

Romanian Mathematicians in WWI

T.Bîrsan, D.Tiba

Mathematics has, in the Romanian principalities, more than two centuries of written contributions and we mention just the "Arithmetic", Iași, 1795, of Amfilohie Hotiniul (1730?-1800?) or the works of the famous mathematician Janos Bolyai (1802-1860) who lived in Transilvania (under Austrian rule at that time). Paul Tanco (1843-1916) from Năsăud, Transilvania, was the first Romanian doctor in mathematics (1872, Graz). The first scientific journal, mainly devoted to mathematics (about 90% of the space – around 2000 pages), was *Recreații Științifice*, Iași (1883-1888). The group of founding enthusiasts was formed by *N. Culianu, C. Climescu, I. Melik* (from the Faculty of Sciences of the Iași University), *G.I. Lucescu, V. Paladi, G.I. Roșiu, I.D. Rallet, G. Zarifopol, I.V. Praja, I.M. Dospinescu* (teachers at various schools in Iași). Steady collaborators were *M. Tzony, V.C. Buțureanu, A. Scriban* from the Iași University. We quote [5], [6] where more details can be found on this enterprise with profound reverberations in the Romanian academic life. Later, some of the collaborators of this pioneering journal were among the founders (for instance, *Vasile Cristescu*) of the well known *Gazeta Matematică*, first published in 1895 in Bucharest and with uninterrupted apparition up to today. In the "Introduction" from no. 1, Vol. I (1895), the editors of *Gazeta Matematică* write about their mathematics passion: "*Many of us have this preference due to the journal Recreații Științifice, which was published 6 years in Iași and which we try to continue*", [4].

The following text is a translation of authors paper [7], with certain completions and improvements. The first World War had a strong impact on the „Gazeta Matematică” Society and its members made consistent efforts to continue this popular Romanian publication. In the neutrality period of Romania (aug.1914 – aug.1916) the printing of the journal and all the activities of the Society were uninterrupted. All the issues were 40 pages long and appeared each month, including articles, mathematical notes, examination subjects, solved problems, proposed problems and exercises, etc.

Each volume has 12 issues and corresponds to one year of public school (September 15 – August 15). It starts with the List of Members and a detailed contents, with a special care for the proposed and solved problems and for the list of solutions proposers.

The manuscripts were received at eng. *Mihail A. Saligny* (the son of *Anghel Saligny*) in Occident str., no.10, Bucharest and the publications exchanges used the address eng. *I. Ionescu*, Calușei str., no.23, Bucharest. It is to be noted that these exchanges and international contacts included, during the time, the journals *Educational Times, The Mathematical Gazette* (London), *Mathesis* (Belgium), *Supplemento al Periodico di Matematica* (Livorno), *The Journal of the Physical-Mathematical Society* (Sofia), *Bulletin de la Section Scientifique de l'Academie Roumaine, Mathematical Gazette* (Russia), *Bulletin of the American Mathematical Society*.

A steady collaborator of „Gazeta Matematică” was *N. Agromof* from Revel, Russia, (today Tallinn, Estonia), with many printed notes (in French). The printing house of the Royal Court, F. Göbl and Sons, Royal str., no.19, was used up to December 1915, then the „Cooperativa” printing house, Belvedere str., no.6. Each issue devotes a large space to the solved problems with the indication of the names of the solution proposers and with several solutions, quite frequently. We find the names of future well known Romanian mathematicians: *Al. Pantazi, O. Mayer, P. Sergescu, M. Ghermanescu*, etc., among the proposers and solvers of problems, the authors of mathematical notes. Moreover, the journal opens its pages to inform the readers on other activities fo the Society or on various important events. The *Competitions of Gazeta Matematică*, from 1915 or 1916 are described in detail with all the steps: oral and written tests, results and prize winners (report by *Gh. Țițeica*), the traditional festive dinner, etc. We also mention the creation of the *Fund „Anghel Saligny”* for the printing of technical books, the festivity devoted to the *Prizes „H. Capriel”*. In

October 1914 (issue 2, Vol. XX), the death of the *King Carol I* is announced. The Society „Gazeta Matematică” enjoyed during the years the attention of the King, it received the Gold Medal at the 1903 exhibition and the *King Carol I* was interested in this publication and received Gh. Țițeica, who showed him all the published volumes.

Numerous texts on the history of the Romanian Mathematics are published. A remarkable article from January 1916 (issue 5, Vol. XXI), due to *Traian Lalescu*, is devoted to the memory of *N. Culianu*, mathematician, rector of the Iași University for many years, member of „Junimea” Society and active participant over five decades to the cultural life and the modernization of the society in the Moldavian capital. In the same issue, the article *Mathematics in the Organic Reglement*, due to *I. Ionescu*, appeared.

Starting with the first issue in Vol. XXI and following the model of the English publication „The Mathematical Gazette”, the new column on *Questions* is introduced, moderated by *I. Ionescu*. Here, one can ask questions, informations on the history, the study or the learning of mathematics in general and especially in our country, on old books, on old or regional measurement units and their equivalence with the modern ones, scientific priorities, etc.

Supplements, including „Recreations”, are also published, for instance in February 1916, with the subject mathematics and literature and containing numerous excerpts from the poems of *V. Alecsandri*, also related to mathematics.

The last issue before the refuge (Vol. XXII, no.3) was published in November 1916 at the printing house „Universală” in Covaci str., no.14, but the members of the Society, already in Iași, didn't learn about this for a long time, according to a brief mention on the cover of issue 10-12, Vol. XXII, referring to its unknown contents.

From the initiative of *Ion Ionescu* and *Traian Lalescu* and with the support of *Vasile Teodoreanu* (teacher at the National and at the Military schools in Iași) and of other members of the Editorial Board living in the refuge, *Gazeta Matematică* restarted its publication in Iași. The Society obtained the right to send the new issues of the journal even in the first line of the fighting. The manuscripts were to be sent to prof. univ. *Traian Lalescu* at the Military Telegraphic Censorship Iași and, for payments or any other question, the address was prof. *Gh. Nichifor* at the Military Postal Censorship Iași. The organization was progressing: in issue 7 (March 1917) the manuscripts were to be sent at prof. *Vasile Teodoreanu*, Săulescu str., no.8 and for payments and other questions the address was prof. *Gh. Nichifor*, Vulpei str., no.5 (since February 1918), and later eng. *C. Orășanu*, Cuza Vodă str., no. 71 (since May 1918). The first issue published in Iași was no.4, Vol. XXII, for December 1916, but printed later, in April next year, and containing just 24 pages, at the typography *H. Goldner*, Gh. Mârzescu str. This delay and the double or triple issues, are propagated up 1920, late after the return to Bucharest. Let us note the stability of the price (7.5 Lei for one year) up to Vol. XXIV when it becomes 15 Lei for one year or 20 Lei for one year (strating with Vol. XXVI in 1920).

On the first page of issue no.4, the first one in Iași, there is an impressive Foreword, written by *Traian Lalescu*:

In the difficult moments lived today by the Romanians, Gazeta Matematică shares the fate of the country: due to the impossibility to continue its publication in Bucharest, temporarily occupied by the enemy, the Society could reorganize the publication in Iași as long as this adversity will last.

We have the satisfaction to say that our journal owes its publication in Iași mainly due to the request and the enthusiasm of our collaborators. The warm reception of some of the best correspondents of Gazeta Matematică - today acting in the army -their offer to help, was for the Editorial Board of Gazeta Matematică a reward and a deep soul touch. It showed that the educative activity of the Society surpassed the professional level and every collaborator is a friend, happy to contribute by his unpaid work to the prosperity of the Gazeta Matematică.

Due to the printing difficulties, the exile issues of the Gazeta Matematică will be shorter in their contents, without cancelling any of our usual columns. We express our hope that our journal will follow the fate of the country and, after a temporary compression, we'll be able to give to the

Gazeta Matematică the appropriate size and importance, in accordance to the new living conditions that will be generated by the present sacrifices of the Romanian people.

The Society „Gazeta Matematică” claims and states the participation in the war for National Unity of the Romanians, through its members. *The sentiments they had to the army of the country were fundamented on the „axiom”: as long as the Romanian army is on its feet, the Romanian thinking and the love for science cannot be destroyed.*

In the same working direction, in the Delegation of the Society (its superior administrative body), for the years XXII and XXIII, the general Scarlat Panaitescu was elected. At his initiative and sponsorship, a 200 lei annual prize was offered for the best published mathematical article with applications in the military sciences. The first recipient of the prize was lieutenant Gh. Zapan for his paper „*On some elements of shooting*”, Vol. XXII, pp.102-107. The papers dealing with the history of mathematics are numerous and cover a large space: „*The life and the activity of Gh. Lazăr*” (four articles by T. Lalescu), „*An inventory of mathematical books*” (three articles by I. Beleş), „*The Romanian mathematical bibliography*” (T.Lalescu), „*Mathematical books from Transylvania. The catalogue of Onisifor Ghibu*” (T. Lalescu). C. Climescu discussed in several articles a manuscript found in the library of the Seminar „*Veniamin Costache*” from Iași, entitled „*Complete lectures of clean mathematics*”, written with Cyrillic script and representing a translation of a text by L.B. Francoeur.

The negative effects of the war are apparent in the irregular publication schedule, the diminished number of pages, the quality of the paper, but the structure of the journal and its contents are also affected. The *Gazeta Matematică* is sent and is waited even in the first lines of the battle. Letters and answers are received from the first lines as well. For many soldiers or officers, *Gazeta Matematică* is a spiritual light and a comfort. However, the number of pages devoted to solved problems and to their authors are drastically lower. In some issues, this column is even absent.

On August 30, 1917, the General Assembly of the Society was organized. In the issue 1-2 from Sept.-Oct. 1917, starting Vol. XXIII, according to the bylaws of the Society „*Gazeta Matematică*”, the list of its members is published. Near the names, more details appear, for instance: *remained in the occupied territory* (V. Cristescu, C. Malcoci, Gh. Țițeica, Gh. Nicolaevici), *prisoner* (Gr. Orășanu) or the military *ranking* is indicated (A. Ioachimescu – captain, I. Ionescu – major, M. Roco – lieutenant, Sc. Panaitescu – general) or the military *function* (Gh. Nichifor – military censorship, O. Thierrin – French military attache). We underline that two of the „pillars” of *Gazeta Matematică* were in the occupied territory. The General Assembly decides to open the pages of *Gazeta Matematică* to mathematical questions with applications to military sciences. Papers like „*A mathematical science in the service of the war: balistics*” (V. Vâlcovici, nr. 3-4, 1917), „*Method to discover enemy’s guns*” (lt. Gh. Zapan, ibidem), „*The hypothesis of the trajectory rigidity*” (lt. M. Ghermanescu, ibidem), „*The maximal gun range under slope conditions*” (lt. I. Linteș, ibidem), „*Relationships between mathematics and military sciences*” (I. Ionescu, several articles), etc. Numerous papers on the history of mathematics in Romania, based on the Iași archives, continue to be published.

From time to time, *Gazeta Matematică* publishes the obituary of a Society member or collaborator fallen in the honor field, during the fights: ***Al. A. Roșu* (Vol. XXII, p. 121)**, ***C. D. Constantinescu* (Vol. XXIII, p.15)**, ***I. S. Teodorescu* (Vol. XXIV, p. 65)**, etc. Later, *I. Ionescu* will publish a moving article evoking the events and the sacrifice of those who lost their lives, „*In the memory of the disappeared*” (Vol. XXVI, p. 14).

The Vol. XXIV is again prepared in Bucharest. The issue 1-3, September-November 1918, is printed at the tipography „Universala”, Covaci str., no.14. , and the corresponding address is eng. *I. Ionescu*, Calușei str., no. 23. The respective triple issue was, in fact, printed in 1919, as it can be inferred from a brief mention on its cover. *Gh. Nichifor* publishes the article entitled „*Gazeta Matematică and the war for the national union of the Romanians*”, *Al. Myller*, the future academician, contributes with analytical geometry studies (Vol. XXIII, p. 241; Vol. XXIV, p. 51).

The „*Vasile Conta*” prize for mathematical philosophy or pure mathematics works is attributed to *D.V. Ionescu* (still a student at that time) Vol. XXV, p. 81. In Strasbourg, on September 22-nd, 1920, the *Mathematics Congress* of the allied and neutral nations is planned. After four years of interruption the *Gazeta Matematică* competition is restarted – the first one in the united Romania. Starting with Vol. XXVI, the typography is again F. Göbl and Sons, Royal str. 19, and from the autumn of 1920 (issue 3) the double and triple issues disappear. The activity of the *Gazeta Matematica* Society is again normal from all the points of view.

References

1. *Gazeta Matematică*, Vol. XX - XXIV.
2. **F. Diac** – *Monografia Societații de Științe Matematice din România*, S.S.M.R., București, 1998.
3. **N. Mihăileanu** – *Revistele de matematici elementare*, Ed. Gil, Zalău, 1995.
4. ***- - *Introducere*, *Gazeta Matematică*, Vol. I, nr.1, septembrie 1895.
5. **D. Tiba, T. Bîrsan**, „*Recreații Științifice*”, vol. I-VI, Iași 1883-1888, edited together with Introduction, Index and other supplements, “Recreații Matematice” Publishing House, Iași, 2008.
6. **D. Tiba, T. Bîrsan**, „*Recreații Științifice - 125 years since its publication*” (Romanian), *Gazeta Matematică A*, vol. XXVI (CV), nr.2 (2008), pp.150-154.
7. **D. Tiba, T. Bîrsan**, *Gazeta Matematică în anii Primului Război Mondial, Recreații Matematice*, vol. XVI, no.2 (2014), pp.140-143.