

MARIUS VISARION, *Istoria Geofizicii Românești* (History of the Romanian Geophysics). Vol. I, 520 p., Ed. Vergiliu, București, 2004.

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Marius Visarion, one of the most outstanding Romanian geophysicists, graduated the Mining Institute in 1953 as a member of the first generation of engineers educated in Romania in this domain. His professional career, entirely dedicated to geophysics, started as head of a gravity prospecting crew and ended at the top, as Honorary President of the Romanian Society of Geophysics, Council Member of the Romanian Committee of Geodesy and Geophysics and Member of the Romanian Academy. Within these major life milestones, he contributed to the education of young geophysicists (teaching Geological interpretation of geophysical data at the Faculty of Geology and Geophysics in Bucharest, writing books in this field of geosciences, supervising PhD theses) and managed the researches in geophysics in Romania for two decades, as Scientific Director of the Institute of Geology and Geophysics.

As member of the Romanian Academy and Senior of Romanian geophysicists, Marius Visarion looked back at the turn of the century and millennium with both admiration and gratitude to numerous geophysicists who, since 1925, accomplished a valuable, sometimes spectacular but always a useful task for the country. The results of this personal review of the main geophysical activities undertaken during 75 years are selected, analyzed and valued in the *History of Romanian geophysics*, a two volumes book that is already important for engineers or researchers who pioneered geophysics in Romania, and also important for the young ones, who may need a high standing background for practicing nowadays this profession in a larger country, the European Union.

The first volume of this book, published in Romanian in 2004 by Virgiliu Publishing House, is dedicated to gravity, magnetic and seismological scientific studies or applied works carried out since 1925, the moment when applied geophysics started in Romania within the Geological Institute.

The first part entitled "Gravity researches" begins with gravity surveys that employed the torsion balance, instrument that was in use at the beginning of XX-th century and opened the geophysical exploration for oil, I. Gavăt pioneering it successfully in Romania. Studies of gravimetric geodesy have been initially conducted by M. Socolescu at the scale of the Romanian territory, the maps with isostatic anomalies being used to get the first information on the crustal deep structures. Important moments on the development of gravity studies in Romania are related to gravity maps for the national territory, the first being edited by I. Vencov and R. Botezatu (1955) and the most recent by A. Nicolescu and V. Roșca (1992). A first attempt in Romania to use geophysics for interpretations in a global tectonics sense has been published by Șt. Airinei (1977), the continental blocks (plates and micro-plates) being separated by high horizontal gradient gravity anomalies. Studies at crustal and lithospheric scales involving gravity have been carried out by M. Visarion for at least three decades, while regional surveys covering the major geological units have been mainly undertaken by R. Botezatu, T. Băcioiu, Șt. Airinei, M. Visarion. Regional magmatic structures, an important geological target, were studied using gravity especially by J. Andrei, C. Calotă, S. Fotopolos, M. Suceavă, A. Proca.

The second part, "Magnetic researches" starts with the description of old geomagnetic works on the Romanian territory, a map of vertical component of the magnetic field being edited by St. Hepites and I. Murat in 1906. Important geomagnetic researches were subsequently carried out since 1943, when the Surlari geomagnetic observatory was established, by L. Constantinescu, and subsequently developed by A. Soare, T. Neșțianu, C. Demetrescu. Magnetic regional or local surveys have been

pioneered by G. Atanasiu, T. Bărbat, Șt. Airinei, Dr. Romanescu, while Tr. Cristescu managed the aeromagnetic works. Of great significance for magnetic data interpretation is the knowledge of rock magnetism, such studies being mainly undertaken by Al. Costa-Foru, Șt. Pătrașcu, Dr. Romanescu, J. Andrei. An important moment for the development of magnetic surveys is represented by the publication in 1983 by Șt. Airinei, Sc. Stoenescu, G. Velcescu, Dr. Romanescu, M. Visarion, S. Rădan, M. Roth, L. Beșuțiu and G. Beșuțiu of the Map of vertical component anomalies for the territory of Romania. The magnetic study of magmatic structures, many times in the sense of “mining geophysics”, has been initiated and developed by Dr. Romanescu, D. Hannich, J. Andrei for metallic ore deposits and Șt. Airinei for salt deposits.

The third part of the book is dedicated to “Seismological researches”, the high magnitude earthquakes occurring at lithospheric depths within the Vrancea area representing the main topic of this chapter. Among the strong earthquakes mentioned in written evidences the author emphasizes the 1802 event, called “the great earthquake”, evaluated by L. Constantinescu and V. Mârza (1980) of 7,7 magnitude. Going back at the roots of Romanian seismology, St. Hepites was an important scientific personality, organizing toward the end of the XIX-th century a macroseismic network of the territory and introducing in 1902 the earthquake instrumental recording. Important developments in this field followed the 1977 Vrancea earthquake, such as new seismologic monitoring networks and the establishment of the Institute of Earth’s Physics, mostly dedicated to seismological observations and studies. Among the significant Romanian seismologists of the second half of the XX-th century the author mentioned I. Cornea, D. Enescu, C. Oncescu, C. T. Trifu.

This first volume of the *History of Romanian geophysics* is of great value for geoscientists for two main reasons: it presents the evolution in time of the geophysical works in Romania in three important domains, gravity, magnetics and seismology, and it offers a great quantity of geophysical information for students in geophysics and geology, after a break of two decades, since the last books in geophysics written by Radu Botezatu were published.

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