthur and I individually made investments in Apple Computer. I spent a good part of 1977 investigating the entire PC industry because it was just being born and spent a lot of time hanging out with people and got to be totally acquainted and familiarized with what I thought were attractive aspects of it. I thought we were going to another whole technology wave. So that investment was made in November of 1977-- I wanted to have NEA consider that as its first investment, but the amount of money in my partners' points of view was too small.

Brock: Oh!

Kramlich: So!

<laughter>

Kramlich: I mean, yeah!

<overlapping conversation>

**Kramlich:** Anyway, I invested in it myself. That was before the partnership was formed. We started trying to raise funds in January of 1978. Our goal was 15 million and we closed on 16.4 million in June of 1978. I was the lone ranger out here and Chuck and Frank were on the East Coast. We subsequently moved the East Coast office to Washington, D.C., where it is today.

# Brock: Okay.

**Kramlich:** NEA has a staff office outside of Washington in Timonium, Maryland, where we have all our financial and legal information.

# Brock: Oh.

**Kramlich:** There we run all the back office duties. This whole idea of a bi-coastal approach, while it wasn't easy, stretched us to the point where it's served us extremely well. When we formed NEA, we were very familiar with a lot of companies on both coasts, because there was not much funding going on.

## Brock: Mm.

**Kramlich:** And we said, "Why don't we just either invest in some of the portfolio companies that each of us have been involved in before?" That Arthur and I had been involved in, or on the East Coast where Frank had been involved in or Chuck. So we did that and then in November of 1978 the tax laws changed regarding capital gains. There was a congressman from Wisconsin who introduced lower capital gains taxes and that sparked a little bit. And then in the following year, February of '79, Congress passed a law enabling pension plans to invest in alternative asset classes.

## Brock: Okay.

**Kramlich:** So other than just publically traded stocks and bonds, you could do private investments. That was really engineered by a group of VCs who deserve a lot of credit.

#### <laughter>

**Kramlich:** You know, Reed Dennis, David Morganthaler, and Pitch Johnson, prominent among them, and I think Bill Draper played a role in that as well. So that changed everything. And what it really affected were publically held stocks and the new issue market, because not long after that was when Ronald Reagan came into office and the tide had begun to turn. Thanks to Mr. Volker we tamed the beast, inflation. And the country was off and running again. And it turns out that these investments that we'd made in NEA One just sprinted ahead. So we wound up distributing 62 million on 16.4--

# Brock: Wow.

Kramlich: And everybody thought that we were a really good team.

Brock: May I ask if that -- was it concentrating in personal computing, that area, in that first NEA fund?

Kramlich: It certainly helped a great deal and the bi-product of that was software.

# Brock: Right.

Kramlich: And then another aspect of it was networking.

# Brock: Okay.

Kramlich: And last time we talked a little bit about--

# Brock: Absolutely.

**Kramlich:** --the birthing of 3Com. I'm proud to say where we stand today, we now have seventeen billion dollars in committed capital and fifteen partnerships. I was the managing partner for the first twenty years and during that time we had a compound rate of-- internal rate of return, net to the limited partners -- after all, costs, including fees -- of 41.4 percent per year. That covers seven partnerships.

We had a good team of people and we founded the strategies that we still pursue today. The med and the tech teams. Med team has four sub-units; the tech team has five or six; med team has their own bio-pharma or biotechnology, instrumentation, and services.

# Brock: Mm-hm.

**Kramlich:** And then we have the typical ones on the tech side. We had a series of good people and we made minor alterations along the way, but we never-- in fact, to this day we've never lost a person who we didn't feel could do better somewhere, else we had one person retire, Peter Morris, and he was concerned more about his family than anything else. He retired as a young man, his father had died at fifty-six, and he didn't want to have the same experience. He didn't know how long he was going to live.

<inaudible>

# <laughter>

**Kramlich:** He's doing really well and he's still a venture partner of ours although we don't see enough of him. He's a wonderful guy. And the other thing that happened from an overview point of view, is that we decided in the year 2000-- I had some good estate planning advice at that time and we had gone from a twenty-five percent carry-- paying back all the fees, by the way, before we make any distributions to ourselves-- we had 99:1 to the limited partners, general partners, and paying back the fees on top of that. So principle first, fees second, and then we'd split to have the big balance with twenty-five points to us and seventy-five to the LPs. And we'd had a great run and it was at that point we were changing our strategies. We were always one of the larger funds. With NEA Two, we were shooting for twenty-five million, we wound up with forty-five. NEA Three, we were looking for a hundred, we wound up with a hundred and twenty-five. NEA four was one hundred and fifty million. NEA Five it was around two hundred million. NEA Six was two hundred and thirty million. NEA Seven was three hundred million, something like that. NEA Eight was five hundred million and NEA Nine was nine hundred million.

# Brock: Mm.

**Kramlich:** So in the year 2000 we went to market in March, 2000 for NEA 10. We were looking to raise 1.5 billion and we raised 2.3 billion. We couldn't really turn it off. We we didn't close until September.

# Brock: Wow.

Kramlich: So the good news was that we only invested a little bit of it prior to-

#### <laughter>

**Kramlich:** --the meltdown in 2000 and most of it was invested after that. And then we re-thought our metrics in NEA Eleven, and we were gonna-- we said, "Maybe we shouldn't really raise a billion dollar fund?" And we said, "Well.." We thought we could do it. So we raised 1.1 billion. And then NEA Twelve was two and a half. NEA Thirteen was two and a half. NEA Fourteen was two and a half. NEA Fifteen was 2.8 plus three hundred million dollars in a side part fund for people who wanted to invest alongside us in specific companies. That was 3.1. So that gets you to the seventeen billion. And we made distributions all along the way in equally large amounts and the year-- and the thing I was going to focus on was that in the year 2000 we put into place real teeth in our management company. Most equity funds -- private equity and venture funds -- really use the management fee, the management company, as just a pass-through.

#### Brock: Mm.

**Kramlich:** We had started in 1978 with a goal of building a hundred-year partnership. And it's very difficult to think in those terms, because, you know, these are, in our case, twelve-year partnerships with three optional one-year additions to that. Still, it's short. Most companies have a hard time maturing in twelve years, much less ten years.

#### Brock: Right.

**Kramlich:** And so you have to think in terms of decades. That got us to thinking about our plan as we got into this billion dollar-plus category. And so what we did at that point in 2000, we went to thirty points of carry--

# Brock: Mm-hm.

**Kramlich:** --from twenty-five. And there were only three or four firms that had thirty points of carry. And we felt that we couldn't earn it without good performance, obviously. But we said for our own well-being we were doing fine on twenty-five points. So we decided to think about our limited partners and about the long-term. So we took the other five points and we put it into the management company--

# Brock: Mm.

**Kramlich:** --with the idea that we wanted, first of all and most often thinking about the limited partners, to think about continuity. If you raise money every three and a half years or so and <laughs> the turnover is-- they're what I call the "hit and run" people where they get one hit and they think they're geniuses--

#### Brock: <laughs>

**Kramlich:** --and they go start their own fund and it gets to be a proliferation of funds and people. And if you're a limited partner of a fund where some people had had good performance leave at the end of that fund and there's still, you know, five or seven years running on that fund, you know, who's gonna mind the store?

# Brock: Right.

Kramlich: And I was actually inspired to reflect when I saw Vinod Khosla leave Kleiner--

# Brock: Huh.

**Kramlich:** --I said to myself, "Why is that?" And what I came up with was, you know, "There's nothing to keep him there."

# Brock: Mm.

**Kramlich:** I don't know what went on at Kleiner that lead to that and it doesn't make any difference, but I said, "You know, we can't let that happen to NEA. We have very talented people. We have a lot of responsibility to our limited partners and we work for them. We work for the limited partners. We work also for our companies. So we have to find a way of bridging this gap."

# Brock: Mm.

**Kramlich:** So we-- and we thought if we raise these larger funds, given that extra five points, it's going to build up to be quite a bit of capital over a long run. We can use it in a number of ways. Most often what we can do is provide an ultimate career path for everybody at the firm. So we were selective about bringing our general partners over the hurdle into being members of the management company as well. And we used a formulaic approach for that. We picked out, I think, six of us and sort of compiled the carries that they had had in the prior funds to get relative merit in how we stood and allocated the interest accordingly. It's been fabulous. And we can take our time paying us out, because, just like a lot of these large funds take a longer time, it's tailor-made for our size fund and for the time it takes and for how to keep people engaged and excited about the firm. So it's been a great development. And I don't know if anybody else does it--

# Brock: That's fascinating.

**Kramlich:** --but we-- and another milestone of our firm from the very beginning, in addition to this having two teams with as much experience and knowledge, hands-on as we could in those two areas of activity-another thing we did was treat everybody equally. I was the lone ranger here and I had two partners on the East Coast, where the cost of living is two-thirds of what it is out here, or more exaggerated than that even; I said, "Let's everybody draw the same draw, because we're going to pay it back anyway. So we're goal-aligned with our limiter partners. We wanted to, you know, have as little go in the way of salaries for us as possible so that it wouldn't take so much to pay them back <laughs> before we ended the feerange and earned carry.

Brock: <laughs> Right.

**Kramlich:** And that's why we feel so strongly about the value of carry in our particular field, because people, if they are fair with their limited partners, they're going to keep their fees to a minimum and never pretend to make any wealth from your fees. You only earn money when the limited partners earn money.

Brock: That's how you can align the interests strictly.

**Kramlich:** Goal-alignment was always one of our first and foremost-- transparency and goal-alignment were two keystones. And that really fit into this idea of paying everybody the same. So we called it a draw. We'd have the same draw as everybody else. We have-- the management partner has a modest fifteen percent, which is virtually nothing.

<laughter>

Kramlich: Just to give somebody the responsibility to answer questions from the limited partners.

<laughter>

**Kramlich:** It worked out beautifully and that five points went into that. Now I'm the chairman of the management company and I go to the Monday meetings and I am on seven boards for NEA, but I'm no longer a general partner.

## Brock: Mm.

**Kramlich:** So I started another small activity that doesn't conflict with NEA. And I advise NEA anytime I see something that is up the alley of NEA. So I have a very active and constructive relationship with the entire firm and it's great. And we have two offices in India and two offices in China and these two main offices in the U.S. We have small offices in Boston, New York, and Chicago.

# Brock: Mm.

Kramlich: We have made a couple of investments in Israel and Europe.

# Brock: Right.

**Kramlich:** So it was-- Benchmark came along and actually without knowing our model they did the same thing.

#### Brock: Oh, interesting.

Kramlich: Which is they treated everybody the same. I think it's a first-class way of doing things.

Brock: It makes perfect sense to me.

**Kramlich:** And then as people come in, you know, they come in as interns or assistants and then they became partners and then general partners. So we tried to keep a very flat organization. So, in the meantime, we've seen firms evolve. Some have evolved better than others. A lot has to do with the hierarchy in the firms, I find, and I won't name any names, because it's useless to do so, but everybody knows that some people want to dominate things and control things, and if you're in that sort of frame of mind, you don't belong at NEA.

## Brock: Mm-hm.

**Kramlich:** In our case we're a team. We've always been a team; we have leadership and we have people we look to for leadership within our own organization, but we're team members.

## Brock: Okay.

**Kramlich:** And that's the way we play the game. And so I think we have a model that can last forever, because we're not dependent completely on our next fund.

Brock: Mm.

Kramlich: Right now we have five in active funds.

Brock: Is that because of the management company that doesn't make you dependent--

Kramlich: It's one aspect of it.

Brock: Okay.

**Kramlich:** We have an independent party-- Duff and Phelps values the management company each year, so that we have a basis for treating the partners who are retiring by converting their interests from equity to debt.

#### Brock: Mm.

**Kramlich:** And then we pay them out accordingly over a period of time. We ask for flexibility on their part, on the retiring partners' part, so that we never get ourselves in a contractual bind so where we can't afford to pay them.

#### Brock: Right.

**Kramlich:** So we don't pay on a pre-fixed scheduled. We ask for teamwork on the way out as well as teamwork on the way in.

<laughter>

Kramlich: I'd say that the business has gotten pretty professional.

Brock: Yeah.

**Kramlich:** And I have half a dozen firms that I hold in very high esteem above others, but I am not fixed on this. I just keep my eyes open and I can see comers and goers and I applaud the comers. My basic philosophy is I'm for the entrepreneur.

# Brock: Yeah.

Kramlich: I regard myself as, first and foremost, an entrepreneur. I come from a line of entrepreneurs.

# Brock: Right.

**Kramlich:** I had my grandfather, my father-- all entrepreneurs. They all did well. And-- but we never believed in spoiling our children or taking away their energy and their drive to do something on their own, become as expert as they can possibly be in what they're doing. And that's the way I've treated my own children.

# Brock: Mm.

**Kramlich:** And they know this is not a handout. We want them to-- my father used to say, "I want you to know, Dick, that you'll never go bankrupt with me as your father. I'm your banker of last resort."

<laughter>

Kramlich: "But I expect to be re-paid."

# <laughter>

**Kramlich:** So that's the way I've treated our own offspring. So that's-- I think that's the philosophy of NEA and we find ourselves in an ever-changing institutional environment. The limited partners have gotten very wise and they, I think, understand how to rank people and look at them over the long-term. I think this idea of continuity is a very big thing with the limited partners. And they want to know that you're gonna be here tomorrow and the day after tomorrow and the day after that.

# Brock: Right.

Kramlich: So that's the way I look at it.

**Brock:** There's any number of interesting things in what you just said. A couple that occurred to me: I had noticed this tremendous growth in the size of the partnerships--

# Kramlich: Right.

**Brock:** --from one to the next and including, I believe, some of-- if not the largest, you know, partnerships raised in venture capital.

Kramlich: Oh, yeah. I think we're the largest now.

**Brock:** I wondered if-- I wondered what advantage there was-- maybe it's just because I'm not wise enough to recognize it-- is there a natural advantage in making them ever larger? Because I could also see, well, perhaps that would bring with it difficulties--

Kramlich: Of course.

Brock: --as they became larger and larger.

**Kramlich:** You're dealing with something that's very central in asking that question. So one thing I personally cannot stand is bureaucracy and I think that feeling is shared by all--

Brock: Yeah. <laughs>

Kramlich: --in our firm. So we have tried to avoid the rigor mortis of a bureaucracy.

Brock: Mm.

**Kramlich:** And so what we've done is modify our approach to the venture business in the following way: We are what we call geographically independent--

Brock: Mm-hm.

Kramlich: --we are stage independent; we have a large seed fund.

Brock: Right.

**Kramlich:** --we have a large growth equity practice. We do it all under one framework and we have teams within the team that handle these things. We asked some of our companies that we invest in, "Who's really doing good work, and who's really making good investments now, and how many people does it take to make a decision?"

Brock: Mm.

**Kramlich:** What we found out is under certain circumstances the answer is four and we said, "All right. We can make a decision based upon the following parameters, following metrics by four people." Four general partners. We have eleven general partners now--

Brock: Okay.

**Kramlich:** --covering these two basic teams. And we did a little bit of investing in the energy area and we said, "Really, that's not our thing." So we didn't do any more of that. We actually had two really great companies that are coming out of that. One is-- these are not public yet, but we think they're both great. One is Bloom Energy and the other is Tri Alpha Energy.

Brock: I've heard of Bloom.

**Kramlich:** We've we can invest in the East Coast, West Coast, Europe, Asia, and India and China. And we have trusted teams in all these places. And we can invest in anything from growth capital to seed capital and in between. And we've studied where most losses take places: Most losses take place when you have a large amount of money invested in a company that doesn't have its scale properly understood, its business model properly understood, or perhaps the right management or perhaps even the product line not well understood. So we try to limit to some extent internally the amount of funds we expose to companies with those characteristics.

# Brock: Right.

**Kramlich:** And we found our loss ratio in terms of dollars lost per partnership has radically been reduced even with those great returns that we had in the beginning because they were smaller partnerships and we could get homeruns and--

Brock: Right.

Kramlich: --make the losses somewhat irrelevant.

Brock: But in a bigger fund the losses become more of a factor.

Kramlich: More of a factor. Exactly.

Brock: I get it.

**Kramlich:** So we've adjusted our thinking accordingly. So we have to make agile decisions. That is, we let everybody-- we always make decisions in full view of everybody.

Brock: Mm-hm.

Kramlich: That is, we only make decisions on Monday. We only spend money on Monday--

Brock: <laughs>

**Kramlich:** --and the whole partnership understands it. We don't want any partners who are in the woods about what's going on at the firm.

Brock: Right.

**Kramlich:** And it includes all the interns. It includes everybody. And the eleven general partners are the ones who had the final say on what goes on, partnership. So we found that with a-- we can be big and think small.

**Brock:** Interesting. Just so I know that I'm understanding correctly, you're saying with the losses, it's less on those-- what for you is an experimental level of investment, these smaller investments, which I take it

would be mostly the earlier stage investments, would be smaller. You have overall a less exposure to loss than making an investment in an established firm that there's something not quite clicking there. That's where you can really lose a bundle.

**Kramlich:** Right. We have a reputation for staying with our companies and to a fault perhaps. But usually those are companies that are well-understood, and we think they just take longer. Some take longer and so we're going to-- we try to calibrate the capital and the longevity individually, by company.

**Brock:** That's interesting. It just occurs to me that perhaps you'll hear about Wall Street analysts and having these-- always the short-term expectation for the performance of firms. But it just occurred to me that for you and maybe others in the venture business, it allows you to have a much longer term time scale.

Kramlich: Right. I don't trade. I don't trade, never traded securities.

Brock: How about that!

**Kramlich:** I actually don't play in the public markets. Just don't do it. I really try to just concentrate on what we're really doing on the fundamentals and working with good people.

**Brock:** You mentioned the change in the law that allowed pension funds and other institutions to participate in venture capital, invest as limited partners in these partnerships. Did that become-- and I imagine that prior to that time, it was wealthy individuals who would be investing as limited partners.

Kramlich: Mostly, yes.

**Brock:** Has that proportion changed? Has it become now mostly institutional limited partners and individuals as a minority. I wondered just how that...

Kramlich: Yes, very much so. We have some ...

Brock: Oh, it has.

**Kramlich:** We have some of our partners that were in NEA One who are still limited partners, which is great. Individuals. But, for the most part, it's become dominated by institutions and with-- they usually have a large set of responsibilities in colleges and endowments, pension funds. State pension funds had become very professional and so-- and they knew what questions to ask and they have an excellent track record on what-- they have access to all the track records of people in our world. And so they want people that are going to be consistently top decile or top quartile and you just have to be ready to put your suit on and play the game. It's still fun.

Brock: Simple as that.

Kramlich: It's still fun but it's hard work. It takes a long time.

**Brock:** To develop those?

**Kramlich:** All these characteristics. It takes a long time to put a sizeable amount of capital to work. We've been involved in over 1,000 companies. I know every one of 'em. I mean, for better or worse, I know every one of 'em and I wasn't involved in no more than a normal amount but we have long memories. And, if you're in a partnership, there can't be any secrets and so people have to play the game that way and-- but, to answer your question, is this an advantage or disadvantage, I'd say I couldn't answer that question. I think how you employ your resources is the most important thing and a small firm can do a good job of it or a bad job and a big firm can do a good job or a bad job. So I don't think it makes any difference. I think, in our case, we want to have great people and we want to make sure that everything's-- all the principles we started with are still abundantly clear.

Brock: Maybe the scale makes more sense given your ambition for a hundred-year partnership.

Kramlich: That's exactly right.

Brock: Maybe that-- yeah.

**Kramlich:** These people hear that and they think it's just an aphroism. We meant it and we're 38 years into it.

Brock: Approaching the half-way point.

**Kramlich:** That's it. So that's my view of the business and I think that-- as I said, I'm for anybody who does a good job for the entrepreneur. That's why I embrace change. I'm not afraid of it.

**Brock:** One thing that I was really intrigued by in the NEA story is the bicoastal geographic diversity, because it strikes me that-- it's my impression and I wonder if you think it's right-- that, whether it's medical life sciences, that part of the world, or the digital technology for lack of a catch term, that it's very geographically lumpy. It's in these different clusters...

Kramlich: It is. It is.

Brock: ...these places. Boston...

Kramlich: Seattle.

Brock: ...Virginia, Seattle.

Kramlich: Texas.

**Brock:** Right, and is there then a corresponding kind of lumpiness of people doing venture capital in those same exact place? I wonder if you could tell me about what those places are.

**Kramlich:** Yes, supply and demand is local. That's what I would say. That it's so that each-- the most--Silicon Valley is about 50 percent of the whole. It's pretty amazing. That's what it was last year.

Brock: Wow.

**Kramlich:** I would say it ranges between 35 and 50 percent and then the Boston, is second. Middle-Atlantic is up there somewhere. That would be anything from Atlanta to New York, has become quite prominent in the venture business and there's some very good-- they're consumer based firms in New York and other firms as well. Seattle is a very good place. Austin, Texas is great. Dallas is pretty good. San Diego has its own biotech coterie. Minneapolis, Chicago to some extent. Those are about the places.

**Brock:** Is it similar-- I can just hear it in the places where you have your non-U.S. offices. It's these-although, I don't hear Europe in there, which is fascinating to me. But certainly India, China, you think of those as centers of high-tech, Israel certainly.

Kramlich: I thought you were talking just U.S. but...

Brock: Well, no. I was talking U.S. but now that I think, if you can...

Kramlich: <inaudible>

Brock: ...zoom out and it's worldwide too.

**Kramlich:** I make a point to travel a lot-- for the first time, the U.K. has a chance to set itself apart from continental Europe, in a superior way. I think it's because they've graduated beyond the private equity being a family dominated situation to more institutional and upstart companies that have-- they have a lot of good technology in the U.K. and it's beginning to be employed in a traditional U.S. manner. Europe is also-- has its strong points and Sweden is a good example. They have a lot more than you'd think...

Brock: Yeah, you're right.

**Kramlich:** ...in Sweden. Very entrepreneurial drive in Sweden and Germany, of course, has always been technically excellent but they have this guilt, Schadenfreude idea of-- where you can't fail 'cause you fail, you're banned for life. I mean, that's not a good thing to have as part of the culture but that is the way it is. Israel is dynamite.

Brock: Amazing.

**Kramlich:** Yeah, amazing and a lot of companies come here from Israel. In China-- we lived in China for '08 and half of '09 'cause I wanted to get on the ground floor understanding of what really made it tick. And China is a nation of entrepreneurs and it'll play out over time and they're just beginning to put a saddle on the beast and it's a challenge to know exactly how to regulate the securities business.

Brock: Oh, we've just seen that.

Kramlich: Yes, and so-- and they're lurching ahead. And India is largely dominated by 40 families.

**Brock:** Oh, I didn't realize that.

Kramlich: It's actually almost 50 percent of their gross domestic product are controlled by 40 families.

Brock: Oh, my lord.

**Kramlich:** It's amazing and it's going to take a long time before that changes. So there is an inbred practice over there of teaming with the Tatas and the others. And so you have to-- there are really rare occasions where a new family comes up. And there have been a few examples of that in the last 20 years but not too many. So then I think elsewhere it's spotty but there are obviously entrepreneurial things going on in places like South Africa or Poland and places like that. But those are the main ones that I've mentioned.

**Brock:** Well, maybe I could-- I was curious. One question I neglected to ask you last time was what was your first-- I'm interested in the emergence of software as an industry, as a category in and of itself, because it's become so incredibly important and has changed in so many ways today. I was curious what your first software investment was in venture capital, either with Arthur Rock or with NEA.

**Kramlich:** Let me think. I think, actually, the first pure software investment was called Software Publishing Corporation. Pretty good firm, had a good run. Didn't make a transition in management but was good for 10 years.

Brock: Was that the company that then became ....

Kramlich: It was right on this road.

Brock: ...VisiCorp or something. Was that...

Kramlich: No.

Brock: Was that them or-- that was called Personal Software.

Kramlich: Personal Software, right.

**Brock:** Software Publishing, they produced something that was a presentation software. Did they make Harvard Graphics.

**Kramlich:** No, they didn't make presentation.

Brock: I'm confused about the publisher.

**Kramlich:** There was a software part. It was publishing and, I mean, we talked about 3Com. 3Com was a software company.

Brock: Really?

Kramlich: Really what it was, it was really a networking-- it was networking software called Ethernet.

Brock: That's interesting.

**Kramlich:** I mean they used hardware the same way Apple used hardware, but Apple had a lot of software in it. And so they-- over time, it became identified in different ways.

Brock: I guess, thinking forward to Silicon Graphics, in a way, that's a...

Kramlich: <inaudible>

Brock: ...initially software kind of embodied in the chip if you will.

**Kramlich:** That's right. Exactly what it was. So when subsequently we have-- at NEA, our largest practices are in SAS, software as a service.

#### Brock: I saw that.

**Kramlich:** I mean, we have over 20 percent of our companies are in that area and-- at least as a bedrock and then they expand from there. So we have an awful lot of software and we have a great number of operating people, people who had software backgrounds. Scott Sandell was at Microsoft.

Brock: Who's working with...

Kramlich: He's the new managing partner.

**Brock:** Oh, I didn't realize that.

**Kramlich:** Yeah, he's superior. He's been with us 17 years and he embodies every characteristic that I just mentioned in how we've tried to form the firm. It's...

Brock: Interesting.

Kramlich: He's our third managing general partner now.

Brock: So there was somebody in between you and ...

**Kramlich:** Peter Barris. Peter had been at General Electric. He was president of a software company and joined us on the east coast, Washington.

**Brock:** That strikes me as probably more-- was that more stable leadership than other places in the venture business?

**Kramlich:** I think so. In the third generation, then we just, and the key is, become either general partner or stop. One of the two.

**Brock:** Yeah. Well, it seems to me that over the course of your investing in software, it goes from a period where, in the earliest period, kind of hardware and software come together...

Kramlich: That's right.

Brock: ...in a package to then there's software as a product that you can publish and sell...

Kramlich: Right it was...

**Brock:** ...almost like packaged software. Then it's turned again to now software is something that you've just pay-- the software is a service or it's something you're just paying for its use, I guess.

Kramlich: That's right. Exactly and you move from a license to a subscription base.

**Brock:** Right, yeah. I can see that in my own personal experience, what's happened with my productivity software. Now I'm just a renter.

**Kramlich:** We've talked about PowerPoint. PowerPoint's totally software. That was the first software presentation product actually, if you wanna put it in those terms. That's what I loved about it by the way.

Brock: The graphics theme of it.

Kramlich: Right. Use the software in graphics to transform a particular activity.

**Brock:** I was interested in-- I guess it was the period with your second NEA partnership. The early 1980s really seemed to be this important-- coincides with this important real big first wave of personal computing.

Kramlich: That's right.

Brock: You were in it a little bit before with Apple, certainly as early as you could get into it.

Kramlich: That's right.

Brock: But this seemed to be the real big wave.

Kramlich: That's right.

**Brock:** I was wondering if there were other investors, other people, who you saw around who really got what was happening with personal computing the way that you did.

Kramlich: Oh, yes. John Dogrr.

Brock: Oh, he was?

**Kramlich:** Yeah, John was big, very pronounced in that area. He and I were on three or four boards together but John is perfect in that environment and there're others too that are awfully good.

**Brock:** I know today, when I'm doing various readings, I'll often see a number of venture firms or venture partnerships making investments together. Was that also the case...

Kramlich: All of us do.

**Brock:** ...from the very beginning if you're involved in that.

**Kramlich:** Wes, we-- as I said, Arthur wasn't really a member of the old boys' club and so I came out of that, not being a member of the club really, I think. And I didn't ever try to necessarily change that one way or the other. I just sort of let nature take its course but I developed a lot of professional friendships and have been involved in many projects with a lot of other VCs and enjoyed most of them.

**Brock:** I suppose it'd be like any other activity. You find people you enjoy working with, you're sympathetic or work similarly and maybe work with them again.

**Kramlich:** Yeah, and I was asked to be the president and chairman of the NVCA. I was doing that and I was the president of the Western Association of Venture Capitalists. So I always took my responsibilities pretty broadly. I know you wanted to talk about one or two companies <inaudible>...

Brock: I did, I did. There was one that I thought was...

<off topic conversation>

Brock: I was looking at a...

<off topic conversation>

**Brock:** Well, one thing that I did notice is that, if the figures I dug up are correct, it seemed that-- this is looking across all the various NEA partnerships-- that from the start to 1990 about 25 of the firms that you had invested in had had an IPO. So that's over more than 12 years. Then, in the following six years, 1990 to 1996, there were 74 IPOs...

Kramlich: That's right.

Brock: ...and I was just really curious about that huge difference, the huge acceleration.

**Kramlich:** Right, well, it's a product of the stock market in part and also we had been deploying more sizable amounts of capital. So it was really a combination of the two that fueled that increase. We now have had 204 IPOs...

Brock: Wow.

**Kramlich:** ...since we started. Two hundred and four IPO-- I think that's correct. Excuse me. Wait a second. Two hundred and four IPOs, three hundred and twenty-four companies acquired. That's it. Five hundred and thirty or so exits altogether.

**Brock:** Okay, now it makes sense to me because maybe the-- if it's a very small firm, the more likely outcome is an acquisition of it.

Kramlich: That's right.

Brock: Then you have to get to a certain kind of size where it makes sense to do an IPO.

Kramlich: So we've had about 60 percent acquisitions, 40 percent IPOs.

Brock: Okay, well, that perfectly explains it 'cause that would track the increase in size of the funds.

Kramlich: Right. Last year we had 20-- I think we had 26 exits.

**Brock:** Wow. I also compiled a list of the eight companies that NEA brought from the startup to billion dollars by 1999 and I wanted to talk about-- maybe next time we could talk about all of these companies but one that stuck out to me as a little bit of a departure was Immunex, which was a very important firm.

Kramlich: <inaudible>

Brock: I wondered if...

Kramlich: You from Seattle?

Brock: No...

Kramlich: <inaudible>

**Brock:** But it seemed, in terms of the other ones that I was looking at, it was biotech, a very important biotech company, different area. Was that an outlier in the early period for you?

**Kramlich:** Well, we didn't have teams until NEA Four and so I was able to roam and I always have liked the medical practice side of things. And there's only one way to learn and that's to jump in the middle of the pool, and with respect-- for example, we had a-- there was a company called Advanced Cardiovascular Systems that we were the largest shareholder. John Simpson was the MD who ran it. We merged it into Eli Lilly, then it went public, but I was involved in that. I was involved in-- that was all catheter technology and I was involved in five other companies in catheter technology solving different kinds of problems. And so basically there was a whole run of good things that all happened.

Brock: Interesting.

**Kramlich:** We were all acquisitions. Then, in the case of Immunex, it was the first pure cancer therapeutic company in the United States and had great technology coming out of University of Washington. A man named Hood and they had a couple of great-- one particularly great guy is an inventor up there and a very competent CEO. The answer is it was a bit of an outlier in that they were doing something very revolutionary and-- interleukins it was called. And, I mean, I went to school on that. I was involved in that company for nine years...

Brock: Wow.

**Kramlich:** ...and I learned as much as I could possibly learn about biotechnology through the eyes of that company and it made me a better participant going forward. And so one of the things I love about the venture business is the fact is it's lifelong learning.

Brock: Did you then do more biotechnology after that, then...

**Kramlich:** So my partners, after we became organized, 'cause meds and tech, they couldn't figure out where I belonged. And so I remember them telling me, said, "Dick, you actually have the best record among all the other partners..."

# Brock: Med side.

**Kramlich:** "...but you don't really know what you're doing do you?" I said, "Not really. I can learn but I don't know." And so that I just became aware of what questions to ask the people who were coming in and asking for capital in the biotech/biopharma area. We now have a fantastically strong team in that area, headed by a man named David Mott. He is...

Brock: So, as a firm, you really went into it after that.

**Kramlich:** Really big time, and this is-- and we now have a really great person running services too. And then we actually added another dimension to that because we brought in some people who were very knowledgeable in publically held biotech companies. Biotech companies have a lifeline that's longer than two venture capital firms, conventional venture capital firms, if they were five-year or seven-year partnerships. They last as long as 20 years in the development stage. So we brought in two people who had been involved in-- and were very good people and could do multiple talents. So we actually carved out a pool of capital within our partnership to invest in public abandoned firms that were in the biotech area.

**Brock:** Oh, how about that.

Kramlich: That's worked out very well.

**Brock:** To pick up where other people didn't have the stamina.

**Kramlich:** Where they abandoned them and they were in stage two or in the big--you don't really do anything to get beyond stage three clinical trials. And so it's worked out really well, but that's another added dimension. As I said, that's another advantage of size. You can specialize within the context of the partnership in small doses, in areas that where there's an awful lot of promise.

Brock: Yeah, that makes sense to me.

**Kramlich:** We call it dynamic capital allocation. When we're raising a partnership, we like to say what areas we're gonna focus on that we haven't done before or haven't done as much of before and vice-a-versa.

**Brock:** I will burden you with one last question. I was thinking about this evolution-- back to software, I have software on my mind-- from...

Kramlich: I complement you on all the study you've done of this.

Brock: Oh, thank you very much. I appreciate that.

Kramlich: <Inaudible> to do that.

Brock: It's a lot to try and make sense of.

Kramlich: It is.

**Brock:** With the software, this hardware and software together, software, it's a packaged good on its own too. We'll just call it software as a service. I could almost think of it as maybe that software as a service is an endpoint. Because I can't really envision a scenario where it goes back.

Kramlich: You can't.

Brock: What do you think about that?

**Kramlich:** Well, I think what's happening is that it's evolving. Thanks to the internet, it's evolving to apps and more than apps platforms. We're interested in platforms and that's where you get to next in your evolution of things.

Brock: After software as a service?

Kramlich: Yeah, it's at least one branch goes that direction.

Brock: Okay, and what would be an example of a platform as you see it?

**Kramlich:** Okay, well, I would say I think Google is a platform. I mean, it really is and I can give you a lot of examples.

Brock: Okay, <inaudible>...

Kramlich: Facebook is a platform.

Brock: Okay, I understand what you're meaning by that.

Kramlich: Right, those are both major platforms.

Brock: Absolutely.

Kramlich: They really are fantastic.

Brock: Kind of environments within which people do all sorts of different things, yeah.

CHM Ref: X7447.2015

© 2015 Computer History Museum

Kramlich: A sort of ecosystem, that's what it is. That's what a good platform is, is an ecosystem.

Brock: Interesting, so that's almost kind of an expansion of software as a service.

Kramlich: Exactly, right.

Brock: Fascinating.

**Kramlich:** So I've been lucky enough to be involved in 11 companies that have gone to the billion dollar number. I'm including Xoom in that one. It just is getting acquired right now, by the way.

Brock: Oh, I haven't...

Kramlich: By PayPal.

Brock: Oh!

**Kramlich:** It's a great fit. And as eBay/PayPal going opposite directions, PayPal has \$7 billion war chest. Just took a billion of it and gave it to Xoom and I think that's a great fit.

Brock: Xoom is one of your endeavors?

**Kramlich:** Right, so I'm still on seven companies for NEA. The one I hope is gonna be the most important of all time for me is still in that group of companies and it's called Tri Alpha Energy.

Brock: Oh, you mentioned it earlier, yeah.

**Kramlich:** It's the one that is-- anybody that read this would-- this'll happen after it's know 'cause we've kept a strict lid on the company from a public standpoint. But we achieved what we call-- steady state is one way of putting it. It's a fusion company...

Brock: Oh, my gosh. If that works then...

**Kramlich:** ...that we're talking about and we achieved positive net energy output on a continual basis and...

Brock: Well, all my fingers and toes'll be crossed for that one because ...

**Kramlich:** I told my partners-- this happened on June 23. I said, "This could be-- and we've proven how long and the other thing we have to do is how hot." And so this is using magnetic confinement using proton boron as our material, which under temperature and pressure converts into hydrogen under temperature and pressure into helium, and then under temperature and pressure into helium three. And that's what Tri Alpha stands for, and we've had the entire academic community saying this couldn't happen. We have eight-- our scientific advisory team is eight people. Four of 'em are noble laureates. We have a fellow with us, by the way, Arno Penzias, who got the Nobel for...

Brock: Oh, yeah, I know that name.

**Kramlich:** ...validating the backend of Einstein's big bang theory in '76. Burton Richter, he's here in San Francisco and Arno was the one that got us into this and he asked me to join him on this endeavor. And so I said, "Look, I did well in chemistry and physics but I'm a normal guy." And he kept on insisting and so I said, "Okay, I'll do it on two bases. Number one is you give me a tutoring test in plasma physics, 'cause that's what this is all about. And, secondly, no tests." So that's what it is and-- but it's incredibly exciting and I would say it's-- whether this comes to pass-- I don't wanna spoil it by saying anything about it but-- it could be as important as recombinant DNA...

Brock: Sure.

Kramlich: ...and as important as the invention of the semiconductor.

Brock: Oh, yeah, I mean it's been...

Kramlich: Those two things. I think it's in that league.

Brock: Fusion certainly.

Kramlich: Fusion.

Brock: Absolutely would be.

**Kramlich:** And it has so many ramifications that Arno Penzias thinks that one of the real use is gonna be for desalinization and a mass level, very inexpensively. Our cost is 5 cents per kilowatt hour.

Brock: That's great.

**Kramlich:** That's really-- coal is four cents without remediation. So we really have all our fingers and toes cro-- now we have to improve the temperature. But we're talking with utilities and we have a guide. We know where we're going. We have 295 issued patents, 129 on file...

Brock: Wow.

Kramlich: ...and it's really a serious deal.

Brock: That's very hopeful. I mean, that's been such a long dream of getting to fusion that...

Kramlich: That's right.

Brock: ...any step closer is fabulous news.

Kramlich: You'll see something in the fourth quarter this year in "Science Magazine."

Brock: Ah, well...

CHM Ref: X7447.2015

© 2015 Computer History Museum

**Kramlich:** You might guessed. The other fella who's involved in this, who I think the world of, is Ray Rothrock.

Brock: I'm not familiar with him.

**Kramlich:** Ray Rothrock. He used to be with Venrock and he's left and he's on his own. He's running a company called RedSeal. He's a great guy and he was a nuclear engineer in the navy.

Brock: Oh, so right in his area.

Kramlich: Yep. Well, thank you so much. This was great, yeah.

**Brock:** Oh, thank you, yeah. Thanks for staying a little bit extra.

END OF INTERVIEW