

A MAN WHO MADE THINGS HAPPEN...

GIACOMO SABAN

As you no doubt have realized on examining today's program, my short talk will not deal with a mathematical problem but will simply be the expression of my feelings and souvenirs of times long gone by, when I had the opportunity of meeting and collaborating with Nâzım Terzioğlu, then in his primes.

As I just said, I am going back several years and trying to remember a lot of things and perhaps I should start by giving you some idea about how I fit in this rather special context.

I am an Italian citizen, born in İstanbul, and I attended the elementary, medium grade and high schools operated in this city by the Italian government: In those years, there was a rather large number of Italians living here.

I finished high school in June 1943. The Second World War was already coming to an end but Italy was divided in two and a good part of it was in the hands of the Nazi-Fascist forces. For somebody in my position it was out of question that I should go to Italy to continue my studies, all the more so as traveling was at the time practically impossible. Under these circumstances I entered the Turkish Final State Exams in the Vefa High School, which presented for me a certain advantage as one of the subjects taught there was Latin. Well, I passed, and early in October I enrolled as a student in Mathematics and Physics at the Faculty of Science of the University of İstanbul.

The Faculty of Science had, up to a few months before, been located in a beautiful wooden building that had belonged to a lady, Zeynep Hanım, daughter of the Ottoman Viceroy of Egypt, Kavalalı Mehmet Ali Paşa. Zeynep Hanım was also the wife of an important Ottoman court personality. Unfortunately, just a few months before my admission, this palace had been burnt to the ground and a vast plot of land, where both the present Faculty of Science and the Faculty of Letters of the University of İstanbul stand today, was practically empty and covered by grass, weeds and thorns. There was one exception, another wooden building, which must have been at some time the ball room or reception hall of Zeynep Hanım's Konak, which somehow had managed to survive the fire. It had been transformed into a conference hall, filled with wooden benches and between the two big entrances a large blackboard, a big wooden podium and a wide desk had been fitted in. The lighting was far from good and I remember the darkness... It was in this somewhat strange structure that I first attended lectures but after a while some of our courses were held in a different place, the modern Biology Building, just across

the Mosque of Süleyman the Magnificent, with a splendid view on the Golden Horn. This building, however, does not exist any more...

The Mathematics Institute was elsewhere, in several flats of an apartment building on the road that joins the Lâleli-Ayvansaray avenue to Vezneciler. The Institute's library had been burned during the fire and the very few books that had somehow been saved fitted in a fairly small room.

Practically all the four years required to obtain my degree passed in these surroundings. In the meantime modern new buildings replaced the wooden conference hall, the Biology Institute and the apartment flats of my student days.

In this first period, however, I had the opportunity of listening to lectures and coming to know several members of the faculty, like Ali Yar Bey, Kerim Erim, Patrick Duval, Cahit Arf and several others but I never attended any lectures by Nâzım Bey for the simple reason that in those years Nâzım Bey was not yet back in İstanbul. Indeed, at the end of his studies in Germany he had been, for a short period at the Mathematics Institute in İstanbul but had then been called to a position at Ankara University and it was only after my graduation that he returned to the University of İstanbul.

In 1949 and 1950 I was in Rome and I returned to İstanbul in March 1950. For this reason I really met Nâzım Terzioğlu only after 1950, when I was called to the Faculty of Science of the University of İstanbul in the position of "foreign specialist": in the following years, particularly after the premature death of Kerim Erim, I came to meet him often.

Our points of contact were not due to an affinity in our fields of research although the subject of his Ph.D. thesis with Constantin Carathéodory as well as his work to acquire the degree of "Privat-Dozent" was on Finsler spaces, that is to say on a subject closely related to classical differential geometry. In fact his thesis is *Über Finslersche Räume* and that was followed by *Über den Satz von Gauss-Bonnet im Finslerschen Raum*, again an extremely interesting geometrical problem. However, when we came into contact, Nâzım Bey had begun to be much more involved in Mathematical Analysis and Function Theory.

But before coming to recall what really brought us together, I think I should still say a few things about the situation during the years when I was an undergraduate student. Mathematical literature in Turkish was very scarce but several competent people had started to translate into Turkish mathematical textbooks used in foreign universities. Amongst them let me quote the translations by Ali Yar Bey of Perron's, van der Waerden's and Steinitz's books on algebra, that by Kerim Bey of Blaschke's differential geometry, Nâzım Bey's translations of the book by Landau and those by Knopf on mathematical analysis and theory of functions. Orhan Alisbah, who was then teaching in Ankara, had translated Schoenflies and Dehn's book on analytical geometry,

Ratip Berker had translated de la Vallée Poussin's book on analysis and Feruh Şemin had done the same with Goursat's classical text and you can surely find many more titles that I may have forgotten. Thus undoubtedly some material was available for students, even though limited mainly to the first two or three years of their university life. Let me add that the fire I have previously mentioned meant that there was a considerable lack of material in the Institute's library...

Towards the end of the period I am referring to, the situation started to change and Turkish University professors began to write their own textbooks: let me quote, for instance, Kerim Bey's textbook on analysis and Cahit Arf's algebra: I am proud to say that I am the anonymous "young student" mentioned by Arf in his introduction who undertook to prepare that book's analytical index!

But this production was certainly not sufficient and Nâzım Bey was definitely the first to feel the need of filling the gap between high school knowledge and university studies and he thought that simple, attractive, well written texts that could inform youngsters about all sorts of mathematical problems in a light, readable form were an absolute necessity. In the realization of this project he was helped by the fact that at the time the Ford Foundation's representative in Ankara was a mathematician, Eugene P. Northrop: Nâzım Bey easily convinced Northrop and through Northrop, in the 1960's Nâzım Bey obtained from the Ford Foundation a grant in favor of the Turkish Mathematical Society which enabled him to obtain the means to cover all the expenses incurred in the translation and printing of informative and rich booklets on a very wide range of subjects by outstanding mathematicians, such as Polya, Godeaux, Rademacher, Yaglom and many others. In all Nâzım Bey managed to have printed 34 titles and all the translators were chosen one by one by him amongst the most capable persons in the field. I was not directly involved in writing these texts but helped in choosing the material.

Next to this, which I consider a really major achievement, I would like to mention his continuous efforts to increase the activity of Turkish Universities. His action was fundamental in the creation of the Geophysics Institute, of the Hydrobiology Institute on the shores of the Bosphorus, of the Cosmic Rays Institute on the slopes of Mount Uludağ, all attached to the University of İstanbul.

But in particular I would like to mention his efforts in the realization in Trabzon of the Karadeniz Teknik Üniversitesi, the Black Sea Technical University as it is known in English. Created as the fourth University in the country, after the buildings and similar practical problems had been solved, it started to take form when Nâzım Terzioğlu accepted to become its "Founding Rector" in the years 1965-1967. During this period he continued as professor in İstanbul but frequently went over to Trabzon to follow personally the

progress that was being made and it is thanks to his work that its academic structure took form and that it soon became operative.

In 1969 Nâzım Bey, who some years before had been the Dean of the Faculty of Science, was elected to the position of Rector of the University of İstanbul and he retained this position till the end of May 1974. During those years there are a multitude of initiatives which he promoted and which greatly increased not only the University's activities but also contributed to an enormous extent in developing mathematics in Turkey.

He was particularly active in obtaining grants in books and journals from foreign institutions, in order to fill up the gaps that the 1943 fire had created in the library of the Mathematics Institute.

His efforts in promoting the modernization of the state high school mathematics programs and the formation of teachers to implement these programs were untired. In this he closely collaborated with the Ministry of Public Education.

In August 1971 he managed to obtain from the State the permission to use some of buildings next to the Mosque of Şehzadebaşı, initially built some four centuries before as a kitchen for the free distribution of meals to the poor. This building had been long since abandoned and Nâzım Bey restored it and gave it in use to the Turkish Mathematical Society. It was used for meetings and a 2000 volume mathematical library was also created. In the same building, some time later, amongst ancient artifacts such as a late Byzantine sarcophagus dating at least eight centuries, a modern printing press was set up, with the object of printing mathematical texts. It may amuse you to know that when I was teaching analytical geometry and linear algebra at the University of L'Aquila in Italy, the textbook I wrote together with Giuliano Sorani was printed there and bears on the inside of the cover the indication "Prof. Dr. A. Nâzım Terzioğlu Printing House, Dedeefendi Caddesi n.8, Şehzadebaşı, İstanbul". But that was in 1988. Let us go back some years.

The idea of recuperating an ancient building by putting it to use had moved Nâzım Bey to take in his hands the Şehzadebaşı complex: in a similar manner he took up the problem of saving the University Library, whose building was proving to be inadequate, all the more so as an important and unique collection of all sorts of precious historical material, books, musical scores, photographs which had been kept in the palaces of various Ottoman Sultans had been given to the University after the foundation of the Turkish Republic. The Central University Library Building thus came into being and I am proud to say that I was a member of the commission set up by Nâzım Bey to monitor the first steps of this institution: I remember, amongst others, Professors Zafer Tarık Tunaya and Ömer Lütfü Barkan, who were also part of this group.

But Nâzım Bey's interest in supplying teaching materials for mathematics students never flagged, even throughout his very busy years as Rector and thus in 1973 he prompted a group of members of the Mathematics Institute, Orhan

İçen, Haldun Şahinci and myself to publish together with him a mathematical analysis exercise book for first and second year students...

I should add that he worked enormously to obtain adequate teaching facilities in several places around İstanbul and it was thanks to his initiatives that he set up a Medico-Social Center in Enez and created the Avcılar Campus where the University of İstanbul now operates two Faculties...

Another thing that fascinated Nâzım Bey was the enormous mass of ancient manuscripts, mainly Arabic, that were kept in the innumerable “medrese” and “vakıf” libraries throughout the country. He was of course aware that a considerable number of classical Greek and Hellenistic mathematical texts had been translated into Arabic and felt that it was possible to discover in those libraries some of those treatises which the Vth Century Byzantine scholar Proclus Diadochus (412-485) mentions but which do not appear to have survived in their original form. In particular, Nâzım Bey was intrigued by the fact that the last part of the *Conics of Apollonius of Perge, Book VIII* is still missing, although fragments and translations in Arabic of other sections of this text exist. By studying the contents of some of the libraries in İstanbul, Nâzım Bey found that there were some interesting manuscripts connected with this subject. First of all there is the İstanbul manuscript known as Süleymaniye, Aya Sofya 4832 ff. 223b-224a which contains an Introduction to the Conics by Banu Musa, then there is the manuscript Süleymaniye, Aya Sofya 2762, which is part of the Banu Musa version of the Conics of Apollonius, written in the hand of ibn al-Haytham. Furthermore there is the manuscript in the Manisa library under n. 1706 which again contains material on conics by ibn al-Haytham. These documents are extremely important, and, furthermore, they are very ancient. Of these, for instance, the Süleymaniye manuscript 2762 appears to have been written on the 18th April 1024, nearly one thousand years ago!

Nâzım Bey obtained the permission to reproduce this material and succeeded in publishing facsimiles of these works, judged by all experts as “excellent”. In 1985 Jan P. Hogendijk published with Springer in Berlin *Ibn al-Haytham’s Completion of the Conics* using this material and again it has been used extensively by G. J. Toomer in his 1990 edition of *Apollonius, Conics, Books V to VII*, also printed by Springer. In recent months, and in this case I am talking about 2008, this subject has again been taken up by a group formed by Roshdi Rashed, Micheline Decorps-Foulquier and Michel Federspiel who have already printed in Berlin, with Walter de Gruyter, the first of several volumes which will contain all the Greek and Arabic texts of the *Conics* of Apollonius today available as well as their translations in French and the complete collection should be available by 2010. Roshdi Rashed is taking care of the translations from Arabic, whereas Micheline Decorps-Foulquier and Michel Federspiel will supply the ones from Greek. Again, this recent publication specifies that it is indebted to Nâzım Bey’s facsimiles.

I have taken your time on this subject to prove how farsighted Nâzım Terzioğlu had been in printing these documents. I am convinced that his example should be followed because I feel confident that amongst the rich manuscript collections which exist in this country a lot more may be found and research in this field is bound to yield impressive results

Well, I have talked a bit about the work of Terzioğlu to promote higher education and in particular mathematics and of course this means that I have certainly omitted a lot of other things.

Let us then return to the Seventies of the XXth Century. On a Saturday afternoon I got a phone call from Nâzım Bey, who asked me if I was free. It was indeed the case and shortly after his call he came in his official car and picked me up from my home and we went to Silivri, some 50 kms. from İstanbul, on the coast of the Sea of Marmara. We soon reached a big empty plot of land, facing the sea, just above the seashore. It had been in the past an ancient Jewish cemetery, but had remained unused for a very long time. Most of the stones had disappeared, stolen as building material, used for instance as doorsteps in the shanty squatter's houses built all around, as we were able to see for ourselves. Nâzım Bey obtained this area from the Silivri Municipality and very soon a very comfortable and convenient Mathematical Research Institute was erected on this site. Between 1973 and 1976, thanks to Nâzım Bey's initiative several scientific meetings took place in this building. On part of the big ground that had been made available at Silivri Nâzım Bey also built a Medical Social Center, connected to the Faculty of Medicine of İstanbul University.

In September 1976 an international symposium was organized there to honor the world-renowned Finnish mathematician Rolf Nevanlinna and it had been foreseen that on the 20th there would be a short ceremony and an *Honoris Causa* degree of the University of İstanbul would be awarded to Nevanlinna. When I arrived early that morning at Silivri I found tremendous confusion and most people were in tears: during the night, in his sleep, Nâzım Terzioğlu had passed away, probably because of a heart attack. You may well imagine both our grief and our bewilderment. However, after thinking over matters for a while we decided that things had to go on as usual and, together with Professor Ahmet Yüksel Özemre, who at the time was the Dean of the Faculty of Science, and the late Professor Orhan İgen who was the senior member of the Mathematics Institute present there, we went ahead with the ceremony. A few years ago I printed in the Bulletin of the Italian Mathematical Society an article on the history of mathematics in Turkey and included in it a picture of that ceremony. Needless to say, the next day all those who were at Silivri for the symposium came to attend Nâzım Bey's funeral.

This is where my talk is bound to come to an end. I know I have omitted and forgotten a lot: I have tried to express the fact that Nâzım Bey was a man of action, who had brilliant ideas and managed to see that they did not

remain dreams but become actualities. As a scientist and a teacher he never lost his interest in scientific problems.

I said I have omitted things: for instance I have omitted his efforts to promote scientific cooperation in this part of the world, and that at a time when political barriers made that sort of endeavors a somewhat risky proposition.

Amongst the things I have omitted I must also specify that I feel guilty for not having mentioned some of his close collaborators in the Mathematics Institute of the University of İstanbul, such as the late professor Orhan İçen and that charming lady - and in this case the term “lady” is really appropriate - that charming lady, as I was saying, the late professor Suzan Kahramaner, whom I had come to know and appreciate in my first years as a student and with whom I have had - on and off - a correspondence all through the years...

I am also guilty for having omitted speaking about Nâzım Bey’s family life. About his wife, for instance, a very competent person who was also a University professor, though in a completely different field, and who certainly deserves a talk simply on her own account. I have not mentioned his son, but you will be listening to him in the forthcoming days and will judge for yourselves: in this case I do not need to waste your precious time. You must excuse, then, the gaps in my talk but after all I am only fourteen years younger than Nâzım Bey, I am quite old and my mistakes can conveniently be attributed to my advanced age...

*Sapienza University
Rome, Italy*