Ernest Borisovich Vinberg and Arkadii Lvovich Onishchik Moscow, September 9, 1989.

E.D.: Today is September 9, 1989. Moscow, hotel of the Academy of Science. I am joined by Arkady Onishchik and Eric Vinberg for a conversation. So you started talking about the news from the university.

E.V.: Yes, this year we have had some progress in admissions process. There was an article by Dubrovin and Shubin. You may remember Dubrovin from the Second School¹. He was one of the best in my program. He is now working on admission in the partcom of Mekhmat². Together with Shubin they published an article in the Department's wall newspaper with a critique of the existing admissions system and with proposals for its reform. One of the key proposals was to waive the oral examination in mathematics. Then this question was discussed at the Scientific Council ³meeting, where different people voiced some sharp criticism. It was decided to form a committee to analyze the results of the admissions examinations.

E.D.: I presume there was no attempt to dot the "i's" during that meeting? For example, was there any talk of discrimination?

E.V.: There was no open talk about it. However, among other things, it was discussed that the problems during the oral examinations were impossible to solve. A committee was formed with Tikhomirov as the chair. I was also invited. I originally thought that the goal was to analyze the admissions results from the past years, so I agreed. It later turned out that the goal was to analyze the data from the present year, since the admission had already occurred. I believed that this activity is less meaningful, so I refused to participate. However, the fact that this committee exists is of great and positive meaning. As I have heard from Ilyashenko and Tikhomirov⁴, if any unfairness happened, this was by an initiative of certain individuals.

A.O.: Was there still oral examination?

E.V.: Yes, there was still oral examination this year. But the physics exam was cancelled, so now we only have two mathematics exams and an essay with the score not taken into account. Some people, who are trying to change the admissions system, are striving to get rid of the oral examination and have two or even three written examinations in math. There is even an opinion that this can serve as a banner of all the progressive forces of the faculty, and that the goal can be achieved only simultaneously with the change of the current department administration. Judging by the first lecture that I gave yesterday to freshmen, this admissions campaign really differs from the former ones for the better.

E.D.: Are you teaching algebra?

E.V.: Yes, after a twenty year break, last year was the first time I was back to teaching mandatory lectures in linear algebra and geometry to freshmen. And this year I was offered to teach algebra first semester. During those twenty years I also didn't participate in the admissions exams at the Mekhmat, only at other departments. I participated the last time when I was a graduate student.

¹ In the 1960s Moscow Second School had a special mathematical program initiated by I. M. Gelfand and run by Professors of Moscow State University with collaboration of their students. This program was run by E. B. Dynkin in 1964-65 and 1965-66 and by E.B. Vinberg in 1966-67 and 1967-68 {?} academic years.

² Communist Party Committee of the Department of Mechanics and Mathematics.

³ 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. ⁴ Interviews with them are part of the collection.

A.O.: And I was already an Associate Professor. I remember that Kurosh⁵ was the chairman of the examination committee, and at a meeting before the first examination he said that, if anyone of the committee members were tutoring anyone of the prospective students, he hopes that they would immediately announce that and leave the committee. Nobody admitted, so it is still unknown if anybody did tutoring. He also strongly insisted that the oral exam should have easy problems.

E.D.: Who is now in charge of algebra cathedra?⁶ Is it Kostrikin⁷?

E.V.: Yes. Skornyakov died this year. And now I am the oldest worker in the department with respect to the working experience, excluding, maybe, Latyshev. Latyshev recently agreed to go to Ulyanovsk for several years. The reason is that a university in Ulyanovsk was established under the sponsorship of our university. And our professors go there to read lectures and teach for two months. For example, students first learn only algebra for two months, then only analysis for two months. But it was recently decided that several professors from Moscow State University (MSU) should be sent there for several years.

E.D.: And how many professors do you have at the moment?

E.V.: Kostrikin, Latyshev, Shmelkin⁸, Olshanskii⁹ and Manin¹⁰ part-time. I believe that recently an agreement has been reached with the dean that both Bahturin¹¹ and I will be getting professorship. Bahturin is Shmelkin's student.

E.D.: Is he good? Are his main achievements in mathematics or adjacent areas?

A.O.: He has various achievements.

E.V.: Shmelkin has two students in our department: Olshanskii and Bahturin. They both have Ph.D. Olshanskii received his earlier, but Olshanskii is indeed a strong mathematician. His book on group combinatorial theory just came out, where he solved several famous problems.

E.D.: Yes, this is all interesting indeed, but I think the university will be the last stronghold...

A.O.: Indeed, rectorate houses some true bison, Sadovnichiy¹², for example.

E.D.: Sadovnichiy teaches analysis parallel to my algebra course. By the way, there is a very interesting innovation. The courses on the same subject are scheduled simultaneously, so the students can choose. Olshanskii teaches algebra simultaneously with me. But the freshmen don't really take advantage of that. I know that Fomenko¹³ and Sklyarenko taught geometry simultaneously to the third year students last year. And the majority of the students were at Fomenko's lectures. Sklyarenko is an excellent mathematician, but he is probably not a great lecturer.

E.D.: I was extremely touched by your telegram for my sixtieth birthday. At that time it was different than it is now.

A.O.: We simply went to the telegraph and sent a telegram.

E.D.: Nevertheless, this was an act of civil bravery. Clearly, you were told that every émigré from the USSR is a traitor.

⁵ Kurosh Aleksandr Gennadievich (1908-1971)

⁶ Every member of the department faculty belongs to one of cathedras.

⁷ Kostrikin Aleksei Ivanovich (1929-2000)

⁸ Alfred Lvovich Shmelkin

⁹ Alexander Olshanskii

¹⁰ Yuri Ivanovich Manin (<u>http://en.wikipedia.org/wiki/Yuri_I._Manin</u>)

¹¹ Yuri Bahturin (http://www.mun.ca/math/people/ppl-faculty/yuri.php)

¹² Viktor Antonovich Sadovnichiy – rector of Moscow State University since 1992.

¹³ Anatoly Timofeevich Fomenko

A.O.: That was later. We didn't know anything then yet.

E.D.: That was a problem for me. Of course, I wanted to reply and thank you, but I decided that it might be better for you if I didn't do that. Because I didn't have your home addresses then, and if I wrote to Mekhmat...

A.O.: You shouldn't have sent it to Mekhmat, but home address would have been completely harmless.

E.V.: Several of my students have emigrated. You probably know one of them – Victor Kac¹⁴

E.D.: Of course! We meet very frequently! He is quite famous. He became a professor before his teacher did.

E.V.: Yes, right after he came, in 1975. Were there some problems with his book? I met Seligman¹⁵ in Novosibirsk, who works at Yale, and he was telling me that he was writing a negative review of the book by Kac on infinitely dimensional Lie algebras.

E.D.: But didn't it get published?

E.V.: Yes, but there were serious points of criticism, so the second edition came out in a different place. There were also some difficulties with the publication of our book with Arkady in Springer. There were many reviews, and negative among them.

A.O.: But the positive ones were more numerous.

E.V.: Of course, there is at least one understandable reason for a negative review. The book was based on the seminar that took place twenty years ago, so everything can be out of date. However, we thoroughly reviewed and updated it.

A.O.: I think the reviewers simply didn't read it.

E.V.: Furthermore, I felt that it could have been jealousy, as if they were protecting their field there, in the West. There were even statements that behind the iron curtain they don't even know simple proofs to certain theorems...

A.O.: Yes, the foreword by the translator contained a foolish mistake, simply a typo, and that mistake led to the accusations that we don't know some well-known facts.

E.V.: We didn't know who wrote that, but, nevertheless, the book is in typesetting now.

A.O.: Yes, this summer I visited Heidelberg and had a conversation with Heinz, and I was shown...

E.D.: By the way, how are your travels? Everybody travels nowadays.

E.V.: Arkady travels, but I ...

A.O.: My first trip west was this year, but absolutely private. It was a family trip with my wife and son. We staved in Western Germany for twenty days.

E.D.: Were you invited by a colleague or do you have relatives there?

A.O.: No, I was invited by Zieschang¹⁶ from Bochum, who frequently visits Moscow. I have known him for a long time.

E.D.: Yes, I once visited Poland this way, when there was no other way to travel.

A.O.: It was very easy. It took me a month and a half to get the passport, and then... No, it wasn't simple after that, but for technical reasons. It is difficult to get a visa, difficult to get money; it all takes enormous effort, especially the former.

E.D.: The most difficult thing, especially to go to America, is to obtain the ticket.

¹⁴ His interview is part of the collection. ¹⁵ George B. Seligman

¹⁶ Heiner Zieschang (1936-2004)

A.O.: Indeed, that is challenging, but it is not that bad for a train. But getting an airplane ticket to America is nearly hopeless.

E.D.: So what is new at the university now?

E.V.: Starting in May this year papers on various topics get put up on the first floor of MSU. It is called the University Hydy Park¹⁷. It was organized by an initiative group, which mainly consists of undergraduate and graduate students from various faculties of MSU. Initially they were trying to get the permission of the administration or Komsomol¹⁸ Committee. Lengthy negotiations with the rector Sadovnichiy and the secretary of the Komsomol Committee took place. There was neither definite "no" nor "yes" answer. Under various excuses it kept being postponed, so in the end they implemented it without any permission.

E.D.: Was it after the Congress of People's Deputies?¹⁹

E.V.: It was on May 10, so just before the Congress.

E.D.: But the election campaign has already started?

E.V.: Yes, yes. And at the University Hyde Park students put on the wall various materials related to the activities of the Moscow Deputy Group, to the situation in the Baltic republics, in Georgia, as well as various publications.

A.O.: Independent newspapers.

E.V.: There is always a crowd around. So it would be impossible to rip down the articles during the day, and they take them down for every night.

E.D.: Are the university authorities criticized as well? For example, the problems with admissions process or anything else?

E.V.: There were some materials of such kind, but mostly in more general context.

E.D.: Are the articles signed?

E.V.: Yes, one of the main requirements is that every article must be signed. Furthermore, it cannot contain any incitement of violence, national enmity and it must not contradict the Declaration of Human Rights, which is permanently posted there.

E.D.: You say it is impossible to come close?

E.V.: It is possible, but there is always a crowd. Sometimes one has to wait for some time to be able to read a certain article, and the lighting there is always poor.

¹⁷ en.wikipedia.org/wiki/**Hyde_Park**,_London

¹⁸ Young Communist League controlled by the Communist Party

¹⁹ The supreme organ of state power in the Soviet Union in 1989 - 1991.