

Memories of Shourik

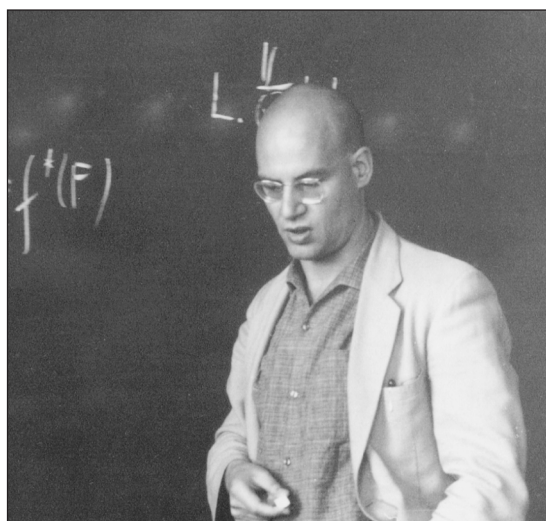
Valentin Poénaru

Photograph courtesy of Friedrich Hirzebruch.

I knew Alexander Grothendieck during the period 1962–1969, a time when we were very close. I arrived in Paris in mid-September 1962, after a fantastic departure from Romania (but that’s another story)—or, more precisely, I arrived in Bures-sur-Yvette. My friend Barry Mazur and his very young wife Gretchen, who was 17 at the time, lived in the Residence Gratien of the Institut des Hautes Etudes Scientifiques (IHES). Barry was visiting the institute for the 1962–63 year, and right at the start of my adventure I stayed with him and his wife. This was how I quickly came to know Léon Motchane (IHES director), Annie Rolland (IHES secretary and later Motchane’s wife), and of course Grothendieck. The IHES quickly decided to support me, and I have since that time remained more or less associated with the institute.

The Grothendieck I knew at this time was a very impressive person, and when I say this I am not thinking only of mathematics. Shourik, as I called him, was one of the strongest and most charismatic people I have ever met. I think of him as a character straight out of Dostoyevsky. He was also a person of great kindness and generosity. He seemed always to be in good spirits, with great mental equilibrium and also, in his own way, a certain *joie de vivre*.

At the time, he had the capacity to be able to sleep when he wanted to, and for the number of



Alexander Grothendieck, around 1965.

hours he wanted to, in order to take up his work all the better afterward. In fact, his capacity for work was to me something miraculous. His long workday was divided, in a very systematic and organized manner, between the redaction of *Eléments de Géométrie Algébrique* (one page of Grothendieck for four pages finalized by the pen of Dieudonné, who, with great technical virtuosity and little profundity, did not always understand what he was writing; I am quoting Grothendieck here, because one can be generous and nevertheless render severe judgments...), redaction of the *Séminaire de Géométrie Algébrique*, and the exploration of new directions, such as forming the outlines of étale and crystalline cohomology.

I learned from Shourik how to pursue several mathematical projects at the same time, in order to avoid turning in circles around a difficulty; one must pass on to something else in order to forget and then come back later with a fresh viewpoint. In fact, Grothendieck spent a lot of time on various problems that were quite different from what the world knows of his work: the Hauptvermutung and triangulability for topological varieties, division of distributions by a real analytic function (where he reached the theorem of gluing and the inequality of Lojasiewicz, without however succeeding in proving them), etc.

Although his culture suffered from certain lacunas, especially in the sciences outside of mathematics, he was very well informed about all

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kinds of things. At the end of 1962 he was practically my only Parisian colleague who understood exactly what was happening in Eastern Europe at that time without letting himself become a prisoner of Communist propaganda, which was still very strong then. For a fresh refugee like myself, this was very important. I was often at the table of Shourik and his wife Mireille, who always received me royally; I had the impression of returning to my family house.

Around 1967 I sensed in Grothendieck some changes, as if a great crisis, personal and global, had commenced. The good spirits and the *joie de vivre*, which I mentioned earlier, started to disappear. His marriage started to break down; his affair with another woman certainly did not help matters.

But I think that above all, he started to tire of the style of doing mathematics that he had imposed on himself. In my opinion, this style deprived him of the elementary pleasures that mathematical activity can provide. Where we others would be exploring footpaths, he was building highways. Note in addition the contrast between the Grothdieck of the period of topological vector spaces, EGA, and SGA, and that of the period of *Esquisse d'un Programme*, the Grothdieck of *dessins d'enfants*, of motives, or of anabelian geometry. (I am thinking here not only of mathematics.)

Then came 1968. I still remember very well how the Shourik that I had "always" known entered the tumultuous gatherings on the Orsay campus, in order to defend mathematics before the students and assistants who were in revolt. And there he was received with an enormous wave of rejection and hatred, which profoundly shocked him. The crisis that had been smoldering had already bifurcated in a brutal turning point, out of which emerged another Grothendieck, very different from the one I had known.

Our close relations continued for about two years more. During this time, Shourik sought another path. The group "Survivre" came into being, as did the absolute requirement to follow the new Messiah in all his tribulations. And, from that moment forward, we saw much less of him.

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