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E. D. Please tell how the events in Novosibirsk unfolded since the last time we saw each other almost thirteen years ago, in 1968.

B. T. I think that around that time, in 1968, the liberal sentiment in Akademgorodok¹ reached its climax and soon after began to decline, much like in the whole country. Prior to 1972-73, the Institute² was undergoing a gradual change. For me personally and for my friends these changes became very significant in '72-73. I find it convenient to tie them chronologically with Levin's defense.³ Perhaps you know that Levin had difficulties in Moscow. Andrei Nikolaevich Kolmogorov⁴ asked me to arrange his defense in Novosibirsk. His work was brilliant, and I considered this an honor. Then in '72, on the same day when the defense was supposed to take place, a telegram had arrived from Steklovka.⁵ They were withdrawing their evaluation of his thesis. As a result, the defense could not take place. On that same day Lenya Levin presented his new work on the NP-completeness theorem in our seminar.⁶ The same result, independently of Levin and perhaps even a little earlier, was obtained by Cook, who now works in Toronto, Canada.⁷ Thus, Cook, Levin and Karp (who recently became a member of the Academy of Sciences in the United States) shared the honor of this great discovery.

The second meeting of the Scientific Council⁸ devoted to Levin's thesis took place several months later. His thesis did not pass, as you may already know. But on the same day

¹ Akademgorodok (literally "Academic town") is a part of the Russian city Novosibirsk, located 20 km south of the city center. It is the educational and scientific centre of Siberia.

² Sobolev Institute of Mathematics (<http://math.nsc.ru/english.html>)

³ Leonid Levin was a Ph. D. student of Kolmogorov. Since 1980 he is a Professor at Boston University (see http://en.wikipedia.org/wiki/Leonid_Levin). His interview is a part of the present Collection.

⁴ Interview with Kolmogorov is part of this collection.

⁵ Steklov Mathematical Institute, Academy of Sciences of the USSR.

⁶ NP-completeness theorem, often called the Cook-Levin Theorem, was a breakthrough in computer science and is the foundation of computational complexity.

⁷ http://en.wikipedia.org/wiki/Stephen_Cook

⁸ This corresponds to a Faculty meeting in the USA. However members of the Council in the USSR were selected by the administration) from the entire staff and many leading members of Faculty were not included. This is still the case in the post-Soviet Russia.

it became clear to many that a new era had begun. On the same day, a person whom I practically raised and invited to work in Novosibirsk, had betrayed me. He deserted to the camp of Yablonsky in order to advance his career.

Soon after, a so called "reorganization" took place. I was removed from the position of the department's chair.

E. D. Under what pretext?

B. T. Due to the reduction of personnel. My department was preserved but not as an independent structural unit. In fact, I continued to do the same work but wasn't paid for it. Next, I was removed from the Scientific Council. Essentially what happened is that I wasn't included in the new Council under the pretext that the Council might have to handle classified information, and I did not have the necessary security clearance. At first I was upset, but later, in hindsight, I realized that it was for my own good.

After that we lived a modest life. One of my collaborators left for Kalinin. Then some people were laid off.

E. D. The situation changed for the worse, right?

B. T. Absolutely. The most difficult thing for me was that I was no longer able to support my students. Moreover, the mere fact that they were my students had a negative impact on their careers. Imagine my situation. I didn't know what was worse: to see any of them betray me or to see them suffer in part because they were associated with me. It was an unbearable situation. Despite all of this, officially or rather semi-officially I remained the chair of the department. I was still a professor. I had a job. My family lived in Akademgorodok. I could put up with this situation, if it affected only me. But this wasn't the case. I couldn't quietly accept the difficulties that befell my students.

By that time the squabbles in the Institute reached their climax. After they removed the unwanted people from the Institute, they started to fight each other.

E. D. There were no Jews left except for you, right?

B. T. One of my colleagues was fired and moved to Almaty. Only Rubinstein was left. So afterwards they started fighting between themselves. I am not sure if you know about the events of the past two years. They are quite spicy.

E. D. No. Please tell.

B. T. The thing is that a very important position in our Institute was occupied by the algebra and logic clique of Yershov⁹ and Shirshov.

E. D. We heard about that in Moscow.

B. T. But did you hear that these two were fighting for power? In fact, the whole department fell apart. There were conflicts ...

E. D. Do you know about Yershov's recent visit to the US?

B. T. Yes, of course I do. He returned to Akademgorodok when I became a refusenik.¹⁰

E. D. And did you hear about the "reception" that we organized for him?

B. T. Yes, it was reported on the radio, and he talked about it himself.

E. D. Was he proud of it?

B. T. Well, he portrayed it as an anti-Soviet act and presented himself as a victim of Zionists and anti-Soviet forces.

E. D. So do you think the campaign against his visit had any positive effect?

B. T. I think that in this particular situation it did. But I would like to add – this is my personal opinion and the opinion of those who came to say good-bye to me in Moscow – that, whatever you do here to support the refuseniks, you have to do it with caution and forethought. I am saying this because there was another case. I learned about it just before my departure. Sergei Adian was on a visit here as well.¹¹

E. D. Yes.

B. T. He also faced obstruction, and he complained about it. But I am sure that the campaign against him benefited Yershov, because it gave Yershov the opportunity to say that not only he but all Soviet scholars were under attack. You have to be really careful in picking your targets. You shouldn't attack everyone indiscriminately.

E. D. I wasn't personally involved in this campaign.

B. T. I am sorry. I didn't mean you personally. I meant former Soviet scholars living in the US.

⁹ http://en.wikipedia.org/wiki/Yury_Yershov

¹⁰ <http://en.wikipedia.org/wiki/Refusenik>

¹¹ http://en.wikipedia.org/wiki/Sergei_Adian

E. D. As for Adian, he was targeted mainly because of how he was portrayed in the book of Freiman.¹²

B. T. I don't know. I heard different rumors, namely, that Schein¹³ was very active in this campaign. Maybe this is not true. I don't know all the details.

E. D. No, I think it is quite possible that he was involved. On the other hand, the book of Freiman reports objective facts. I certainly understand that there is a huge difference between Adian and Yershov. Adian is of course not a hero but he is not such a despicable figure as Yershov either.

B. T. In this particular situation, however, the campaign against Adian served the interests of Yershov.

E. D. Not every Soviet scholar receives such treatment here, as you probably know.

B. T. Yes, and I can confirm that after this incident with Yershov, many other scholars in Akademgorodok who traveled abroad used to joke that in portraying himself as a victim Yershov was trying to identify himself with the Soviet people as a whole; namely, that the campaign against him personally was tantamount to a campaign against the great people of the Soviet Union. They pointed out that nothing of the sort happened to them, and that it was entirely Yershov's fault.

E. D. It is a very interesting and important fact.

B. T. Yes, yes, this is exactly what they were saying.

E. D. What about Sergei Grigorievich? What was his reaction?

B. T. Sergei Grigorievich was at a loss. He didn't expect it from me, although later he said: "For a long time people used to tell me that one day you would do that (i.e. leave the country), but I always defended you." And so he suggested that I quit my job. I replied: "I will certainly do that, if you insist. But will it be the best thing for the Institute?" He never raised this issue again, and I never discussed it with him. From that point on it was handled by his assistants. In general the Institute treated me quite well. I didn't lose my job.

¹² Freiman's samizdat essay entitled *It seems I am a Jew* describes the discrimination against Jewish mathematicians in the Soviet Union. It was translated into English and published in the US in 1980. Freiman's interview is a part of the present collection.

¹³ http://en.wikipedia.org/wiki/Boris_M._Schein

E. D. I think that in recent years there was no requirement to dismiss people who were planning to leave the country.

B. T. I don't know.

E. D. Nobody was fired. People quitted themselves.

B. T. I didn't quit, and there was no pressure on me. Till the very end I was treated quite well.

E. D. Yet some people are in a very difficult situation now. Take Freidlin for example.

B. T. Who?

E. D. Freidlin. Do you know him? He is a probabilist.

B. T. It worked out well for me. Before my departure I called Sergei Grigorievich to say good-bye.

E. D. And what did he say?

B. T. Nothing. Good-bye. That's it. What else could he say?

E. D. By the way, now there is a strong school of partial differential equations in Minneapolis.

B. T. Who works there?

E. D. Weinberger,¹⁴ Hans Levy¹⁵...

B. T. Oh, yes, you told me.

E. D. I discussed with them the situation in the USSR. They visited the USSR a number of times and hosted scholars from the USSR in Minneapolis. In particular, Hans Levy talked about a few people. They have a good idea about what is going on in the USSR, especially the Jews among them. There is a sense of Jewish solidarity. People like Hans Levy, who had to flee from Hitler, have a better understanding of what is going on in the Soviet Union now than younger people.

B. T. But, in my opinion, by and large they have managed to solve this problem or at least they are very close to solving it. The main conflicts and squabbles are being transferred to ...

E. D. It must have some impact on academic environment.

B. T. Absolutely. I heard that Andrei Nikolaevich is very sick.

¹⁴ http://en.wikipedia.org/wiki/Hans_Weinberger

¹⁵ His interview is a part of this collection.

E. D. Besides, he is constantly under attack.

B. T. Yes, he is attacked by friends and students of Pontryagin, in particular Evgenii Frolovich Mishchenko.

They praise highly Pontryagin's popular books on mathematics, using them as examples of the correct pedagogical and methodological approach.

E. D. So how did you learn about the activities of emigrant mathematicians here in the US? For example, how did you learn about the Helsinki document? Did the news reach you?

B. T. Yes, it did. Wait, where did the Congress take place?

E. D. In Helsinki.

B. T. Yes, the information was reaching us.

E. D. How? From the people who attended the Congress?

B. T. I don't remember how exactly but we were well informed.

E. D. And what was the reaction of different people, both the critics and the criticized?

B. T. Manin told me that after the publication of that letter in the *Notices of AMS*¹⁶ there was a meeting in Steklovka featuring a bashing of Zionists. This was the official reaction. In our Institute someone was trying to organize a similar event, but for some reason it never took place. The administration didn't find it expedient.

E. D. I see. They decided not to publicize it.

B. T. That issue of the journal never got to the library. However, some people receive the *Notices*, and so eventually it became accessible.

E. D. Do you know that what was published is a toned down version of the document? This is mainly because at the time many Americans were only prepared to criticize the Soviet regime and not particular individuals, like Vinogradov or Pontryagin. They motivated it by saying that these individuals were not proven guilty, and it would be unethical to stoop to personal attacks against them.

¹⁶ A letter to the Editors regarding the situation in Soviet mathematics was signed by a group of prominent American mathematicians. It was published in the *Notices of the Amer. Math. Soc.*, Vol.25, No.7, 1978.

B. T. By the way, Vinogradov turned 90 years old in September. Did you send him a birthday telegram?

E. D. Piatetski-Shapiro, Kazhdan, and I wrote a letter to people who were likely to be invited to the festivities on the occasion of his birthday explaining the situation. I don't know what impact (if any) this letter had.