

FIFTY YEARS AGO *

SOLOMON MARCUS

Until 50 years ago, so before 1953, the remarkable mathematics graduates of the University of Bucharest used to be relatively isolated figures within their generations. That had been the journey of Romanian mathematics over the years, starting from its founders, the generations of Spiru Haret and David Emmanuel, continuing with D. Pompeiu, G. Țițeica and T. Lalescu, up to the great professors from the times right after the second world war: Stoilow, Vranceanu, Onicescu, Vâlcovici, Froda, Nicolescu, Barbilian, Moisil, Mihoc, Iacob, Teodorescu and others. A radically different situation was configured only by those who became mathematics undergraduate students in 1950. In 1951 I had the great chance to become teaching assistant of Professor Miron Nicolescu, having in the tutorial group students like I. Berstein, I. Bucur, C. Constantinescu, A. Lascu, A. Solian, S. Teleman, R. Teodorescu and some others, maybe of the same caliber. However, from that generation, Ionel Bucur unfortunately passed away too soon and, at the end of the 60s and the beginning of the 70s, A. Lascu, C. Constantinescu, I. Berstein and R. Teodorescu left the country. Therefore, their impact upon the Romanian mathematical life has been diminished.

The first ones going to impose themselves as a coagulating force in the Romanian mathematics after the second world war were amongst those who became students in 1951. Here are some of them: Nicu Boboc, Aurel Cornea, Lazăr Dragoș, Ciprian Foaș, George Gussi, Paul Mustață, Constantin Ottescu, Valentin Poenaru, Nicolae Radu, Marius Stoka, Kostake Teleman, Sami Zaidman. By contrast with the previous generation, most of them remained in Romania. Those who chose to go abroad, for instance C. Foaș, did so relatively late: in 1978; by that time, the Romanian school of Operator Theory had already been constituted. Other mathematicians, like A. Cornea, practically came back to Romania in the last years.

* This is the translation from Romanian of the article entitled *Acum cincizeci de ani*, published in the volume [L. Beznea and Gh. Bucur (editors), *Fifty Years of Modern Potential Theory in Bucharest – To the Anniversary of Nicu Boboc*, Editura Universității din București, Bucharest 2004, pp. 23–26]; translated in English by Anca Iuliana Bonciocat. Solomon Marcus passed away on March 17th 2016.

An expression of the exceptional impact of this generation upon the life in the Faculty of Mathematics of the University of Bucharest consists of the fact that it is the only generation from the history of this Faculty that gave two deans, Nicu Boboc and the late Nicolae Radu. Yet the influence was strong on the entire Romanian mathematics. From this generation comes the first Romanian mathematician to be an invited speaker at the International Congress of Mathematicians, Valentin Poenaru in 1962 (accompanied by Tudor Ganea). Subsequently, this situation happened again twice to one other colleague of the same age, Ciprian Foiaş. From the same generation were recruited an elected director of the Institute of Mathematics of the Romanian Academy (George Gussi) and a honorary director of the Institute of Applied Mathematics of the Romanian Academy (Lazăr Dragoş). With Lazăr Dragoş and Ciprian Foiaş, the Romanian Academy has, among its members, two representatives of this prolific generation. Almost all those enumerated above have become authors or coauthors of specialized monographs at major international publishing houses. The same class provided the main disciples of the great chair professors in the postwar Romanian mathematics: Boboc and Cornea were the disciples of Professor Stoilow; Ciprian Foiaş the follower of Professor Miron Nicolescu; L. Dragoş the one of Professor Caius Iacob; Teleman the pupil of Professor Vranceanu; N. Radu the disciple of Professor Barbilian (to name just a few examples). Remarkably, all of them became, in their turn, great chair professors in the Romanian mathematics.

Yet another interesting fact can be observed on this generation. It is known that until the middle of the 20th century the practice of mathematical research carried out by the collaboration of two or more authors was quite rare. The situation changed in the second half of the 20th century, and even intensified in the last 30 years. Again, the same generation of graduates from 1955 was the one to inaugurate the collaborative research in Romanian mathematics, and not only as an isolated event, but rather on extensive term. Who, from my class, doesn't remember the cycle of articles by the triplet Foiaş-Gussi-Poenaru? Or the collaborations Boboc-Mustaţă, Boboc-Radu and especially Boboc-Cornea; the triplets Boboc-Constantinescu-Cornea and Boboc-Bucur-Cornea; the collaboration Radu-Brezuleanu and, more recently, the teamwork Boboc-Beznea. As one can see, those from the previous class, of Corneliu Constantinescu, had to wait for the next generations to find mathematical collaborators; furthermore, the members of this particularly prolific class that I am referring to drew in their orbit illustrious representatives of their next generations. The collaborations of Ciprian Foiaş are quite notorious, the one with Nagy standing out so impressively. The joint works with disciples went hand in hand with the collaborations with the masters: Lazăr Dragoş with

Caius Iacob, Teleman with Vranceanu, Radu with Barbilian, Foiaş with Miron Nicolescu. The collaborations of Kostake Teleman with two members of his own family is symptomatic for the manner in which the entire Teleman family, both horizontally and vertically, established a true Bernoulli-like dynasty of the Romanian mathematics. Let us notice the didactic collaborations Boboc-Colojoară, Gussi-Stănăşilă, Ottescu-Cuculescu, let alone the Italian cooperations of Marius Stoka.

As one can see, Boboc and Foiaş distinguished themselves in the matter of collaborations, and the significance of this fact is simple. Both have polarized the attention of a large number of mathematicians, acted like a magnet, a characteristic of those capable of gathering a whole school around them. In the case of Professor Boboc, we are talking about the Romanian school of Potential Theory, most of all.

I had the chance to meet this generation in 1952, as a teaching assistant of Professor Miron Nicolescu, who had become a spiritual parent to me. During those years, when Romania was a country with well-gated borders, where the only contact with the western mathematics was possible by Russian translations, I consider a privilege the fact that I could live in a cultural realm, next to the great professors I have already mentioned and being in contact with the golden generation I refer to in this text. With the uneasiness of involving myself in this appraisal, which should have perhaps let aside my own person, I would like to mention my joint work with Nicu Boboc. Our article, published 45 years ago, stimulated further research. To the problem of determinant and stationary sets, which makes the object of that article, a whole chapter has been devoted in one of the most important monographs dedicated to the topic of real functions, published by Andrew Bruckner at Springer Verlag, with a special emphasis on the Romanian contribution to the field. The echo of that joint work with N. Boboc keeps vibrating to the present day, as one can find in a paper from *Aequationes Mathematicae*, vol. 63, 2002, 136-139.

The charm of this generation consisted not only in intelligence and seriousness, in passion and dedication, but also in the remarkable diversity of temperaments, interests and mentalities. From expansives and choleric to apathetics and ironics, from philosophers to pragmatics, you have it all within this class. Nicu Boboc is remarkable for his intuition and spontaneity, for the way he sniffs the direction of attack long before getting its confirmation, but also for the perseverance with which he aims to resolve the issue whether his suspicions might prove right or wrong. It could be interesting to tell us how he organizes the collaboration with his numerous research partners. Is it the association of some results previously obtained independently by each collaborator or rather an interaction in which the contribution of every partner could

hardly be delimited?

If I had to say what impressed me the most about Professor Boboc, ever since he was an undergraduate student, and all the way through, I would answer without hesitation: his passionate love for mathematics. In “Letters to a young poet”, Rainer Maria Rilke – whose work was for me one of the few joys during the second world war – was asked how he could figure out whether someone was gifted enough to write poetry or not. Rilke’s answer was the following: “it is enough [...] to feel that one could live without writing: then one must not attempt it at all”. Today, only a small part of the people with a mathematically oriented talent can prove also an equal passion for this ineffable task. To the possible question of an imaginary Rilke-mathematician “Do you feel that without mathematics your life would be unconceivable?”, among those very few who could promptly give a positive answer would confidently be Professor Nicu Boboc – in line with Jean Dieudonné’s incentive: doing mathematics “for the honor of the human spirit”.