

# Tribute to Professor Ion Popescu-Voitești: the ‘Harlequin’, the ‘Phalanx’ and the dawn of the Romanian geology in Cluj

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**Abstract:** Among the scientists confirmed by history as having made a decisive contribution to the progress of a field, Prof. Ion Popescu-Voitești is an illustrative example. He was the creator of the university geological school in Cluj, at a time when geological university education at the newly founded University of Upper Dacia was in its infancy, at the end of the First World War, and there were very few qualified staff to teach disciplines in Romanian. The work points out the main contributions of the geological scientist such as: contributions in terms of textbook publishing, lectures taught to students in Cluj and Timișoara, support of specialized publications, professional and cultural societies, participation in scientific meetings, with a focus on the first Congress of the Naturalists in Romania. We underline in the work the fundamental theories that marked his career (*e.g.*, the thrusting nappes model, paleogeographic patterns etc.) as well as the primordality gained in the shaping of a discipline called Geology of Romania, which remains relevant today, defining the professional perfection of any Romanian geologist. We have also tried to capture some aspects less highlighted so far concerning the professional atmosphere in the field of geology in the interwar period in Romania.

**Key words:** Ion Popescu-Voitești, geology of Romania, education, conceptual models, University of Cluj.

## Introduction

Decades and more than that, centuries after the loss of a famous representative of any scientific field, a tentative to illustrate his personality by successors is a very difficult task as long as his contemporaries passed away and direct accounts are unattainable. In such context, only a professional biographer who has on his hand the majority of needed documents – their totality is usually plain and simple, just a desire – could achieve a satisfactory result. But this happens extremely rare. In such a situation we find ourselves when we try to understand the lights and shadows of life and work of one of the outstanding naturalists born in the Gorj County, the geologist Ion Popescu-Voitești (1876-1944), eighty years after his death. Therefore, this paper doesn't intend to be an exhaustive analysis of his life and work, as long as a recently issued volume succeeded to offer a richness of details on this subject (Mocioi & Huică, 2017; a

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previous similar book issued in 2002) and some others papers are also available, mainly the ones issued at the celebration of a century since his birth (Papiu, 1980, Huică, 1980, Bleahu, 1980, Bombiță, 1980).

For the Romanian geology Popescu-Voitești was a providential scientist: he appeared at a time in history when the results of his work were sorely needed *i.e.*, immediately after the WW I, when the University of Cluj was in deep need of scientists available to teach various disciplines in Romanian (until the war, in this university all disciplines were taught exclusively in Hungarian). After Antal (Anton) Koch (1843-1927) (Codrea *et al.*, 2011a, b) who established a geological line of study at Cluj, Voitești was continuator and strengthener of such studies, as long as the other prominent geologist who came in same time at Cluj to teach mineralogy, Gheorghe Munteanu-Murgoci (1872-1925), leaved the university too soon (he remained strictly in the first semester of the university year 1919-1920, returning after in Bucharest). Even if Voitești did the same years after, in 1936, he had his basic work and contributions of his scientific career, in Cluj.

If we resume his infancy and young years of life (Huică & Teoteoi, 1976, Popescu-Voitești, 2016), one may bear in mind a childhood heavily marked by his parents' various and moreover, not at all few needs. His father, Ion Popescu had bad luck in his domestic life: he had three marriages, Ion being the second child among the five ones of the second marriage with Ana, born Băluțescu-Rădoși. The childhood was sprinkled by various domestic 'events' happened in his courtyard, his village and surroundings, some of them visibly fueling his memories, years after. Among these we remember the one related to the killing of a 'dragon', in fact a big snake (possibly, the Aesculapian snake *Zamenis longissimus*) sheltered in the foliage of the garden, or the hunting habit he practiced - not without a dose of sadism - about catching a species of bird. In fact, he remained his whole life a passionate hunter and even his death happened during a hunting walk in his native village.

The child and teenager afterwards, followed the path of learning. Even if he was not one of the brightest students in the early stages, he did well in the subjects he felt drawn to. As is often the case, life does not sift out from the prize-winners the scientists who later bring progress in science... But his teachers obviously gave him the valuable background of knowledge that formed the basis of his future career. Even his studies in geology at the University of Bucharest are not very detailed (Mocioi & Huică, 2002, 2017), less is known about it. But as it happens at such ages, the ones who had chosen a profession following the own passion, are usually studious, hardworking students.

In the years after graduation, he tried to earn a living teaching in several gymnasiums: Slatina, Târgu Jiu, Tulcea, Câmpulung-Muscel, Buzău - in the last one he had a rather scriptural presence - and, finally, 'Matei Basarab' High School in Bucharest. So many and faraway places, mirroring nothing but the difficulties to gain a stable position in the high schools at that time. Obviously, it was not an easy live, he had to move from one place to another, so many times. But, in all this time

he paid a special attention to the geological studies in the field. Consequently, his first contributions were published in an Austrian review and the publications of the Geological Institute of Romania, whose member he became in 1909, on Ludovic Mrazec's call. From his desire to gain a deeper specialization in geology, based on the money of the 'Hillel' prize he won in 1905, he spent a time abroad in Vienna and Paris, obtaining in 1910 (confirmed, in 1911; Mocioi & Huică, 2017, p. 77, Fig. 24) his *Ph.D.* in natural sciences at the Faculty of Sciences of the University of Paris. Coming back to the country, he worked a lot and wrote several contributions in geology and paleontology, the most important being the ones based by the collaboration with Ludovic Mrazec, his mentor in Romania.

But rough times followed and Romania was involved in the war against Bulgaria (1913), then became part in the First World War (1916-1919). About the first one, little was reported during the Communist regime, it was a subject taboo as long as the 'friendship' between the Bulgarian and Romanian peoples was plenty of harmony! In such context, Voitești's written testimony are valuable, reporting about less known details of this war. About the following one, one knows that his participation on the fights was short, as long as he was among the injured officers in the battle for Turtucaia (=Tutrakan; September 2 – 6, 1916). About this battle, a lot of details are reported in the Constantin Kirițescu's book (1922), a monumental work about the Romanian-Bulgarian war, but also on the whole First World War, including the Romanian intervention in Hungary against Béla Kun's Communist regime.

Herein, it is the right place to mention other details about Kirițescu, who was zoologist, publicist and historian, personality of complex formation. It worth to mention another very interesting detail: Kirițescu, together with Prof. Christian Musculeanu (physician, University of Bucharest) and Prof. Andrei Popovici-Bâznoșanu (biologist, University of Bucharest) formed a group named by the Prof. Paul Stănescu, 'the Phalanx', which leader was the last one of the three above mentioned. This group was very influent both in the Ministry of Education and the University of Bucharest (Paucă, 1998) and Voitești obviously was supported by its leaders (Băncilă, 1988). Popovici-Bâznoșanu was also founder of the Society of the Naturalists of Romania, which he was permanent president. The Society published the *Bulletin of the Society of Naturalists* and the *Publications of the Society of Naturalists of Romania*, where numerous university and lyceum professors as well as various researchers published their contributions (Haller, 1989). He succeeded in bringing together several naturalists as the botanist Alexandru Borza (founder of the Botanical Garden of Cluj-Napoca, *post-mortem* member of the Romanian Academy), the geologist Otto Protescu (who taught at Cernăuți and Cluj universities), the entomologists Wilhelm Karl Knechtel and Constantin Bogoescu etc. All this people were underestimated and devoid of appreciation by the members of the Romanian Academy. Therefore, 26 of these scientists (including Voitești himself) founded the Academy of Sciences of Romania as an alternative option for the scientists 'rejected' by the Romanian Academy. Today, the

Romanian Academy of Scientists claims to be the successor of this interwar Academy.

### **Professor of the ‘Upper Dacia’ University and ‘King Ferdinand I University in Cluj**

After the First World War, there was a huge need for teachers in Transylvania in the numerous gymnasiums and high schools, but also at the Romanian University of Cluj (called ‘*Dacia Superioară*’/‘*Daciei Superioare*’, then, ‘*Regele Ferdinand I*’; Ghibu, 1939). As a result, Popescu-Voitești was appointed full professor at the Department of Geology and Paleontology and director of the Museum of Geology and Paleontology. He held these positions from October 1, 1919 until November 20, 1936 when he left Cluj for a professorship at the University of Bucharest. Referring to the establishment of the Geological Institute of Romania, Stanciu (1936) wrote: ‘*Today the geologists of Wallachia are as numerous as the opera singers of Italy. The director of the Opera is never in trouble when the tenor falls ill: from the window of his office, he makes a sign with his hand and from the market two or three present themselves, able to replace that one. But when the Geological Institute was set up it was a different matter. Everything had to be created. There were neither ready people nor a ready atmosphere for geological work*’ (p. 23-24). It was the same with the University of Geology in Cluj: everything had to be built from the ground up. So, as Ludovic Mrazec did in Bucharest at the Geological Institute of Romania, Voitești did the same in Cluj. For a short period of time, he had the support of his friend Gheorghe Munteanu-Murgoci, after having remained practically the only one experienced in building this new construction dedicated to the organization of the geological high school.

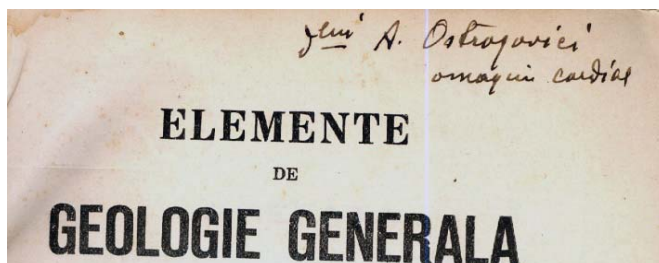
He focused on a curriculum suitable for the needs of the new Romania focused mainly on natural resources, as petroleum or salt. On the other hand, he tried to bring together skilled geologists. Some of the ones he formed himself had brilliant careers either in the academic field, or in practical geology: Ștefan Mateescu, Octavian Nițulescu, Ioan Alexandru Maxim, Valeriu Lucca, Augustin Vancea etc. For example, the last mentioned had after his PhD, a long career in the natural gas survey and production in Transylvania (Codrea & Popescu, 2017).

From the beginning he knew that textbooks published in Romanian should be placed on first priority, as long as a lot of the students in lyceums, but also the ones at the University of Cluj didn’t knew to read well enough the foreign ones issued in France, Germany, Austria etc. In this context, one of his most valuable contributions concerns the publication of *Elements of General Geology with a general look on the geology of Romania*. The book issued in three successive editions. The first one is from 1921 (Popescu-Voitești, 1921 a) and was published at the publishing house of the *Annals of Mines in Romania* (Fig. 1a, b). It worth to mention that all the copies of this first edition had annexed a coupon (Fig. 1 c) that

gave possibility to buyers to later take possession of the geological map of Romania, scale 1: 50000 ('*The map, due to unforeseen causes, will be shipped 20 days latter*') recommending '*to be glued on the last empty page of the volume*').



a



b



c

Fig. 1: a - Cover of the first edition (1921) of *Elements of general geology*...; b – handwritten dedication to Prof. A. Ostrogovici, Dean of the Faculty of Sciences, *Upper Dacia University Cluj*; c – coupon that offered to the buyer the right to receive a copy of the geological map of Romania (property: VAC).

In the foreword, he underlined the necessity of such book not only for the didactic needs, but also for the ones just interested to know '*the history of the geological past of the Earth*', as well for geographers and engineers. The amount of data related to general geology is large and dense, but the author took care to mention from the beginning that the notions that are not essential for the needs of the lyceum students were written on small caps. The text is attracting because is

also richly illustrated by drawings and photographs. It worth to mention that a lot of these ones were processed mainly from German paleontological treatises, but there are also a lot of original drawings illustrating fossils originating from diverse geological formations of the country, as well as photographs probably captured by the author himself, as the ones from the *Muséum d'Histoire naturelle* in Paris, France.

But, the most valuable section concerns the geology of Romania. In fact, he published a large synthesis about this topic in same year, in *Annales des Mines de Roumanie* (the number from August-September; Popescu-Voitești, 1921 b). The text was bilingual, in French and Romanian, in this manner being accessible to the whole scientific community of that time. In fact, it was Ioan Simionescu (1910) who first introduced the name *Geologia României* (Geology of Romania), in a communication given in 1906 at the Romanian Academy. Simionescu's work, however, referred strictly to the territory of Romania before 1918, so without the territories added after the First War. The writing in question is of small length (about twenty pages devoted to tectonics and stratigraphy, but the bibliographical list is remarkable, meticulously compiled) and illustrates the author's orientation towards stratigraphy and paleontology, although he visibly was less versed in tectonics (this section is otherwise limited to only two pages, in which tectonic notions coexist with physiographic terminology). In addition, the publication's circulation was modest, making it difficult for readers to access. Therefore, the paper and the book may be considered the 'birth certificate' of a long living discipline still teach in the Romanian universities that imply both to students and teachers a rich and complex knowledge of notions of paleontology, stratigraphy, petrology, tectonics, paleogeography etc. For a good result, the teacher should have an excellent knowledge of the geology of the whole country, and Voitești obviously had such one, as long as he had prospected large areas for his studies. More than that, when he arrived in Cluj, he was in full maturity, at most convenient age, with a professional baggage of knowledge difficult to match by another. Strangely, the subsequent books related to this topic belonging to various authors didn't underline enough or even completely ignored this primordality (e.g., Oncescu 1957, Mutihac & Ionesi, 1974, Mutihac, 1990, Mutihac *et al.*, 2007). Only Săndulescu (1984) broke this rule, largely discussing in his book on the geotectonics of Romania the value of his forerunners' contributions, but his book, however, is not as complete as a special one dedicated to the above-mentioned discipline as long it remained focused on tectonics.

Voitești divided the Romanian territory into two main 'subunits': A. the Carpathian areas '*herein including all the Carpathian zones old or news, folded or not that form a whole more or less intimate bounded*' and B. the outlying regions, where he included the Avant-pays, Vorland areas '*that outer encircle the Carpathian arch and conduced a lot by their tectonics to the completion of the actual structure of the Carpathian regions*'. In spite of some tendencies to change the name of the structural units of the Carpathians (e.g., Balintoni, 1997), some

terms he used inspired subsequent ones: Voitești's 'Dacian chain' became 'Dacides' in Săndulescu's (1980) terminology. Apart the old rocks of the 'Dacian chain' he outlined the flysch considered to include younger thrusting nappes, but also the 'Subcarpathians' that correspond to the '*newest added folds (final Pliocene) to the external margin of the Carpathian Flysch*'. In his tectonics we find easily a convinced follower of the thrusting nappes pattern, sharing this viewpoint with geologists as Munteanu-Murgoci or Mrazec. Now, this pattern is largely accepted by the huge majority of the geologists, but when Voitești wrote his book the situation was deeply different, a lot of geologists denying the thrusting processes in the geological past. Băncilă (1988) related that one of Voitești's favorite young colleagues from Cluj, expressed in 1937 at the Geological Institute of Romania '*...it was in the years when the psychosis of the thrusting nappes dominated the geology from us led by professor Voitești...*' (p. 229-230), allegation that rightly upset the teacher. An ardent opponent of the thrusting nappes was at that time George Macovei, with a completely opposite personality compared to Voitești, envious of the achievements and fame abroad of this one. In his entourage, the Oltenian savant was pejoratively nicknamed 'the harlequin' (Paucă, 1998), the 'godfather' of this appellation being probably, Macovei himself. Brief, today it is easy to understand the importance of the theory of the thrusting nappes and how hard it hung the contributions of its pioneers in our country (Gh. Munteanu-Murgoci, Ludovic Mrazec [-k], Ion Popescu-Voitești). But opponents persisted still many times in 20<sup>th</sup> century, mainly the ones influenced by a part of the Soviet school of geology, represented mainly by Vladimir Vladimirovich Belousov (1907-1990) and the luminaries of his paradigms (Farkhutdinov et al., 2017). Some of them were also present in our country too, in the geological school of Cluj-Napoca, where the plate tectonic theory was strongly contested by Pál Marosi (former student in Soviet Union), but strongly supported by Virgil Ghiurcă and Adrian Moțiu, who supported the progress of American and Western European research in tectonics. The coteries of the students in geology were frequently the 'arena' of these confrontations that gave the salt and pepper to those meetings.

In the outer units he included the Podolia-Russian Platform, the northern Dobrogea and the '*pre-Balkan Platform*', where the data were by far scarcer at that time as long as the number of boreholes was small.

Last but not least, a special section is focused to the salt and petroleum of the Carpathian regions as long as these resources were of major importance for the development of the 'new-born' Romania after the First World War. In fact, he already acted in giving the right answers during the war to the needs of the Romanian army, indicating as available resources of petroleum the structures Solonț and Moinești, as well the massif Sărata in Bacău County for salt (Mocioi & Huică, 2017). His preoccupations related to these resources remained a priority during his following years in Cluj, where he gave courses and published papers of these topics (Popescu-Voitești, 1922, 1924 a, 1934 a) that were the basics for the synthesis published later (the one concerning the salt was redacted in his native

locality) for professionals but mainly for students and the large public (Popescu-Voitești, 1943 a, b). These last ones are better known just because issued in large print runs. The salt was also looked at through the prism of the connections between the diapiric structures and the gas and petroleum pools (Popescu-Voitești, 1921 c, 1922). As former Mrazec's disciple, he was a fervent supporter of the diapiric structures of the salt, easy to remark in his cross sections of several illustrative salt deposits. About petroleum, he was advocate of its origin related to the organic matter. In fact, when Voitești was in Cluj, the theory of the mineral origin of the petroleum as it was supported by some forerunners of which Cobălcescu (1887) was the most famous, was already obsolete. The above-mentioned overviews issued in 1943, just one year before his death, remained for years as a kind of will of this geologist for the next generations. They were printed after his retirement at the University of Bucharest - that for sure, occurred against his will -, as long as he was still in full force and in full professional experience. One may presume that Voitești was deeply saddened by this premature abandonment of the activity. He retired for long periods far from the Capital, in his native village, but even there, he never ceased to redact contributions in geology.

Two other editions of this book issued after (Popescu-Voitești, 1924 b, 1927 a). The last one has a pruned text, by far shorter than the ones in the previous editions. All the editions shows that a convenient textbook became available for the lyceum, but also for the students in the Romanian universities. His preoccupations about the geological structure of the Romanian territory continued later (Popescu-Voitești, 1929), some of these data being essential for his last major contribution when he was still working with the Cluj University related to the geological-paleogeographical evolution of the country (Popescu-Voitești, 1936). This last one is a brilliant example of a paper where geology meets geography, with an extremely fine result. For each main geological age, he pointed out the facies distributions with the marker fossils, as well as drawings with the paleogeographical maps illustrating these data. He added new founded fossils that were not mentioned in any previous paper, some of them of main value for the paleontological knowledge of the country, as the Maastrichtian dinosaur bone found in Iara, Cluj County (Codrea & Godefroit, 2008).



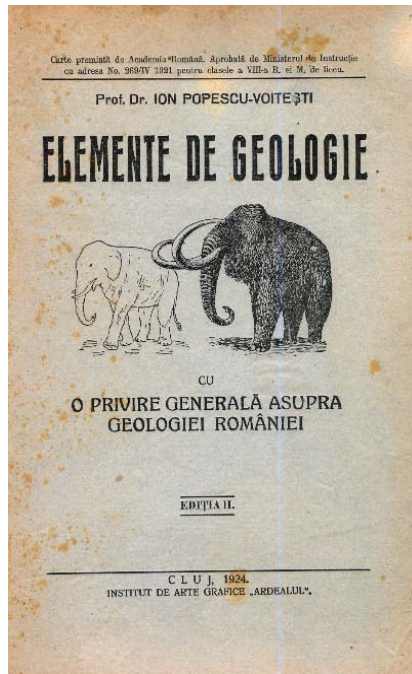


Fig. 2: Cover of the second edition of *Elements of geology...*, Cluj, 1924 (property: VAC).

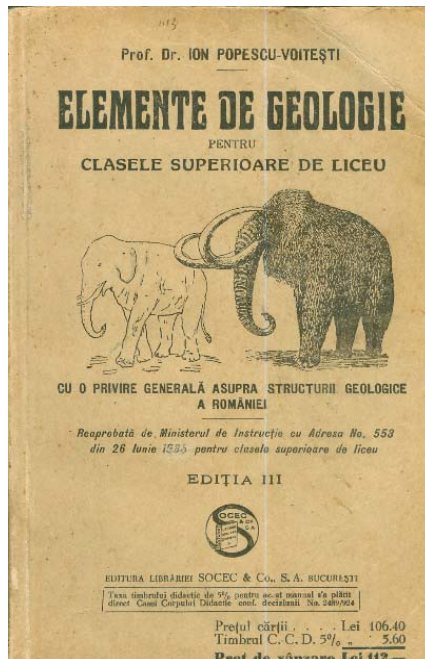


Fig. 3: Cover of the third edition of *Elements of geology...*, București, 1927 (property: VAC).

He paid a special attention to the Paleogene deposits of Romania, both to the ones cropping out in the inner Carpathian region (*i.e.*, Basin of Transylvania), and in the outer regions as the ones of Câmpulung Muscel (details, in Veress & Codrea, 2020), Govora-Olănești, or south Dobrogea (these ones were correctly related to the ingressions of the Paleogene Sea occurred from the Varna basin). As he was interested on nummulites, he tried to sketch ‘*paleobiological*’ provinces based on these foraminifers. This is important, because one may presume differentiations between distinct areas of same sedimentary basin in the Paleogene shallow seas possibly controlled by climate, tectonics or physiography, with consequences in the distribution of other fossils too (*e.g.*, Venczel et al., 2022). It was the first such approach and it remained of reference for at least a couple of decades after. His work served as source of data when Emilia Saulea (1969) redacted her book on historical geology and the series of lithofacial maps of Romania issued at the Geological Institute of Romania. In fact, his paper can be considered an enhanced view on the geology of Romania. He has been a recognized specialist of nummulites, the Cluj area offering him an excellent place to study this subject (Popescu-Voitești, 1927 b, 1928 b). These large-sized foraminifers gave data on the change of the Paleogene environments, before and after the climatic events occurred at that time.

A last issue about general geology issued not long before his death, available for a large public due high printing number (Popescu-Voitești, 1943 c).

Another valuable book concerned the paleontology (Fig. 4). The volume *Elements of Paleontology. I. Invertebrates* (Popescu-Voitești, 1928 a; a second edition issued in 1928; Popescu-Voitești 1928 a) was thought as a first issue of a series of three, the other two should have to be dedicate to fossil vertebrates and plants: ‘...hoping that in the future I will be able to make the necessary material sacrifices for printing and the other two parts...’ as the author himself mentioned. Unfortunately, this single issued, probably because after, other projects were among his priorities and the material support did not appear. If we take a look on the whole Voitești’s works, it is easy to see that paleontology was not his main domain of interest. Such papers characterize the youth years of this geologist, as it shows from the lists of publications (Mocioi & Huică, 2002, 2017). After, the paleontology was rather a tool used in order to arrive to the best solutions of problems related to different domains as stratigraphy, tectonics, paleogeography or regional geology. But, at that time, a paleontological textbook (it is a textbook, as Voitești himself specified, and not a treatise as it appeared in Mocioi & Huică, 2017) was extremely useful for the Romanian geologists. Obviously, his book was by far less extensive compared to the works issued abroad (*e.g.*, the Karl Alfred von Zittel’s [1895] one, that served as guide). The introduction contains besides generalities, history of the paleontological researches worldwide and fossilization processes, also the methods used in paleontology and the importance of this science. The different environments and their importance for the conservation of fossils are also underlined. The text is of interest, reflecting the evolution of the

knowledge in various groups. Compared to the actual one, some of them were considered as belonging to other ones (e.g., the conodont elements were considered at that time as belonging to worms and not to jawless vertebrates, as Conodontophora are now considered). The most important is that examples from Romania are richly mirrored in this volume, reflecting the author's direct experiences in many areas of the country.

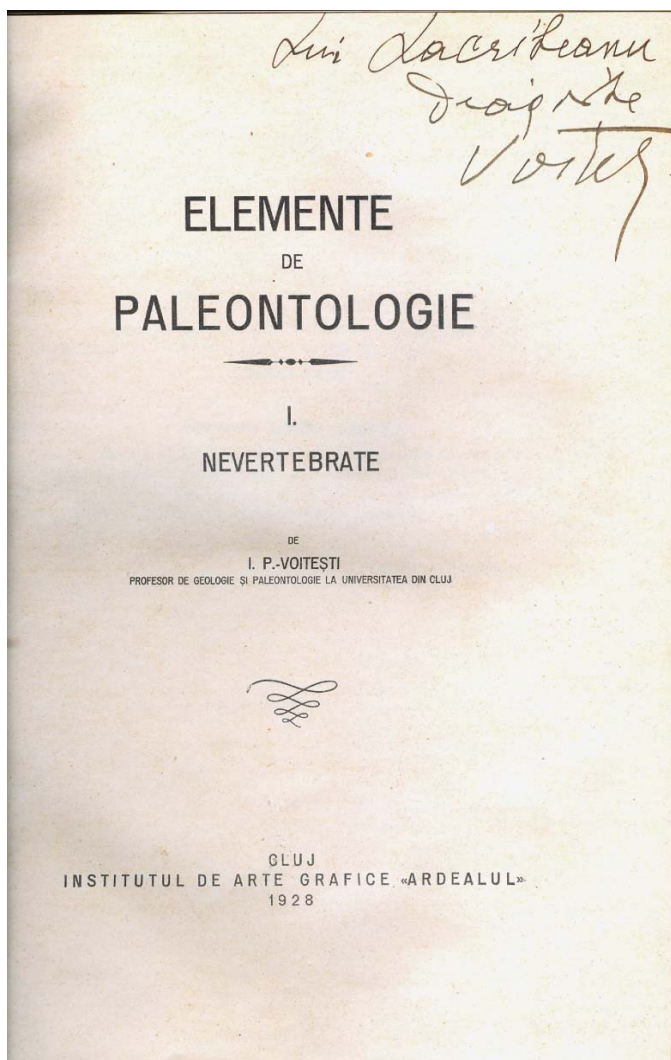


Fig. 4: Title page of *Elements of paleontology*, Cluj 1928, with Voitești's handwritten dedication addressed to Constantin Lăcrășanu (property: VAC).

Apart writing manuals, he paid a special attention to the courses he taught in Cluj since 1919, about general geology, paleontology, salt and petroleum geology, 'agrogeology'. Some of them were printed as books (the above-mentioned

book of paleontology), some others issued as lithographed volumes in Cluj and Timișoara (he gave courses and conferences in this western town of the country in 1923-1926; these volumes are extremely hardly to find now) or as papers published in the *Review of the Museum of Geology-Mineralogy of the University of Cluj* (as example, the course of petroleum geology; Popescu-Voitești, 1924 a). An interesting aspect concerns his preoccupation in the geology related to agriculture as he taught a course on 'agrogeology' at the Academy of High Studies in Agronomy in Cluj (it issued as a lithographed book; Popescu-Voitești, 1934 b). This approach may have been inspired by his friendship with Gheorghe Munteanu-Murgoci founder of the pedology in Romania. He gave courses also abroad, at the *École Nationale de Petrole* of Strassbourg (1927) or the Society of Geography and Geology of Vienna (1934) (Huică, 1997).

He understood that not only textbooks and other references were of huge need for his students, but also the teaching materials. Therefore, he drew maps, cross sections or geological logs in various regions of the country, but more than that, he made collections of rocks and fossils illustrative mainly for Romania. Some of his samples survived after decades and were in use long after his death in Cluj, but part of these collections was lost during the Second World War, when Cluj was not more part of the country and the collections moved elsewhere (mainly in Timișoara). Other samples were taken by Voitești himself to the University of Bucharest, when he moved there in 1936.

Just like any university teacher aware of his purpose, he was participant in many meetings of various societies. Voitești had a long experience related about his relationships with different societies. When he was still young, during his stage in Wien (1907-1908) he was member and president of the society *România Jună*, which he remained close faithfully friend after, even as donor of the publications of the Geological Institute of Romania. It was a fruit full experience of his youth, plenty of enthusiasm. The conferences on geology or on various other topics he gave there prepared him better for his future career. Such a society was also built against the loneliness of those far from home, born more than likely, from the desire to bring together and exchange ideas, those whose loneliness was bothering them. Voitești used this society for spreading the knowledge of geology among his young fellows.

Just at the beginning of his stage as professor in Cluj he was among the founders of the *Society of Sciences of Cluj* and its related review *Bulletin of the Scientific Society of Cluj*. He was also member of the *Romanian Society of Geology*, as well as of the *Royal Romanian Society of Geography* (Mocioi & Huică, 2017). Abroad, he was member of the *Société géologique de Belgique* and *American Association of Petroleum Geologists*. He was also among the founders of the *Association of Carpathian Geologists*, a forerunner structure of the later *Geological Carpathian-Balkan Association* (Mocioi & Huică, 2017). This later one is active still today, and during the Communist regimes of the various countries from Eastern Europe, gave excellent opportunities to the geologists of these

countries to meet and exchange professional ideas and results. Its last meeting was in Plovdiv, Bulgaria, on September 7-11, 2022.

Apart these societies, he was also member of the famous Transylvanian *ASTRA* (abbreviation of: the Transylvanian Association for Romanian Literature and Culture of the Romanian People) founded in 1861 in Sibiu mainly by baron Andrei Şaguna, George Bariţiu, Ion Puşcariu and Timotei Cipariu. The society had a huge influence in supporting the Romanian language and culture in Transylvania at time when the denationalization trends had become as insistent as they were aggressive. Due to its activity museums, theaters, schools were founded or supported, books directed to the spreading of science to people issued, and numerous intellectuals of Romanian origin had the chance to follow studies trough scholarships. Therefore, when he became member, Voiteşti knew very well the value of this society for the progress of the Romanian community in Transylvania (Stanciu, 1936).

But we want to focus on a meeting held in Cluj by another society, of which Voiteşti was a member after leaving Cluj, late, in 1939: the *Society of the Naturalists of Romania*. This society was active since the end of 19<sup>th</sup>, founded by the zoologist of Armenian origins Andrei Popovici-Bâznoşanu (1876-1969), leader of the above-mentioned ‘Phalanx’. The Society’s publications were the *Bulletin of the Society of the Naturalists of Romania* and the *Publications of the Society of Naturalists of Romania*. Despite such rather old roots, the society didn’t have any congress, mainly due to the trouble political situation in the first two decade of the 20<sup>th</sup> century before and during the WW I. A congress was desired by the majority of the members since 1926, when a first location was thought to be in Sinaia. But, as several difficulties occurred, it was organized in Cluj, ‘friendly and welcoming’ town, the ‘...capital of the naturalists’ movement of Romania’, in April 18-21, 1928 (Borza & Pop, 1930; Fig. 4). The congress had two sections: scientific and didactic. As any such meeting, an organizing committee was constituted, with Voiteşti as president. Among the members, we remark the general secretary Prof. Al. Borza, Prof. I. Tulogdy as member of the ‘commission of bilietement’, doctor V. Bologna in the ‘commission of various arrangements’, or Prof. E. Pop (founder of the paleo-palynology) inside the ‘commission for program’. The congress was followed by a field trip at Cheile Turzii and Turda, organized by Prof. I. Nyarady, A. Orosz, assist. V. Puşcariu. There were 223 registered participants for this congress, some of them naturalists with large recognition in Romania and abroad (Fig. 5; 6).

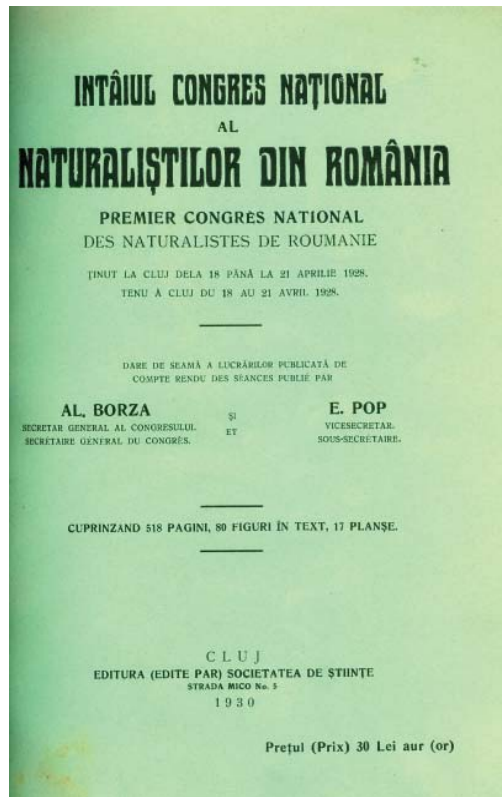


Fig. 5: Cover of the proceedings volume of the *First Congress of the Naturalists of România*, printed in Cluj, 1930 (property: VAC).



Fig. 6: Some of the participants of the First Congress of Naturalists of Romania, April 1928, Cluj, in the inner courtyard of the university (from Borza & Pop, 1930).

The Popovici-Bâznoșanu's opening speech was a bit marked by a shade of misogyny: he addressed only to 'gentlemen' although there were enough women among the participants. He pointed out the importance of the activities of the society and review the other similar societies and their related publications. After this speech, Voitești proposed a committee with Emil Racoviță as president, Popovici-Bâznoșanu as vice-president, Alexandru Borza as general secretary and Ștefan Mateescu, Emil Pop and Valeriu Pușcariu as secretaries of seances.

Racoviță acknowledged briefly, but full of spirit: *'Every time the people of Cluj meet with the idea of forming a cultural association, they elect Racoviță as president. It is a fatality to which I submit with pleasure and gratitude, because these manifestations towards me prove to me that you believe me to be impartial and tolerant'*. Voitești welcomed the congress on behalf of the natural sciences branch of the ASTRA Society. He underlined the importance of the popularization of science and the series of the society's booklets, with a first number with a consistent contribution of Prof. E. Racoviță (1927). But obviously by far, the most spiritual speech was the one of the Rector of the Cluj University, Professor Bogdan-Duică: *'As historian I remember about the first society of the Romanian naturalists, which had been established in Moldova, in the fourth decade of the last century: It was patronized by the Ruler, an educated man, a great boyar, an uneducated man, presided over it, a Czech, doctor Czihak, sub-presided over it, and the secretary was a certain Francisc Bell, and in the Latin documents, for example, in the diplomas of the members, it was named "societas curiosorum naturae". In order to be more members who were not naturalists, but philosophers and jurists were elected or caught. (...) Back then, going to the mountains was a rare miracle; the discovery of our mountains had just begun for us. The plain belonged to a predominantly pastoral population, which was slowly transitioning to the new agrarianism. (...) Today, you naturalists of the rounded Romania, you carry forward but also carry upward a tradition with modest beginnings, but compared to the past and present, with precedents that developed into a small and sturdy country, also eager in the field of sciences, because the universities of the small kingdom, its Academy, its museums, the reviews of science, which we have never lacked, have always spread the atmosphere conducive to the advancement of these sciences. (...) Gentleman, I wish you a long life and scientific successes, which will last far into the future exceeding Your life. Long live, Gentlemen!'*

Voitești presented only a single scientific report in the VI<sup>th</sup> session entitled *'Some conclusions on the genesis of petroleum issued from the study of the oil regions of Oltenia'*, but the paper didn't issue in the congress volume. Maybe it is an example of generosity, leaving the possibility for other participants to publish in this volume, although he was a prominent organizer of the event and he could have published in priority. Unfortunately, in recent times we have known organizers of scientific meetings who have monopolized the editorial space of the related volumes with their own works... What we know for sure is that a friendship between Voitești and Constantin Lacrițeanu was born from this scientific session.

Lacrițeanu was naturalist, professor and director of lyceum in Bucharest, author of textbooks for students or lyceum scholars. He was interested in pedology and exposed in same session with Voitești a report on '*The red soils of Oltenia and Banat*'. A topic that interested the geologist. As he had same Oltenian roots as Voitești had, they exchanged ideas and as Voitești's book on paleontology just issued, he got a copy with the author's dedication (Fig. 4).

The published scientific reports exceed in number (52) the ones of the didactic section (12; but, in this last section one remark Al. Borza's report on the Botanical Garden from Cluj, paper followed by a high-quality colored map of the garden he founded). In the scientific section we find contributors as V. L. Bologa, Al. Borza (to keep in mind his interesting report related to the protection of the nature in Romania, referring also to the Snakes' Island in the Black Sea), E. Botezat, M. Brandza, P. Bujor, R. Călinescu, I. Lepși, E. J. Nyarady, A. Orosz, E. Pop, A. Popovici-Bâznoșanu, I. Prodan, M. Roska etc.

The congress ended with a field trip in Cheile Turzii (Turda's Gorges) followed by an inspired visit to the salt mine (where they remained impressed by the echo of the old, bell-like mine chamber) and the beer factory in Turda, which certainly could not be anything but pleasant. One may presume that at least some photos published by Săsăran (2014) are illustrating this field trip and not a one with students (the number of participants fit with the one reported in the volume of the congress – 22 participants – and their faces are not the ones of young students). Therefore, the participants were by far smaller than expected (Borza & Pop, 1930; p 55), the others leave Cluj the evening before. The field trip participants were focused on topics others but geology, the flora of the Gorges being in priority.

The proceedings volume issued after two years was not a cheap one (30 lei-gold) and one may think that the number of copies was not high. That could explain why the contributions issued in the volume recorded a restricted number of citations. Even the meeting is extremely rare mentioned, it worth to keep in mind Vasiliu's (1979) contribution, unfortunately poor in related references.

A second congress never took place, probably due to the historical context of the following decades: the economic crisis (1929-1933) and the successive dictatures that followed (King Carol II's, Marechal Ion Antonescu's, the long Communist regime one).

### **Concluding remarks**

As we already underlined, for the new born University of Cluj, Voitești was the providential teacher, the man who appeared at the right place, at the right time. In an extremely short time, he managed to build a Romanian geological school, starting from a not necessarily generous legacy left behind by the Hungarian language university. The misfortune made Munteanu-Murgoci's stay in Cluj extremely short: he returned to Bucharest, where he felt he had better opportunities. We wonder how the geological school in Cluj would have looked if it had been built by this tandem of geologists, if we take into account the hierarchy drawn up



by Paucă (1998), in which Munteanu-Murgoci was considered the most important geologist of all time (Voitești occupies the fourth place; one must however, mention that Grigore Cobălcescu and Gregoriu Ștefănescu, the founders of the geology in Romania were excluded from this hierarchy). For sure, a mineralogist and specialist in tectonics of Munteanu-Murgoci's stature would have brought geology from Cluj to the first position in the country.

But the mirage of the capital also seduced Voitești, who took over - it is true for an extremely short time - the position of director of the Geological Institute of Romania, which he left due to unfortunate circumstances (Paucă, 1998). However, when he was put in the extreme situation of choosing between the two positions, he opted for Cluj (Mocioi & Huică, 2017). Finally, he definitively left Cluj in autumn of 1936 for a professor position in the University of Bucharest. Probably that in Cluj the atmosphere induced by some colleagues, was by far not so idyllic and breathable... Or, maybe, like Munteanu-Murgoci he considered that in Bucharest he will find better opportunities to serve his great love, the geology. If we take a look at the documents by which the colleagues from Bucharest called him to join them (Figs, 53-54 in Mocioi & Huică, 2017), we notice that it is more than likely that this idea took shape from the members of the 'Phalanx', who sign the document in Fig. 53 on the left side of the sheet: Popovici-Bâznoșanu and Chr. Musculeanu. But, in the annexed table from Fig. 54 one can easily observe that substitutes signed for the geologists Sava Athanasiu and Ludovic Mrazec. Ion Simionescu's signature is difficult to read, but we know that he was a Voitești's collaborator, who valued him. But something leads us to believe that between Voitești and Mrazec, a cold had settled for many years. His stay as a professor in Bucharest was short-lived, he was retired while he was still in full burning creative flame. As if a curse is hovering over this country: those with potential are quickly retired, while others totally lacking in professional dedication are kept active, why not, even on academic positions! This was the 'acknowledgment' of the Bucharest University, where the influence of the 'Phalanx' seemed to fade at that time. It is worth remembering the names of those enrolled in the doctoral program at the time of his retirement: Gheorghe Cernea (with subsequent notable achievements in the geology of the Eastern Carpathians), Radu Ciocârdel (later, author of several geological and hydrogeological studies and of a book about physical oceanography), Ion Dumitrescu (a hard-worker geologist – due to his endurance in field work he was nicknamed 'the Horse' [Calu'] -, brilliant specialist in tectonics mainly in the Eastern Carpathians; he trained professionally famous geologists as Mircea Săndulescu, Nicolae Mészáros, Liviu Ionesi etc.), C. Eufrosin, Elefterie Hristescu, Theodor Jojea, Alfred Mamulea (the one who found after Francisc Nopcsa, dinosaur bones in the Hațeg basin). The list mirrors his fine ability in selecting PhD candidates.

Therefore, in Cluj he built a Romanian geological school where he formed generations of naturalist students, as well few disciples that had after, notable careers. He left a rich legacy for the next generations and these ones honor his

memory as best they can: at the Babeş-Bolyai University in Cluj-Napoca a class room of the Department of Geology bears his name - although it would have been much better for the main amphitheater to bear that name – (Fig. 7), the yearly departmental scientific session of the department bears his name too, and a street in Cluj-Napoca downtown is named I.P. Voiteşti (Fig. 8), as result of the insistence of the late Professor Nicolae Mészáros at Cluj-Napoca city hall. In Târgu-Jiu, we remarked a ‘Hollywood-style’ star on a ‘Walk-of-fame’ alley, in downtown (Fig. 9).



Fig. 7: The lecture hall at Babeş-Bolyai University in Cluj-Napoca (photo: VAC).



Fig. 8: Indicator of the street I. P. Voiteşti in Cluj-Napoca (photo: VAC).



Fig. 9: Voiteşti’s star of ‘Walk of fame’ in Tg. Jiu (photo: VAC).

Maybe Prof. Ioan Alexandru Maxim (1945), resumed in the best manner the value of this teacher and scientist: ‘*Voitești has only stepped into the world through the fruit of his achievements and the power of his genius*’.

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### **Lista figurilor in text:**

Fig. 1: a. Cover of the first edition (1921) of *Elements of general geology...*; b – handwritten dedication to Prof. A. Ostrogovici, Dean of the Faculty of Sciences, *Upper Dacia University Cluj*; c – coupon that offered to the buyer the right to receive a copy of the geological map of Romania (property: VAC).

Fig. 2 : Cover of the second edition of *Elements of geology...*, Cluj, 1924 (property: VAC).

Fig 3 : Cover of the third edition of *Elements of geology...*, București, 1927 (property: VAC).

Fig. 4 : Title page of *Elements of paleontology*, Cluj 1928, with Voitești's handwritten dedication addressed to Constantin Lacrițeanu (property: VAC).

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