

Communication Scholars Oral History Project
Annenberg School for Communication Library Archives
University of Pennsylvania
Philadelphia, PA

KLAUS KRIPPENDORFF

interviewed by

JEFFERSON POOLEY

transcribed by

BEATRICE FIELD

recorded by

ANDRES SPILLARI

December 20, 2016

January 18, February 22, April 12, and May 17, 2017

Philadelphia, PA

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BIOGRAPHY

Klaus Krippendorff (1932–2022) was a distinguished communication scholar, who spent his career at the Annenberg School for Communication, University of Pennsylvania. Krippendorff made notable contributions to a range of disparate fields, including the methodology of content analysis, information theory, cybernetics, discourse analysis, and design. Krippendorff was born in 1932 in Frankfurt am Main, Germany, and spent his childhood in the city of Halberstadt. After World War II, Krippendorff served as an engineering apprentice in Halberstadt, in what was then the Russian zone of control. He and his family migrated to the Federal Republic of Germany (West Germany) in 1949, settling near Düsseldorf. Krippendorff studied engineering at Hannover's state engineering school, graduating in 1954. After briefly serving as an engineering consultant in Düsseldorf, Krippendorff matriculated to the new Hochschule für Gestaltung in Ulm (the Ulm School of Design), where he was exposed to a variety of lifelong intellectual influences. Soon after completing his Ulm degree in 1961, Krippendorff traveled to the United States on a Ford International Fellowship and Fulbright travel grant. After visits to a number of universities, he took up doctoral studies at the University of Illinois Urbana-Champaign, where he took courses with, among others, Ross Ashby. Before completing his doctorate, Krippendorff was appointed in 1964 to the young Annenberg School, where he remained affiliated until his 2022 death. In the late 1960s and early 1970s, as an assistant professor at Penn, he wrote on a variety of topics, notably information theory and cybernetics. He was, in this period, working with Annenberg School Dean George Gebner on the Cultural Indicators Project, with Krippendorff's contributions centered on the methodology of content analysis itself—the topic of his 1967 dissertation. Krippendorff's 1980 book *Content Analysis*, updated in multiple editions, established his reputation as a leading methodologist. In the late 1960s he introduced a measure of inter-coder reliability, known as Krippendorff's alpha, to measure the level of agreement among trained analysts, which remains in wide use. His work on cybernetics and information theory culminated in *Information Theory* (1986), published after his 1984–1985 presidency of the International Communication Association. It was in this period that Krippendorff revived his interest in, and engagement with, design and design analysis, particularly product semantics, as marked by *The Semantic Turn* (2006). Over his decades of teaching at the Annenberg School, Krippendorff taught a series of long-running graduate seminars, notably *Content Analysis*, *Models of Communication*, *Semantics of Communication*, and *Language and Social Constructions of Realities*. When he died in 2022 at the age of 90, Krippendorff was the longest-tenured faculty member in the School's history.

ABSTRACT – Session Five (May 17, 2017)

The session centers on Krippendorff's engagement with design and design analysis. After briefly revisiting Krippendorff's experiences at Ulm, the session turns to his revival of interest in design issues in the early to mid-1980s. Particular attention is paid to Krippendorff's collaboration with Reinhardt Butter on product semantics, including the backstory behind early publications and the idea's reception among designers and others. His Annenberg School teaching on semantics

and the social construction of reality is discussed. He recounts his 1986–1987 sabbatical at the Ohio State University, where he also worked with a design consulting firm, beginning his engagement with Phillips Eindhoven. He recounts how his interest in design led to his first serious engagement with discourse, in particular his 1998 keynote at the Society for Science of Design Studies. He discusses the overlap, and resonances, between his cybernetics work from the period and the product semantics idea. The background to the 2006 book *The Semantic Turn* is also discussed, including the influence of the later thought of Ludwig Wittgenstein.

RESTRICTIONS

None

FORMAT

Interview. Video recordings at the home of Klaus Krippendorff, 510 South 24th Street, Philadelphia, PA 19146, USA.

TRANSCRIPT

Transcribed by Beatrice Field. Audited for accuracy and edited for clarity by Jefferson Pooley. Transcript reviewed and approved by Klaus Krippendorff, Jefferson Pooley, and Jordan Mitchell.

BIBLIOGRAPHY AND CITATION FORMS

Video recording

Bibliography: Krippendorff, Klaus. Interview by Jefferson Pooley. Video recording, May 17, 2017. Communication Scholars Oral History Project, Annenberg School for Communication Archives, University of Pennsylvania. **Footnote example:** Klaus Krippendorff, interview by Jefferson Pooley, video recording, May 17, 2017, Communication Scholars Oral History Project, Annenberg School for Communication Archives, University of Pennsylvania.

Transcript

Bibliography: Krippendorff, Klaus. Interview by Jefferson Pooley. Transcript of video recording, May 17, 2017. Communication Scholars Oral History Project, Annenberg School for Communication Archives, University of Pennsylvania. **Footnote example:** Klaus Krippendorff, interview by Jefferson Pooley, transcript of video recording, May 17, 2017, Communication

Scholars Oral History Project, Annenberg School for Communication Archives, University of Pennsylvania, pp. 34-35.

Transcript of Interview conducted May 17, 2017, with KLAUS KRIPPENDORFF (session five)

Philadelphia, PA

Interviewed by Jefferson Pooley

Q: This is day five of an oral history interview of Klaus Krippendorff, conducted by Jefferson Pooley in Dr. Krippendorff's home in Philadelphia. The interview is part of the Oral History Project of the Annenberg Library Archives of the Annenberg School for Communication at the University of Pennsylvania. The date is May 17, 2017. So, why don't we begin where it did begin for you, which is back in Ulm [Germany] and your experience at the design school there, in the late 1950s and early 1960s. I've learned over the course of these interviews that almost everything goes back to Ulm [School of Design]. You've talked about, in previous sessions, the range of intellectual experiences you've had there. In particular, I'm curious about looking through the lens of what you ended up writing on design issues in the 1980s through to the present. How much of it was there, in embryonic form, at Ulm—including in this thesis that you wrote in 1960 and 1961—how much was there from the beginning?

KRIPPENDORFF: Well, actually the more I re-read sometimes—and I rarely ever read something that I wrote a long time ago—but my thesis was very instrumental, and I see many, many kernels of statements that I didn't really—couldn't back up—but they stayed with me. And sometimes I'm wondering what [laughs] one really learns in the meantime. But this is of course just, kind of, a theoretical question. No, but Ulm, as I said previously, it was an avant-garde school. It dealt with topics that nobody else dealt with. At some point I had to write this thesis, and they had two kinds of theses. One had to make a practical work—and I should have brought a picture of what I did. I did a motor grader. I don't know if you know that: They plow the roads.

And then I made the theoretical one.¹ And that was interesting because I was a bit in opposition to some of the things that was done in Ulm, mainly because I had an engineering background. I think they took me because I had an engineering background, and they thought that I would make, probably, major contributions. In the end I did, but for the wrong reasons. So I decided to look at, in this thesis, the issue of the meaning of artifacts, and the first step was—actually there was a guy named, the director actually, Tomás Maldonado. He was a South American,

¹ Krippendorff, Klaus, *Über den Zeichen- und Symbolcharakter von Gegenständen: Versuch zu einer Zeichentheorie für die Programmierung von Produktformen in sozialen Kommunikationsstrukturen* (Diplom Thesis, Hochschule für Gestaltung, Ulm, 1961), https://repository.upenn.edu/asc_papers/233/.

originally a painter, and he had actually introduced the notion of semiotics into the curriculum. But he was a very traditional semiotician, and for him signs have referents, and the issue of, for example, visual communication means you make reference to what you want to tell by depict, etc.

So I went to him to say, I'd like to write about the meaning of objects, artifacts, designs. And he said, Klaus, that is a categorical mistake. Objects are referred to but they don't have any meaning. So I decided I will not work with him. And I worked with another person who was always my mentor, that is Horst Rittel, who later on became also in Berkeley [University of California] a professor.

Anyway, so my basic idea was that one has to look for the artifacts as to what they tell the users to do. I thought that many of the interpretations of objects have to do with pointing what one could do. For example, a switch invites, if you want, switching, and one may not know what it does, but that is the meaning of objects—it's not a reference, it is what one can do. I think that was an important shift which I think this Tomás Maldonado, as much as I liked him, but he didn't understand. This was a different kind of semiotics that had to do with actions—the actions that are invited by the interpretation of objects.

Now Ulm was dedicated, I would say, to so-called functional objects, and a function means that you know what the use of it is. A screwdriver is something that you tighten the screw, or a heater is something only to heat, etc., etc. That was something very good about it. In fact, it was in opposition to the kind of design that made ornaments, everything beautiful, and cover over everything. And I dug out one object from Ulm and that is a heater [presents heater]. This was kind of a minimalist object, it shows the so-called honesty to show what the technology in fact does. You see the plastic, you see the the fan going, and you can turn it, and you can put it on the wall and it blows in your face, whatever. And that's a typical example of Ulm design.

That was also another element which often Ulm is made fun of, and that is the preference for gray. Not to make it, you know, crying colors or whatever, just gray, decent, maybe black, maybe white. So that's a really a good example of functional design. Well, coming as an engineer, I said the engineers can—and I could do that—they can do the technical parts very well. I mean, like making this motor run, and even finding out the shapes of this—this is all engineering. But design should not get sidetracked by the technological parts. It should focus on other things. So I wrote a kind of a very challenging article in our student paper at the end, before I left, and I said, Engineers design functional objects that have a technological function and work. Designers should focus on the communication of artifacts.

Now that's a little bit, you know, tongue-in-cheek, but the point is actually what I condensed in this one word, was that one should look for the meaning of things. For example, here is a switch. You know how to switch that. There's a number and there is "hi-low," etc., etc. And you might not know that you can turn it, but maybe at some point you do it and then you know. The point is, actually: That is what designers should do to make it usable from an individual point of view.

I had this note—my whole thesis was about the symbolic and sign characteristics of artifacts. But this article that I said, you know, Designers should deal with communication of artifacts—that was actually a naive way, at that time, to say it, but it directed me ultimately to study communication. When I came to the United States—I mentioned that previously—I couldn't find a good place, but communication was really, to me, a key issue, and I found, in the end, a communication department and we did talk about that.

The last connection with design I had, actually, when I was looking for a university, among others, at the University of Illinois, I went to the design department. And that was, one could say, not comparable with Ulm. Ulm was such open and new ideas. This was really a traditional design department. And that's the last time I talked to the designer for a long, long time. But I mentioned the word cybernetics, and then he pulled out a paper saying, We have here, in University of Illinois, someone who has written this paper. And that was Heinz von Foerster, and he told me that he has a Biological Computer Laboratory. So, I went to him and then he told me that [Ross] Ashby was teaching a course in cybernetics at the University of Illinois, and that made the decision.

So, that's where I went to study communication and cybernetics. But between 1964, when I came to the Annenberg School and, ultimately, 1984, when I wrote a key article on design, I didn't really do very much in design, except for one thing, namely Reinhart Butter, with whom I studied. He was two years behind me in Ulm—he had become a professor at Ohio State University. And the way it went, a long time ago, you had to buy a thesis. So he bought my thesis in Ulm for the reproduction costs, and he had it always with him, and he said, Klaus, you have to come give a lecture.

So I went several times to Ohio State and gave a lecture. In fact, at some point I made a long workshop. And at that time I was interested in content analysis and so I combined that. In fact, I wrote a computer program to analyze the responses to people, and so I asked the students to look at particular objects, and asked them to rate them, to say what they find from it. And that was then analyzed. So that was kind of also an early thing. But the point is, Reinhart Butter, he was keeping me in touch with the rest of the design community. I have to say also—it must have been in 1967 or something, that was one year before Ulm closed—I got a letter from Ulm, the director, and they wanted to invite me to become a professor. But then at that moment I was already on the track here.

That's another element where I still was a designer, namely Horst Rittel, who was a supervisor of my dissertation. And I have to say the Ulm professors were relatively young. I didn't even know he was just three years older than me. So he became later a professor at Berkeley, in the architecture department, and there was a need for a chair for the design department. So he asked me, Would you come? I said, I don't know whether I can contribute. But I decided to go. And I made a presentation and I remember I made, I think, a good presentation about the design of toys, and not making toys so that children can really learn something, as opposed to plastic things that are imaginary or something.

It was, well, reasonably well-received, and I remember the interview—I was the one actually to ask all the faculty members who they are. And it turned out to be they were semi-artists. They were getting high on making individual mugs, so that every individual has a different kind of mug, and so on. So when I thought that is backward, very backward. And I was not hired. But who was hired, an aerial photographer who had nothing to do with design. But so in fact, it was probably a good thing. I was already on track in the Annenberg School. I don't know if I would have actually taken it. But I did it in part for Horst Rittel, who invited me. And who knows, you know.

But then in 1984, in fact, I know, April 1, a few days before, Reinhart Butter had a sabbatical, and he said, Klaus, we have to write this down. I'm now asked to edit a journal of innovation magazine for the IDSA, Industrial Designers Society of America, *Innovation* magazine. And I [Butter] would like to put together—actually, I had worked with him a little bit earlier—to just put several, what one could say, have something to do with a focus on meaning. So I wrote an article with him, and he came to Philadelphia and, you know, you can't just write an article in two days. But anyway, I did whatever I could.

I know April 1st because I made a big joke. I had an open car at that time, and I gave him a ride to the airport. And I had this paper in there, and I told him afterwards, It was flown away [laughs]. And he believed it, but it was April 1st. Anyway, so in May this issue came about, and that proposed basically what I had said in Ulm, maybe with better knowledge of communication. And I said, Well, one has to see the designer as someone who communicates, well, with the user, and providing something that they can use.²

I no longer believe it in this simplicity, but still that was it. The designers association—the IDSA—found that so fascinating that the very same year, in fact in August, they invited all the designers that could come, in the United States, to a big conference, a week conference, at the Cranbrook Academy of Art. And so there were the four people—that means Reinhart Butter, John Rheinfrank—who was already also a professor at Ohio State, and with whom I had a good connection. And he was kind of a systems person and was also very good. And myself, and there was another one. So we organized a one-week seminar on product semantics and that caught on. I mean, it was really like a wildfire going on.

The next year we were invited to Philips in Eindhoven. Philips is a worldwide company and has designers all over the world. And so they got all the designers to come to a one-week workshop in Eindhoven, in their headquarters in the Netherlands, and to introduce, basically, this new perspective to not look at technology so much, but look at the meaning of technology. To me that was interesting, because many of them were accomplished designers, and they were forced to come to the headquarters. And there came these three or four people—and I was not

² Klaus Krippendorff and Reinhart Butter, "Exploring the Symbolic Qualities of Form," *Innovations* 3, no. 2 (1984): 4–9, http://repository.upenn.edu/asc_papers/40.

really a designer per se, I had done a lot of things and more thinking. And Reinhart Butter was a designer, clearly, and John Rheinfrank, he was working with a consulting firm in Ohio State.

So we asked them to do certain things, practical projects and with the criteria that we set. And so they were at first resistant, but then, in the end, they were so excited and a lot of interesting things came out. There was, for example, one guy—and I have to say, this is the kind of thing that I was actually promoting—he was trying to develop a radio, a portable radio. And then he was also a drummer, and he said, You know with drums, maybe we have to replace the drummer, the drums, with a loud speaker. And so they were first this way and then this way, and there came out a very famous design, the Roller Radio. On the side, that had lots of things to do with that, but the head of the design department at Philips, he took this design, the Roller Radio, and wanted to have it produced by Philips. So he went the traditional way, going to the marketing department, and they made a study and saying, It can't be sold.

So then he had a friend in Italy, a producer, and he saw that and he said, I'm making a thousand. So he went past the marketing—marketing is so traditional and so conservative, and not understanding, really, innovation or new things. And so he bypassed it and it became a major success. So that is another thing that we were kind of on the edge of something really new. Following that there were meetings in Amsterdam of the IDSA. There I met someone from Finland, Yrjö [Sotamaa], who was the head of the design school—now called Aalto University—in Helsinki. And he said, You have to come to Finland. So we began to go to Finland, and there were three conferences in sequence about product semantics. And so a lot of people from Europe came there, and it was quite remarkable.

At the same time or shortly after, intermittent, we had a conference in Germany, one in Taiwan, one in Japan—that was alone by myself. But in Taiwan I was with Reinhart Butter. It had spread very quickly. But there is something odd about the design community. As designers you are always interested in innovation, and anything that is from yesterday is no longer good. And so I read, for example, something like in 1990, they said, Product semantics—that was a decade ago. But I kept going, and so I wrote, actually, many papers.

Maybe I'll mention one where I actually got into issues of discourse, and I had not written about discourse before. But one of the things that puzzled me is the profession of design. Historically designers were simply professionals that were hired by a company, put in an office and make things beautiful. That had both changed, as well as also it's something I just think is too demeaning. And I observed that many disciplines try to capture design as their own—there is, for example, marketing says, The only purpose of design is to increase sales. And economists say, Well, it has to be value added. And the ergonomics people say, Well, it has to be beautiful. Everyone had his own reasons for saying design is actually us.

So I realized there is a struggle going on, and the struggle is really conceptual. But it had to do with discourse. For example, marketing saying, The only purpose of design is to increase sales. Well, that is because they want to use their own terminology, and redefined design in their own terms. So I wrote a paper, saying, One has to properly design the design discourse, and making

the design discourse an autonomous entity that other people have to respect, but not being colonized.³ And I'll note that I developed the notion of the colonization of one discourse of another. And I again, on the side, of course, I lived through this in the communication area where, for example, in the Annenberg School, very early on, when communication was introduced as a school.

One has to also say [Walter] Annenberg had a really kind of very practical aim to educate his journalists for his *Inquirer*. The university never wanted to do this, but then came sociology [and] said, Communication, we do this much better; we have a sociology of knowledge. And then psychologists came and said, As social psychologists, this is a social psychology problem. So I saw there are a lot of parallels between the different kinds of discourses—in fact the making the distinction between discourses and how they struggle to identify themselves, how they incorporate other areas. Currently is also interesting. Like psychology is being colonized by cognitive science, and very soon maybe psychology disappears, because cognitive scientists have been “better computer models,” etc.

I don't want to get too deep in that, but the point is, actually, I was doing this, my exploration, in the one paper that I wrote for Helsinki. I looked into the conflict of discourses. But again, these designers didn't really understand that. In fact, the editor of that volume didn't have a place for my paper, and I had in the end other kind of things, you know [laughs]. But it turned out to be, I think, very critical for me. And then I decided, or many people said, You have to write a book. And so then I wrote *The Semantic Turn: New Foundation for Design*, and summarized many of the papers that I had written before.⁴

And maybe I should just mention a few things. One is that I said, When we deal with artifacts, all artifacts are designed or made, not necessarily by designers, but by people who do something new. So there are these four levels. One is the meaning of objects for a user. And then I looked very carefully and said, Well, what does a user know of the artifacts they are using? And it's actually very minimal. If you think what you know when driving a car, you don't really know how the engine works, the piston, and how the gas is converted into pressure. You have no clue. And so I came to the notion that, actually, we know only the interfaces. Maybe we should just forget about the artifact as a physical object, rather than the interfaces that human beings have. And that goes back again to [the] Ulm thesis—that you ask the question, What can you push? What are the consequences?

And so the notion of an interface generalized from the notion of computer interfaces, where there is kind of a very well defined—and there is interface design and so on. But I think every object in and of itself is known to people only through the interfaces. I said designers ought to understand the interfaces. And the interfaces is not physical, the interface is interactive, and it has to do with meaning, as the recognition of it, etc., etc. So, I think that was one important

³ Klaus Krippendorff, “Redesigning Design: An Invitation to a Responsible Future,” in *Design: Pleasure or Responsibility*, edited by Päivi Tahkokallio and Susann Vihma, 138–62 (Helsinki: University of Art and Design, 1995), http://repository.upenn.edu/asc_papers/46.

⁴ Klaus Krippendorff, *The Semantic Turn: A New Foundation for Design* (Boca Raton, FL: Taylor & Francis, 2005).

part—on one level, the artifacts in use. And one kind of principle, and I said, always, human beings never react to physical qualities of things, but to what they mean to them. By physical qualities I mean the kind of things that physics can measure. It's always translated into what people understand—meaning.

So that was kind of the first level, and then the second one was actually artifacts in language. And in this book I showed many examples where the language that you use is critical in how you perceive things. This goes back to in Ulm when I was in the Institute for Visual Perception. I even then recognized that how we talk about things has very much to do with how we see things. And so there are lots of examples, for example, of artifacts. There was in Germany a small car, at some point, and this was immediately ridiculed publicly and it didn't go anywhere. It was actually driving quite well, but it was a small car, and it was called the breadbox because it was kind of odd. But the point is, actually, you can really kill products by using language, and we know this now in politics, you know, that language is critical. And then it's a question of what kind of language—this comes the issue of methodology for designers. Ethnography is, for example, a discipline that deals specifically with the language of ordinary people, and so I wrote a paper that ethnography is important for designers to understand the language of the users they can use, to make use of the artifacts.

So that was kind of the language level—and I could say much more about this issue of categorization, for example. There are good theories of categorization. There are super categories, and categories and subcategories. Like, for example, a chair is a very general one and then there come the subcategories—children chair, leisurely chair or whatever, but they're all under the category of chair. And then there is, on top of this, furniture. Furniture has no clear image, and that definition, in fact, of the basic category is that you can draw it or that you have a sense, like a chair. Anyway, so I connected that with these kind of things, and I think that had also something to do again with my teaching at the Annenberg School. I taught a course on semantics, on *Semantics of Communication*, in which we dealt with this not from the point of view of design, but from the point of view of perception, of political categorizations, etc.

So that is the second level, and the third one—I said that one has to look at design in the process of its making. And there I developed—actually, I can say I stole that concept from management science. I knew Russell Ackoff well. I had a secondary appointment in the Social System Sciences [Department] with Russell Ackoff, and they talked often about stakeholders. And I looked at, What are the people that designers design for? And the traditional notion is that's a user, and they focus only on the user. But that seemed to be so limited. Actually, Reinhart Butter at some point said, Well, you know, I don't know about this user concept. He was working for Caterpillar, and I was actually consulting with that. Well, Caterpillar is a big company, a construction company. The drivers of that equipment have absolutely no say in what kind of equipment is being bought by a corporation. So the client, if you want, is the corporation and not the user. And then, parents buy toys for children, the children don't buy it, you know.

So the notion of user is very questionable, when one looks more carefully. In order for something to be, let's say, bought and sold by parents for children, there is a whole system of institutionalized actors. And I called them stakeholders—borrowed from the management science—and a network of stakeholders. I developed this notion of network of stakeholders where each stakeholder has a very different kind of stake in the process of getting something done. For example, someone who finances a project, only he's not interested really in how it looks, or something, as long as there are short-term and long-term benefits, and then he would invest. And so that's one thing.

Engineers—they are interested, actually, in finding the great solution to a problem. Then they are proud of it and pass it on. So I think there is something to the understanding that process—and then as the designer you ought to understand the network of stakeholders in which something is happening. So I taught that. For example, I was in Sweden many times, and I was, I think, very successful in introducing that concept. There was, for example, one interesting one about a museum exhibition. Now, who is the user here? Of course, we can say the visitor of a museum, but they never talk to the visitors, they talk to the director. And the director had a board meeting. And there were people working in it. And so they outlined the whole network of people that are interested, and then they asked what is their interest, what is their interest?—and how that cannot connect. What can we do in order to get our design through?

There's one other thing I was challenging designers with that, namely the issue of motivation. How do you motivate stakeholders to be part of it? Now, again, in the industrial area designers were employed with the company, and when they had a design the CEO said, This is what we do, write the specification, and everyone follows. But this is, nowadays, no longer possible because there are so many different agencies, institutions involved in this. So I said, What is really motivating everyone is design. Design is, I think, to me, a very human activity. It happens everywhere. When you design your—rearrange your furniture—when you buy your clothes—you have aspects of design. You want to know how you look and you select something in order to look good or whatever. So engineers are proud to have found a fantastic solution, and then they push it. Or finance people, they say, Well, I can make a lot of money and I've made some good here—

So everyone has different interests, but the key is actually that one allows these stakeholders to make a contribution that they can say, I made this contribution. So I said, Design needs to be delegated. Now, that was very controversial because then they say, Well, what about if we delegated—what's going on with the profession? And I said, Well, you can elevate the design profession by delegating that which you either don't know or don't want to do. So, for example, I said other poets, avant-garde poets, they are designers of language. They are far ahead of everyone else, so that it trickles down after some time. People are recognized first, they are not understood, and later on they are recognized and become celebrated poets. The same kind of thing can happen with design. That one has to observe how something gets produced and allow everyone to make a contribution. And I said, in some qualifications, Well, it's not just delegating your profession, but at least give enough space for other people to make their contributions. So that's another kind of challenge that I posed.

Then the fourth level is actually what I call the ecology of artifacts. That an artifact that you design as a designer is an object, ultimately—I mean, like going through this process—Oh, now, maybe I should also say, before I get to that, in this network of stakeholders an artifact takes simply different kinds of shapes. What leaves the design department is maybe sketches, drawings of something, video or something. Then it comes to the engineer, and then he figures out with equations, and figures out—so each time it has a totally different shape. When it comes to the salesperson, it's an object, maybe boxed in or something, on a shelf. Again, a different kind of thing. In the house it's different, etc.

Then comes afterwards—which I didn't mention but—after use there is usually so many different kinds of things that happen. I was recently talking—I didn't know that, but ships, when they are decommissioned—what one does with that? Someone has to do something with it. It turns out, which I didn't know, that in Bangladesh they make a business: An old ship that is no longer useful or something, they take it to Bangladesh and that they take it apart. But it has to be done. Then after doing that—I mean, the ship is probably an extreme example, but all objects end up either in the garbage, or recycling, or repairing. There are a lot of industries interested in when an object is retired from use. So this network is really something that the designer has to cope with. That is a big challenge because it's not just making a beautiful drawing—that's what I have been always arguing—but making a drawing in such a way that every stakeholder sees a possibility, contributes something, and then gets it through the chain.

There's also another—maybe I should mention that—about the change of the nature of the artifact. I was in the Philadelphia Museum [of Art] in the armament part—I don't know if you have been there—with my children and they were interested in that. So there was one armament, and that was actually black, and it said, From the Count of Brunswick—give a date. There's a tiny description, It was worn when he got married. Now, I'm German. There is a mythology of a knight of Brunswick who came at the night and made things right when there was injustice. So he was a mythical figure, and I said to myself, Nobody in this whole museum knows that. Not that I—that's knowledge—but it is a myth.

Then I decided to write a paper on it and I ask myself what happened to this armament? It must have been produced at some point. That is a very complicated thing, lots of craftsmen hammering on this thing, and then probably the count came often saying, Is it done? Does it fit? I mean, it's a different kind of artifact. And he was wearing it, actually, supposed to be, at his wedding. It's not just the wedding, but there were tournaments and he had to ride horses and push the opponent over now. He was a count, so probably nobody wanted—they are putting him off the horse. But in other cases an armament is really a protection against being killed, so there is lots of fear in it. That's all in this armament. So now, when you look at how this armament moves through various kinds of what I then call bricolage, from the making, to the ceremony, to war.

And what happens after this? Well, in Germany, many, many high houses, they kept the armament of the ancestors and said, This is from my grandfather or whatever. So it became a family heirloom, a demonstration of the importance of something. But then there came the guy

who actually collected this. They were collectors. He and the Hertz family were competitors, and they were traveling to Europe and buying off these various kinds of things. And there is, in fact, in the museum a picture of his living room with all the armaments in it. Now these armaments became something totally different, not related to family rather than to value or whatever—exhibition of wealth and so on. Now it's in the museum, and there's just this label, and you never know what it is [laughs]. So, I'm saying that all artifacts, they go actually through these various phases—if they are durable. With decay lots of things disappear, but when they are durable, they go through various kind of phases, and that one has to look into.

Now comes to the ecology, which is part of that, actually. I think when an artifact is bought and put in use it's always done in connection with other things. If you buy tableware you have to have a table, you have to have plates, etc., and that goes together. They are always connections made. The connections are not made by the designers, but they are made by users or whatever. Or when you buy a new drive for your computer you plug it in and it connects it to something else, or the computer is connected with the cloud, ultimately, on other systems. So there is a lot of connections that are outside the immediate control of designers, but they are made by ordinary users or institutions, whatever. So they form an ecology, and the ecology is to me interesting. I mean, in ecology we talk about competition, and survival, and it's interesting because the artifacts really don't compete with other artifacts. They compete with the attention of users.

So when you see something new then you think, Should I replace the old one? It is you who make the decision, not the artifact. So there is a different kind of ecology that is operating, and that is creating, if you want, culture. So I always said designers are not just producing objects. Designers are introducing something in the culture, and, I would say, designers keep culture viable. The viability—ultimately, that is really what design is all about, and not a particular type of product. In another paper, to do the same kind of thing, I said there is a whole trajectory of design problems or design focus, concerns. Traditionally, it was products. In 1950 the products became actually goods, the issue of selling.

Then, afterwards, I think it was the interface issue, because it became so complicated. Like a computer, nobody knows what's in it. A user doesn't know what's in it. Even engineers, most of them don't know. They know more than maybe a user, but they don't know everything. So there are always different kinds of interfaces, but then is the issue of designing multi-user systems like a library, like an election campaign, with lots of people, and you have to put them together so that something is happening. Like the Internet—the Internet is a technology, but the technology is really very minimal. The code of the Internet you can state in a few words. But the connection with many, many people, that makes a difference, that makes the Internet. Then there's the issue of projects, that you have to get people together to solve particular type of problems. And then there's the issue of what I said earlier: discourse, designing the discourse. So that, to me, is kind of the highest level—I don't know—but it is also an important design project, to design the discourse to cope with certain kinds of things.

Q: Maybe I can jump in there. You've described these four levels and taken us through to *The Semantic Turn* itself, and I want to go back to 1984, if that's okay. Because I was struck, as you mentioned those four levels, how many of them were in place, in some ways, in that 1984 product semantics article with Reinhart Butter. And that I couldn't help notice in the same year you were publishing your first major statement of your constructionist position, the second-order cybernetics that we talked about last time, and the notion that the so-called observer is in fact a participant in something that's continuously reconstructed as a system.⁵ So at the same time you're talking about—maybe not in these words yet—networks of stakeholders in 1984, you're also talking about how observers, the cybernetician, for example, might be a participant in what he thinks he's merely observing. The notion that you develop over time of a designer who is a participant seems so in sync with the epistemology you had been working on at the exact same time. So I just wanted to invite you to say whether there was an interplay in either direction.

KRIPPENDORFF: There was an interplay. But a small correction—the 1984 paper didn't talk about stakeholders. Well, I think in 1984 I was a little bit naive and I talked actually about communication. That was really my main focus and not too much the other levels—that came later. But there's one important thing, when you mentioned the connection with cybernetics, and that's the epistemology. Cybernetics has a lot of contributors, but there's one that—my mentor is Ross Ashby, and he developed a set, in fact, a definition of cybernetics is the study of all possible systems which is informed when some of them cannot be built, cannot be found in nature, or when you interact with them it's impossible. Now, that is a negative kind of argument, and the positive one, the study of all possible systems, allowed one to not just fix on what is, but what is possible.

That to me was, I think, a very key, one could say philosophical, approach that seemed to be very plausible. Actually, Gregory Bateson focused on that, and he said, citing Ashby, this is a new kind of epistemology. It is exactly like Darwin's evolution, but on the level of epistemology, of knowledge. Darwin dealt only with organisms but this has to do with knowledge, or with information, whatever. So I think that gelled very much with that. The notion of affordance is, to me, also very critical in design—that certain objects allow you to do things, and there are numerous—to Ashby, infinite number—ways of using something—but not all. And one ought to, according to Ashby, be aware of what one cannot do.

Now in design the notion of affordance comes actually—the word affordance even comes from [James J.] Gibson, who was a perception theorist, and he had actually an ecology of perception. He was not dealing actually with the negative parts, unfortunately, but he said, We see not objects, but ability to use them. So when we say we see a chair, we see sit-ability. When we see steps we see step-on-ability. And so he turned it all into the issue of actions—that means what we see is the potential of action. And that goes back to my earlier—that was gelling with my thesis in Ulm. But it also connected me in design and cybernetics. So cybernetics, to me, was

⁵ Klaus Krippendorff, "An Epistemological Foundation for Communication," *Journal of Communication* 34, no. 3 (1984): 21–36, https://repository.upenn.edu/asc_papers/538.

both informative of design, but also the other way around—that one has to look at how one can create possibilities. That, to me, I think was a key element of the mutual interaction between the two.

Q: Well, you mentioned that there already, in that period in 1984, was an interplay. It seems to me that from 1984, through to maybe around 1989 when you had this second Reinhart Butter special issue in a different journal named *Design Issues*—you already touched on this a little bit—but there were a series of conferences and gatherings, and a year of sabbatical in particular that I wanted to ask you about. I think it was 1986, 1987 when you were at Ohio State with Butter, but not just with Butter, and even worked in a design firm, if I understand. If you could just talk about that period—it seems to me that certain ideas like the stakeholder one, like the affordances, James J. Gibson’s idea, those only appear in 1989, so that this intervening half-decade seems to have been a period of lots of ferment.

KRIPPENDORFF: Before I get to that, I remember. In 1984 I was president of the ICA [International Communication Association] and I had the privilege, as all presidents do, to give a big speech.⁶ I think I must have mentioned it earlier. But that is very much influenced by the combination of both design and cybernetics. I don’t think I can get them all together, but I proposed several principles. The first one is an aesthetical imperative and say, Create the world to see. So that means—actually, it goes back to Giambattista Vico, who said, We can only understand what we do, and not what is given to us by God. So, that was the number one, and the second one was empirical—that is Ashby, literally, saying, Explore until this cannot be done anymore, and not get stuck with what currently is, but rather explore. Then there was a kind of a social one, namely that one should always increase the number of options for someone, but not harm people in participation. I don’t want to get into this, but there the design definitely entered my communication interest.

But now you’re coming back to the issue of my sabbatical. That was in Ohio State, Reinhart Butter wanted me to be there, and I wouldn’t mind doing that. In fact at the same time—that was also interesting—I was also invited, while I was there, to India. In India they had heard about product semantics, and they organized a huge conference on—now what is this is called? I don’t know the Indian name, but it had something to do with meaning. I’ll probably find it out. But that was also a great conference in which the Indians recognized—or I recognized—that it’s not just functional design a la Ulm, but you have to make design that has to do with culture in which it is taking place. Arthaya is the name. So that was a huge conference [at the Industrial Design Centre of the Indian Institute for Technology in Bombay].

I was actually, at the same time, in Ohio State when that happened, but in Ohio State I got an appointment with the design department, with the systems engineering department, and with the consulting firm. I had an office in the consulting firm and they roped me into their products.

⁶ Klaus Krippendorff, “On the Ethics of Constructing Communication,” presidential address delivered at the International Communication Association Conference on “Paradigm Dialogues,” May 23–27, 1985, Honolulu, Hawaii, http://repository.upenn.edu/asc_papers/275.

And this was also interesting. In the beginning, they said, Well, we'll give him an office. And they let me be, but then they asked me at some point, Can you help me with this? I looked at it and I made some suggestions, and they said, My God. And they invited me from that moment on in all the projects, and that was a so-called experimental design laboratory. That means they really wanted to [work on] advanced type of projects.

Before I was there, there was a fascinating project by a furniture company, and they wanted to have office furniture. So they designed modular systems that you could put in a space, whether it is a room for making conference, to sit together, not just desks. And so there are different kinds of things, and you can buy them, and put them combining in there. So that was really very much avant-garde design experiments, etc. One of the projects they got, actually, was for Philips Eindhoven—coming back to Phillips. They had heard of the design laboratory. They sent two Phillips designers to come there and to learn from how we did things. But this was actually not that systemic, so I don't know what they got out of it.

Then there was a project in Eindhoven, and we were flown in there and helping develop it. To me that was eye opening because, for the first time, I had to work with stakeholders. There were numerous people—there were programmers, businesspeople, someone from the CEO—and we made suggestions, and we listened, and there was interaction. Actually, it's a long time ago, but it was to design something for insurance companies to have casework available. And so there was a study made by someone in Philips, saying, What do they need? What do they do? And there were videos made—what is interrupting their work?—telephone calls, etc. And how one can get access to these various kinds of things—how one can trace problems with the insurance company. So that was the beginning of it. We basically orchestrated a meeting of stakeholders in Philips, and we were also exposed to the latest technology, which was fascinating—although by now common.

But this was, to me, I think, a major impetus to understand stakeholders. After my sabbatical I was actually, for maybe three years period, I was constantly flying to Eindhoven and work with them. I learned an amazing amount. But it had also to do with communication. I mean, in this case communication with ordinary people, with different stakeholders, totally different conceptions, different discourses, and how they put together. And so that was quite fascinating and eye opening.

Q: Well, you know, thinking about the Helsinki conferences, you mentioned that there were at least three—and at the third you engaged with the idea of discourse, and design discourse, and argued for designing a design discourse. You also, in that period, seem to be writing about design education for the first time, and it's a theme that you've kept up with. I'm wondering whether the recommendations you've made have gained purchase, and what the reception has been inside the design education complex?

KRIPPENDORFF: Well, it's a mixed thing. First of all, one disadvantage I had is I'm a professor of communication, so in some sense I'm not teaching in a design university. And I think many, many people like the ideas, and many of them copied them, used them, and use them in their

own way. But I think it has shifted radically towards issues of meaning, one conference after the other. Sometimes I'm mentioned, sometimes I'm not. I was recently, actually, also invited in Amsterdam. There is a huge conference on interaction design, and so they asked me to give a keynote address and I did. I wouldn't say I was a failure, but that was a huge conference, I was one of the first to do this, and I talked, actually, about different kind of languages and how discourse—how we could change the education towards a different kind of discourse that allows interfaces to be designed, developed, and evaluated. But afterwards there came other people, they were actually TED Talk types, and with huge sound and visuals, and so—I mean, I made a lot of friends, but I don't think I was on that level of presentation. I'm just not a performer in that sense.

But I think that is now common to talk about these interactions and interfaces, and looking at the ethnography of interfaces—that has gotten stuck. The other thing is in participatory design. Well, I don't know if I mentioned the issue of working with stakeholders. That has to do with conversation. And I think I go much further. Most designs are actually taking place in teams. When I was in Ulm there were big heroes, they knew everything, and one had to follow their lead or something. But important design decisions are never made by individuals. So I said from the beginning, one has to look at the kind of conversations that designers can engage in, or do engage in, that bring a new phenomena.

Actually, shifting to communication. There was an interesting conference, and actually it was in San Francisco from ICA. And that was actually called Comparative Communication Theory [Workshop, 1989], and I was part of it. I got really annoyed with these theoreticians that talked about theories without looking at what happened, and just comparing them. I wrote, actually, a paper and that was entitled "Conversation or Intellectual Imperialism."⁷ And I said what they are engaged in is intellectual imperialism, instead of looking at the kind of conversations within which communication theories emerge. And I said also—and that comes to the reflexivity—I think communication theorists ought to be part of the conversation that he or she describes. That is the second-order cybernetic notion that you cannot really, or you should not, separate the observer from the observed—and in the case of communication, the communication theorist from the communication that is going on.

Then, much later, I wrote a paper on conversation theory and asked the type of things that ruin conversation.⁸ I was more interested in that, because there is something like genuine conversation—conversation where you respect someone else. You don't have an agenda. But in this process of interaction something new happens. In fact, I would say that no conversation repeats itself. It's all innovation. Everyone responds to the other with either adding something, elaborating something, or not responding, and there is an evolutionary aspect to it. I said always that conversation is the most efficient evolutionary mechanism that we know, because

⁷ Klaus Krippendorff, "Conversation or Intellectual Imperialism in Comparing Communication Theories," *Communication Theory* 3, no. 3 (1993): 252–66, https://repository.upenn.edu/asc_papers/257/.

⁸ Klaus Krippendorff, "Conversation: Possibilities of its Repair and Descent into Discourse and Computation," *Constructivist Foundations* 4, no. 3 (2009): 135–47, https://repository.upenn.edu/asc_papers/134.

things happen within seconds. Good things emerge, bad things drop out, and creativity is encouraged. That's part of a good conversation.

But then of course it can be ruined. It can be ruined by, for example, when you don't say something that you believe but you represent someone else. For example, in faculty meetings at the University of Pennsylvania, very often I was in meetings and there we discussed things, and then when we came [to] the decision: Oh, I cannot make a decision, I have to run it by my department. Well, then this constrains conversation. So, I mean, as soon as you are representative of someone else, or responsible for someone outside, then it is not a genuine conversation. Not that it's bad, but it's not a genuine conversation, and some of the creativity is gone.

That comes back now to another cybernetic concept—that of self-organization. Much of cybernetics is actually dealing with, maybe, different degrees of self-organization. A feedback loop is actually closed, and within the feedback loop certain things happen that are only marginally influenced by the outside—like the thermostat does it by itself. Of course, when the outside temperature change, then they change that too, but it is basically a self-organizing system. To me, a conversation is a self-organizing system, but it can be ruined when it has to respond to other things. When someone says, I told you this has to be accomplished by that time, it's not a conversation. But it can be, of course—it can be still doing something.

But I think much of good design emerges in conversations. In my case, my experiences, not just in conversations among designers. We prepared all kinds of presentations in advance. But we had to be open to the input of these many stakeholders. So that, again, combines both my design interest as well as my cybernetic interest and my knowledge of communication. And in fact I don't want to summarize too simplistic, but if you look at the history, yes, I came from design. I studied communication. I went back to design and introduced, basically, communication ideas to design. And then I took the design ideas into communication and asked, We have to see what is being constructed.

You didn't ask me about this whole notion of constructivism. That came, actually, from, let's say, the attitude of design, saying that we do things, maybe unintentionally as opposed to intentionally. There comes the issue of language—[Ludwig] Wittgenstein. Wittgenstein had several lives, one could say, but the last one was actually getting rid of the representational notion of language, and saying—well, the part that I like most is: language is a collection of games. You have a game like asking questions, getting answers. This is a game, everyone conforms to that whether in an interview or—asking questions, getting answers. Then there are also lots of other kinds of games, and I think in discourse that there are a lot of games, methodological games, what one does with data, etc. So that is a very different kind of notion of language, and what is interesting, it is a productive one. He, Wittgenstein, used actually an example of a language game, while he used the master and his apprentice building a house. What is going on between them, that, in fact, in the end the house comes about.

Now, I think, much of traditional science—natural sciences—are inherently dealing with an object that can't talk. But the social sciences deals with people that can talk. Communication theorists ought to be communicating. So I think there has to be made a connection in the social sciences between the language as a game, even though you might play the game of truth. But it changes certain kinds of things. So, I think, to me, there was a profound influence of translating, actually, the kind of second-order cybernetics, being part of it, issues of language, and lots of other things that I could have said. For example, speech act theory, but more importantly the issue of accountability, C. Wright Mills, and others who introduced the notion—you look puzzled—but he was a sociologist and he wrote a book on the power elite in the United States. What he did is, actually, he wanted to know, How is power enacted? And so he went to lots of board meetings and observed, and observed, and he said, Well, there is no power per se, it has to do with accountability. When you ask someone to explain—there are several kinds of things. You can have an explanation, if you don't understand. You can have an excuse, saying, I did it, but I won't do it again. You can have justification, saying, This is a good plan and you better get on board. Or you can have excuses, saying, It happens badly, but it's not my responsibility. I was not an actor.

I think, in this accounting, the notion of an actor is always defined, and it is not power—the traditional notion of power—but it is actually the yielding to a particular kind of argument or account—that makes it. So I think that is C. Wright Mills, and I have still since celebrated that, and in my class that I'm teaching that is part of it. So, it is, again, the notion of feedback on the level of language, and also the notion that language does certain kinds of things. I had just yesterday lunch with someone, a journalist from Israel, who took my seminar in part. And he is always focused on the issue of truth and lying. I said, Well, that is very fine. As a good journalist you have to sort out what is true and what is not. But ultimately it's a question of the consequences.

If someone says something without any basis, you don't know whether it's true or false, it has consequences. They may be unintended but they could be also intentional. Design deals, actually, with intentions. There is always an effort to improve on something. There are a lot of unintended consequences. My complaint against journalism is that they don't really focus on the consequences. They say, Truth is it, objectivity, source's name, etc. I tried to get him to recognize—and it is very difficult to think of another way of quality of journalism. My point is, more generally, language is not just a description. And that goes back to what I said earlier, when I wanted to write about artifacts and the semiotician said, Artifacts have no meaning. That's where it started, that saying, to me, everything has consequences, and particularly now on language. And I know so much more about this—language is consequential. When you think of the current political situation, language is consequential. To me, that combines, if you want, my design background with cybernetics and communication.

I wanted to say something. Very recently I wrote a paper, maybe eight years ago or something, on the cybernetics of design and design of cybernetics.⁹ That is now selected by someone who wants to write also in design, and asked me whether that can be contributed. I didn't like it anymore and I rewrote it. But there comes again the epistemology. Second-order cybernetics, as much as important is to keep the cybernetician in the object of his interest, or the observer is part of the observed. But there is a bad influence, namely the focus on observers. I said, That's fine, but by putting the observer a part of the system, there is some sort of a self-reference—there is maybe some subjectivity, maybe there is self-preservation. But there is not much in terms of change. I said, If you focus on observation, observation of observation, even of describing observations of observations, describing including yourself, but to others, that's all fine. But they're still descriptions. That's not design. I said, somewhat tongue-in-cheek, Well, designers ought to change the world, and change it in the way that is very difficult to predict.

Even though—I'll come back to this—but one of the fascinating things is that technological and cultural change are genuinely unpredictable. Most scientists who have tried to predict technology failed. Only in outlines—one knows that computers go faster. We know that, that we can predict. But we cannot get the the principles in it. And the reason for that is very simple. Because there are the designers, they'll ruin all the predictions. And so that is to me fascinating. And from that point of view I associate myself with the designer. As soon as you predict, you actually don't give a choice to change something because it's always an extrapolation of what is in the past. So I said, in response to the second-order cybernetic orientation of finding descriptions of observations, saying, Well, you leave one foot still in the Enlightenment. The point of design is to change your observation, to make obsolete the descriptions of observations [laughs], at least in part—not in everything, but in part—and that is the point of design.

Q: So if I could jump right off of that comment and the 2007 paper you were mentioning, because you describe there that design is indeed about improving, it's about constructing. It's constructionism in that way. And you use the phrase “desirable futures”—that you're not just acknowledging participation but that you're actively trying to participate for a better future. And throughout the whole engagement with design, from the early to mid-80s all the way through to *The Semantic Turn*, you are talking about methodology at points. One of your other hats is that you're a methodologist, and in *The Semantic Turn* itself there's a whole development of a kit of mostly social scientific methods, and those are presumably, at least in the way they're normally understood, observational methods. What's the relationship then, in your mind, between design and observation in this mode? They seem to be in tension?

KRIPPENDORFF: It's a tricky thing, because precisely what I said. First of all in terms of discourse—most discourse establish their recurrent practices—methodology. You can teach something because it's applicable to here, and there are statistics, you can map packages. And so that is the recurrent practice, and it is mechanized, if you want, and can be taught. But it gets

⁹ Klaus Krippendorff, “The Cybernetics of Design and the Design of Cybernetics,” *Kybernetes* 36, no. 9/10 (2007): 1381–92, https://repository.upenn.edu/asc_papers/48/.

only to that what is recurrent, not the new things. So, design is really in a kind of a dilemma. On the one side you want to teach something, but you want to also keep open the possibility of changing it. So it's a tricky thing. What can you teach and what is it that you need to be open with?

So I outlined several things in *The Semantic Turn*, but in all cases I ended up—you mentioned desirable futures. Desirable futures don't exist. You kind of have observations. But you have literature, and literature often depicts idealist futures, and as soon as people read it and think, My God, this is interesting—even though it maybe can never get there, but it's interesting. That is evidence, if you want, of the potential acceptability of an innovation. There are methodologies that can look at you, but in most cases it has to do with with acceptance of dreams, of future visions, of stories. I mean if you look at Star Wars and something like this, it's probably not happening. But there is something of it that can be translated into everyday life. Not just in terms of video games, but in terms of practices of living, and so I think there is a lot of methodology there.

Maybe content analysis [laughs] can be fed in there. But there is something to explore what is possible. I don't know if I said this already in *The Semantic Turn*, but I said it in other contexts, when I talked about design research. Actually, there's another twist. I was asked to write a paper on design research and I said the title is, "Design, the Undisciplinable Profession."¹⁰ So that means you cannot discipline it, because then as soon as you do this, then you kill it.

One of the things that I said was that one has to look at possibilities. The first thing is this empirical question, What is possible? Now, there are many kinds of possibilities. One is new kind of technologies that have been developed in one little area—it could be combined with something else. So that is on a technological level. Many designs actually have to do with doing the same thing but with new kind of methods or new materials. And not always very innovative. But the point is, actually, to investigate the possibilities you have—this is an empirical question. But science doesn't do that, never looks at possibilities rather than they look at what is.

So the other thing is that looking at language. Maybe I'll mention that now. I met at some point, long time ago, maybe four or five years ago, in Basel in the conference and also on semantics. There was a Turkish student and she made an ethnography of Turkish tea drinking. I thought that is—well, it's interesting. But I had a long conversation with her, and she was fascinated with what I had to say. Later on she worked towards her PhD in Istanbul, and then she asked me, Can I come to study with you? And I said, I'm in a communication school. You may be just misplaced. But I want to do that [she said]. So then I said, OK, come. Luckily there was an office available at the Annenberg School. She got an office—the best office, in my opinion—better than mine. She was there, and she had also her husband. And what she did is, actually, she

¹⁰ Klaus Krippendorff, "Design, an Undisciplinable Profession," in *Design as Research: Positions, Arguments, Perspectives*, edited by Gesche Joost *et al.*, 197–206 (Basel: Birkhäuser Verlag/De Gruyter, 2016), https://repository.upenn.edu/asc_papers/628.

wanted to—well, again she had an ethnographical bent, and she wanted to see what is the possibility of designing a new ironing board.

I said, An ironing board is such an old-fashioned thing, and there is not that much social in it because you do it by yourself. Yes, it's not that it is not a design problem, but it is not very rich. Why don't you think of other things? So, I gave her lots of things, one of which is health issues—health is a big issue. So she picked that and she joined several discussion groups: Fitbit, Weight Watchers, etc., and she joined as a participant. I told her also, Join—you cannot deceive that you are actually a designer and interested in it. Say it, very clear. But after she said it and everyone knew, it was insignificant. She was part of it, and she asked questions, and she got answers. And she transcribed them, and then she looked into, What could designers get out of that? What possibilities get out of it?

So then I said, Well, maybe we should make an experiment. We have a design department at Drexel University. So she made these huge transcripts and thought, Let's give them these transcripts. But I know designers don't read—actually most people—students—don't want to read endlessly. So I said you have to condense it, and you can't ask them to write things down. This was really an amazing thing. We gave them two felt pens and said, Underline what is surprising to you. And the other one is, What is it that you got a good idea from? Then we asked them to later share these good ideas. And so I was actually in this so-called experiment, it took maybe two, three hours, and the students were interested initially, without really knowing what was going on. But later on it was quite amazing. They outlined, they gave her data that she could analyze, content analyze—what is yellow, what is red. So she got in feedback from the designers, what they could get out of it, what was not there before, what they had never heard of. And so that is a methodology that is geared towards not what is but what could be done.

She wrote two articles, one of them is just now published, and she actually defended her dissertation—I went to Istanbul for that—and she was with flying colors, so she made it. And this was also amazing—normally they write maybe three years on their dissertation. She did it in one year because she was here and she was isolated from the obligations in Turkey. This is a very different kind of methodology, and that is what you're asking me. In fact, in this new rewrite that I made about the cybernetics of design and design of cybernetics, I said, Focusing on the description of what is—even ethnography is a description of how people really live. That keeps, actually—if designers take this as a link—keeps them confined. And so that is really unfortunate, that the more description the more it limits innovation.

That's the reason why I focus—for example, with these Drexel students, we developed an ethnography of possibilities. For example, asking people, What is boring for you? Where do you spend too much time that you don't want to? Where do you see something that you have to be paying so much attention to that you wouldn't want to? That comes from the ironing board. For example, when you iron—I don't know if you have ever ironed, but you know that you cannot have the iron for a long time on a shirt, then you burn it, and then you have to go on knobs, buttons, etc. So there are lots of things that you have to pay constant attention to. And there

are lots of things that are bothersome, and maybe not. But people have to pay attention to, even though they think that's normal—that's what skilled ironing is. When you have a list of all of these things, that gives designers possibilities to change.

There are also issues of correlations. I'm always fascinated—for example, when I learned to drive, actually, with the Volkswagen, in Germany. And the Volkswagen had a blinker on the side that went out like this, when you wanted to make a left turn, and then you had to put it back. But many people of course didn't [laughs]. That was always a problem. How come that we have this very useful thing that, after you made your turn, you come back, because it's correlated, when you make a left turn you have to at some point becomes straight. So these are correlations that give possibilities for design to shortcut something—mainly because someone would tell you, I forgot to put it, I always forget to. And then getting into trouble.

So this is a different kind of research that gives possibilities. As I said, one of the most important parts is probably—what came out in much of these health communications. What are ideal futures? With health, you want to be slim, and you want to be healthy, whatever. And that comes out in numerous ways, and people can give you criteria—why that is. Actually, I had a student, you know her. She is now in China interviewing women about their role. In China women don't play such a big role. If you look at the [Communist] Party Congress, there's not a single woman. So there are lots of problems. So she is interviewing them precisely to elicit what is possible, and why what is possible cannot be achieved? Or why they see it cannot be achieved? Then you get problems that the designer could solve. She is not interested in design, but maybe women could realize that what keeps them in a trap, and what could be done about it.

So that goes, actually, also in my whole notion of—I don't know if you want to get into this now or another time—the issue of constructivism. I don't like, personally, the word “ism,” because that looks like a commitment to an ideology, and I don't have that. But I do think there is something to understanding that language and actions do things, and maybe one should make a difference between the kind of things that are done automatically, without knowing. I mentioned earlier, journalists say, Just describe the facts. But even the facts have consequences. Or in everyday conversation, describing the facts, and describing it accurately—well, that is maybe the aim of much of science, but it has consequences.

For example, racism. I think I'm making myself perhaps unpopular, but when I say, As soon as you ask an interview question, What race? Well, then you create it. If it's not there—I don't think by not mentioning it it goes away, but by mentioning it, it says it's important. When you have these data, then you find correlations. You find, for example, correlations between blackness and low income, or blackness and low intelligence, and then you say, Of course, they are low intelligence. But this is not understanding that the very act of mentioning it is creating it. I had a Wharton School [at the University of Pennsylvania] student, and she did a fantastic experiment before she came to my class. They had job applications and they were uniform, but they changed the picture. One was a white person and a black person, and the black person, not never, but most of the time didn't get the job, and the white person did.

So the categorizations are extremely important and make a difference. And I think if you really want to make a difference, change something, then one has to not find these correlations as of now—like intelligence and blackness, which has to do much with cultural situation that someone simply not have the opportunity to go to college or to advance in some form, or the social situation prevent them from doing anything. So it's not really genetic, it's not really a racial issue, it is the cultural issue. So these kind of things to me are very important. Or the other thing is—that goes back maybe to discourse. I think a discourse is, again, a self-organizing system. When you are in the discourse, you don't easily see what's outside the discourse, and you can be entrapped. To me, I think, one of the most important parts is actually, again, the issue of construction, is to realize that when you are in a discourse and you are entrapped, it is you who entrapped yourself by adopting certain kinds of premises, certain kind of ideologies, certain kind of procedures, subscribe to certain kind of institutions, that you could do otherwise. That is the whole issue of ideology. Ideology is always closed.

I have one student right now who is a Kurd from Syria, and he describes the whole notion—he wrote a paper about the identity of Kurds. They are an interesting crossroads. On the one side they are Muslims, largely, but it was the Muslims who attacked them, bombed them, genocide. Then they have a long history, which is in a different kind of religion that is completely opposed to Islam. Then there is the issue of geography. As you know Kurds are distributed over—so that's very complicated. But as soon as you back on one—for example, the issue of being Muslim—once you do this, then you close certain things out. So, to me, much of construction has to do with the negotiation, in this case about identity, that is taking place, and hopefully it's for the better. You can also let it be, and say it will happen or not. From a design perspective, you might be able to think of doing it somewhat more deliberately, and ask what are the consequences of using certain kind of terms, etc.

Q: Well, I thought maybe because we've had a chance to talk for these five sessions, and you've had this career trajectory that has placed you in one institution for most of your career, and that has had this communication focus and label—and yet you have carried on, using the discourse idea, with other major lines of thought, cybernetics and design seem to be two major ones. And, to mix my metaphors still more, you are kind of acting as an ambassador between communication, on the one hand, and design, and design back to communication. And the same thing being true with cybernetics. So I just thought it might be interesting to close on the question of how you have navigated between these different discourses, including the one that was your institutional home for the entire stretch. How have you managed to intermingle them in a way that enriches them all?

KRIPPENDORFF: Well, you are right. I'm always saying that I have three hats—that is design, cybernetics, and communication. Well, I think maybe that has something to do also where I studied in Urbana [at the University of Illinois], this truly interdisciplinary program where I learned anthropology, language, and communication, and I learned to combine them. And to me—I mean, as a person I'm combining them. And when I'm going to designers, well, I will be a communication person and a cybernetician. When I'm at the Annenberg School I'm also a

designer and a cybernetician. So I think what I'm teaching at the Annenberg School is, as you say, very much influenced with all of them.

Actually, I feel sometimes sad because I'm not presenting myself at Annenberg as a cybernetician. Most people do not know, unless they do know me personally. And I didn't want to do that because it brands me in one way or the other, and I like to be open. Some people know that I was a designer and I did a lot of things—but I don't make a big fuss of it because I think, again, it is the issue of the discourse. If you say that you are really a designer [laughs]—which I am not—then you're easily outcast. I have made, I think, a lot of contributions to the communication field by not mentioning that, but by proposing ideas that clearly come from elsewhere, but that are revolutionary within the communication discourse.

I mentioned at some point in my presidential address, I think, to me, that is very important to make this connection, not as connection, but also changes—introduce changes that maybe other people don't recognize. I personally think I'm blessed by having—by being actually recognized and competent in all three discourses. Recognized—I got an honorary doctorate for design from the university in Kalmar [Linnaeus University in Sweden]—actually, I got it in design. I got numerous awards in cybernetics, a Norbert Wiener Medal and something else. I'm recognized there, and I have been president of the ICA, and I have been in best paper awards, and been nominated in honorary societies, and being a Fellow at ICA.

Because I could jump from one to the other, that made me, I think, a productive contributor to all. If I want to give a lesson to someone else, I would say that is probably the most important one—is to be versed in different kinds of discourses. In terms of students, I always, when I have a preference—and I don't have, by the way, I have a preference to take someone who wants to have a permission—for example, undergraduate. I have now an undergraduate, or several times. The first thing I asked her, What languages do you speak? I don't mind that you only speak English, but by speaking a different language you have access to different culture. Where have you traveled? That was also important.

For example, right now I have an undergraduate, she traveled all over the world, and so she had a sense of different kinds of cultures and could combine that in numerous ways to her own culture. And to me that is very important. To make creative contributions, as I said earlier, conversation. But in conversation you have to be open. Actually this undergraduate that I had just now, she wrote a fantastic paper—although from a social science point of view there are lots of things to be criticized, and I will talk to her—but about tourism. What do tourists see when they take a trip in a foreign country, and where did they go? She made a difference between kind of tourism—camp tourism, like taking a tour—as opposed to backpacking. I have the suspicion, I have to ask her, she was probably a backpacker [laughs], because it was very clear that backpackers are going to places where not everyone goes. They are open to new experiences, and actually, to tell you the truth, it gelled with me, because I was a backpacker when I was in Germany—we hitchhiked all over the world from Lapland to Yugoslavia, France, you name it. It was minimal because we couldn't travel very much outside, we didn't have much money as a student. But I was very much associated with that. I think the point is we

need to be open to differences, and to me that is critical to design. It's critical to make any contribution to anywhere.

Q: That is a wonderful point to stop, and I just want to thank you so much because I found the conversations we've had to be incredibly stimulating, and informative, and thought-provoking. We have got right back to your childhood in Germany in the last moment [laughter] with the talk about hitchhiking and backpacking, so there's a kind of narrative bow-tie there, too. So, thank you.

KRIPPENDORFF: Thank you. That was also, for me, enjoyable to rethink some of the things that you asked me.

END OF SESSION FIVE