

ION TH. SIMIONESCU. A SCIENTIFIC JOURNEY

MIHAI BRÂNZILĂ

Professor emeritus, “Alexandru Ioan Cuza” University of Iași,
Faculty of Geography and Geology, Department of Geology
mib@uaic.ro

An imposing figure of Romanian science and culture, Ion Simionescu (1873–1944) devoted his entire life to the study of nature, thus greatly enhancing the geological studies. Due to the nature of his interests, he would travel across the country, coming to know the beauties of the landscapes and, equally, the people in place. Through his conferences and writings, he urged the nation, especially the youth, to become aware of its main purpose: Romania's evolution and growth. His scientific contributions remain of invaluable support for the researchers who followed in his footsteps.

Keywords: Ion Simionescu, anniversary, scientific work

The second half of the 19th century has been marked by key events in the history of the Romanian nation – Unification of the Romanian Principalities, the War of Independence, proclamation of the Kingdom of Romania – all of them border stone moments in the life of a newly created state. Undeniably, the spark for these achievements comes from the ideology of the 1848 Revolution, part of the European political upheavals of the same year, creating an enthusiasm of such proportions that rippled through all levels of society.

As a consequence, particularly at the time of the 19th century turning into the 20th, the cultural and scientific dimensions of life for the Romanian people were enriched through an illustrious group of famous personalities, among which the figure of Ion Simionescu should always be remembered. He was a remarkably gifted individual, of scientific and teaching preoccupations wonderfully and harmoniously blended within, emphasized by his exceptional skill in organizing and leading scientific fora, as well as in popularizing aspects of culture. Undoubtedly, he was a great scholar and his work led to significant contributions, particularly in the international geological knowledge. Similarly, his name was well known and appreciated at the time for his contributions in the fields of geography and biology. Also, through those small “booklets” and calendars, and later using radio broadcasts, he reached even remote villages, and common people were discovering helpful information about daily life. Considering the societal impact of his work, he can unreservedly be seen as a “teacher of a nation”.

The thoughts and feelings of this scholar-citizen were linked both to the events and people of the time, profoundly marked by his own life experience: 71 years translated into a written work seen through the lens of what progress, education and culture were in that age. Counting the numbers, one would find over 1,700 works – dissertations of excellent scientific value, monographs, various writings in general knowledge concerning geology, geography, history, botany, zoology, even ethnography. Also, mention should be made of 360 scientific reviews and notes, schoolbooks, books and articles for science popularization, farming/ husbandry calendars, and 550 public conferences, of which some had been broadcasted.

Yet, whilst meticulously researching paleontological subjects, or the countless beauties of his country, even the cult of heroes and scholars, I. Simionescu's thoughts were constantly turning to the Romanian peasant, whose grief and sorrows were well-known to him since his childhood spent in the neighborhood on the outskirts of Botoșani town – a proof in this respect being the many pages of booklets and numerous editions of *Calendarul Gospodarilor (The Husbandry Calendar)*, edited between 1921 and 1944.

He was born in Fântânele, Bistrița de Sus, Bacău County, but the early death of both his parents, Maria (d.1875) and Theodor Gheorghiu (d.1876), placed him – barely just 2 years old – and his brother Gheorghe in the care of Ioana Simionescu, their maternal grandmother. In her little house in the Sfântul Ioan slum, near Botoșani town, they were loved and cherished, yet the money was scarce, and they often received help with their living from neighboring villagers. Little is mentioned in Simionescu's writing about his childhood times but, in *The picturesque of Romania. Through hills and plains* (1943), there is a recall of the place he grew up in: “*In front of the little house of my childhood, mummified there, one could see a full field cultivated with corn and long watermelons, with blood-red pulp and sweet as honey... Every time I wander through the muddy narrow streets of my childhood slum, it seems like none of the decades that have past since ever reached them*”.

His education starts in 1879 at the “Marchian” primary school, with its big and well lit classrooms, built through the donation by a Church hierarch. Sometimes, his 6 year-old brother is helping him with writing and reading. His diligence is appreciated, and his results are rewarded, both at school and home. In *The prizes* (1923) he recalls: “*I'll remember for as long as I'll live the feast that awaited for me in that poor house when I returned with my first school prize win. The low ceiling room was cool and smelled of wormwood. The small white curtain, falling over the little window opening from up downwards, propped up with a twig, left through it the whispers of the nearby walnut tree and the fresh, tannic smell of its leaves. On the table by the window, to my honor, a table cloth was set over the usual mat... To my honor, a hen had been sacrificed... The menu was like one for a holiday, finished with sweet cheese corn pies, freshly baked on walnut leaves, and drenched in cream. I was the hero of the house and of the day. As unforgettable reward was my grandmother's unequaled joy, stroking my head, even today I feel her tender touch, she kissed my forehead and she gave me a 2 lei silver coin, a fortune for her, as well as for me.*”

On the road to school, as many other children, the young I. Simionescu walked by himself, easily noticing, from the same slum, a young 3rd year Nicolae Iorga, the future historian, seen off by his mother. Such a painful reminder for an orphaned child will be later recalled in an evocation “About Nicolae Iorga”, Rev. Istorică, vol. XXVII (1942): “*me, since 2 years old, I’ve never known the touch of a mother and her soothing kiss... Every time I was passing by the narrow, winding, muddy street behind the humble house facing the garden... unwillingly my sight caught a much yearned scene. In the shadow of a leafy tree, the mother worked, sewed, knitted, overseeing the much animated playing of the smaller child. The other – Nicu – was sitting by her, holding a book... Inside my tormented child soul, the scene impressed me. So vivid even now... I still remember the care of the mother accompanying her children to school. Observing them, while walking behind them, slowly, never tiring out admiring the clean clothes... I don’t remember if, by watching them, the contrast between them and me, some bitterness awakened within me. Or perhaps, unwittingly, in my motherless child soul, the sorrow slipped, seeing his hand gently held by his mother’s.*”

From 1883 on, he continues his studies at the “Laurian” secondary school in Botoșani, his brother providing much of the financial help required. In the autumn of 1890, he obtained his Baccalaureate in Science and Letters at “Universitatea Mihăileană”, Iași. The exam was rather difficult, a fastidious board of examiners being attended by university professors, and chaired by the rector, the famous mathematician Neculai Culiănu.

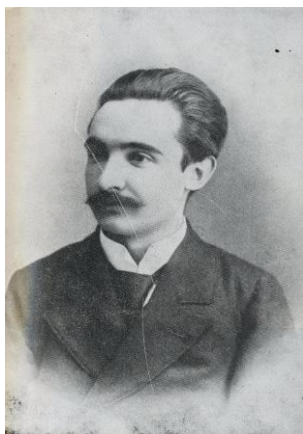
Following his passion for understanding nature, the young I. Simionescu decided to enroll the same year, 1890, at the Faculty of Sciences, Department of Natural Sciences. As an under-graduate, he is captivated by the research done by Grigore Cobălcescu in geology, particularly paleontology. From the very beginning, he was enthralled with professor Cobălcescu’s style of uncovering to young students the mystery of stones and the puzzle that was the geological history of Romanian soil. After graduation, in September 1893, he returns as a substitute teacher in Natural Sciences at his former secondary school in Botoșani. By chance, beside his teaching duties, he delivered a conference for a rather exigent audience, about *The life of ants*. Pleasantly surprised with the result, he took courage to explore further.

Eager to expand his professional training, and following the advice of chemist Petru Poni, he earns the “V. Adamachi” scholarship offered by the Romanian Academy, to study in Vienna. As a result, he begins his doctoral studies in 1895 at the most famous school in geology at the time, under the guidance of renowned personalities such as: E. Suess, G. Tschermack, W. Waagen, A. Penck, Th. Fuchs, Fr. Wahner. His chosen topic for the PhD thesis was the geological study of Dâmbovicioara area. The field research was done during his holidays, when he collected vast quantities of samples, far beyond the needs of a doctoral thesis. After only three years, on 21st of July 1898, he defends his PhD thesis entitled *Über die Geologie des Quellengebietes der Dâmbovicioara (Rumänien)*, thus obtaining the title of doctor in Philosophy, specialized in Geology.

All opportunities he had in Vienna, the supervisors, the libraries and the available collections, the study trips under the guidance of various professors, will offer him an extensive perspective in understanding the most complex geological issues.

The same year, on the 31st of December, he marries Matilda Grecinschi, a Romanian language teacher in Botoșani; they will have two children – Cecilia and Mircea. With much affection, I. Simionescu always remembered the support and understanding he got from his wife.

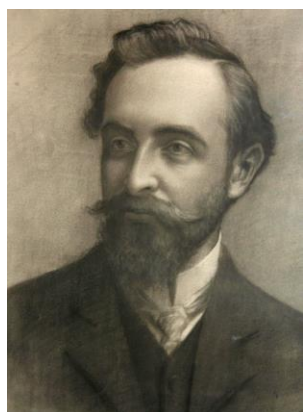
After finishing the German school of geology in Vienna, Ion Simionescu decided to explore, as well, the French school of geology, mostly influential in the Romania of those times. For a while, in 1899 he stood as auditor at the Grenoble University. Under the supervision of professor W. Killian, a renowned personality in the field, he enriches his knowledge on Lower Cretaceous ammonites, applying the newly obtained data to his study of the Dâmbovicioara area.



1895 – Botoșani



1898 – Vienna



Pencil sketch after a 1900 photo,
by I. Cârdei (1926)



His wife, Matilda Grecinschi-Simionescu
1899 – Vienna

Returning from France, he is first hired as an instructor at the Department of Mineralogy and, on 28th of November 1900, he is appointed by the Ministry as substitute professor at the Department of Geology-Paleontology, Faculty of Sciences. Thus, the year 1900 can be considered the starting point for Ion Simionescu's scientific journey in geological research for understanding Nature, as well in university education. On the 15th of January 1902, he is appointed associated professor at the same department, and on the 15th of March 1905, full professor, a position he holds until 1929, when he transferred to the University of Bucharest, to better deal with the various duties implied by a busy scientific and socio-cultural activity.

As early as his undergraduate years, Ion Simionescu exhibited an extraordinary skill in understanding the knowledge about nature, an exceptional work power, research passion, as well as a native teaching gift. His exposition was always easy to understand, having the skill to make listeners seeing alive the Nature or the phenomena he was describing.



I. Simionescu in his office at the University, Iași



I. Simionescu in his office at the University of Bucharest, 1937

A foreshadowing of the scientific style he pursued along the years can be seen in the conferences *Struggle for life (Lupta pentru existență)* held in front of his colleagues in the old University Hall, the public exposition of his time in Botoșani about the *Life of ants*, the defending of his PhD thesis, or another earlier published work: *Upper Cretaceous chalk and limestones with Lithothamnium on Prut River banks* (1897).

Using the samples he collected during the research for his doctoral thesis, Ion Simionescu wrote 15 scientific papers regarding the Dâmbovicioara area. Out of these, four are monographs on geology, with valuable contributions on map-drawing, stratigraphy and paleontology, such as pointing out for the first time the presence of Callovian and Vraconian in the Carpathians, or assigning the Dâmbovicioara marls to Berriasian-Barremian, as well as highlighting a calcareous facies of Barremian with Urgonian fauna. The published works were incorporated in a first series of monographs titled *Geological and paleontological studies in the Southern Carpathians*, divided into 4 parts:

- parts 1 and 2 (1898) – *Neocomian fauna in Dâmbovicioara Basin*;
- part 3 (1899) – *The Lower Callovian from Valea Lupului – Rucăr*;
- part 4 (1905) – *Jurassic fauna from Bucegi*.

The inventory of the described and pictured mollusc species comprises 159 species, of which 18 were newly discovered.

From 1906 onward, whilst pursuing his many other scientific interests, Ion Simionescu will continue to study the geological formations of the Alpine Orogene in North Dobrogea, Babadag Basin, Central Dobrogea Massif, and even South Dobrogea Platform. The resulting workload on Dobrogea comprises the most important papers in terms of volume, and the expanse of stratigraphic and paleontological results.

The experience accumulated during the Dâmbovicioara basin research, as well as the observations on the Lower Triassic in the Eastern Carpathians, where he reports the basal conglomerates, drew his attention to the Mesozoic formations in Dobrogea, as well – first the Jurassic ones in Hârșova-Topalu, and secondly the Triassic ones around Tulcea and those from Agighiol, Deșli Caira, Cataloi or Popina island. Similarly to the Southern Carpathians, where other foreign researchers used to work, the detailed studies compiled by I. Simionescu on the Dobrogea areal were revelatory, bringing important and outstanding contributions. They have shown many paleogeographical similarities with well-studied regions from Alps or Himalaya – making possible a correlation with the facies from these regions, while additionally clarifying many bio-stratigraphical aspects. Within the Ladinian ammonites fauna in Agighiol he noticed Himalayan-type species (*Dinarites mohamedanus*, *Japonites dobrogiacus*, etc.), which led to a series of paleogeographical reassessments.

The fossiliferous abundance (sponges, brachiopods, corals, ammonites, echinoderms, gastropods and bivalves) enticed I. Simionescu to study the Jurassic

deposits in Central Dobrogea, thus offering the first regional synthesis on the expanse of these deposits, on their lithological constitution, and the biostratigraphical interpretation – based on their paleontological content. Also, he made several observations on the tectonic of the Jurassic deposits, mentioning a series of large synclines and anticlines with a different orientation to the underlying formations (schists). Other regions in Dobrogea attracted less of his attention, whilst he focused more on the deposits of Upper Jurassic and the Neo-Cretaceous of Babadag Basin, as well as the Cretaceous and Sarmatian deposits of South Dobrogea.

The results of researching Dobrogea Mesozoic will lead to a second series of monographs, entitled *Geological and paleontological studies in Dobrogea*, including 6 successive works:

- part I (1907) – *Jurassic cephalopods fauna in Hârșova*;
- part II (1909) – *Lamellibranchia, gasteropods, brachiopods, echinoderms within Jurassic strata from Hârșova*;
- part III (1910) – *Triassic fauna from Deșli Caira*;
- part IV (1910) – *Triassic fauna from Popina island*;
- part V (1910) – *Lower Triassic fauna in Dobrogea*;
- part VI (1912) – *Triassic ammonites fauna in Hagighiol*.

In addition to this series of monographs, another especially important contribution refers to the research on Dobrogea terrains, regarding the presence of Lower Devonian in the Bujoarele Hills, comprising a fossil fauna dominated by brachiopods, beside tetracorallia, tabulate corals, bryozoa, trilobites, crinoids, ostracods and bivalves.



I. Simionescu – pictures taken in Bucharest

Ion Simionescu's work on Mesozoic deposits from either Southern Carpathians or Dobrogea imposed him as one of the greatest experts in Mesozoic paleontology. Internationally, he was considered a guiding model in the development of many specialized treatises and monographs. To his successors, the monographs on Mesozoic are a valuable legacy, and a leading example in sobriety,

diligence and strictness – if only considering the inventory of Mesozoic fossil species described in the Triassic, Jurassic and Cretaceous deposits, which amounts to a staggering number of 715 species, of which 100 were newly discovered.

As stated before, I. Simionescu did not limit his paleontological and stratigraphic studies to Mesozoic formations only. He also took interest in the Miocene formations found in the North center of the Moldavian Platform, continuing the work initiated by G. Cobălcescu. Tracing in detail the stratigraphy of the Sarmatian deposits, in 1903 he introduced toponymic denominations for the 3 stratigraphic sublayers – Volhynian, Bessarabian, Kersonian. These denominations are still accepted and in use nowadays, within the Paratethys areal. In addition to the stratigraphic subclassification, he has several contributions on the Sarmatian invertebrate fauna, compiled in 2 monographs – the first, published in 1901, entitled *Description of several Tertiary fossils from the North of Moldavia*, and a second one, published much later, in 1940, *La faune sarmatienne de Roumanie*, in collaboration with I.Z. Barbu. The paleontological material was mostly taken from Bessarabia, the Romanian province returned to its rightful status after the Great Union in 1918. The working background is represented by 286 species, of which 82 were newly discovered. Similarly to the Mesozoic monographs, these latest 2 works established I. Simionescu as one of the most distinguished experts on the subject, if not the greatest. Within the Sarmatian deposits near Chişinău city, he found fossils from several seal species (*Phoca maeotica*, *P.bessarabica* si *P.pontica*), as well as a dolphin. Another study (1930), titled *Pliocene vertebrates from Măluşteni*, introduces a number of 49 vertebrate species, of which 8 are newly discovered during his researches in southern Moldavia, in the romaniens deposits from Măluşteni (Covurlui).



I. Simionescu in conference at the Central Library Hall, University of Bucharest

Starting with 1938, he published, in collaboration with Elena Dobrescu, 5 monographs regarding *Pliocene mammals from Cimișlia-Bessarabia*, organized in several parts:

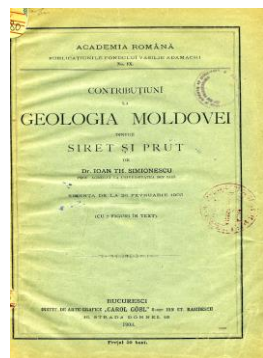
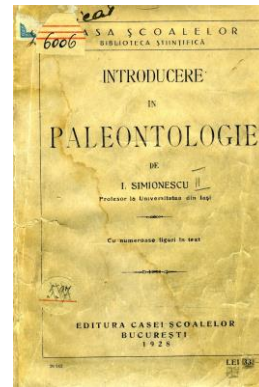
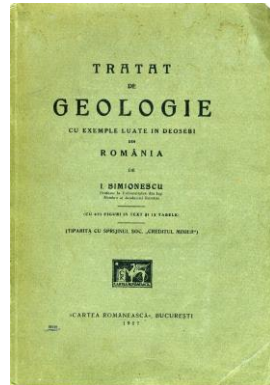
- part I (1938) – *Carnivores*;
- part II (1939) – *Heladotherium duvenoyi remains*;
- part III (1939) – *Proboscideans*;
- part IV (1940) – *Rhinocerathidae*;
- part V (1941) – *Ruminants*.

Aside his research in invertebrate fauna, I. Simionescu was actually interested in vertebrate fossil remains since 1901, when he published a first note titled *Hipparion gracile in Romania*, after which he did research on the fossil fish found in Oligocene bituminous rocks from Cozla and Pietricica (Piatra Neamț), and described a total of 12 species, of which 6 newly discovered ones.

His work on fossil vertebrates is crowned by the study on fossil mammals, and the subsequent publication in 1942 – in collaboration with F. Rainer – of the paper titled *Sur le premier crane d’homme Paleolithique trouvé en Roumanie*. The first hominid skull found in Romania, in Cioclovina Cave, is depicted in detail, becoming a piece of great scientific value.

The geological research, complemented by the teaching activity, determined I. Simionescu to elaborate a series of papers based on synthesis, in addition to his regional stratigraphic and paleontological studies. These proved to be extremely useful in the educational process of young people, and also important for the next generations to understand “how future progress was prepared”, and what it takes to enrich the knowledge of Romanian geology. The most important books were published starting with 1906 until 1943: *Geology of Romania* (1906), *Aperçu géologique sur la Dobrogea* (1927), *A treatise on geology* (1927), *Introduction to paleontology* (1928), *Paleontology of Romania* (1943). The last book, written in collaboration with V. Barbu, can be considered a systematic inventory of the paleontological content across the Romanian territory which, together with the other monographs, increased the appreciation of Romanian paleontology.

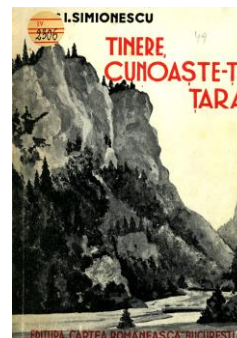
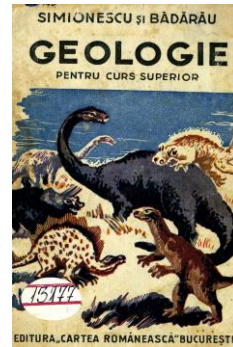
During his lifetime, the preoccupations of I. Simionescu were embraced and constantly intertwined, and one might get the impression that – at least in terms of volume – the highly valued scientific contributions might be surpassed by the socio-cultural ones.



Since his under-graduate years, he felt that what he gathered through his readings should be shared with others, particularly with the less fortunate ones, either because of their remoteness or lack of scientific or cultural materials. His writings were undoubtedly elaborated under the positive influence of his youth readings – many of those with a cultural character, or the so called “popularizing” works, having an unequaled beauty, the scholar-author using almost all stylistic tools of fiction: personifications, metaphors, metonymies, epithets. Sometimes, his nature-writing is on par with the one of novelist Mihail Sadoveanu. Some of his best appreciated books at the time were: *The flora of Romania* (1939), *The fauna of Romania* (1938), *The picturesque of Romania* (1939, 1941), *Cities in Romania* (1925), *Our country* (1937, 1938), *Remarkable people* (1921, 1928). Due to their topics, some of these books are still and justly considered excellent contributions in the fields of Geography or Biology, much sought after even nowadays by foreign researchers.

In his effort to offer science to the large public, I. Simionescu was inspired by his country and its people, as well as by the local nature, with its kingdoms of plants and animals. He also wrote on other subjects – country’s institutions, various societies, museums, churches, about the school and its teachers. He gathered the

social and cultural material from the multitude of his travels he made across the country – as early as his youth years, his working notebooks including geological observations, sketches of panoramas, notes on the simple or poor living conditions of his hosts in his journeys.



He wrote passionately and affectionately, and tried to include in his preoccupations the troubles of the largest mass of people in the society at the time – the peasants. *The Husbandry Calendar*, along the years of its publication represented a valuable source of information, in addition to the numerous articles and booklets, as his author wished to contribute to the development of the Romanian village. In his view, Romanians can only exist within the space delineated by the Danube and the Carpathians, where “it’s been given to us to live forever and ever”.

Across the country, from *Oaș County* to the seaside with its *Sights from Dobrogea*, from Moldavia East of Prut River and its *Bessarabian layovers* to the West of the country in *Arad* and *Oradea*, these are just a few of the places that I. Simionescu masterly described, inspired by the young students and by their teachers needs for well-written schoolbooks for the primary and secondary school education – some of them being written in collaboration with personalities of the time, some more general in tone urging the youth to study to gather knowledge, as in *Young man, know your nation*.

Among other books dedicated to the large public, 2 volumes were titled *Remarkable people*. In the first, dedicated to the foreigners (1921), and the second to his own people (1926), he traces, by approaching the literary portrait technique, historical and contemporary figures – among them: *Ștefan cel Mare*, *Mihai Viteazul*, *Dimitrie Cantemir*, or the more recent figures of *Avram Iancu*, *Gheorghe Asachi*, *Andrei Țaguna*, *Ion Creangă*, *Mihai Eminescu*, *Mihail Kogălniceanu*, *Grigore Cobălcescu*, *Spiru Haret*, and even a country school teacher, *Mihai Lupescu*, a symbol for the roots of previous famous personalities.

It has been said that Ion Simionescu used the printing press more than anyone at that time. He knew his words would reach more people, should more prints be available – hence, he used newspapers, journals, calendars, almanacs to educate the large public, as well as the books printed at famous publishing houses, such as “Casa școalelor”, “Fundăția pentru literatură și artă”. However, he mostly collaborated with “Cartea Românească” Publishing House, whose existence he made possible, as a founder, alongside Ion Athanasiu, rector at the time of the University of Bucharest. The founding act mentioned the necessity “to create a publishing institute with the intent of printing an affordable library with books of fiction, but mostly of science, with the aim of promoting culture”.



Unveiling of the memorial plaque at I. Simionescu house in Drăghici Street, Iași

The written work of Ion Simionescu was admirably complemented by the conferences he held on various topics, in various places – from the Romanian Athenaeum to Șendriceni-Dorohoi, Brașov, Soloneț-Soroca, or Blaj, every time

making his audience feel they are in the very middle of the presentation; a similar experience he repeated throughout the 150 conferences broadcasted at the national radio station, part of the Radio University project, an activity he enthusiastically supported since the very beginning of radio broadcasting.

As anything must come to an end, likewise Ion Simionescu's journey as a scientist, teacher, culture enthusiast ended on the day of Sf. Ion, the 7th of January 1944. Not long before his passing away he confessed he did not feel that his life, as he lived it, had anything extraordinary, it was just mere duty to the nation from which he arose. Through his demise, the Romanian culture lost one of its most remarkable representatives, and it is regrettable his work and legacy were unfairly enveloped in shadow. Still, there are attempts, perhaps too shy, and mostly in academic societies, to bring forward to larger audiences Ion Simionescu's figure – although various initiatives involving symposia, commemorations, memorial plaques are welcome gestures, one can only hope in a reissue of his work.

Acknowledgement. I would like to thank the colleagues from the Department of Geology, University of Bucharest, for the photographs provided.

S E L E C T I V E B I B L I O G R A P H Y

- BRÂNZILĂ M. (coord.), *Academicianul Ion Simionescu – savant și dascăl al neamului*, Publishing House of the “Al. I. Cuza” University of Iași, 2010.
- IONESI L., *Sculptori în piatra timpului Geologia ieșeană și alți geologi români*, Publishing House of the “Al.I. Cuza” University of Iași, 2007.
- GRASU C., *Ion Simionescu în atmosfera culturală a vremii*, *Academica*, June 1995, București.
- MACOVEI Gh., *O viață de muncă (Profesorul Ion Simionescu)*, *Cartea Românească Publishing House*, București, 1941.
- SIMIONESCU I., *Opere alese*, *Scientific Publishing House*, București, 1974.
- TURCULEȚ I., *Geologi și destine*, *Junimea Publishing House*, Iași, 2007.