Interview with Norbert Steinhaus  
GESS invited speaker  
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Recorder: Linda Chapel Jackson

**CH: The first thing we’d like to know is a little bit about yourself. You just explained, but we’re going to do it again for the recording—where you grew up—what influenced your professional and academic paths. There’s usually a story there, somewhere.**

NS: But maybe you don’t want to hear it (laughs). I was going with the flow, more or less. As I said before, I was born in Berlin, East Berlin before the wall was razed, which also means a couple of relatives still living in the eastern part of Germany. So we experienced these difficult years in between. I’ve never met guards on the frontier who could look that strange anymore. They were looking so strange, they must be trained in doing that.

We moved to the city of MülheimRuhr, which is located in the Ruhr region, an industrial region, because my father got a job there. I went to school there. After that I had my military service. It was service, not going there on a voluntary basis, but I still made some kind of career and so I got more than the usual grades. I don’t know why (laughs). I did my first teaching when I was a soldier. Somehow I was already influenced by this.

**CH: What kind of teaching did you do in your service?**

NS: It was about technical sciences. I got a topic and there was regular training and teaching during the week, and from time to time it was up to me to do the teaching on a certain topic. I went to the library, got the regulations, and then just was talking about the regulations to a group of people who were definitely not interested in what I was saying (laughs).

**CH: Did you come from a family that encouraged science learning then?**

NS: Probably not in the way you understand science. In the English-speaking world science means natural sciences. My father was an engineer. His wish [for me] was either go the engineer path or do something on business and economics because he was CEO of a company. And probably because of my revolutional period I decided not to do anything he wanted me to do. He asked me, “What are you going to do after you’ve got your graduation from school?” I said, “I don’t know, do my military service,” because it was a predefined path. “But what are you going to do after?” I said, “At the moment I don’t know.”

I had a good friend and he said I’m going to study agriculture. So I said OK, I’m going to study agriculture as well. I definitely hadn’t any plan what to do. I had to wait, because my grade from school wasn’t good enough, so I was a bit working in between. Then I was accepted at university and it was studies as they are now for bachelor and master—in my time it was still a diploma—but yeah. It was school. I went to school again. Which was good, because nobody checked if I attend. So there was scripts, I could learn from scripts and books, and had a good time.

**CH: Would you define yourself as an academic?**

NS: No.

**CH: OK, so let’s take it in a different direction. Were there compelling issues that got you interested as a citizen scientist first, or an interested citizen in, let’s say, an issue that was science-based?**

NS: I’m not really sure if I was interested to go into an issue that was science based. I recognize that I got a good education—a good education in science, a good education in basic information, in engineering, in economics, in ethics, social sciences—so this was an element of the studies. I had to focus in the second part of the studies. I went into plant production because economics—probably still my father in the background—or it was too dry…

But anyway, because I had quite a lot of time during my study period, I engaged as a student for student interests. Every faculty has student representatives and there are elections every year. There are parties with different, let me say political, direction and the agricultural student representatives were very conservative. I wasn’t. So I was always in opposition.

I had a couple of friends, so we tried to change the beat for the benefit in our standing of the democratization of studies in agriculture. It had a bit to do with partying because some of the parties were really boring. In the beginning of the 80s music and life changed a bit and they were still on the—they had a group called Sunny Skies playing at the faculty party. The band is still playing on faculty parties even 40 years after (laughs). I was elected as student representative for university boards, for the faculty board.

So I worked, besides going through my studies. It didn’t take too long to do it; I was still in the regular time of finishing my studies. I took a role of providing information in both directions, student needs to faculty boards, but also information coming in from faculty administration towards students.

**CH: So you weren’t content to follow a conventional line when people would talk about an issue. You wanted to explore all the way around an issue then? And present all sorts of different options and different viewpoints?**

NS: From my perspective now? Yes. Probably that was not my driver during these days.

**CH: Little bit of a disruptor maybe, during those days?**

NS: No, I don’t think that I was a disruptor, but I thought there was more than just the mainstream. Probably not in a scientific way of, you know, if you look at the problem you have to look at it from different angles, but I at least had one different angle. Now I know there are more than just two perspectives—three, four, five probably.

After my studies I jobbed, small jobs. But then I was asked by a colleague who was also a student representative—She was head of Bonn Science Shop, just established Bonn Science Shop, and she said we have a position. The woman who had the position up to that point, she was on maternity leave, and don’t you want to take over. I said OK, sounds interesting. So I had an interview and I don’t know, 15 people sitting in front of me, asking me what do you think you are going to do for the science shop, because they were just new and it was the first paid position they ever had in the science shop. Before they were just working with volunteers. So I said OK.

I never heard of a science shop before, although it was founded in the same student parliament I was working for at that time. Information flow always was an issue. And I started, and it was a limited contract, three months, and I had to discuss with my father again: How can you join this environmental organization for just three months, you have an academic background, and they’re no-names, and it’s just for three months. I told him you know, nowadays—30 years ago—nowadays you cannot expect that when you join a company that you’ll work for this company until you retire, especially with an academic, in the academic field. I had my 30th job anniversary this year and there are only a few years until my retirement (laughs). So I think he would somehow be proud if he would see what I am doing now.

So I started that. It was a three-month contract, and another year followed, and another year. It was a funding scheme by the unemployment office. It was a program set up to get unemployed academics into occupation. You could apply for it for two years—specific funding rules—but if you get the funds for the third year you have to guarantee that this person gets an unlimited contract. So they took me into the third year and from that time on I am working for the science shop on an unlimited contract.

Of course there are other possibilities if the economic situation of an organization goes down, of course you have other rights. But for us—it was after the first two years of working for the science shop—it was the research I’ve done, together with a colleague, research on vocational training opportunities for unemployed academics in the environmental sector.

**CH: Was the science shop—when you began, and it was the first funded position—was it an original idea or were there other similar organizations started in different parts of the country or had it been modeled after something? Or was this an original idea?**

NS: No, we’ve taken these—when I say we, I say the colleagues I’ve been working [with] from the beginning who were founders of the science shop—they took the idea from the Netherlands. Science shops in the Netherlands started end of 60s, early 70s, with an idea but became more visible by the end of the 70s. The idea was definitely to get researchers out of their ivory tower, remind them that they have a responsibility toward society. And on the other hand there are a lot of societal groups which have a problem. By framing the problem into a research question, trying to create win-win situations or even triple-win situations, the community group gets help, the university gets visibility, and the researcher, and—the original idea of science shops—a student researcher—can work on a real-life problem instead of sitting in the library or nowadays sitting behind a screen. So that was the original idea.

When Bonn Science Shop was founded we tried the same with Bonn University. See, this is the idea: We have all the problems here (in those years mainly environmental problems), why don’t you try to establish something here in Bonn University? But we were somehow the left-wing, long-haired students and this didn’t fit into the conservative picture that the university had of itself.

So we established as a not-for-profit registered organization. We have a board, we have a general assembly every year, and we have set up a structure which is extremely basic democratic. We found our way to the strong regulations of the law, of organizations, of how to register organizations, because we have set up a structure where every employee working for the science shop has the same voice. So one employee, one vote, and there is no general manager, no board that decides by itself or by themselves. It’s what we call this council of delegates that decides. There are some regulations on that. It needs an unlimited contract of more than 20 hours per week. That’s the basic construction. But we have a kind of detour, or back door, if somebody is working for the science shop in a limited contract or with less than 20 hours this person can be elected as a delegate during the general assembly. So in fact this means that all of the 25 persons now working for the Bonn Science Shop have a vote on any decision to be made.

**CH: I have a question on that because I’m not clear. Does that mean that your voice is equal to a student voice?**

NS: We do not work with students because we are working from outside the university. So we don’t have access to the resource students. Our work is based on service and projects. In the projects we have the project team, mainly from Bonn Science Shop together with other stakeholders from outside, but when it comes to administrative issues it’s Bonn Science Shop team.

**CH: I see.**

NS: We’re talking about the team, 35 person staff in total but we are about 25 persons to decide on issues related to Bonn Science Shop, no matter if we decide to buy a copy machine or if we are going to hire somebody or we’re going to accept a project idea or whatever. You can imagine that with 20, 25 persons sitting together twice a month to take these kinds of decisions, it takes its time.

Therefore it worked very well when we were six or seven sitting together, discussing everything and then having a vote. Now with all of the different issues of an organization of this size, of course we created committees. So each project team is somehow a committee. We have a committee on financial issues. We have a committee on staff issues, whatever is necessary. Some of them are temporary, some of them are continuously working with elected people from the group of staff.

**CH: What are some of the—It’s a two-pronged question. What have been some of the more interesting projects that you’ve worked on and what have been some of the challenges?**

NS: I got this question during this week and I was not able to answer it about the most interesting project because I think it’s much easier to ask which project was a mess (laughs). And there were not that much.

What I did in my professional work, the science shop work, was quite different things. I started with this research. Then I was a teacher, because after researching all of the different trainings we developed our own training. We had three of these for a period of four or five years. During this period we developed a service to create an overview of available positions in the field of environment. For us it was some kind of supporting our participants in finding a job because this was one of the criteria to justify the money we got from the unemployment office to run this training.

After the third training the unemployment office said now we have enough environmental advisors so we don’t support any more trainings in this field. We need more ICT people. So we stopped this and I stopped making a survey of available positions, because until that time they were just published on the blackboard in the classrooms. It was just a map of available positions.

But all the students we had from all three courses said we want to be informed further on. Although they had a position, they wanted to be updated on what is going on in the employment market. So I made a press release and within six or seven weeks I had 700 subscribers for this service. It was very basic, just making a copy of this job offer—just to tell you—these job offers were published in the weekend issues of newspapers. Every city had its own newspaper and I tried to get as much newspapers as possible so we had a good overview of what is happening in Germany. To develop this further, we had some copyright issues during these years. We are doing that now for more than 20 years. Our peak was more than 11,000 subscribers for this service.

**CH: Wow.**

NS: We developed a second one on social sciences, arts and humanities, for both together. We tried one for ICT but the job situation was too good. There were not enough subscribers so that was economically not justified to do this third.

**CH: ICT would be…**

NS: Information and computer technologies. And when we got more and more subscribers we were in a situation that we could no longer just copy the job offers. We had to change the style a bit. We started to make an editorial frame for the job offers—job interviews, company profiles, information on how to apply for a job in a different country, how to write a CV, things like that. I was editor for this editorial frame for many many years but started to cooperate with other science shops because there was a growing interest on the European level in—I’m talking about myself. Science shop of course did many other things.

We had colleagues working on health issues, we had colleagues working on other environmental issues. That’s just my part. I was always in contact with colleagues who were working in different fields and still running the basic idea of picking up requests and forwarding them into university. But because we didn’t have this contact to students, in the way other science shops, university science shops have, we were developing projects on societally relevant issues.

We identified that water quality is a big issue, so we defined a project and got funding to run a project. Same for healthy food. Same for ecological construction, indoor pollution. These were the fields we recognized as upcoming or ongoing, important topics. We tried to create something together with people who are concerned, to have a say on these issues, and try to develop information and solutions. So our work was less research but more solution-finding and implementation of the solutions.

**CH: Did you find, or have you found, that parts of Germany have more need than others? Or have you had to juggle that? Like, for example, in the United States we have some areas of need that are way more urgent than other areas. We’ve had to in some cases respond to emergency types of situations that have come up. Do you have that sort of pressure too?**

NS: I think we have this pressure in Germany. Especially eastern Germany went through a very rough period after the wall fell. Of course we have now issues on immigration, on populism; environmental issues are still high. But I don’t see—There are regional differences in Germany, but in this case we are still working more locally. Science shops work very local, although when we set up projects with federal funds we tried to find partners in different parts of Germany and to give good coverage. So we have Bonn as one possible city, then we have a city for example in the Ruhr region, then we have one in the eastern part of Germany. We get a certain coverage of different backgrounds when we are working on a certain issue.

But getting back to the most exciting projects, I have to say the moment I started the international work. That started the most exciting period of my career. I was invited to join a European project by accident because we had regular meetings of German-speaking science shops, including those from Austria. An Austrian colleague invited [me] for a weekend workshop and she said there are Dutch science shops coming as well. I was never in contact with Dutch science shops before although I was already working for the Bonn Science Shop for 15 years and the Dutch border is only an hour away. There was no exchange on the international level between science shops.

I said OK, this is an opportunity to learn about the situation in the Netherlands. So I went there and we discussed oh yes, exchange on the international level is necessary. I started with what I’ve done with the job offers magazine so, now we need a newsletter, why shouldn’t we create a magazine with some projects, some examples. And a week later they called me and said yes, do that, but on an international project. We’ll get European funds for that. That was the beginning.

**CH: So, do you have an investment in that or are they self-operating? Did they set it up according to their laws and they’re independently operating?**

NS: Who?

**CH: The Dutch science shops.**

NS: We don’t have an investment in their activities. They operate separately and they have a national network, but they are setting this up with their local university.

**CH: OK. All right.**

NS: So it’s an individual negotiation, how the science shop is structured. There are quite a lot of different models how the science shops are embedded in universities or how they are embedded in all societal interaction.

**CH: That is pretty exciting though, because now you have a network, an international network starting, right, the science shop concepts.**

NS: Yes. We were able to support science shops in other countries through European support. Now I’m breathing science shop, I’m happy to talk about the idea, it’s my vision to have a science shop at every university—although if you think of the number of universities in the different countries it might be quite difficult. But to have more science shops and the idea is growing. The need for interaction with society is growing and that’s why universities and research-performing organizations are getting more interested in models of how to link with societal groups and with community groups.

**CH: Was there anything that surprised you about working with societal groups that might not be familiar with academic methodologies? Were you surprised at the sophistication level of knowledge that some citizens had? Were they seeking knowledge or help or both? Tell me how that interaction typically goes and if there was anything that observationally you noticed right away.**

NS: What really surprised me—not surprised me, but I still remember the knowledge in workers’ unions. We had a couple of projects with workers’ unions. Some of this was just accompanying and documenting their meetings. Of course they had a lot of knowledge when they were talking that these were representatives of companies coming together for an annual meeting, when they were talking about their issues, about payment and other things, but the talks during the evenings when having a beer—the political knowledge—they were extremely well informed about what is going on in society. I find I don’t have their knowledge. Discussion with them was—I don’t want to be impolite, but when I was discussing with student colleagues, these discussions were not as good as the discussions with workers. So that was definitely a learning. I really enjoyed that. I learned a lot from these meetings.

On the other side, when working with community groups, probably from my story you know that I never like to be pushed. And therefore I try not to push when I go into these kind of meetings but I listen. I listen and try to develop ideas, and suggest ideas, and then we discuss these ideas. That gets me sometimes into a position where I feel uncomfortable, in situations where I’m invited as an expert. Because then people just sit and listen and I have to talk. And this is not my style of working, because I want to develop things together with people. It depends a bit on the general societal situation. I have to step back from these positions and I have to be aware when I get into this position of being, you know, this academic who has the knowledge and who talks to people. I’m in a cooperation project with Belle Russe, with White Russia. They are setting up a science shop and they invited me as a science shop expert and it all works with translation because I don’t speak Russian. This sometimes gives me the situation where they ask something and I talk as if it was an interview, as we do now, and I share my wisdom. I feel uncomfortable. This is also a language issue because I would like to discuss with them. I just get the summary of the discussion and I give a comment, and this gets this expert status.

**CH: That would be difficult.**

NS: But in other projects—now we are in citizen science projects on urban gardening—our idea in this project was to start developing relationships with all the different groups working in Bonn but then try to explore where are their needs: What kind of needs to they have, are there research needs or research questions behind the needs they have when they talk about urban gardening. And this is time consuming. It took a year to get to the point we now have, you know, the Big Five in our discussion—the five most important issues to deal with; number one is education. But just by getting into these communities and asking them, we wouldn’t have got to this point of trust and mutual understanding. I think it was very important that we had the time to listen to things together and to meet over a longer period, not to lose eyesight.

**CH: So after 30 years, what is next?**

NS: I will have a meeting in Rome on bioeconomy—This year my itinerary is really packed. Of course I am still thinking of continuing the work in projects. I try to find connections to experience and knowledge that is already existent in the science shop and then scale it up to European projects. Because for a long time I was the only one working on the international level in the science shop. I was the tourist, they said (laughs). But I’m now focused on international cooperation and I try to get more of my colleagues into international cooperation because I had such a lot of good experience throughout these years of intercultural learning. I met colleagues from all over the world. These are colleagues who are working in a similar field, so they are not these elbow-pushing researcher type of colleagues but colleagues who invite me to their home. When I come to Australia I have to stay a couple of days. I do the same by the way. But this is a different kind of relationship that is established.

I try to give my colleagues the opportunity to get the same kind of experience, and of course learn from how things develop in other countries. So there’s a learning for us in it as well.

**CH: Do you see a lot of similarities in the science issues then? I understand that different areas will call for customized different solutions for, let’s say, their environmental problems. But do you see over and over that there are similarities in what people are concerned about?**

NS: Yes, of course. I’ve entered new regions of the world where I was never thinking of going to before if there wouldn’t have been a project. Asia—into rural regions of Asia. I hadn’t thought of it as a tourist, but now for work I had to go, or I wanted to go, which is good because you have somebody taking you by the hand when you get into these countries. Colleagues and friends ask me how is it—the same kind of question you now asked—and I said people all over the world are the same, but different. They have the same concerns. They are expressed differently because of their cultural or economic background, but in fact these are the same issues. They want to have a good life, they want to have good food, clear water, good education, they want to save the environment. It doesn’t matter if they live in a rural region in Indonesia and go barefeet and sleep on a mat or if they are in a suburban region of California or western Germany somewhere. That doesn’t matter. The questions behind are the same.

**CH: And maybe the solutions with science shops are the same—**

NS: This is what we try to do, when you talk about visions—Of course, I try to keep the living knowledge network—It’s alive, not just alive but growing. And I see challenges coming up because the idea of science shops has picked up in many different environments. I want to make sure that the basic idea of science shops is kept so that there is the possibility to create research from people’s or citizens’ requests.

Now I see for example a project funded by the European Commission. They are setting up ten new science shops and are exploring possibilities to set up science shops in different environments. Not just university based science shops and the NGO kind of science shop, but in administrations, in non-university research performing organizations, in companies. So is it then still a science shop if a company runs this kind of contact point? Because we have some basic criteria which say it has to be for the benefit of the client but there shouldn’t be any commercial interest behind. And results have to be published. Of course when you talk about different hosts of science shops, these questions might become important.

But we are an open network. So we don’t have—we have some kind of statutes. It’s a working agenda or memorandum of understanding, however you might call it. But we don’t have somebody who decides who is a member and who is not. Whoever wants to join the network can join the network. Whoever wants to have his address on the website can have the address on the website. Probably we will have a look but usually people come and say put us on their website after we talked awhile and learned what they are doing.

But this is my vision, to keep the network alive, make it a growing network, integrating similar working organizations, because when I talk to so many people here it’s the same, but different. And because we are not asking for any fees, living knowledge is an opportunity to exchange information, to share information, guidelines, there’s always fields which need progress.

Evaluation of impact, for example, is a topic we didn’t look at in the early years because we were happy we were continuing our work, but now of course funders ask for impact so we need criteria for impact. Groups are working on that. We are demonstrating how the aspect of responsible research and innovation can be integrated into existing curricula. So nothing has to change in fact because curricula changing is a thing that nobody wants to really get into. But there are possibilities to integrate these elements into existing curricula. We have case studies on this, even practical examples how to integrate it.

**CH: It sounds like you’re lining up for another 30 years’ worth of work.**

NS: As long as I’m healthy enough to travel. I don’t see that there’s a need for retirement. Of course I will retire, but— (laughs)

**CH: But not yet. Thank you so much. It’s been very delightful to talk to you.**