



Hartmut Esslinger Oral History

Interviewed by: Barry Katz

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Barry Katz: Professor Dr. Esslinger, Willkommen.

Hartmut Esslinger: Thank you.

Katz: This is Barry Katz talking with Hartmut Esslinger, the founder of Frogdesign, one of Silicon Valley's—and the world's—leading design consultancies, at the Computer History Museum on April 20th, 2011.

Hartmut, you've been interviewed a million times ...

Esslinger: Maybe a thousand...

Katz: ...okay, a thousand times. We'll cover some things that you have undoubtedly spoken about before, and hopefully some new things. Visitors to the Computer History Museum are obviously mostly interested in the history of computers. You're not a computer scientist, a computer programmer, or a computer entrepreneur, but you've had a pivotal role in the evolution of modern computing from the standpoint of design, and that's the angle that I'd like to explore with you. But first, let me go back to Germany, if I can, and ask you: When did you first become aware of industrial design as a profession?

Esslinger: I think I was five years old.

Katz: Tell us about that.

Esslinger: I grew up in this tiny village in the Black Forest, and we were in school with just eight kids in one class. I saw cars driving by—some pre-war stuff and some new things, Volkswagens came out (called the "Beetle")—and I thought, "That's what I want to do." So I designed cars. My grandfather was from the North Sea, so we went to the North Sea and the Rhine River and saw ships. So I designed ships. I actually designed ships and motorcycles and cars all the time.

Katz: All when you were five years old.

Esslinger: Yes, and my mother was always tearing up my drawings. I was notorious for getting kicked out of school, but I was always designing nevertheless. When I went to high school we had a music teacher—he was the backup for [Herbert von] Karajan at the Berlin Philharmonic—who had retired and decided to do a little bit of teaching. He said, it's not just drawings or doing this and that; "It's about living a *life* as a creative person." When he died 10 years later he was really like a father. He gave me the self-confidence that, "yes, it's fine" —despite my mother always ripping the stuff up and the other teachers kicking me out.

Then I went in the Army (which, by the way, was the family tradition—my grandfather felt that the Army should also have democratic people), and that enabled me to study engineering. The first time I came into contact with computers, by the way, was at the university in Stuttgart.

Katz: You better give us a year...

Esslinger: It was around 1966. I began with typing and printouts and you got five or maybe ten minutes with it—it was just a toy for us. And then one day my professor in mechanics said "Esslinger"—in Germany you're never called by your first name—he said, "Esslinger, your drawings are too nice. You will not make it as an engineer. But you have something else. Why don't you look at design?" I didn't know there was such a profession. There was car styling; there were guys doing tableware... but not in technology. And so he got me into a presentation by Herbert Lindinger who had come down from Ulm,ⁱ and suddenly I saw that you could do automotive stuff, transportation, sewing machines, electronics, all kind of things, and I said, "That's it." So from Saturday to Tuesday I switched schools. My mom fainted when she heard it—my dad wasn't excited either—but I knew this was what I wanted to do. It was in 1968, I think, that the whole thing switched and since then I have had a great life.

Katz: So you came to design with a pretty strong engineering orientation?

Esslinger: I studied engineering, and in the Army education the officers' academy was also very technical. I didn't like the Army engineers blowing things up, so it was a hard learning experience, but when I came to design I had an advantage because not many designers knew anything about technology—not just technology, but all of the development processes. German education is pretty strong in process management, time planning, project management—in fact, what we call "German rigor" is really the engineering. You can see it in the cars—they're pretty reliable. That gave me an edge. I did not have to do tableware or just a new front for a hi-fi amplifier. I could actually design the whole thing, and that set my career on a different level. From the beginning of my career, I said [to clients], "Let me see the company." "Why do you want to see the company?" "I want to see the production." I had worked at Siemens and AEG as an intern, so there was this different level of trust. And by doing that, having been forced with this engineering thing, I just started to respect it more because I saw how much you can do with it.

Katz: One of the things we often see is the designer is either a slave to engineering or makes unrealistic demands upon engineering; what you're talking about is a position in the middle.

Esslinger: Yes, I see that also as I'm now teaching a lot. The problem is, in society that the left-brain people have the power because they make all the money; they're rational; they manage companies; CEOs and so on. Steve Jobs, is a rare exception, and also Akio Morita;ⁱⁱ they are creative, but most CEOs are just number guys. You see what happened with GM: The finance guy ran it into the ground. But they have the money and the creative people are kind of easy to victimize. They say, "The executives don't understand me." That's BS. You have to work as a professional and it's not about liking or not liking; it's about the right thing. Social sustainability, ecology, production, finance, the whole thing of human interaction—and that's not about things to be liked or not liked. It's pretty difficult to get through that and many half-talented people think, "Yes, I do this and that and I'm a great designer..." That's the attitude that leads to thinking that the author is more important than the object. I grew up in a very pietistic Christian environment. For example, my grandmother fed mice and bugs, never killing anything, and my grandfather always said "You are born not to be happy but to do your duty, because only by fulfilling your duty we will receive real happiness, bring it to others." It first sounds stupid, but it's a great value for life, I must say.

I also discovered that there's another aspect. You have to look at people, and I like to observe people. It's not only being curious but asking, "What are they doing?" "Why are they doing that?" – but it is about intuition. I have four kids; each of them is very different and I think that's what design is about. Look at

something and then break it down into pieces and then discover something else in the pieces. For example, I did this test with my students (but I cannot do it any more because it's now too well known): I put a teapot into a bag and took a baseball bat and I just broke it into pieces. Then I said "Okay, put it on the table and make something of it. There's glue, make something." The non-talented guys try to remake the teapot; the other guys start to do wild stuff. And that's where the magic happens. You look at the pieces and you discover, there are so many shapes in this teapot— it's infinite. And it's not only shapes; it's concepts, it's different things. I think that is probably the most important talent as a designer: you must work always with people. I have critics who say, "Hartmut's not talented, he only was lucky." At least I was lucky enough to be curious and to hire the right people. And respect them. And I was lucky enough to look for the best companies to work with – not the established ones, but the ones with the potential and the will to make it big.

Katz: That doesn't sound like luck to me.

Esslinger: Yes, it's a bit—I mean, it's a lot of luck. For example, WEGAⁱⁱⁱ was looking for a new chief designer because they wanted to get out of the doldrums of being dependent; they were basically an OEM for others like BRAUN, a small company, five to fifteen million dollars back then, and they were looking for a new design direction. So I went and showed them my stuff. Dieter Motte was the co-owner and CEO—he was my first big client and I owe him a lot. He said, "Yes, Esslinger, this is nice stuff. You can be an intern next year." I said, "I want to be the Chief Designer." He said "Are you crazy? You are too young." And then I won the first German Federal Award 3 months later. There was a big ceremony in Berlin, and Dieter Motte who also got an award, realized that something had happened here. He ran after me and said, "Esslinger, we have to work together." I said, "Yes, make me an offer." The offer was lousy but we got together. At first he wanted nicer design, but the bigger challenge was that there was a lot of innovation happening around new production methods. You also could not really use a TV back then. You couldn't find the buttons behind the lids. I mean, it was crazy. So I said, "We must create a new dimension where design comes to the masses; it must be easy, accessible for everybody, and there are also new production methods which make it cheaper and more unique. And it's also important to make technology inspiring."

Dieter Motte was the grandson of the founder. He was 38 years old back then, and his father had run the company. It was a tiny firm, and very stodgy. I had a father, too, who wanted me to run his business (fashion—I didn't like it), and even though the elder Motte had said I was too young and was ruining the company, I told him, "Your son is CEO now; you cannot get involved in it." I had to take the same medicine later with frog: If you get out, you are out, or as we say in Germany (and probably here too), "You can't keep pissing in the pot." We had lots of arguments, and finally his dad said, "OK, let's wait a little bit." And then we started to innovate. I looked at different opportunities and created the first WEGA design line, with the help of our suppliers who invested too. The deal was—he was still kind of conservative—"When I have a crazy idea, you don't pay me much—a couple thousand— but I want to get the model-making money. So if I have a great idea and your engineers like it and we like it, I want at least get the model-making paid for." And my models were expensive because they were perfect. In the end he agreed. After one year, in the beginning of 1970, we made a presentation and he said, "Yes, it's very nice, very nice, very nice. So what about the wild stuff?" And then we showed the wild stuff and he said, "Oh, unbelievable, but nobody can make it." But his engineers, who had worked kind of as a skunkworks, said, "Mr. Motte, everything is fine. You just sign the POs [purchase orders] and we will get the tools and be ready for the show." So he signed it— he actually was courageous—and we took it to the largest Berlin Fair. When it opened, people were lined up 16 deep to see it.

I also helped him to get rid of his advertising agency, kind of a typical corrupt agency. I said "You have to work with the best," and the best we could hire was Leonhardt and Kern—it was the German Chiat/Day back then.^{iv} And then, also get a good photographer. I said, "Get the best." We got a young wild guy, Dietmar Henneka, who was and still is incredibly good. They spent a couple of hundred thousand dollars on advertising, and then suddenly this tiny company that came out of nowhere, just launched itself to national and European prominence — a bit like Apple in 1984. As said, people at the trade show were standing 16 or even more rows deep to get in to see it, and it was just an instant hit.

Katz: How old were you?

Esslinger: I was then 26.

Katz: It's a pretty amazing story. WEGA really launched your career.

Esslinger: Yes, but now comes the good part. When the products and the news got out, people started calling me and one of them was Otto Müller, whose company, CTM, was a spinoff of Nixdorf (he later got famous for doing the wireless chips for Toshiba, so he is basically the grandfather for all the wireless chips). He was a crazy programmer (as we have many here in the valley) but his wife Ilse was very smart in terms of business acumen and she said, "We need great design too. We want those WEGA lines."

Katz: And that was your first computer?

Esslinger: That was 1971. And working with CTM helped over the years to be connected with the computer scene (I collected all the Altairs). So when we met Steve Jobs later, I was not that as unprepared as it may look.

Katz: We'll definitely spend more time on that, but before we get too far ahead of the story I want to pick up one important piece of it: Can you tell us about your design education? You moved from engineering into design; and this is at the design college at Schwäbisch Gmünd?

Esslinger: Yes, that was the school. At that time a coffee maker was already considered high tech. As I was the only guy in the semester who had a technical education, I did radios and synthesizers and lots of these things. My teacher was Karl Dittert—he's still alive at 96. He had an incredible aesthetic talent but he also felt a true joy when a student made his or her own advances. A lot of teachers are envious, just as many designers are envious of others, but he was not. He said "Esslinger, if you do this, move on, move on. And I don't know what you should do but move on and do this and do that and do this." He was never holding you back, nothing was foreign to him. He was just an incredible inspiration even though the work he did as a freelance designer was quite conservative.

I also had an interesting experience, when I was working in the studio to raise money. He had a job for kind of a garden device and I did it in two days. He said, "I cannot pay you a lot of money, Esslinger"—about five bucks an hour—"but you did an incredible job. What you really take away from this is that you can do it yourself. Now you do it." Naturally he was a little bit angry with me when I got the WEGA contract because everybody wanted it. That was the only time he was a little bit off base but otherwise he was an incredibly good teacher. When I teach, at frog and outside, it's important that I don't try to put my stamp on people but look for the specific talents and then encourage them, but also force them to work

with their talent. A lot of people have a lot of talent. A lot of people are diligent. I think if you are diligent without talent it's kind of a tragic situation but if you are talented and not diligent it's a crime. That's something that came with this Black Forest mentality my parents gave me, and also my grandparents: there's no limit to hard work.

The interesting thing is that each good designer has some gene in them, but they have to find it; and then you have to work on it. Too many people get discouraged. Yesterday I was in a meeting at frog and somebody asked me, "What do you do when a client doesn't have vision?" I said, "Ask them what they thought when they were 15 years old, 12 years old." Everybody had a vision back then. Let's rediscover it and help them to get there again.

Katz: I was building submarines in my head.

Esslinger: Very cool. Actually, that was actually a German no-no because of the tragedy of the war, but they're interesting vehicles—Captain Nemo.

Katz: Part of the educational experience you just described is a gifted teacher who helped you find your center and then pushed you and pulled you to realize it. But what was the college itself about? Did it push you toward the practical and the utilitarian or toward the more conceptual? Was it more skills-based, ideas-based...?

Esslinger: We also had a political challenge back then. It was '68, and we had a lot of teachers in Germany who were former Nazis. It was really disgusting; even the governor of our state was a former Nazi judge who had sentenced somebody to death for stealing a loaf of bread. It's similar to the Tea Party; I see a lot of parallels to this primitive, populist, thinking here. You have to stand up. You cannot only say, "I'm a functional person;" you also have to be a political person. Because we were so political it helped us also to overcome some limitations of college education. There was a big movement back then in Germany about traffic safety - too many people got killed - so companies like Mercedes and Bosch put a lot of investment into ABS [anti-lock braking systems] and airbags. So safety was a new aspect in education and at the college level. Overall the good thing was that design was not that defined yet. So, - for example, colleagues of mine in college did teapots or tableware or furniture. I did high tech. It was all open, but I think it was really good for me in hindsight. We had a fantastic teacher in illustration, Nicholas Plump—he could draw with both hands. When he signed his name, he signed like this [gestures], with two pens.

Katz: Amazing.

Esslinger: He said, "Drawing is training your eyes to see, your brain to perceive, and your hands and fingers to do what needs to be done." And then you bring it to the next level of abstraction. For example, I did a lot of American renderings as a kid, and Nicholas said, "You could have been a visual artist – but as a designer you must think in concepts, so simplify!"

The second important thing that is really underestimated today was typography. Now we have Photoshop and Illustrator software and much more, but it's like what Erik Spiekerman is still pushing: the analog art of typography really teaches you the feeling for proportions. If you have to design an E and an S and an N next to each other in a certain style you can kill yourself, but you also learn so much from it.

And then you look at the geometric constructions of gothic domes, of mosques, even cave paintings—that was an incredibly good education. I thought it was kind of meaningless at the time, but I really profited a lot from it. We just got black ink, a brush and no white to cover up mistakes; that was really, really good.

The third big advantage was sculpture. We had a good teacher in sculpture and he forced you to look at an apple and make a big apple like this with all of the mountains and valleys. He said, "All life is like fractals." He was ahead of his curve with that idea, that everything can be broken up in pieces but you have to see the pieces. That has helped me to be very fluent in sculpted designs because you cannot just give shape on the computer and think it looks good. Henry Moore is not for nothing such a good sculptor. You can look at one of his surfaces for an hour and you still can't figure out how he did it. It's unbelievable. It's not a surface; it's a story. And I think that was part of the crafts and the philosophical background: How do you translate it into something that is new but still familiar? If you are only new there's a problem—say the designs of Karim [Rashid]—things age very quickly. The more it is based on underlining familiarity the more lasting it will be. If you look at the Apple design language we created, it was not to design a Mac; it was to find a way to give a cultural expression to a new technology, artificial intelligence, and put it in everybody's hands, minds and hearts. Back then in '82 that was quite a statement. And even today, if you look at Apple and Braun and Olivetti, it's always very simple, but if you go into the details, then you discover and you discover and you discover. Design is basically the equivalent of the content.

Katz: So it's neither some kind of romantic searching for timeless forms, nor this compulsive drive to do something new.

Esslinger: Yes, it is systematic and professional. You know, the good thing about education in Europe is they take you through the aesthetics of the Babylonians, Iraq, Egyptians, Greek, Romans, the Medieval, the Renaissance, Lorenzo di Medici as the mentor of Leonardo da Vinci, Michelangelo Buonarroti and Filippo Brunelleschi— all the great artists, engineers, architects, all the cathedrals, all the mathematical laws behind it, the mosques, incredibly complex, beautiful in mathematical proportions like the mosque in Isfahan (probably the most beautiful building on earth). And when you understand the 3:4:5 proportion—which only happens once in no matter how many zillions of numbers—there must be something to it. I always liked playing with the numbers. So in each of my designs, when technology and usage was predefined, I looked for the underlying numbers because then people will feel, "Yes, it's new, but I know it."

Katz: So there's something that connects a laptop computer to the mosque in Isfahan.

Esslinger: Yes. If it's made without feeling, like a lot of today's laptops, you feel there's nothing to it.

Katz: Arbitrary.

Esslinger: Actually imitating. I mean, there's the famous example of our psychology professor back then who told us all the time: We go through the woods; we're still evolutionary animals, and a leaf is moving. So is the leaf signaling danger? And before we think we run because the back of the brain is focused on survival. Then we think, "Oh, maybe it's not so dangerous. Can it be hunted?" So within four seconds we go through the process of running away to hunting. That's how we experience products. And he then brought up the fact that people get babies; they look at their baby and they rediscover themselves and so that's the basis of love. It's a new human being, but it's similar to them.

Katz: So you witness the whole evolution in those four seconds.

Esslinger: Yes – our cognitive evolution - and that's what so important about our inner emotions. Marvin Minsky proved in tests that eight positive events create a kind of an emotional trust; so if it happens the ninth time, we believe it right away. One negative one takes a long time to fix. You have to understand that when you consider aesthetics. Aesthetics are grounded in emotion and if they are not, they may be attractive for a second or two but that's it. I think that's the problem in our consumer culture today. So many phones—they are perceived to be ugly because they don't have connection. There's no pattern—this is what Steven Holt always said: "We need to find the pattern that connects," and that is the only secret of superior versus mediocre design. It's not about beauty; it's about connective patterns.

Katz: One or two more questions about your training, your school education; I'm really interested in this idea that part of your education as a designer was that you went back to the Babylonians and medieval Islam and the cathedrals and all of that. How about the Bauhaus? Was the Bauhaus history then, or was it still a vital force?

Esslinger: Very important—a bit overrated, but important. What really happened was that an Austrian architect, Josef Hoffmann, went to Japan in the 1860s or 1870s and discovered the Japanese house with its grids, the shoji [movable screen], and so on and he came back and they put these ideas to work in the first architectural designs of what they called the "Vienna Secession." That was pre-World War I. That was then actually a design for the rich and for those who were courageous enough to say goodbye to the old feudalistic aesthetics of Rococo and tasteless Victorian and so on. After World War I, which was this huge disaster, as we know, a lot of people felt that the old tactics, styles and fashions had become really stupid. People like Gropius saw that industrial production also has changed the way of aesthetics, and that aesthetics had to change to adapt to industrial production. It should not be imitation of classical shapes, such as mass produced chairs with paper mache that look like wood carving but the discovery of the *industrial* shape of things. They also saw it politically as a democratic departure from the imperialistic ways of the past. It's really interesting that all dictators on earth to this very day have very bad taste. The only exception is America where we have too many tasteless buildings and homes. I don't know why our country liberated itself from the British and still uses their aesthetics of the '1760s.

The Bauhaus redefined usability, the morality of products, the industrial shaping of products with good production methods. And there was also a political statement, a departure from feudalistic dictatorial aesthetics. And if we look at what happened with the Nazis, there was an exhibition called "Pervert Art" in Munich...

Katz: *Entartete kunst*—we usually translate it as "Degenerate Art."

Esslinger: Yes, *Entartete Kunst*—and it's the most beautiful exhibition you can imagine. It was popular. People actually did like the art, and that was the tragedy. When you look at the buildings of Albert Speer and so on, there's nothing in them you could like; they were klotzy, horrible. I still to this very day don't get it that the Germans didn't see that this brutal and evil aesthetic expressed the murderous spirit and action of these guys, but this was probably a bit deeper in the German soul back then than we think. Then came the school in Ulm founded by Otl Aicher, Max Bill and Inge Scholl; she was a sister of members of a Resistance group...^v

Katz: The White Rose.

Esslinger: Yes, in Munich. I did not get accepted to that school because already it was at the end, and, for me, it was probably a good idea not to get there because I was probably too pragmatic for them.

Katz: I think it closed in 1968.

Esslinger: From 1953 to 1968, I think. They did wonderful things in terms of interaction design with slides changing in order to illustrate industrial production and make it accessible for boards and managers; it was basically Hypercard if you think about it. So, there were a lot of crazy ideas. Also, they already felt that industrial architecture could be made for low energy consumption and things like that. Actually the Braun company—Dieter Rams, Hans Gugelot and so on— was really an expression of the HfG design. Dieter is a good friend of mine, even as we disagree a bit on concepts - so I once said, "Dieter, what you did is the Modern Jazz Quartet and what I did was the Stones and the Beatles."

Katz: Hartmut, can you explain that?

Esslinger: The Modern Jazz Quartet—classics like the tune Django (honoring Django Reinhardt)—that is Braun design. It's nice, beautiful, it's also creative but holds back. Still, you get never tired of it. As for my designs, I never got tired of the Stones.

Actually, we were at the Stones concert in Oakland a couple of years ago, and one of the guys from KKR (one of our financial partners), was there. He is 30-years old, so my wife said, "Adam, you are too young for this." And he said "I'm here with my mom." <laughs> There's something to it. But one big advantage of design education is that you have to do it on an individual basis. And I think it's also natural that not everybody can do it but if you are talented in design, for example, and have a visual memory, you see things. For me, personally, the world is more ugly than beautiful, except for nature. Most artificial things are kind of ugly; that's why there's so much to be done. It's a bit like being a doctor: You're always with sick people. But the big point is, it's not only what I discovered early on about things being ugly; it's also about there being too much. If I look at a shop with too much stuff in it, I think, "What is it?" If I see production in China of stuff that is not inspired, I think "Oh my god, why can it not be stopped? Why can't we make it great?" It's basically a moral mission we were on; it's constantly in all your life.

Katz: What we're hearing from you so clearly is this interplay of the technical, the artistic and the moral or the political. They're inseparable components of your education as a designer.

Esslinger: Yes, you cannot separate things from each other. It explains the crisis of companies right now. If we take the medical example, think of someone with a chronic illness: He won't die, but he is not willing to cure himself. It's really hard when you have this kind of Roman Empire approach; one guy can check three others and suddenly you have marketing thinking and engineering thinking and then you have finance and everybody lives in their own world. Marketing has their dreams about the market, engineering has their own dreams—they collide. And finance comes in: "Yes, but we cannot pay for it." One of my students, Johanna Shoenberger, did a wonderful diploma in Vienna and then she went on to her dissertation about strategic design at companies. After working for four years through all this stuff she came to the conclusion that it can only be solved at the top. She interviewed people around the world; then she proposed that it's the responsibility of the board to find CEOs who will respect both sides of the equation. Actually, it's kind of a sad analysis of financially run companies. There are very few examples like Richard Branson, Akio Morita, or Steve Jobs, who—in the technology world at least—shine. There are others in industries like Alessi in furniture, and some other good examples in Japan,

who really care, but if the top person does not respect or understand that creativity helps business beyond the mechanical functional issues, then it will remain a numbers game.

Take HP: I don't want to get into it too much, but I think Carly Fiorina was a good CEO in terms of ideas. The problem was, the guys inside did not feel she was – so she should have replaced them. That's the biggest problem in companies. Somebody has good ideas and the guys just don't listen and they are left in their positions and they can continue to jeopardize the whole thing. Mark Hurd cuts R&D down to whatever, I mean, that also should have been protested. Then he got fired for this ridiculous thing but there was something else going on. Look at the Board, I mean, how incompetent! Such a big company, so many people, families, customers depending on it and they don't care; that has to change. Then it got a German CEO who got fired by a German company—I mean, it takes a lot to get fired by a German company! And now they give up on progressive hardware - I don't know what they are thinking.

Katz: Moving us forward toward the beginnings of your career, there was one particular episode that happened to you at the very end of your student years with the Kienzle Clock Company.

Esslinger: You means the atomic watch?

Katz: Tell us about that one; it was a bit of a turning point for you.

Esslinger: Yes, but you must understand the situation back then in Germany. It was '67, long ago, 40+ years, and the situation was that watch companies wanted aesthetic designs – no new ideas. I probably was the only guy in that group who proposed technology, this big clock that could receive a signal. I was ahead of the curve, but this was a design competition and because it was an atomic clock receiver, they said "Agh!" I got angry, naturally, and I decided to make my own company. That was one thing my grandfather instilled in me. He said, "You must never be the anvil. If anything, you will be a hammer, but never the anvil." Junghans they remembered that and they found a way to get it into a desktop clock," and I got that project. Then I said, "Now how does it go into a wristwatch?" and then we did that too. The antenna was in the wristband and it worked. And now it's made in China and you can get it for a couple dollars.

Katz: It was a very visionary idea.

Esslinger: Yes, but I would not overrate it, Barry, but for me it was important because it showed me that people should not look only for aesthetics.

Katz: And it also speaks to one of the responsibilities of the designer, which is to be surveying the technology landscape, figuring out what's out there that is not sufficiently utilized.

Esslinger: Another point about what we did in the '80s with Junghans: I said, "One day with this watch you could get messages." It's interesting: The cell phone, as we have it—the smartphone whatever—has never shown up in science fiction, except for the communicator in Star Trek. Even in [William] Gibson's novels, people run around with keyboards and stuff. Nobody got the idea that you can have it in your pocket. So, somehow reality is ahead of science fiction. <laughs>

Katz: You were still a student in 1969 when you founded Esslinger Design with Andreas Haug and Georg Spreng.

Esslinger: Andreas and Georg joined in late 1970 but the company actually started after this watch competition in '68, but Germany's a bit funny about taxes. When I went to the tax office and said, "I want to start a company," they said, "Come back when you make some money." So I filed my first tax return in '69 and they said, "You made some money in '68." I said, "You told me first to make some money!" So, I could have been sued on my first revenue of \$30,000 per year. <laughs> Even after I started moving around the world—Japan, and then America—our company was always suspicious to the guys from the German IRS: "We have to do an audit." I said "Why? There's nothing wrong. In 20 years we've done nothing wrong." But they said, "Mr. Esslinger, you don't match the pattern. We have to audit you." So we had all the books in a room and every two or three years they came and looked at the same stuff again. Once they found \$28,000 we were supposed to pay but then one of our clients had mistakenly held back some taxes and we got \$45,000 back. So at the end, we were about \$10,000 ahead. But the money they wasted—always a week, four people—unbelievable. They said, "We have to do it. Creative people are not supposed to have a business. There must be something wrong."

Katz: So you started what was then Esslinger Design; it would be 13 years before it became frog...

Esslinger: Yes, that was an interesting thing. At first you call it by your own name—it's logical, kind of the ego thing, and I was alone—but I also had the desire to make my company more social. I had an offer for an internship in Italy which would have required that I pay them \$2,000 a month, and I found this exploitive. I told myself that if I make some money and I need people, I will pay them well, like engineers, because I didn't want to exploit people. If I didn't make enough money, it's my problem. The fact that I offered creative people a professional salary meant that I got many people asking for jobs. I mean, I was alone in this garage and people came and...

Katz: Was that in your house?

Esslinger: Yes, that was when I moved to the Black Forest, in the garage. It was a small garage. And some machinery was on the balcony under the roof because of the fumes. It was tough in winter with gloves, but we made it. We were baking models in the oven so there could be no cake, no roasts no turkeys any more, but it was fun. People came to this shabby place and asked for jobs where other big companies, Siemens and so on, just offered them a couple hundred bucks a month, so I could always choose the best people. And that, I think, was the big idea of my life—other than getting together with Patricia, my wife and partner. We always were for teamwork: find the best people and let them do what they do best but work together. The only check you need is ethics. No lies. Honesty. When something happens, bring it up; no hiding no stupid punishments, but accountability. So we got this frog spirit created and then I thought, "Yes, everybody calls for Esslinger, but Georg, and Andreas wanted their name in the company too. I said "That's not going to work because we want to be many people. One day we will be a thousand people." They said, "Oh you're crazy," and so on. So I felt we needed something else. The first step was to take the frog as the logo because we had many frogs in the valley. Then came the Montreal Olympics where there was Federal Republic of Germany shown not as FRG, but as —F-R-O-G" and the East Germans G-D-R, and then I thought, "Yes, that's it, Federal Republic of Germany." They said "You're crazy—FROG?" It took awhile, and I had to buy them out in 1982 before I could afford to call it frog. But we had the frog logo at least.

Katz: Wasn't there a story about Mr. Motte of WEGA seeing your model and saying, "It looks like a Frog?"

Esslinger: Yes, once we made a Television in green and he said, "Now I know it's really a frog." But it was more of a Cyclops. We had agreed on that. <laughs>

Katz: When you founded the company originally, were there a lot of small design companies like that? Were you the only one?

Esslinger: There were tons of them. We just did a research project in Austria: In England of about 100,000 designers, 90,000 are self-employed in small studios, which means only about 10,000 are in companies. I think it's one of the symptoms of a bad economy for creatives that you have to start yourself to get work. IDEO, frog, Ziba—there are not many like us in the world. For me, it was quite logical. I learned that from my parents; I wanted to be myself, number one, but I also wanted to do it with others. A couple of friends back then started their own design companies but they're still four people, three people, 40 or 45 years later. I wanted to build a company with a different motivation. Once we were sitting together, just the three of us, and I asked, "What is our goal for the next five years or seven years?" It was seven years, like in the Bible, and I thought, "We want to have a frog-designed product in every shopping center on earth." They said, "You must be crazy," but we made it. A lot of people are self-limiting and they say, "Okay, I've reached my dream. I've got a second house. I've got another car. I am happy." But I think we are in this world for a bigger task.

Katz: There were only a few alternatives for somebody graduating with a design degree: start a one- or a two-person studio in your garage, or go to work for Siemens or Braun or Lufthansa or something like that. A corporate design position, even though more secure and more predictable, had no appeal to you?

Esslinger: There is no security. <laughs> I mean, yes, that's actually interesting. In the creative field, a corporate position is normally not very safe anyway. If you take Motorola as an example, there are very good designers in-house but they're not used. One reports to engineering, another reports to Marketing, no cross-connections..., so there's no focus. Sometimes there is a great design, sometimes not so great; but nobody is really held accountable for corporate vision. And if you are there, you may not even have the chance to prove your value. If you are at Apple, you are a hero. If you are at frog or IDEO, you're a hero; at Honda, you're a hero; Audi, yes, and BMW, but not...

Katz: ... not a lot more.

Esslinger: —I want to make companies understand, "You have a huge potential, and why don't you use it. It's there but you use wrong processes, wrong approaches." Design must be integrated into the company and you need the top persons to understand it. Take IBM, where Richard Sapper did a lot of good work. Richard was born in South Germany and is an easy-going guy, but he always complained about the stupidity at IBM. He said, "I bring them a thousand ideas and they take one. And I try a hundred times and maybe they do it once." What a waste. What a waste. Compared to that, we took a hundred ideas to Steve [Jobs] and we made five good ones and co-developed them. That was a huge step. After the first year when the Apple stuff came out, Richard nearly cried. We sat for dinner in Berlin and he said, "Why didn't I meet him?" But he would not have gotten along with Steve Jobs, to be honest.

Katz: This is what I hear all the time: "Give me the next Steve Jobs, I'll give you the next iPod."

Esslinger: Yes, everybody wants to be like Apple, but when you tell them what it takes – budget, perfect models, realistic simulations, absolutely no shortcuts and a huge love for people – they balk. But back to IBM: We had this conference in Berlin; Paul Rand was there and he got to the podium and scolded IBM for being the biggest idiots (when Paul got into a rage it was really worth listening to). I was sitting in the hotel in the evening and they showed some pictures of the German terrorist gang "Baader Meinhof" proceedings back then in Stuttgart Stammheim, and I said to Richard, "Look at Stammheim, that looks like our office for IBM." <laughs> It did. He had designed a jail with all those nice and grey ergonomic ideas. It was so striking.

Katz: Hartmut, when did you first become aware of America?

Esslinger: The movie was *Rebel Without A Cause*, naturally...

Katz: James Dean.

Esslinger: I saw it twice, on a weekend. It was so incredible and then we got a bus on Monday afternoon to drive to the American Army headquarters in Stuttgart to get t-shirts.

Katz: Was that 1957?

Esslinger: I guess. I was 12-years old. And I naturally knew about America from the war. A lot of our family had emigrated; I knew that.

Katz: To the US?

Esslinger: Yes, the guys who had mechanical professions actually went to Detroit. I still have an uncle in Orange County, very Republican (must be a remote relative!). Another one actually was a fighter pilot in Iraq. We have, I think, more than 400 Esslinger families in America—more than in Germany, actually. However, the family comes originally from Vienna. And my mother's family is a mixture of Swiss and Friesian-Danish.

Katz: Very European.

Esslinger: So, we got a European education. I was in France a lot, so that helped. I think what I liked about America was that even during the Vietnam War, when America was accused of a lot of things, you did not have to accept everything. I went to America for the first time in 1969 and then I didn't like it in the beginning.

Katz: That was your first trip—in '69?

Esslinger: Yes. New York was cool but the trip back then from JFK to downtown—I took a bus and got off at Rockefeller Center and then took a taxi to the Pierre hotel—and that was not very impressive,

Victorian stuffy interiors.... But what I personally like about our country is, it's about freedom. It's the only country on earth right now that has a 200-year tradition of true freedom. Two years ago we took a history trip to the East Coast with our kids, all the way to Williamsburg, and then we went to the Library of Congress and saw the Constitution. You read what these guys thought about and how this brilliant solution—the Constitution—was created. I mean, back then there was no precedent for this. In the Greek “democracy“ it was one free man to six to eight slaves; it was never really a democracy. And suddenly there was this system where different opinions could be heard. You know, under the Prussian Kings, when somebody didn't like it, they got sent off (if they were lucky) or just disappeared. Our founding fathers had a culture of discourse which still I think today is our biggest strength, no matter how uneasy it is sometimes. My grandfather also had told me to learn English so that I could go to America when the Nazis would come back. He was always afraid of the Nazis because he saw them everywhere still in official functions, and because he knew them. He said, "When they come back, you take your family, whatever, and leave."

The first real “design-shock” came when I tried to get jobs here in America—with the WEGA stuff and computer stuff and all the awards in Europe and whatever I was quite confident. I went to the trade shows and showed it to people. But I was told that, “Americans have no taste.” “This will not fly here.” “This is too expensive.” I said, “No, *yours* is too expensive.” They said, “American consumers are stupid.” I said, “It cannot be true. This progressive county is flying to the moon and you say American consumers are stupid? *You* are stupid.” This didn't get me much business. Then came Sony in 1973...

Katz: Is that because Sony had bought WEGA?

Esslinger: That is a longer story. When I started in design I wrote letters to Sony and said, “You have great technology; why don't you make better design?” I didn't send them sketches, but I said, “You see this nice Apollo recorder for the Apollo program? Why don't you make your products like that? Look at Braun and Grundig and Philips.” And so in late '73, I was called by a headhunter. They said, “There's a meeting tomorrow in Cologne. People want to see you and they want to work with you. It's important that you come, and it's the only day they are here.” It was winter, driving was impossible, and I had the flu, but they said, “Why don't you fly up? We will get you a hotel room, you take a shower, you go to the meeting, and we ship you back.” So I came to the Sony office. Ishihara-san, the international president was there, and because I had the flu we didn't have to shake hands (they were very happy about that), and he said, “Now, welcome to Sony.” When I got to Japan I found that they had all my letters, so my early efforts paid off. And the acquisition of WEGA was then non-related, but it helped my career...

In the first year with Sony I had to listen a lot and there was not much to be done. We were just five or six people, and as a consultant, I helped them understand Europe and especially America. The CES [Consumer Electronics Show] in Chicago was a visual nightmare back then. There was no world-class design. There used to be [Charles and Ray] Eames and [Raymond] Loewy and all these people; where did it all go? So, I said, “Why don't we go to America and show our stuff?” And then Sony became a big hit in America. The trick was, our stuff was cheaper to make. It was much easier to operate. We wanted to bring products to people that are lovable. I think it's an American concept, but we bought it from Japan, so it was successful here. That got the attention of Steve Jobs nearly 10 years later because it seemed like something else was happening, and it was coming from Japan. Everybody thought it was copying, but when you go to Japan, the interesting thing is, the domestic products are nice, simple. One button, very simple, elegant. It's the export products that were ugly because they thought that's what Americans wanted. Really ironic, really ironic.

Katz: You can feel me inching towards your first flirtations with Apple Computer. Can you describe to us how that happened. I know it's a very complex story.

Esslinger: The first time I really thought about Apple was the Design Congress in Helsinki; I think it was '78. You could play around with it, it already had VisiCalc on it, and e-mail. I liked the technology aspect, but I found the typestyle funny. For the promotional material, it was okay, but the industrial design I found horrible—it was typical startup melee, falling victim to somebody who has no idea how it should be done. And as I still worked in Japan, I also told Sony they should do personal computers but they didn't have any idea what it really meant. They did a typewriter that was kind of portable. Remember this thing? With a printer built in?

Katz: Yeah.

Esslinger: They still saw everything mechanical. When I met Steve [Jobs], he did not really talk about computers. Steve talked about bringing this new technology to everybody, and about how it should be the best design on earth. It should be just wonderful. It was really a romantic statement, but that is exactly where he went in his life. He was and he is amazing on that point, no matter what people criticize him for.

Katz: They criticize him for the same reason that they praise him, which is total commitment.

Esslinger: I think what Steve had, compared to all the others, was the courage that he envisioned that intelligent technology would go into everything. He was also not really singling out computers. The iPod, iPhone, iPad are a logical continuation of his way of thinking and doing. What also helped at his return, was to converge digital technology with entertainment and content into digital consumer electronics, Sony was asleep; Samsung just copied Sony; Phillips didn't know what to do. But Steve understood—and understands—that both technology and esthetics are a means to do something else on a higher level. Most people just think features, performance, blah-blah-blah, whatever (the software industry really suffers from this). Steve was and still is the first to say, it's for everybody; it's popular.

Katz: You were one of a small number of European candidates in the Snow White competition, which was Apple's attempt in 1982 to begin to unify their whole product line into a single unified design language. Do you know how you came to their attention?

Esslinger: Yeah, that's a weird story. I was at a party in January 1982 with Jack Hokanson who had been one of my interns in Germany. Jack had been working at Phillips but wasn't being paid, so we got him from Holland to the Black Forest and first gave him three dinners in a row...

Katz: He was an American.

Esslinger: He is an American, from Fremont, California, originally. He now has a little company here called Hoke2. They do cosmetic products. Hoke2 dot com.

Anyway, I came back from Japan after Christmas. Jack organized a party at his place (he had returned to America and started a model shop). Rob Gemmell from Apple was there, and I had a little bit of stuff with me. Rob looked at it and said, "You have to meet Steve Jobs. He is this crazy guy." I said, "Yeah, I have heard about him. He cares about design." So they set up a meeting. I flew back to Europe, and next

time they came around I met Steve and he explained what he wanted: Everybody can do it; kids can do it. I think we understood each other pretty well. Parallel to this, Jerry Manock and Rob Gemmell organized this design competition, but I basically knew what Apple needed. Originally, they thought it would be a copy of Sony, but I said, "That's Japanese. This is different. America must be different. Simple, white, innocent, sexy, and also a bit more radical, a new global brand. You're a young company, you're not like--"

Katz: IBM.

Esslinger: No I meant compared to Sony, because there wasn't even a digital consumer market yet. There was no real market for the product, none at all, so Apple can do what is right. Actually, you must do what you *have* to do. I think the competitor was BIB Studio from London. I never knew why they choose them. They're stuff was beautiful, but it didn't solve the problem. The big misunderstanding of the designers at Apple was that they thought about a design language along the lines of what Richardson/Smith had done for Xerox or what Olivetti had done. But Olivetti never had a design language. Olivetti had a design *philosophy*. Braun had a *philosophy* behind it. At Sony, we had a *philosophy* how to do things. At Sony the rule was, "simple is best." It's the most difficult, so Sony must always be at the edge of impossible. Simple as that: the edge of impossible, and people must love us for it. So when a product was too heavy, Morita said, "People will not love us because it's too heavy. Make it lighter. Make it smaller." So basically, it was a parallel thing.

I then talked to Steve about our strategy. Apple then still did the competition; we also won that. Naturally after we had won it, Jerry [Manock] and his colleagues thought they would take it over and implement it. I said, "That's not going to work because the way you do it, you will destroy it in the first second." It's not because they were bad designers, but they didn't understand what I said before about this bigger capacity of design, that Apple must become an American icon. That's the challenge. It's not a nice product. It's not about getting a Braun coffeemaker or calculator and translate it into a computer. It needs a different spirit.

Steve and also Woz—Woz was a big more playful and also had good taste—they knew they wanted to get different things, new things. Then came all this internal political bullshit and it was really frustrating. I talked it over with Steve and he said, "Why don't you take over as a manager here? People have made enough money with stock options," and they all left. That was the only solution, which naturally didn't help my image in America. We still had a couple of people in Apple, but basically we had this synergy between frog and Apple. The big thing was to be involved very early in concepts and always illustrate a concept when it was discussed, even if it wasn't a design yet: illustrate it; make a perfect model. What would it mean? Then John Sculley came from Pepsi. I think he would have been better as a marketing officer than a CEO, to be honest. Sculley always had his IBM mania in his head, I don't know why. It became more difficult, but at least he understood that we were involved. Still there were discussions about tooling cost and working with partners in Asia as partners. Our highly criticized "zero-draft thing" actually was an advantage. It's identical. It looks expensive despite being just "plastic"...

Katz: You should probably explain for the interview what was so radical about the concept of "zero-draft."

Esslinger: Yeah, everything was in plastic. You have to pull it out of a mold, so you have the angles, which gives products a cheap look. At Sony, we had developed a way of getting zero draft, because we want to get products earlier to market. So instead of two or four tools, we made 16 or 32 pieces that

more people could work on. Then we put them together with a collapsible core and it looked like it was made from steel. It just looked fantastically expensive, and we shaved off time to market. Apple internally built models with draft. That did not make us friends, so the book you have there is actually full of crap.

Katz: Which book? I've got three books; two of them are by you, so I think that's not the one.

Esslinger: Paul Kunkel.^{vi} It's full of crap – when he called me he just wanted to verify that I was a jerk. At least somebody collected all the stories, but Kunkel never understood what Apple is and never that design is about an attitude and ethics. If you look at Steve Jobs, what has to be understood here is that it's not Henry Ford. It's Lorenzo di Medici. In the Renaissance, he was this guy running Florence and sponsoring Michelangelo, sponsoring da Vinci, sponsoring—the guy, who built the famous dome in Florence.

Katz: Brunelleschi.

Esslinger: Brunelleschi, yeah. He was sponsoring all these guys to advance science, aesthetics and art.

Katz: And like you, he had this obsession with hiring the best.

Esslinger: Yeah. I mean, imagine that concentration. It's also forgotten that he invented financial systems of lending, of interest... all the words—banker, discount—they're all Italian words. Steve Jobs is the Lorenzo di Medici of the modern digital industry; he's the great visionary. And Lorenzo had incredibly good judgment. You could not have Michelangelo Buonarroti and Leonardo da Vinci working for you and not understand what they did. Brunelleschi said, "I built the dome, not like the mosque with the double roof but with a single roof." Oh my god. Lorenzo knew why and he let him do it. That's the big point here. So I think Apple—and I felt this from the very first moment—is a cultural phenomenon. It's economic and it's industrial, whatever, but it's basically a cultural phenomenon. It gave the digital age a face, the tools, wonderful tools. That's what many never understood back then; that is the point.

Katz: And that's your criticism of what's in the Apple design book?

Esslinger: Forget this book, but Apple's board also never saw it. Then when they asked Steve to go, they took all of Steve's ideas and recycled them: "Yeah, the master chef is gone, but we have the cookbook. We can do it much better" John Sculley and Jean-Louis Gasse told everybody: "No toys anymore, now we build real computers". It was ridiculous, and Gasse made this engineer Rich Jordan "design manager" who tried to cut frog's budget to shreds, insulted me and my people and then went on a global search by name not by competence" But they could not do it, because they all were design-illiterates. That's the sad thing. Then Steve came back in 1997 and saved Apple from the brink of bankruptcy. It's a tragedy now that he's so sick, because he should live for 150 years. There are very few people like him.

Katz: Most people would agree with that.

Esslinger: Those who don't should check their sanity. Also when you see what Steve did with Pixar. He let them work, gave them money—nobody understood why—and they did this miracle. Like Lorenzo, he let them do it. He didn't push— maybe a little bit, but he let them do it. I think that is the big misunderstanding about industrial leadership, of business leadership today. You also have a cultural obligation. We spend so much money on stupid stuff. We should spend money on *better* stuff and *less* stuff. I think it's even ecological. Ten million iPhones have a higher profit than 107 million phones from Nokia. It's more ecological, because Nokia phones will go to the trash, quicker than the iPhone.

Katz: You've explained very powerfully what you saw in Steve Jobs. If Jobs were sitting here, what would he say he saw in you?

Esslinger: I think at first he was a bit afraid, because he didn't really like what I did at the beginning. But I worked for the goal, and I think it was his greatness that he took the risk and didn't stop me. Maybe like Brunelleschi when built the plan for the cathedral. Lorenzo didn't tell him, "Go safe."

Steve wasn't soft. There's a lot of Apple lore out there which is in the stupid website.^{vii} Everybody has his own take on history. But the truth is, even when he was fighting with Joanna Hoffman in marketing or Burrell Smith and Andy Helzfeld, he accepted people the way they were. In the end, he accepted what they did. When it didn't work out, he stopped it. He didn't get along well with Alan Kay— Alan is great in his way—and also Norman, I think. The point was, people misunderstood--

Katz: That's Donald Norman?

Esslinger: Don Norman. The point was, a lot of people just saw Steve's input as a fighting thing. I think you had to see his input as a loud way of communicating good concerns. I had the luck personally of having worked with people similar to him before, like Dieter Motte: bang, bang, and you have to take it or you go home.

Katz: My way or the highway, is what we say.

Esslinger: Not my way or the highway. "That's not the way." "This is shit." "This is the better way". Simple as that. I give an example: My daughter came by when we were working for Disney. When she asked about a child's product she said, "It's not the right thing, daddy." And it's really this naïve, simple way of seeing things the way they are. There's this fairytale by Anderson, "The Emperor's New Clothes." The guy's naked. They tell him how great it is. This is the American consultancy. "I have a new strategy for you, blah-blah-blah," and we have to do this. I've seen it so often. I think, "Wow, I cannot believe it." Steve gets it and you have to take it. Yeah, it may be insulting in the moment, but he means it honestly and has a point.

Katz: You know exactly where you stand, which is always an advantage, even though it's painful.

Esslinger: No pain – inspiration! In the beginning, they had a mechanical engineer working on the Mac who brought in what you would call a very wicked piece of sheet metal. We can go to the moon, but we could not produce that thing. Jobs said, "It's got to be great. It's cool," but I said, "It's not producible." "What do you mean?" I said, "It is not producible." "This is a prototype, proof of concept." "It's not producible, sorry." Then Steve looked at it and said, "Okay, show me how you produce it." Then he got

really aggressive with me and with the engineer and we got somebody who could do it. That saved a lot of pain and time...

I think one of the problems that a lot of people have when they describe design is that they go back to the aesthetics. What Apple does today, the hardware or the software, is iconographic. It's really—what I said before—based on history. It's based on familiarity, plus being new. When American design got rediscovered, everybody looked for flashiness and things like that. [Giorgetto] Giugiaro did this one PC, it was just a sculpture for Apple. It was not Apple. It could have been IBM; it could have been Sony; it could have been everybody. I think that is a big point. Each company has a certain DNA and the DNA is like an emotional code. When they started Google, they started a DNA and you cannot change it. That's what it is. Look at Porsche: They got defined by sporty cars. Now they do these SUVs—come on, that's sick! I hope that they change that. Mercedes—I was consulting for Mercedes about 15 years ago—eventually got into a kind of stupid race of strategy. One guy said, "Hartmut, how do we motivate the guys?" I showed some old racing film of the early designs when people were really fanatical about making the cars and all the things Mercedes had done well. So we showed it and they got really excited. It was an incredible two-day meeting, and then they said, "Now we have to go back to corporate management by strategy." I said, "Yeah? Then you might as well quit. Don't do it."

Katz: I really liked what you said in referring to Snow White: "It's not a design language. It's a design philosophy." That's a profound insight. To ask Porsche to make an SUV is a violation of a philosophy.

Esslinger: Yeah, and if you make an IBM lookalike for Apple, it's a monster. It's not Apple. People come to us and say, "We want to be the Apple of this and that." It's not possible. They misunderstand the basics. I cannot say I want to be the John Lennon of something. I did music, but I realized, yeah, Brian Jones, I could still play. Then it got more difficult. Then came Jimi Hendrix, oh my god.

Katz: Time to pull the plug out of your electric guitar.

Esslinger: Yeah, I still play, but I realized, that will not be my career. You cannot say, "I want to be this or that." Apple is Apple and IBM is IBM and Microsoft is Microsoft. Each of them has good points. The issue is, will they find their important points and live by them? For example, Microsoft has a very democratic culture, which is positive. But I think it could do with a bit more caring for the consumer, for the user, because too many mediocre things get through. You also need leadership.

Katz: I think I'm hearing the voice of your professor, Dittert: Find what a person is good at and build that out and liberate it. I think you just said the same thing about Microsoft or Apple or any of the companies that you're working with. Think about what the DNA is and then shape it.

Esslinger: Microsoft is an incredible story, an incredible achievement, and that's great. Now build on it. Don't become something else. One thing that's nearly an addiction is that you want to be everything to everyone. Be who you are and be very good at it. Then bring something to our culture.

Katz: Let's go back to a little bit of the boring, historical details. My apologies, I'm a historian.

Esslinger: Barry, that's fine. That's why we are here.

Katz: When you won the Snow White competition, one of the conditions was that you open an office in Silicon Valley near Apple. So you did this in Campbell. Who came over from Germany and whom did you hire? How did you begin to build your talent base?

Esslinger: It was very simple. We were eight people. Steve was in Germany and said, "Okay, this would be great. Just take everything to America." How did we do this? Then we hired eight more people and I said, "Who of the Germans wants to go to America?" and actually, funny enough, four wanted to go. Then we went from eight to 16, which was a pretty big challenge.

Katz: A hundred percent.

Esslinger: We had still a lot of other work to be done. We were quite busy. But we hired eight people. Actually, it was a good opportunity to get some more talent into frog. Some guys from England--

Katz: Steve Peart.

Esslinger: Steve Peart, Ross Lovegrove, Julian Brown, a couple of guys like that, Germans and Americans. We did the following: The eight people in Germany trained the other eight, so we could split them after three months. Then we moved all eight over here. Everybody was mentoring a new guy on the same role. We just mirrored it. That's what we did later with other offices too. It was a quite successful concept. In addition, we had a rotation system so that every month we changed some people over, so the two offices would stay culturally connected. I was really careful not to lose the culture. I wanted us to get better, because I said, "We have the opportunity to hire great new people, because we have a new budget, in addition to what we had. So the challenge is great, but we have to get better." So we had a constant rotation, including administration. Of eight people, two were administration, six were creative (actually, five were designers, one was a model maker), so we could also hire people here because we had somebody competent here to look after them. The most difficult thing was to hire good people here. The first couple of years, we had a really hard time getting people up to the level we wanted because there was no freelance culture. Apart from Bill Moggridge, there was nobody here on that level. I think there was Hauser in Atlanta and Smart in New York, and some small studios, but that was it. There was no freelance culture in the US. They were all in companies. It was quite an operational thing, but because we had worked with Sony so long, our organization was capable of working internationally. For example, when I was in Japan I sent a fax home to the studio, because we had no model making in Tokyo back then. Once we designed a TV and they made it out of solid plastic. I think it was 400 pounds; you couldn't lift it. Crazy. So we sent it to Germany and somebody made the model in two days and flew it over. It was cheaper back then to fly than sending it by courier.

Katz: One of your real strengths in those days was in model making. I think you had unusual--

Esslinger: It was the integration of everything. It was also engineering. It was everything. But it was also speed. Also in the beginning, we worked a lot with David--

Katz: David Kelley.

Esslinger: Yeah, ironically, we got a lot of projects where David's budget was three times ours, because engineering is always more work.

Katz: He was a designer, so--

Esslinger: We were quite happy when he started designing, because then we could build an engineering department. It worked to our mutual interest. I think IDEO also helped to establish a new level of professionalism here in the 'States, because if you're the only one, it's really hard to make clear what you do. Despite Sony, despite all these successes, people here had a hard time in the beginning understanding what we really did.

Katz: You brought the rotation of the four people from Germany—did you also bring your technology from Germany?

Esslinger: Yeah, we actually were one of the first users of CAD – which was American!. I remember when we bought the first CAD system, the people came with a truck, and their blue suits, ties and asked, "Where is the factory?" They couldn't believe it.

Katz: It was more like a garage.

Esslinger: We had all the technology. We had e-mail early on. As soon as the technology came, we had it. Once we had a visit from some East German designers, Rudolf Horn, a design professor in Halle and a really good guy. They had nice designs in East Germany, but they never produced it because of the socialist planned economy. When the Republicans or the Tea Party naives speak of socialism, I wish they could have been there. It's like people on a diet calling it starvation. It's really bizarre. Anyway, when Rudi came to our studio there also was always a political guy, so there were four—two were creative and two were political.

Katz: The good old days!

Esslinger: Actually really bad! We were informed discreetly, who were the politicos—the other guys were Stasi, I guess. So we separated and Rudi said, "Is it true that you can phone to Tokyo?" I said, "Yeah, sure, Rudi." "Okay," he said, "I want to dial." So I gave him the number, he dialed and I said, Okay, what do you want? First he wanted to get the weather service. Okay, we got the weather service. He listened to it. And then he said, "Can I talk to a person?" We said, yeah, so we called a guy at Sony who spoke German, and I said, "Yes, I'm Hartmut and I have a friend here, he wants to talk to a person in Tokyo." And he talked to the Japanese guy "Hello, how are you, how is the weather? How is it in Tokyo? It's nice here in the Black Forest." Then he said, "You can call Tokyo? We cannot even call Berlin."

Katz: "Goodbye, Lenin."

Esslinger: Nice movie – but this is what technology is about; it has also a human side. One point of creative business is that you have to scale creativity. There must be harmony between doing and thinking. If you only think, it's not good enough. Having one hour of thinking and ten hours of model making is not good. So you need an interactive team. It helps if a good model maker shows the designer something on the computer; or if the engineer has an idea from the very beginning. So we always integrated everything, including the clients. To give you an idea, when we worked with Sony we had four to five phone calls every day. We never worked on a product and then showed it to them in two weeks.

We had to show every day what we did. I think that created a different type of dialogue. For that, you need technology. The more technology, the more you get qualified feedback.

Katz: If you don't mind my asking: You became famous for extracting the highest fee that had ever been paid to a designer.

Esslinger: It was two million a year.

Katz: Two million a year from Apple.

Esslinger: It was worth it - at the beginning, you have to invest a lot. The first years were not that profitable for us, because we overdid a lot—you also have to prove what you can do. More profitable was our work with Sony. But here's the point: If you get paid 10,000 dollars for a major project, which is expected to bring in a couple of hundred million dollars revenue, it's idiotic not to invest in design. The point is not about the fee; it's about what you deliver. I'll give you an idea: When we did these first designs at WEGA, it was not that well paid; but it paid well later. We researched production processes, assembly, service, how we can improve heat... same with computers. Then the production methods. Do we need paint? Paint is not ecological; it's expensive. You have a piece of plastic, five dollars. You paint it, it's 15. So we got Apple to the point where we used high-end plastic, the best plastic from GE, Lexan, instead of cheap plastic with paint. Then we had the problem of things getting discolored in sunlight, so we needed better plastic. There are so many aspects you put in, and they are all included in the fee. I'll give you an idea. I consult a bit with Audi. Audi invests 0.7 percent into life cycle expenditure of a car; 78 percent of the people who buy an Audi do so because of design. So you have a scalability of 100 multiple. Little investment, huge impact. Now they really understand: Yes, we have to pay a little more for design, digital integration, custom experience, the whole thing. That's the differentiator, because everybody can build a great car.

Katz: In other words, what's the difference between this great car and that great car?

Esslinger: Yeah, it is the emotional appeal. But with Apple it was easier. At a million computers you save 100 bucks per computer, that's 100 million dollars. So what is a design fee compared to that? And people actually love it even more because it looks great. If you look at the modern Apple products, they all have that philosophy: natural materials, treated well, with highest quality. And it's not much more expensive than to do the stupid stuff. Motorola, Nokia, were still sometimes painting their phones. You can't even recycle them, because they have chemicals in them. You have to pay extra for recycling. I'm honest about it. My Japan contract was pretty simple, 100,000 dollars, 120,000 dollars a year, plus 10,000 dollars for each product. Sometimes it took a couple of hours to make a product; sometimes it took a month. But that was on top. So we made real good money, and it was worth it. I don't know why people took offence that I charged for what we were creating in added value and success.

Katz: I think some people took offence, but the positive side of it—and tell me if this corresponds to your understanding—is that it represented a whole new way of valuing design. I think it took a while for people to see that it was not just about making Hartmut Esslinger wealthy, but it was about changing the status of design, as one service among others, and elevating it dramatically.

Esslinger: That's a good point. But it's also about caring for the people who will use the product, caring for the people in the company. For example, I had one client in Japan—we made a model, and he wanted an extra model to show his family. He paid for it. He said he wanted to show it to the family—not only his, but other managers'. They wanted to show what they did. They finally could show it. It had Japanese spirit in it. People want identity. I learned from my parents that running a business you must make more money than you spend. And then I learned from my wife that you have to be really careful in spending. For example, the dental products we did--

Katz: For KaVo.

Esslinger: For KaVo (now they are owned by the American company, Danaher). We did a new strategy for them. I was lucky enough, in that case, to have had an uncle and an aunt who were dentists, and I got to know their sufferings first hand, because dentistry is a brutal profession.

Katz: It's brutal for the dentist, as well as for the patient.

Esslinger: No, it's more brutal for the dentist. You are only there for an hour, but they are there for all their life. So I came to that company and I said, "You need a new strategy. You must make this more human." I mean, people suffer, and I know it from my relatives. What about ergonomics? Why is this backrest so thick? Why are the instrument holders so clumsy? It's all hostile; it looks like an electric chair. Why not make it friendly? So we made a proposal including realistic models and the CEO said, "Wonderful, that's what I was dreaming of all my life," and they loved it. But as good Germans—South Germans—they said, but naturally we don't have any money. At that time they produced about 20 units a year—with instruments and all the devices mounted—so I said, "Okay, why don't you give me a royalty?" They said, what about one percent? I said, "One percent is fine, it's fair." And so we went to the first trade show, a year later. It was a regional trade show, just for one state, North Rhineland Westphalia, and at 11 o'clock in the morning, on the first day, they had sold 200 plus, and they stopped taking orders because the factory guys said they could not make them.

And we went back, and we used a little bit of the supply partners from WEGA, for the parts, and changed the design into a more refined concept, made it scalable for higher volume and lower cost, so that it would be producible in thousands. They were really shocked, thousands! The contract, by the way, is just this long, typed and signed and done. [gestures to indicate less than one page] We worked for two years until we finally went to the market, and then they sold thousands of it over more than 20 years... So that product really built frog. It was about two million license fee a year.

Katz: What year did this start?

Esslinger: It was 1974. That really helped us to be independent, but we reinvested in our business, so that the company--

Katz: That goes to answer the question of how you could invest in all of the technology, the model-making...

Esslinger: Exactly. We needed millions of profit for the way we worked, to advance it. That was the fun part. People accused me of paying my people so well: "Why do you do that?" I said, they deserve it, and

I think it is our social responsibility to be fair. It's unbelievable not to do it. So I had my time as a rebel, but when Patricia came into the picture as my partner—I mean, first of all, she's a wonderful wife now, for decades—but she said, "You have to stop the cash drain. You have to keep the money, and be wiser with it." So she was really instrumental in putting frog on a growth path. At the beginning we were more opportunistic. We made it from project to project, client to client. But she said, "You have to be more strategic, and what about your mission to improve the world?" Today, frog is 1,600+ people worldwide, and I think that's basically her contribution to this whole thing. One client from Boston, a high tech client, said it nicely. I think it was EMC: "Hartmut, you have the ideas, but you're lucky to have Patricia to bring them home."

Katz: Just a couple more questions about getting established in the US, and then maybe we'll leap ahead to what you're thinking about now. When you began to establish frogdesign in California, was Apple your sole client?

Esslinger: No, we had some small business with TI [Texas Instruments]; we had small projects with Motorola, but not really big projects. But when our Apple work came out in '84, we immediately got huge assignments from Kodak, Motorola went up... I mean, they realized what can happen, and we also did some work with Xerox 3M and Polaroid. And we finally got incredible work from companies in Japan. Apart from Sony, we had not been so credible in Japan. I had done some work with Olympus, but when we did Apple, suddenly all the other Japanese companies came because everybody there also had a hand in Apple's business. They realized, okay, Apple is doing things here with frog. We can do that, too. So we got a lot of new business in Japan. Sony was good for us, because Sony was our school on globally integrated strategy, innovation ideas, and also thinking about culture, about the human aspects of corporate life. And with Apple, we could suddenly use all of it in a much bigger way. You might say that we brought a lot of the domain knowledge which nobody had, even in America; even RichardsonSmith, which I liked for their detail. American designers were nicely working along, but they didn't shake the world.

Katz: You had an exclusivity arrangement so that you couldn't really work for other computer companies.

Esslinger: No, you don't do that anyway. It's like a marriage. There are certain things you cannot separate. I mean, when Steve was sent away we worked with NeXT. What really was a golden combination for us was having gone through nearly ten years with Sony. With Sony we were restricted to the TV Division; and then came Samsung, and then we went back into Sony for the audio division. We did a TV for Samsung and helped Samsung to go worldwide, which is sometimes forgotten here. I mean, frog just went up and up.

Katz: How long did you work for Apple?

Esslinger: It was until Steve left on June 5th, officially, he left in September 1985. It was my birthday. My birthday party didn't happen; everybody was there except for me. I walked with Steve up in the hills. It was a sad, stupid day. And we worked with NeXT. After us, John Scully and Jean-Louis Gaseé installed what I call the "regime of the morons." I don't want to go into details, but the main point is that no money on earth is worth enduring any abuse by idiotic people. Idiotic, I mean, in the sense of Socrates. An idiot is somebody who knows nothing, and then pretends to know. So it's a bit more friendly than just "idiot," but-- <laughs>

Katz: Maybe a last question or two. We're here in the Computer History Museum: Did you do subsequent work on computers? Did you make further contributions to the experience of human beings using this new capability?

Esslinger: Computers are becoming a more metaphysical medium, which means the hardware still makes incredible advances, but it's what people do with it that gets richer and richer. It's a bit like when Guttenberg invented the printing press. In the beginning, it was just an experiment, and then the Bible was published, and people became more literate. And suddenly you had poets, because you could publish, and you could live off it (more or less). I think that with social media we have reached that point. We are in the phase where users are becoming digital "poets". There's a lot of noise and the "digital mob" out there is abusing personality rights and human dignity – something our Founding Fathers never envisioned -, but the medium is now creating a platform for new talent. I think ultimately talented people will become more design literate, and eventually they will become their own designers. If you can read and write, then the next step is to be a poet. So now I can read and write digital, I think we will become—some of us will become—digital poets. Just look at YouTube; there's a lot of talent there, which is not mainstream, but pretty cool. I would not go as far as Ray Kurzweil on "Singularity," but it's moving in that direction. But I think the driving force for digital development will be a more humanistic culture.

Katz: For me, that's always encouraging to hear. I obviously hear a lot of talk about how the driving force is entrepreneurial, or the driving force is money, or the driving force is technology. I share your belief that the driving force is culture. Not always in a good direction, but the driving force.

Esslinger: In the end, culture wins. If you take Apple over Dell or HP, it's very sweet for me personally—even if I had not been involved with Apple since Steve's return in 1997... I like what Richard Branson does, and there are so many good people who do it for the love for things, and for their obligation to society, they're successful. I think, that is the ultimate goal for entrepreneurship. The great thing about Bill Gates and his wife is that they give their money back for good causes. It would be greater if Microsoft's products were a great donor of joy and enlightenment.

Katz: If there wasn't the distinction between the company and the foundation.

Esslinger: Yeah, but there is still hope. I think Google is a good development. The point is, in the end, everybody has a family, friends, goes home, has a life. One day you die, you cannot take anything with you except for the feelings that you did something for this world, something good. And I think deep down everybody knows that. Wall Street tries to hide it—most of them at least—but I think, overall, those are the lasting things.

Katz: And you're feeling pretty good about what you've done?

Esslinger: Yeah, I was fortunate in my life. I was aware when somebody exploited me and I let it happen for a while, but then I pulled the plug. And fortunately Patricia pulls the plugs earlier, but in such ways that are astounding. Once I said something to a guy and he felt really insulted. Patricia was really straightforward, tough—a bit like Steve Jobs—and he liked it. "Patricia is like an Irish diplomat." You know that saying? An Irish diplomat can tell you to go to hell in such a way that you're looking forward to the trip. Fortunately I have her at my side, and I think she is fortunate to have me; we are a good team. There is also a point to be made about happiness. Money is important, but it's more important to have the feeling of true achievement. I mean, a lot of people get rich—they play golf, and have a couple of

yachts... Before they had a high tech company with really qualified people. Now they have a couple of yachts and sailing crews who are not the most cultural people. I don't want to be in a sailboat. I want to be with bright people. That's not on a sailboat. I don't get that.

Katz: That's a really nice note on which to close. Let me ask you a last question. We're interested to know what your life looks like now. What are you doing? I know that you are teaching and writing. What is your relationship with frog now? I think you were a Frog Fellow?

Esslinger: Yeah, that's an American way of saying, "Get out of the way." But, it's a bit more complex, I must say, due to my philosophy of life. When I was 60, I wasn't so healthy; it was the Internet boom, and my wife and I felt that if I continue like that, I won't live much longer—at least not happily. Patricia is a bit younger, and we always had recommended to our clients that they think about succession, especially outside of family. We had a lot of great people in frog, like Doreen Lorenzo or Mark Rolston or Kate Swann, and we always said, one day you will take over. But after eight, nine years, the time was getting long for them, and so we included them more and more. So basically our leadership team grew more complex over time so that everybody actually, could run frog, more or less—rather more than less. And then the opportunity came for us to talk to Flextronics with whom we had already worked on a lot of products in which Flex did the product and we designed it. And we found that this could be a good synergy. They acquired the majority, and the idea was for me to get out of the daily thing, because 24-7, as you call it—you can do it for 20, 30 years, but not for 50 years. And the partnership was flexible and worked well.

The next step, after two and a half years, was KKR: We had doubled our revenue, increased our profitability multiple times. Basically we realized that there's much more in the frog brand and the frog culture than we thought, and my ideal was always to make it as accessible as possible to many people, inside and outside. Then came the point that analysts said to Michael Marks,^{viii} there's 16 billion in Flex—in the meantime it's 32 billion—there's tiny Frog, and Flextronics Software in India. Very profitable, but how do you sell this to the stock market? KKR, which is the best private equity company, said, okay, we'll take the lead. Sequoia also invested and then it became, basically, a billion dollar takeover of the two companies. And then the question for Patricia and me was, are we staying in or getting out? KKR wanted another seven years, but we said, it's already going well, and I thought it would be unfair to our other people. So I said, I will take myself back, you take over, and after some discussions KKR agreed, and I must say, Doreen as the CEO and Mark Rolston [as Chief Creative officer] are doing a wonderful job. We talk a lot, but the principle is, I only talk when I get asked. And Patricia only talks when she gets asked. It took about a year to get used to it...

Katz: Yeah, I bet.

Esslinger: But then it was okay. So it's not the typical "fellow." I've had more time and a bit of freedom for thinking. I'm writing a couple more books now, one on education, another one on design for the future. And you could kill yourself on design conferences, as you know, but I'm quite selective on that. I'm also teaching a bit at Berkeley, at Carnegie Mellon, William and Mary—mostly business classes because I think that's the big challenge. I feel very strongly about the social changes that are taking place at the global level. I mean people in Shanghai want to be happy as much as Americans; and in Bangalore and Delhi, and in Kiev and in Cape Town and in São Paulo. It's human, but there are different cultures, and I think what we need is a new approach to designing things and experiences that is based on the historic preferences of the countries. You cannot bring an American box to India. You cannot

bring a Japanese Zen piece to South America. The next level of design must be socially and culturally adaptive, but it must also be more ecological, and it must be much more modular. Why throw your phone away? I mean, my iPhone only changes when it's broken. It takes a long time. I don't think I need that much—people say, "Hartmut has everything he wants—but it's not as much as some people think. And I also believe that something that our Founding Fathers wanted: design for enlightenment. What is the joy of having something, of using it? What is the true joy of an object, a piece of software? It must be wonderful; it should not be crap. The personal challenge I see is really between democratic and elite. Elite is Apple, democracy is Google or Microsoft, and in between there's a lot of crap. People want ease of use, but also *smart* use, *inspiring* use. My life, now more than ever, is about creating simplicity, which is complex in itself. But simple doesn't mean primitive; simplicity means it's just there, and it does it, and you feel fantastic, both as the maker and the designer and the user—like a family. You want it in the end to be a family, a good family.

Katz: Well, Hartmut, it is always inspiring to listen to you. Thank you very much for spending three hours in conversation at the Computer History Museum. It's been a pleasure.

Esslinger: Einstein had this famous quote, which is really true, that "It's the quality of the question, not the answer." Once, somebody asked me about designing a glass, and I said, what about thirst? And then I got the job.

Katz: It must at some level, be both very frustrating and very exciting to have your job, just to walk through the world and see everything as a potential opportunity. The frustrating part is that you can only so much of it in a 50 or a 60 or a 70-year lifespan.

Esslinger: When I was a little boy in this village, I didn't even know how big the world was. The first time I came to a city, I thought, "Wow, what a lot of people!" I did not know how big the world was. It was just this village, some relatives.

Katz: So you expand that out into the scale of the universe and then shrink it back to the experience of people.

Esslinger: Yeah, I would say people have to think big, but they have to act small.

END OF INTERVIEW

ⁱ The Hochschule für Gestaltung (1953-68) was a highly influential design school in the city of Ulm.

ⁱⁱ Akio Morita (1921-1999) was co-founder and chairman of the Sony Corporation.

ⁱⁱⁱ WEGA was a German electronics manufacturer. It was acquired by Sony in 1974.

^{iv} Chiat/Day is an American advertising agency known for its daring and controversial approach.

^v The “Weiße Rose” was a nonviolent anti-Nazi resistance movement centered at the University of Munich. Hans Scholl and Sophie Scholl were among the students who were executed by the Gestapo in 1943.

^{vi} Esslinger is referring to Paul Kunkel, *Apple Design: The Work of the Apple Industrial Design Group* (Graphis, 1997).

^{vii} Esslinger is referring to the website, “Folklore” (<http://www.folklore.org/index.py>), which corresponds to Andy Hertzfeld’s book, *Revolution in the Valley: The Insanely Great Story of How the Mac was Made* (O’Reilly, 2005).

^{viii} Michael Marks manages the private equity fund, Riverwood Capital. From 1994 to 2006 he served as the Chief Executive Officer of Flextronics, Inc., a leading producer of advanced electronic manufacturing services. KKR is a global private equity firm, specializing in leveraged buyouts.