

1. Fleck at the Israel Institute for Biological Research in Ness Ziona (1957-1961)

MK: So, first of all, Fleck arrived in 1957. I hadn't heard about Fleck, that he arrived, until some months later. One day, Alexander (Leshek) Kohn who was also born in Lwów, said to me, "Marek, you know, there is a Polish professor who arrived with the last immigration, and he is looking for a position. He is an excellent microbiologist, he published a lot of papers, he is from Lwów, he was a professor in Lublin and in Warsaw." I answered "of course, but you have to speak also to Alex Keynan [he was the director] because it is better that both of us will be present". So they were both the founders of the institute, Keynan and Kohn. And Alex said "okay." Two days later, Leszek brought him [Fleck] to the institute// Fleck was living in the Brodetzky House. This was a house for newcomers, for new immigrants, but this was only for scientists, physicians, engineers. They got their room and some food. So, when Fleck arrived [at the Institute in Ness Ziona], we were sitting in Alex Keynan's office, and my office was on the other side. We had the same secretary. And Fleck told his story. Not his background. He hasn't brought with him his Curriculum Vitae. No, nor his list of publications. This I remember. It's normal to bring the CV, this is the normal way. He was sure of himself that he will have a talk, that people will understand who he is. This was Fleck. *Never* brought his list of publication. *Never* brought his Curriculum Vitae.

LFK: He was very self-confident about this?

MK: Yes, he was confident, yes. With a *great* sense of humour in a very nice way. The sense of humour was in a *so* nice special way. It was always a real pleasure for me to sit and to speak with him. And we asked him how he arrived. He said, "I have a son here and I decided to immigrate to Israel." He said, "I don't know any words in Hebrew". He spoke with Keynan in German and from time to time English. He knew English, Fleck. He learned by himself. Theirs was a very interesting conversation. Fleck made a great impression from the first minute. Interesting, from the first minute I saw, I knew very well how Alex behaves and his reactions. Leshek left. Only three of us were sitting. There was coffee and some cookies and something. So, we were sitting, and he [Keynan] asked him, "what are your plans?" (...).He [Fleck] said, "Look, I will tell you the truth, before I left Poland, I went personally to the Israeli ambassador in Warsaw, spoke to him and asked him, what are the possibilities that I will get a job, because I am at the age of about sixty, [he was exactly sixty], and if I will come, I need a job, and as you know, I am a member of the Academy of Science and so on." And the ambassador said, "I will find out." He called him back, and said "it is arranged, you will be offered a professorship at the department of microbiology at the Hebrew University in Jerusalem." Fleck asked him if this is for sure. This is for sure. And he received, he showed us, this he brought with him, a cable, a telegram. From the Hebrew University, I think it was signed by Professor Leo Olitzky, with an O, also German born, his Hebrew was until the last day spoken with a German accent, yes. He came over before Hitler came to power I think, but I'm not sure. But he was Professor Leo Olitzky. Or this was signed by Doctor, later Professor, Moshe Priviz from Warsaw, who was the deputy dean. One

¹ The present paper is a shortened and edited version of a conversation recorded during a meeting of the Ludwik Fleck Kreis (LFK) with Prof Klingberg (MK) on May 25-26, 2003 in Paris.

of them signed the telegram, and in it was written that there was a position for Fleck as a professor at the department of microbiology.

I am telling you more or less in his words, I wrote it down to be very clear. When he [Fleck] came over, he went to Jerusalem to see Professor Olitzky, and of course they spoke in German. For both it was the easiest way to communicate. Olitzky asked him, "how is your Hebrew?" and he [Fleck] said "I don't know a word in Hebrew". "Ohhhhh, I am sorry, we cannot get you a job, because you don't know Hebrew". So Fleck explained, "excuse me, your ambassador in Warsaw didn't ask me if I know Hebrew or not. If he had asked I would have answered him the same way that I answer you now: that I don't know Hebrew. And to work in the laboratory you don't need Hebrew. I cannot lecture in Hebrew." "I am sorry." Then he saw Priviz. And Priviz told him the same story, "I am sorry."

Fleck was very disappointed. What can he do? Go back to Poland? What Olitzky told him was, "you know, there is a new University established in Tel Aviv, there is no medical school." The medical school only opened after Fleck died in 1967, I think. Olitzky continued, "but there is a department of microbiology", because there was a faculty for the biological sciences. And the dean was Prof. Klopstock. There is a book of microbiology, written by Professor Klopstock in Germany, I think at the end of the 19th century or the beginning of the 20th. This Professor Klopstock was the son of this famous German microbiologist. He [Olitzky] said, "you know, there is Professor Klopstock". Oh, Fleck said, "yes, I know the book", "no, this is his father's book, and maybe you can find a job there." I don't know if Olitzky called Klopstock or not. Fleck went to Klopstock and of course they spoke German. This was their-

LFK: Klopstock was from Germany.

MK: Yes, he came after the Nationalsozialistische Partei took over. He came over to Palestine in the 1930s, I don't know if 33 or 36, but in the years before the war. Klopstock was the dean of the faculty. But as Fleck he had a private laboratory, Klopstock, before there was a medical school, before there was a Tel Aviv University, he had his private laboratory, one of the best laboratories in Tel Aviv. Private laboratories made a lot of money in Tel Aviv. I don't know how it is in Germany. So this Klopstock had a very big, good laboratory. So, Fleck went to him. Oh, they had a chat, they spoke. And he told him that Olitzky told him that it is a new faculty, and if he can get a position there, yes, there has to be a professor immediately or something, so, a position. This, what I will now tell you, he hasn't told us with Alex. He told me later, when we became friends. What Klopstock told him, it is a shame, I am ashamed, until now, he answered, if I'm correct in German, Fleck told me this in German. "Ob das ist eine Frage für ein Stückchen Brot, dann will ich für Ihnen finden einen Platz." It is good in German?

LFK: Yes, I can understand it.

MK: Maybe it is not 100 per cent good in German.

LFK: But it is very clear.

MK: Very clear?

LFK: What it means.

MK: I think that, can you improve// because Fleck's German was better than mine, this I remember, "wenn das ist ein Problem von einem Stückchen Brot"

LFK: Ja, so this was very insulting....

MK: Fleck was in shock, he told me. He said this was the greatest shock after the war. So, Fleck told me this story later. With Alex he only mentioned that Klopstock could get a job for him. I said to Alex in Hebrew, because I knew that Fleck doesn't understand Hebrew, "you know, I will go to my room, to my office, and I will call Olitzky and Priviz". And I called, because I had a close relationship with both. At that time I think that Olitzky was also the dean. I'm not sure but he was a dean, but he was head of the department. I called. I couldn't find Olitzky, so I called Priviz. I said, "Mietek, it is Marek speaking. In the other room, in Alex's office, is Professor Fleck. What happened? Why have you behaved this way?" We spoke Polish of course. "A man at the age of sixty is immigrating to Israel, got a telegram, signed by you or by Olitzky or both of you, the Polish ambassador personally told him, he has a document. How do you behave, Mietek, what happened to you?" "Ah, you see, we haven't known that he doesn't know Hebrew." "But, excuse me" – I started to shout, "have you asked, have you asked him? You went to a Polish-Hebrew Gymnasium in Warsaw, but you haven't asked if he went! You know how you behaved? It is inhuman! I remember, as you arrived from Paris [he immigrated from Poland to Paris and from Paris to...]. You came over, when you were offered to be assistant to the dean, you asked them to send you a ticket and to pay for your hotel bill." (amused) I knew the oldest story, and I told him on the phone. "And you looked, and you asked, what will be your salary, and you also asked, what apartment you will get from the university, because you had furniture, and you need so and so." And I visited not once his home in Jerusalem. "So Fleck made a mistake, he has to learn from you how to arrange things." I could speak in this way to Priviz, because I knew him very well. And I was very angry. I was ashamed. Really ashamed. But I was thinking that Fleck was at the age of my father. He was born in 1896. My father was born in 1892. So, this is more or less the same age. "How do you behave?"

LFK: Ja, so you were really angry.

MK: Oh, and more than angry. I was furious. And I was shouting at him. Nothing, nothing helped. I came back from my office very nervous. Fleck has never known that I spoke to Priviz, I never told him this story. And I said to Alex that I couldn't find Olitzky, but I spoke with Priviz, and nothing came out. What to do? We had lunch together at the institute, and then, after lunch, Alex asked Fleck if he wanted to see the institute.

LFK: So your decision was very quick that you said, this man has to get a job? Was this due to his qualifications as a scientist, or because you were all so impressed by his appearance and the way he behaved?

MK: I think both. The only two microbiologists from this group at the institute were Leshek Kohn and Alex Keynan. Bergmann was a chemist. I was an epidemiologist, not a laboratory worker, not a microbiologist. (...) So, I think that his personality was more important than his professional knowledge. He hadn't brought with him his list of publications. Excuse me, but this is the normal way: you bring your CV if you are unemployed. During the years I was scientific director--this was from 1957 until 1972

with a break of two years during which I was in the United States--I hired many people, I made hires in the army, I hired employees in Poland, and the first thing job seekers would do was show me their list of publications.

LFK: Yes, and if you really want to get a job, you do this.

MK: Yes! And before you are asked "show me," you show your CV. No – it is interesting, why he hasn't brought it with him. And he brought it.

LFK: Later?

MK: No, he brought it with him from Poland. He had it, it was typed by himself or his secretary, I don't know. But he used the typewriter himself, an old typewriter he brought from Poland, a Remington, I remember. So, this was his personality. And the way he spoke, he made a great impression.

LFK: Because you mentioned this, that all of these conversations have been in German. With Bergmann, he was talking in German, with Keynan he was talking in German.

MK: Yes, with me, only Polish. I told you yesterday, some German sentences, and for me it was a good experience, because I knew German very well at that time, and so I was also interested.

I think it was 1958, after he started working at the institute, he still was living in the Brodetzky-House, we had sent him with his wife to Natania, which is about forty kilometres or less from Tel Aviv. In Natania there is a center for people studying Hebrew.

LFK: To learn Hebrew.

MK: The institute paid for him and his wife. They stayed some weeks there, I think six weeks or so. After Fleck came back, he said, "I know one thing, a song, this is the only thing I learned." And this he mentioned many times, he said, "you know, Hebrew is not a difficult language for people who know the language, it is really very easy for them". But it was impossible, he could learn nothing, really.

You know, Fleck insisted when he started to work at the institute, after several days of work that I - I was a very busy man at work, very busy. But he insisted that I will come to his office every day at ten thirty to have coffee with him. And I am very punctual. I don't think I ever arrived late to a meeting or to a lecture; I always arrived a quarter of an hour before the students. More punctual than a German. This I learned when I was with my grandfather. There was real German "Ordnung". (...)

So, every day I had to come, and I said to my secretary, I was in a meeting or some discussions and so on, "call professor Fleck and tell him that I will be late, because I am in the middle of it". After ten minutes, a second call. She came in with a note written in Hebrew: "Professor Fleck called, he is waiting." *Every* day when I was in the institute. Sometimes I had a meeting outside the institute. Even then I had to come and sit with Fleck and not talk about science. To have a talk on different subjects. Fleck never mentioned his suffering. *Never*. And this is interesting. A man who suffered so much!

LFK: Why do you think Fleck had chosen you as his best friend in Israel?

MK: Not only his best friend, but his only friend. To tell the truth now, it was not an easy thing, because almost every day I had to spend time with him, I had my work, and was thinking, why not Leshek? And he [Leshek] was living close. Ness Ziona and Rehovot are three or four kilometres apart. And he had a car, Leshek. And they have the same language and are from the same town, from Lwów.

LFK: I ask this, why did he choose you? This is so interesting that you had to come there every day, and he made you a witness of his life, because he told you everything. So you were his witness.

MK: Yes. I don't know why. Maybe it was because he saw that I was working hard to get him the job. I never told him about my talk to Priviz, never mentioned. This is because he was also not a person who wanted to be an "Opfer". So why tell him this story? He was so miserable at that time: without a job, sixty years old, with a wife who couldn't work because she never worked, and with a son who couldn't support him. So, this was really miserable. I must say, this was not an easy problem. I had to work hard and my work occupied much of my time. So, why he didn't choose Leshek, this I don't know. At least both of us rather than just me, that would have been easier for me. I don't know. We found a common language. Fleck was close friends with my wife. He always asked her, "Frau Wanda, please come and have coffee with me, have tea with me" and so on and so on. She was working in the laboratory, and she was very busy. She could come once in a week or once in two weeks, and we invited the Flecks to our house several times.

LFK: I have another question about Fleck's work in Ness Ziona. What exactly did he do there?

MK: Some serological work, some in leucery, and people from the Tel Aviv University came to discuss with him, and he always gave them advice, and they started to work in Tel Aviv University on leucery. Yes, this is Fleck. You can see, with Ziggy Evenchik, you see him on the list.

LFK: Ja, they are together//

MK: He was from Warsaw, so they could speak Polish together. Ziggy Evenchik completed a PhD with Professor van der Houden. (...) But when somebody came for advice, Fleck was always ready to tell him what to do and how to do it. And every day when somebody came, Fleck always found time to give his advice. He didn't do something new. He was ill. Don't forget, after he came, he became ill.

Who came to visit at Fleck's home? His ex-associate from the time of Lwów, Dr. Dickstein, I mentioned her yesterday. She also invited him and his wife to her home. And I also told you Dr. Lille-Szyszkowicz came over, she was there once or twice. Then of course their son and his daughter-in-law. Moshe Goldman, as I mentioned, came only to the institute to talk with him. Once Fleck called me by phone to ask if I could come to his office. He had a guest from New York, a professor of microbiology, of genetics, something in this field, and he introduced me. I don't remember the first name, Professor Zamenhof, this was the son of the brother of the ophthalmologist Ludwik Zamenhof, who invented Esperanto. There was a street in Warsaw, also in Tel Aviv is his name, but they gave him a Hebrew name (laughs). He never used the

Hebrew name. So, this was Professor Zamenhof, what I remember. The Esperanto-man was Ludwik.

LFK: So he was a relative.

MK: Ludwik was the uncle of the Zamenhof who came to see Fleck.

Fleck gave his first lecture in 1958 in the Ohalo meeting at the lake of Galilee. He spoke, I remember, all in German. And Alex Keynan was very gifted, he translated it into Hebrew. The meetings were in April or May. It is nice and not too hot in Israel at lake Galilee in the spring. Fleck participated every year in the Ohalo meetings, and he took his wife, too. This was a break from work where he could meet different people, and he enjoyed that. And I must say that around him, this I remember, were always some people asking for advice, and he was always ready to share his knowledge, because as you know, there are scientists who are afraid that one will take their ideas, but Fleck was ready to give his advice to everyone he met. I don't know if it was because he was at the end of his career, because he was sick, or if this was simply the kind of person Fleck was. This I don't know, but I can only say what Fleck was like at the time. So, this is about Ohalo. Then he participated in 1959, [this is also not written in any place, it is written in the list of publication]. He gave a lecture, and this was the first international conference held in Israel, and I was one of the organizers on the scientific committee of this meeting--this was the International Meeting for Biological Standardisation. And there he lectured. You can see this in the list of publications in Schnelle's book. At that time, I was also sitting in the presidium, and Ben Gurion, who was the prime minister, opened the conference. We asked him and he opened the first International Congress in Israel. He was proud after the war of Independence. So, Fleck participated, we all stayed in the dormitories of the Hebrew University, and he got a room. The friend of my wife that I mentioned, Janina Dobrowolska, also came over and stayed with us. She knew Fleck from Warsaw, she was a virologist, he was a bacteriologist. So, he was very happy there, too. There were some happy days in his life. And the third was in London or in Oxford, in 1960, I think. This was where he met Popper.

2. Philosophy

MK: So he met Karl Popper. This is not written in any place, I looked.

LFK: This was in 1961?

MK: I don't know whether the meeting was in 1960 or 1961. Maybe the meeting was in 1961, but, as you know, the publication usually appears a year after the meeting. I don't remember if it was in London or Oxford, you can look this is in the literature, you have the full information here.

LFK: And he told you what he discussed with Popper?

MK: He [Fleck] told me this, because at that time I knew that he was more proud of his philosophical work than of his microbiological work. So he told me that it was a very interesting talk and discussion with Karl Popper... And then he told me about Popper.

LFK: Did he tell you that he showed Popper his book?

MK: This I don't know. I think that Popper knew already about the book.
... So, he told me about Popper, and he [Fleck] asked me if I knew about the Wiener Zirkel, and when I said yes, "from whom?" I said, "from my father who was interested in philosophy". So, he [Fleck] told me that when he was in Vienna, you know, Fleck went for a short period, for some weeks or months, I'm not sure only weeks, I think some months, to Vienna, to study, so during this stay he was in contact with some of the people from the Vienna Circle...

LFK: Well, he sent his monograph to Moritz Schlick, the head of the Vienna Circle, and asked him for help in publishing his book, but it was not possible to publish his book at the Springer Verlag in Vienna which published all philosophical writings of the Vienna Circle. And then something strange happened. It took eight months for Schlick to answer him. And he said, "oh, I had a lot of work to do, and it's difficult". And then he said, he was very polite, but he said, "we can't use your book. It may be that you know many things, but we cannot use it in our circle". .. And after that he must have asked Schwabe. Do you remember, did he ever mention Wilhelm Jerusalem?

MK: No.

LFK: You don't remember?

MK: No. I don't think that he mentioned names, because he knew that I didn't know the names. But he mentioned that he was in contact.

LFK: With the Vienna Circle.

MK: Yes. And then he started to tell me the story about how before the Second World War he was interested in philosophy and sociology, and he was *befreundet, how do you say?* with some philosophers in Lwów School of Philosophy. He hasn't mentioned Twardowski but he mentioned Ajdukiewicz. Schnelle writes that he doesn't know if he met him. I know that he met Ajdukiewicz not just once but several times. This I know. ... Ajdukiewicz, yes. Then he had a friend, who was a mathematician. And he also studied privately biostatistics, you know? With Professor, the mathematician in Lwów, Professor – I have written it down. His name is also in the book by Schnelle. I will remember later.

LFK: Steinhaus.

MK: Steinhaus, yes. Hugo Steinhaus. He was a professor of mathematics, and Fleck told me he had to know much more statistics than he studied in the high school, that time, there were no medical students, they hadn't studied statistics. So, he went, this was his friend, I think, yes, he was a friend, and asked him, and he published with him. The mathematician published with him. But he was his teacher in biostatistics. It is not written in the books, it is not mentioned. Yes. And then he told me that he met other philosophers, I don't remember the names. And he also went to their lectures, they had some circle where they were discussing several philosophical problems in Lwów.

LFK: Did he ever mention the name Damska?

MK: No, I don't remember. So I asked him, "how did you have time? You were working for several years in the hospitals and as chief of the laboratories, and then you had your private laboratory." And he answered, "yes, but there are so many hours during the night that I could study it"... Then he mentioned that he also published, I think not on the same day, but later, a book. He didn't give me the book, he hadn't shown me the book. And I hadn't asked. But he told me about the book. In Switzerland. Okay. He told me, and he said me, I don't remember, I think he wrote to Schwabe, no? He wrote to Schwabe ... maybe to publish a new edition or something. Is it true?

LFK: Yes, he wrote two letters, the first in 1949,

MK: No, I am speaking about in Israel.

LFK: to ask how the book was sold.

MK: Very poor sales.

LFK: And the second he wrote in 1958,

MK: Exactly, and he showed me.

LFK: He showed you the letter?

MK: He showed me the letter he wrote to Schwabe, and I don't remember what the answer was, they were not interested.

MK: ... And then I got to know about his interests in philosophy and sociology. I was astonished that this microbiologist from Lwów with a private laboratory – he was an exceptional man, so, everything is possible. And all the stories about Buchenwald, and about the vaccine, and how to cheat the SS.

I remember also, one day, I was sitting in his office, having the daily coffee, and then he got a phone call. .. in Polish... It was a long talk, this was Professor Rotenstreich, the specialist on Kant. Nathan Rotenstreich. He was a professor of philosophy and later the Dean of the Faculty of Arts.

LFK: Where was this?

MK: In Jerusalem, at the Hebrew University. Then later he became director of the Hebrew University, and he was invited to and participated in the first colloquium on Fleck, which was organized by Schnelle and Schäfer in Hamburg, near Hamburg. Yehuda Elkana, this is the professor of the history of science and philosophy, and Rotenstreich came from Israel. Then I met Rotenstreich the first time, when he was in Hamburg.

And I could only listen to the answers of Fleck. They spoke Polish. Rotenstreich was also from Lwów. So they spoke for a long time, I could only hear what Fleck said. And Fleck, this I remember, said [to Rotenstreich], "ohh, I remember you and your brother." The brother was one of the best known lawyers in Tel Aviv. Oh yes! I don't remember the first name, Rotenstreich, a *very* famous lawyer. They came to Palestine before the war, before 1939. His [Nathan Rotenstreich] speciality was Kant. ... I heard Fleck saying "I remember you and your brother, you were two boys, you came over to

my laboratory and brought me your urine" [laughs]. This was Fleck. This was typical for Fleck. "You brought me your urine." And how he said it, "have you mixed the urine of the whole family?" ... This I cannot forget... he finished the talk after half an hour. And then he told me that the Rotenstreich family were his patients who brought their urine and blood for Untersuchung and so on. The two boys were 15, 16 years old, they were in the Gymnasium. But he remembered they brought the urine. [laughs]. So he [Fleck] told me that he [Rotenstreich] invited him. He got information that Fleck arrived, and I don't know how he knew that Fleck published in philosophy. But he invited him to give a course. He told Fleck, you want one semester, two semesters, and give a course in your... new philosophical thinking ..

And Fleck, as I remember his answer, said that he will think it over and he will let him know. Then Fleck said to me, he was already sick, "I don't give lectures without preparing them, I have to prepare". Ah, he told me that he can lecture in English. And Fleck was fluent in English... He said, "it's very nice, but it is too late now. I have to prepare, and I am in such a condition that I have to refuse. But it is nice that I got the invitation." He was satisfied.

But then he said it to me this way: "You know", this is very interesting for Fleck [laughs] , if you want to know his personality, he said to me "you see, for the first time in my life I became a visitor in microbiology". So I say, "what do you mean? Visitor?" "Yes, you arranged with Alex that I become visiting professor in microbiology, so I am a visitor in microbiology. All the time I was a scientist, now I am a visitor. And now they will also give me a title as a 'guest' in philosophy". [laughs]

LFK: [laughs]

MK: This is a nice story?

LFK: Was this a joke to talk like this, or was it a little bit sad, too?

MK: No, this was not sad. It was a joke, but this was a typical joke for Fleck, playful and so on. And why we arranged for him this visiting professorship together with Alex Keynan. Because *then* he could supervise PhD students. Because the title from Poland, also the member of the academy, it is good for Poland but not in Israel. So, then this was the only way, because he was not working in the university, we arranged this, both of us had good relations in Jerusalem, so he got this visiting professorship. So, he was laughing that now he will be a visitor in philosophy. And after a week or two he called Rotenstreich and told him that he is sorry, it is impossible, maybe in the future, not to be impolite. But not at the moment. This was in 1959 or at the beginning of 1960. I discussed this and I reminded Rotenstreich of this when we were in Hamburg together. And he remembered it very well, and I told him the story, that Fleck will be a visitor in philosophy. So, this is one thing. This is about philosophy.

Then, I think it was at the end of 1958, but I cannot be sure, maybe it was at the beginning of 1959, but this is not so important, Fleck told me that he is now preparing a manuscript for a philosophical journal. Tell me if I am not wrong that this was a response to some paper, that was published in a journal, Science or something, no, no, I don't remember, why exactly he wrote this manuscript.

LFK: I think it is not mentioned in the manuscript itself...In German "Krise in der Wissenschaft – Zu einer freien und menschlichen Wissenschaft"

MK: I think this was in 1960, he sent it in 1959, this philosophical paper he wrote, to one of the journals. Which journal? I don't remember.

LFK: He sent it to four journals. None of the journals accepted it.

MK: Science, I think. Science.
But you say, four. I know that he tried one or two, but I don't remember four. But maybe it was four. And then he told me that he sent, because I was the only person with whom he spoke almost every day. I saw him upset for the first time when the manuscript was rejected by Science. This was for him, as you say, "mit einem Hammer."

LFK: Vor den Kopf geschlagen.

MK: So he was really upset. Then he told me he will try another journal, I don't remember which journal, you say four.

LFK: Here, I have it: Science, American Scientist, New Scientist, British Journal for the Philosophy of Science.

MK: He was really upset about this. And this, until the last day, and he hasn't written more that I know of, that I could find in his files. All of Fleck's files were with me. After his death, everything was left with me, and this was arranged between us, that I will take care of it ... I couldn't find that he wrote something more.

LFK: But there is the question if Fleck wrote a second volume of his book. Everybody is of course searching for this second volume.

MK: You ask me about the second volume, this was in a Polish newspaper. Tribuna ludu, this was the party newspaper, this was the Pravda of Poland.

LFK: There he announced it.

MK: Yes, maybe he was thinking about it, but he never prepared it. I went through all of his papers. ..I couldn't find it, there is nothing. He hasn't prepared it, this is for sure. Maybe he had ideas, but he never mentioned the second volume, he was so upset that his article was not accepted...

LFK: The original of this rejected paper was in English. But it was not published.

MK: No, it was not published. Fleck's book was also something original... Then he was very upset towards the end about this rejection, and I am sure that he didn't write any further article after this.

3. Concentration Camps

MK: During the meeting with Alex Keynan, and also with Bergmann, and even later, Fleck never mentioned his experience, not only with the vaccine, his experiences in the concentration camps. He didn't mention these experiences. Interesting, because

normally people start, "oh, I was in the ghetto, and I was in Auschwitz, and I was here". He hasn't. Why has this man not mentioned it? Not to me, not to Alex Keynan. Later, when we became close friends he started to tell me the older stories and so on. But he did mention that he went to Nuremberg. Only later he told me the story and gave me all the documents. Interesting. I asked him to write a paper about his experiences in the ghetto of Lwów. And he wrote this in Polish and I translated it//

LFK: This was you?

MK: Yes, I translated it in Hebrew.

I would like to say what names he mentioned from the time of Buchenwald. He mentioned the names of two of his// I will not say assistants. He was the "Wissenschaftliche Leiter" of the laboratory in Buchenwald, but he mentioned two names and he had a very good opinion about him. This was Professor Waitz from Straßburg, and the second was Dr. Ciepielowski from Poland who was the administrative director of the laboratory--not the scientific one, that was Fleck, because all was built on Fleck, because he made the vaccine, the first in the ghetto from the urine and so on. They were the two men who knew about the sabotage.

LFK: Did he ever mention the name 'Balachowsky'?

MK: Who?

LFK: Balachowsky

MK: He knew too?

LFK: No, I don't think so, Fleck always said, Balachowsky wasn't informed.

MK: He never mentioned to me that Balachowsky was one of the insiders. I can only confirm Waitz and Ciepielowski.

Now what I heard from Fleck is about this SS-Sturmführer, Dr. Ding-Schuler. Fleck told me not once, but several times, we went over all the stories and so on, in the later period he started to tell me, not about his suffering, but about the vaccine in the ghetto, in Auschwitz and especially in Buchenwald. And he said that this Dr. Ding-Schuler wanted to make his habilitation. And therefore - not because he was not so much interested in the vaccine, he was interested personally, he was an SS-officer, I don't remember what grade, Obersturmführer.

LFK: Yes, Obersturmführer.

MK: But first of all he was interested to become a Privatdozent. And this I remember very well, he told me, that he wanted Fleck to prepare and write his habilitation for him.

Fleck had very good relations with the German political prisoners. He spoke about them highly. He didn't speak about his suffering. Only one thing, and this he repeated several times. Fleck told me that he suffered in the concentration camps, *especially* in Buchenwald, because his son was with him. The only time, the only period, two years, I think. He was in Buchenwald about two years.

LFK: Yes, it was a long time.

MK: His son was taken for execution several times, he told me several times, and you know who helped him? These were the German political prisoners. Communists. They were in very good positions in Buchenwald, you know?

LFK: Yes, of course.

MK: It is known?

LFK: It is known, yes.

MK: I knew only from Fleck that they, every time something happened to his son, they saved him.

LFK: Did he tell you why? About the reason?

MK: This is the question that my daughter asked me some days ago. I never spoke with Fleck on politics. If you asked me if he was a leftist, a rightist, I don't know. I don't think that he told them [the German political prisoners] what he was doing, the sabotage. He didn't mention it, I cannot be certain, but this is only my feeling, that he didn't mention it because it was too dangerous. Who knows, he can be a political prisoner, but he is still a prisoner, an inmate, so who knows, maybe he can get better conditions if he will tell the truth. You have to understand to be a prisoner. I was for so many years, I know. Fleck told me that because of his suffering, because of his son he suffered so much, that if he had been alone, he would have suffered much less. All the time he had to be on alert. He said that this was the worst thing in Buchenwald. This is why he asked his son not to have children. These are his words, and I am not adding any more words to his own. He mentioned this several times to me. You see, normally a father would like to have grandchildren, this is the normal way of the human being.

He was very pessimistic about the future of mankind. *Very* pessimistic. He said, "this was only one stage, the Second World War. This is not finished, that after that it will be peace. He told me "World War II is not the end, the Nazism is not only Germany, it can be in every country, this can happen everywhere." And he explained historically and sociologically, why it is in Germany, the problem of the economy, the inflation and the reparation they had to pay after the First World War, and Versailles was a very bad thing, how they behaved to the Germans, and then there were people without work and the inflation, the millions of Marks, I remember for bread. The Germans were not born bad// but why and how could they kill so many people? Because the Germans are well organised. But this can happen in every country, this can happen in every place. (...)

Now you know that he was sending--with Dr. Ding-Schuler's help--samples of the good vaccine, the effective vaccine. But to whom? To Giroud, to the Pasteur Institute. This is a nice story that is not written, but he told me this. He was once in a meeting [after the war], I don't remember what year. He came from Poland to Paris, I think it was in Paris, a meeting in Western Europe. And then during a break between sessions somebody told him that Giroud was sitting with a group of people in the lobby. And Fleck told me "I decided I'll go to see Giroud, he wanted that people will listen what he will say to Giroud. And he went and said, I remember the words, I (have written it down) "may I introduce myself, I am Ludwik Fleck von der

Fleckfieberforschungsstelle in Buchenwald" [laughs, uses the German word, in English 'Epidemic Typhus Research Unit'].

Nice, "I am Ludwik Fleck von der Fleckfieberforschungsstelle". They were introduced to each other. Giroud said, "we never met". "Of course not," Fleck replied. "We only met through the vaccine. I was in Buchenwald under the SS, and you were in Paris in the Pasteur-Institute, and I sent you the samples of the vaccine, and you approved it!" Giroud couldn't answer. This was in the presence of about ten, fifteen people. This is why Fleck wanted to make this pronouncement in this context—so that people will listen to it. And afterwards he noticed that it was so quiet, nobody spoke. He said, "okay, goodbye".

This is a nice story. And he really--this I must say--he was not a happy man. You can understand this. With his son, and all that he suffered. So he was not a happy man. But this was one of the happiest stories that I ever heard from him. I am Ludwik Fleck-- he never used the title "Professor" or "Doctor"--I am Ludwik Fleck from the Fleckfieber-Department. Yes. This he mentioned several times on several occasions, and he was proud of it and could say it. Giroud was a free man in a very good position in Paris, living very well. I don't know if he was a man of the Vichy or a collaborator, I don't know, this is not my interest.

LFK: But now I can understand what you said, that Fleck has had a very special sense of humour.

I always wondered, because there are several points in the biography of Fleck we don't really understand. Why he was a lecturer for the Soviets?

MK: Oh, this was normal.

LFK: This was normal?

MK: Okay. When the Russians, the Soviets, came to occupy//

LFK: In 1939

MK: They had more trust in the Jews than in the Poles, who were mostly rightist. So they trusted, this was normal, they trusted, because the Jews were suffering, not so much, but they suffered, in Lwów a student was killed, and in the university they couldn't get a job. Fleck, for example, couldn't get a job and he was one of the best microbiologists in Poland. And if he wanted to write a habilitation, he had to convert to Catholicism. He was unwilling to do this out of principle. So, this is not because of communism. *Nothing to do with it.* So, this is why they chose Fleck. They knew--somebody told them--that Fleck was an excellent microbiologist, so they made him a docent. If the war had not started in 1941, I am sure he would have been a professor at that time because he was really good. He published so many papers. Not philosophical papers, no, but articles on his microbiology research. This is 100% certain. So I *never* spoke with him about politics, and I don't know if you ask me, was he a leftist, was he rightist, was he a liberal. I don't know, I don't know. And interesting, why I haven't asked, I asked myself, why I never asked him. Really! Why didn't I ask him? I spoke with him for four and half years, you can say every day, six days a week. At that time we worked six days a week. We spoke for at least half an hour or an hour, except when I invited him to my home and he invited me to his home. Hundreds of hours spent together. He was a member, I recommended him, he was a member of the

physicians of the Histadrut. The Histadrut is the trade union. I brought him there. Remind me to tell you that thirty days after his death I organized a big meeting at the Histadrut in the big hall. And I gave a lecture and a speech about Fleck. But as for his politics--I don't know.

4. Sickness and Death

MK: I must say that I am proud of one thing, that Fleck had full confidence in me, one hundred per cent confidence. When he became ill, when he noticed the first symptoms, I arranged for him to see Professor Efrati. And professor Efrati called me after several visits, because you cannot make the diagnosis on the first visit. So he called me and said, "Dr. Klingberg, I should like, if you have time, for you to visit me when it is convenient for you in my department or in my house." He was living on the grounds of this hospital. There were many houses for doctors, nice flats. This also belonged to the trade union, to the Histadrut. I responded, "can you tell me what this is concerning?" "About the patient you have sent to me." Not to mention the name of Fleck. And I came over the same day. I never mentioned this to Fleck. And he told me, "I'm afraid that this is a problem of lymph. I think this is Hodgkin's, but I'm still not sure. Don't mention it to Fleck. He doesn't know, we say this is nothing special." They became very friendly. I don't know if he invited Fleck to his home, this I don't know. But he was also impressed by Fleck. Interesting. He was an excellent, one of the best, specialists of internal medicine in Israel. He was a professor of the Hebrew University because the hospital was affiliated to the Hebrew University. And so I said, "how can it be? I have two files for Fleck: one file is in the hospital, and there is not a word written about Hodgkin's in that file, about lymphosarkoma this is, because the doctors or nurses can open the file. The real file is in my office and only I have the key." Nice. Efrati.

LFK: Did he tell you why he did this?

MK: Because he didn't want Fleck to know the truth. Because then he may become depressed and so on. But once in one of our coffee breaks, Fleck wasn't feeling well. He called me panji college, Herr Kollege, or panji Marcu. One of these days he told me, "you know, I would like to tell you about my illness. Professor Efrati whom you recommended is a very good doctor, this I know and I am very grateful that you arranged it with Efrati. But they don't tell me the truth, they are afraid to tell me the truth. But believe me, I went over the literature, and I know the symptoms." So he said to me, "I have Hodgkin's". I answered, "nooo? You exaggerate it." He said, "panji college, believe me, I am not a clinician, but I understand, I know how to read a scientific paper and a good textbook. And I went over Harrison Internal Medicine."

I will never forget when he underwent the radiation. Professor Efrati arranged that he would receive the radiation in the Hadassah Hospital, because the Hadassah Hospital in Jerusalem belongs to the Hebrew University, to the University Clinics. And his hospital, his department was affiliated to the Hebrew University, so he arranged that he will get the radiation in Jerusalem, but he also arranged that he will stay at the French Hospital (this is a Christian, French hospital in West Jerusalem). It wasn't me, but Efrati arranged that Fleck was given a large room and a bed for his wife. This was extraordinary treatment for a patient. And his wife was permitted to stay with him. She was devoted to him. She had no other thing in her life except him. All her life was

devoted to Fleck, from 1923. But Fleck arranged that if they would survive [the concentration camps], how they would meet after the war in this and this place. Everything he arranged in the Ghetto. You know about it?

LFK: I've read about it, I think Schnelle wrote this.

MK: Yes. So, I could only visit Fleck two or three times a week. At that time, there was no big road to Jerusalem. True, there was not such heavy traffic as there is today. It was forty years ago, but still, I had to spend half a day to go to Jerusalem and to go to the hospital and to sit with him for an hour or two and then return. But every week, two or three times I went to see him. He *never* said a word that he is miserable, never complained. The same way that he didn't complain about what happened to him in the ghetto, if he had enough food. He never told me that he was starving. Never. He was not willing to be an Opfer [uses the German word, in English 'a victim']. So this I spent with him// many days he was in the hospital. I don't remember, but I am sure, that maybe Leshek and some others maybe also came to see him, but this I don't remember. But this was my moral obligation, I felt that I had to visit him in Jerusalem. If you will ask me a question, both of you, if he was a father for me, you haven't asked me the question, if I saw him as a father. I lost my parents in September, 1942 in Treblinka, and I already knew about it, this was after the war, after many years. From 1945, I knew everything about what happened to them. So, if Fleck stood in as a father figure, because he was the age my father would have been, I don't think so. I often thought about why I spent so much energy, so much time with Fleck.

In the end of 1959 or in the beginning of 1960, during our coffee break, I said to Fleck, "Professor Fleck", I always called him "Professor Fleck", I said to him, "do you know that I plan to go for a sabbatical for one year to the United States?" And I told him about my plan to go to Philadelphia. So Fleck said "excuse me, panji Marco, do me a favour, a very personal favour, I know you are making plans, you haven't told me", [laughs], he was a little hurt that I hadn't told about my plans earlier. In *this* case he was the father, and the son hasn't told him [laughs]. "Because in my situation, in my medical condition, I am afraid that I might pass away, and I would like you to be here and take care of my wife." I had no answer. I didn't answer him. I had to think. So, not in the institute, but in the evening at home I said to my wife, "you know we are planning", everything is more or less prepared, I haven't yet received the permission from the minister's office for leaving the institute, but I was planning. I told my wife about Fleck's plea, and my wife, in her way, didn't answer. She was listening, like my daughter Silvia. And I was in a very difficult position. I had become so close to Fleck. And it seemed to me, that this is his last will.

LFK: Yes, it is very demanding to say, "stay here".

MK: Yes, it was a little bit – it was a pressure. What could I do? I still hadn't answered him the next day in the coffee break. And then, after a week or two I decided that I shall wait. And then I talked with Alex Keynan, because he was also planning his sabbatical. I hadn't told him about Fleck. I said to Alex, "maybe for you it is also easier to go now, you know everybody who is important in the United States, so you can get the sabbatical now." Alex asked, "yes, it is no problem, do you want to postpone?" "Yes, I will postpone it." And I postponed. Of course Alex stayed not one year, he stayed also two years [laughs], and then I went in 1962 for the sabbatical. This was exactly a year after Fleck died. And we met with Alex Keynan in New York, and the two families

spent a week in New York together. I am not a believer in anything, but this was Fleck's will. And now I must say, after that, I was happy that I had postponed my sabbatical. So this is the story about 1960.

LFK: So he knew quite well that this is -

MK: Oh, he knew from 1959, maybe from the end of 1958, that it was a question of time. This is why he didn't write anything new in these years, except his manuscript, the manuscript which was rejected. This was his only new contribution to science, because he was a sick person. He was working every day during his illness, except when he was in the hospital for radiation.

It was July 15th or the 5th when he died, I don't remember, it is written in the book. It was about five o'clock, four o'clock in the morning, we got a phone call. Mrs. Fleck was on the line and she said to me, "panji Marcu, my husband is very sick and I don't know what to do, what do you think, what shall I do, I am very afraid". She was in a real panic, and I could understand why. A woman who couldn't speak Hebrew. So I said, "prepare yourself, not your husband Professor Fleck, yourself, you will be dressed, I am now calling for an ambulance."

I found out immediately, it took me a minute or so, in Tel Aviv, what the number was in Rehovot, because in Ness Ziona there was not a Magen David, this was the Israeli Red Cross. I immediately called and said, "go to this address, there is a doctor, a professor, very sick, and take him directly to the Kaplan Hospital, because he is a patient there." I finished this, and my second call was to Professor Efrati, because he lived, as I told you, on the grounds of the hospital, this was five o'clock or so, but I didn't take it into consideration that this is too early to call. I called Professor Efrati and said, "Professor Efrati, you know," in Hebrew, of course, "Fleck is in very bad condition, I already arranged the ambulance, it is on the way. And I told the Red Cross in Rehovot, that he is a patient of Professor Efrati." Everyone in Rehovot knew who Efrati was. And I, half dressed, really half dressed, went to the car, this was so early, at that time the traffic was not so bad, there were not so many cars in Israel, but the roads were very bad, at the highest speed that my car could go I drove to the hospital, it took me maybe twenty minutes. Normally this trip would have taken half an hour. Not more than 20 minutes so early in the morning, and I arrived at the emergency, and they told me that he is in Efrati's department. Because at that time the special emergency care units were not yet established. How do you call this? The people who are in a very bad condition?

LFK: Intensive care?

MK: Intensive care units. At that time there was no intensive care unit, in the 1960s. So I was rushing to the department of Efrati. He was already there, there were already two or three other doctors, and there were one or two nurses, and Mrs. Fleck. She was in the corner, looking for him. There was a monitor, and I had a look at the monitor, it was bad. And Efrati hasn't told me a word, but I understood from his facial expression – how he looked, that this was going badly. And I went to Fleck's bed. Fleck was conscious until the last moment. And when he saw me, he looked. This was for him not easy, I understood, so maybe I was wrong, but I understood at that moment that he wanted me to hold his hand. I don't know why. So I put my hand to his hand. And you know, this was of course a big effort for him to hold my hand, and the moment he got it, he could hold my hand, I understood that he wanted me to remember. He couldn't

speak, because he had the oxygen and so on. But I felt that this was his message, "don't forget what you promised me." And he held my hand *until the last moment*, when the – was flat. Until the last. And then Efrati told me that this was a very severe infarct, and that there was nothing what they could do at that time. Today, there are different treatment options.

And I took Mrs. Fleck home. I don't think, I am almost sure, that Richard [Fleck's son] wasn't present, because I didn't call him. Maybe Mrs. Fleck had called him, this I never asked, or I don't remember. I took her home, brought her to the Ness Ziona home, I said some words, normal words, I am very sorry and so on. I said, give me the phone number of Richard, and I will phone him. Because somebody has to take care, I had to organize the funeral. This was also [laughs] my job. So, Richard came over. I didn't leave Mrs. Fleck before Richard arrived. Richard had no car, so it took time. I called the institute and announced that I will be late. And I called the institute, Alex Keynan was already in the United States, the director was Professor Robert Goldwasser.

And I called Danai, the administrative director who had more connections in the town hall. This was important because in Israel, you have to be member of a religious community// either as a Jew, or as a Christian [laughs] or as a Muslim, you have to marry also in that religious tradition. There is no civil marriage. You have to die as a Christian, or as a Muslim, or as a Jew. And I had no connection in Ness Ziona with the religious office of the town. And Danai had more, because he was the deputy director for administration from the beginning. So I informed Danai of Fleck's death, he was very sorry, and I told him "you have to make arrangements with the religious people."

So we had the problem of making a decision concerning burial for Fleck. I went back to Mrs. Fleck and Richard and said, "what is your wish?" "We leave it with you. We do what you suggest." So, I said, "I think the best thing is that I will arrange for him to be buried in Ness Ziona. He was working here, he was living here, and this will be easier for you, if you will like to visit." So he [Richard] said, "okay." The next day, first of all, my secretary called all the people who knew him or met him, and all the people in the department. And we arranged busses from the institute, and with Goldwasser and with Danai, we asked as many people as possible to come to the funeral. I went with Danai, to find a nice place. He could have perished in Buchenwald and she in Ravensbrück, So, they gave us a nice place, a little hill, and I immediately arranged for the reservation of a burial plot for two persons. Because who will make this arrangement when Mrs. Fleck dies? So, I made it for Fleck's wife too. And then there were many people, some hundred people. All people from the institute. There were a lot of people. Also Dr. Dickmann of course and other friends and other professors from Poland came over, and also people from Jerusalem. Several came over. They had met him at the Olaho Conference, they had met him in Jerusalem, so there was a big funeral. Then there was the problem: the Jews arrange a gravestone either after one or after eleven months. So it is in the Jewish religion. I had decided that I would go to the United States, so I needed to arrange the gravestone in the first month. I went to Mrs. Fleck and said to her, "look, what do you want me to write on the gravestone? I will speak to somebody who will give me some ideas", and I told her that I had arranged for her a place close to him. To this she said "thank you", and she said, "I leave it with you, you know everything, how to arrange and so on." So, as far as I remember, I don't have a photograph of it. This was written, "Prof. Dr. Ludwik Fleck, born..." not too much to write, I don't like that, the whole story. And after thirty

days we arranged a meeting, also I mobilized the people of the institute, about two hundred people, when the gravestone was ready and around this we placed a chain to mark the grave as a special place. To set it apart as a special place. And I asked Danai, as the person responsible for the garden of the institute, to plant flowers around Fleck's grave, and for several years I can say, he was looking after the grave, after the plants.

LFK: Danai?

MK: Danai. I asked him to ensure that the grave will be nice, and he sent the gardeners.

LFK: This was the one who organised his first flat, this was the same person?

MK: This is Danai, the deputy administrative director of the institute, German-born. This is the same man, yes, who helped about the flat, yes, this is the same man. And he died some years ago, his wife died many years ago, I saw it in the newspaper. So these were the thirty days. Before I left for the United States, I left in July 1962. And before I organized, the first year after Fleck's death, there were less people, there were maybe, it is normal, but not less than 50 or 80 people came from the institute, and I think one or two, Dr. Dickmann of course, but also from Jerusalem.

Now you asked me about all the material of Fleck. What was in his office. What I found, I took. I prepared my lecture about Fleck, I told you that after 30 days we arranged a big meeting to the memory of Fleck in the trade union's big hall in Tel Aviv. There were a lot of people--doctors and scientists we invited--and this was published. My talk about Fleck was published in the same journal where Fleck published an article on the Ghetto of Lwów, the article which I translated into Hebrew. This was from the doctors of the trade union's organization, I was one of the three members of the secretariat of the presidium. So, then I went over his list of publications, then I started to look at his papers, but I hadn't spent too much time to go over it. I collected, collected, collected. And in the entire institute. Now, when Trenn and Schnelle contacted me, more or less at the same time, so, I think the first was Trenn, and then Schnelle. They started to ask questions. Then I started to go over Fleck's publications. At that time I was really busy// because I was no more the deputy scientific director, I finished my career at the Institute in Ness Ziona and resigned in 1972 before going for a sabbatical to Norway and London, but I was very busy with my studies on congenital malformation, and I had a contract with the American army about Flecktyphus. So, I knew about the rejection of the manuscript because Fleck had told me about this. And then, I don't remember if I had sent the manuscript to Trenn or not. The manuscript that was not published. Yes, I showed it to Schnelle, but Trenn I don't remember. Then I started to go over Fleck's material, spent a lot of time, but I was very busy.

Oh, here are two points that I haven't mentioned. This is also curious, because this is very personal for his life, how he behaved, with his sense of humour, his special kind of humour. In 1959 or maybe 1960, it was arranged that all the scientists in the Institute in Ness Ziona, the higher grades, will get allowances for holding cars, and this was a lot of money. One got 1500 kilometres per month, and the other got 2000 kilometres; this was a way to avoid raising the salaries. So they gave you this kind of allowance for transportation by car. But not to go to the institute and back, because there were buses from the institute, but nobody asked, what are you doing, where are

you driving? Fleck never had a driver's license, so, when he heard, I informed him, "Fleck, I am sorry that you don't have a car, you could get some more money". He said, "let me think about it". I knew Fleck would not begin to learn how to drive at that point--he was ill, it was too late. A day or two, or three days later, he said, "I have an idea. I would like you to help me write a letter in Hebrew to the administrative director, to Danai. As I have no driver's license, I have no car, I would like to buy a donkey and the institute will pay for a place for the donkey, where the donkey can stay in the shelter, and stay for the cleaning of the donkey, and also for the food for the donkey, instead of a car." [laughs]

LFK: But you never did this.

MK: No. But this was Fleck's sense of humour. I wanted to tell you this, I think, it was a nice story. I told you, that in my opinion, Fleck had a phenomenal memory. Another story about Fleck is in what he told me about Warsaw. When he was in Warsaw, you know, at that time in Poland, there was a shortage of everything. Today you can buy the best things, and Warsaw has the same stores that are in Paris, Gucci and everything. But then, they had money, but they didn't have access to consumer goods. Today they have access, but they don't have money. This is the same in Russia. So, Fleck told me that at that time there was a shortage of toilet paper for quite a long period. As a member of the academy, he could get a car with a driver, a member of the presidium! But he was very shy and he was not demanding, because he lived in a small flat, and he wanted to have a small flat, so he was using the public transportation. As I remember, there were trams in Warsaw, maybe buses, too, but he was traveling, as he told me, by tram. On the way from his flat, I don't know where he lived in Warsaw, from his house, on the way to the tram station, he saw a very large queue, people waiting in front of a store. So this is the way, I remember it from Russia. First of all you ask, "what are they selling today?" So he also asked, and they told him, "toilet paper," so he decided not to go to the institute, but instead to stay in the queue and wait. It took maybe more than half an hour, and then he asked if he could get six or seven rolls. Then he went to somebody in the store and asked for a string. And he got the string, he took the string, put all these rolls of toilet paper around his neck, and went to the tram. This was his reaction, the quiet way of reaction, not to speak, but to make it visible. This evokes much more reaction. And he went to the tram, people looked at him and started to laugh, and somebody asked him, "what is this?" "Oh, today they are selling toilet paper, and this way it's easier for me to hold." And he arrived at the institute with this string of toilet paper. This was his story. This was his reaction, and this is *so* typical of Fleck. Not to say this with words, but to show it.