

ACADEMICIAN EMIL POP, HISTORIAN OF SCIENCE

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Abstract. This paper presents the Romanian unique personality, for the time being, of the savant, Academician Emil Pop (1897–1972). Personality of exception of the European palynological research, Emil Pop was a great biographer, as great as a botanist, perhaps greater. He focused his interest on the biologists who worked in Romania. Emil Pop insisted in this aspect being very bound passionately by them. Especially, he was attracted by Ilarie Mitrea's personality, for whom the great botanist became the most pertinent, serious and devoted biographer. Along years, he remained an example of seriousness, maximum exigency in the evaluation of the biographical sources, and finally, an example of love towards the personalities who he gave back to his people's consciousness.

Beyond its utility for the correct understanding of the evolution in time of a certain matter, history of science is a fascinating field, full of surprises, if the scientist approaches it seriously, beginning from the documents preserved in archives and libraries, unrestricting himself in repeating what other people have already said, as it often happen. An investigation might be fruitful if it is made patiently and passionately.

I venture to compare the history of science with a large forest whose deepness is difficult to be reached, but if someone is already there has to go further carefully among huge trees, bushes and twigs, compulsory burdened by all kinds of useful and unuseful luggage. But when that person reaches a clearing, after a long walking and wanderings, the joy sensation of achieving the established purpose is overwhelming.

As a part of the history of science, the history of biology has its own wandering shut off paths, and traps difficult to be eluded.

The Master's example, piece of advice and, especially, his direct guidance are often decisive for the value of the final results of a labour developed along many years.

Becoming zoologist by education and scientist at my place of work, "Grigore Antipa" National Museum of Natural History, history of biology fascinated me since the beginning of my activity.

Not from the very beginning but later, I had the chance of coming across some great scientists who supported me, guiding my steps in the research of some less known or unknown aspects of some personalities' activity who marked the history of biology from the second half of the 19th century to the middle of the 20th one.

It is a honour for me to mention their names. I would like to begin with *Jean Théodorides*, zoologist within the famous research team of Banyuls-sur-Mer, led by Georges Petit in the '50.

Being an eminent historian of biology and medicine, the author of “Histoire de la Rage”, an amazing book where the Romanian Victor Babeş contribution to the treatment of this terrible disease is presented, Jean Théodorides was that one who facilitated me the access in the Henri de Lacaze-Duthiers’ archives, preserved at the Institute de France, the famous savant founded by the Cardinal of Richelieu, in 1635, gathering five academies. These archives include essential documents for the understanding the great professor and anatomist’s personality, the founder of two famous oceanographic stations, in Roscoff and Banyuls, and which had an important role in Emil Racoviță’s formation, but also in that of other Romanian naturalists, as Leon Cosmovici and Alexandru Vitzu.

Further on I mention Belgian scientist *Paulette Doyen*, Gaston de Gerlache’s collaborator, who guided me in the study of the archives of “Belgica” Antarctic expedition, overwhelm by the number of the original documents, among them being also Emil Racoviță’s letters, dated before the expedition to Antarctica.

Other Belgians, of Flemish origin, Professor *Christian Koninckx*, general secretary of Marine Royal Academy of Belgium, and *Alex de Voss*, helped me during my research.

In addition, they honoured me by inviting me to lecture in wonderful Town Hall of Anvers, a place full of history.

Here, on the 27th of November 1993, I lectured in front of a wonderful audience on the magnificent scientific human adventure, named “Belgica”, in the hall where Adrien de Gerlache and his daring team, who had just come back from the prison of the Antarctic blocks of ice, beyond the Southern Polar Circle, after thirteen months.

But, besides these externa contacts, which materialized after 1990, it is honour for me to mention two great Romanian savants, a zoologist and a botanist, who also were historians of the fields they dealt with. I refer to the professors *Constantin Motaş* and *Emil Pop*, one Moldavian, educated in France, the other one Transylvanian, with a German education. Each of them had his own temper, but both were great erudits who never forget their forefathers whose work and contributions within history of science they illustrated and argued.

Before, I had the occasion to talk and write on Professor Constantin Motaş. Now I dare to write some lines dedicated to the Academician Emil Pop, who was born 110 years ago. I had the chance of knowing the great and sober savant personally, who was interested in Hilarius Mitrea’s active and less common life, since 1960.

This physician, originating in the Răşinari village of Sibiu, crossed many time the Atlantic, as physician of some German ships, then he reached Australia, returned to Europe, than went to Mexico, as lieutenant-physician in the Austrian-Mexican volunteer group, and beginning to 1869 he served the Dutch army in the Oriental India.

If the Mexican adventure was dramatic but short, having as main characters the unhappy duke Maximilian de Habsburg who became the emperor of Mexico (1864–1867) at Napoleon the 3rd, will and Benito Juarez, tenacious republican, his activity in the Indo-Malay Archipelago lasted 25 years.

I had read all what I could on Hilarius Mitrea, from some notes published in the Romanian newspapers (“Familia”, “Tribuna”, “Transilvania”, etc.) published in 1882 when he donated of zoological pieces which the physician from Rășinari gave to the Museum of Natural History of Bucharest, to the laudatory reports sent by Grigore Antipa to the Ministry of Education and Culture, where he wrote with emotion about the “unforgettable physician Hilarius Mitrea”. Of course, I also read the fanciful articles written by Alexandru Culcer and Bernard Schnapp, but Hilarius Mitrea’s personality, his tumultuous existence continued to remain unclear and full of enigmas. The large portrait painted by Pamfil Polonic after a photo made in 1894, hung in the “Grigore Antipa” Museum, in the hall of the exotic birds, most of them collected by the physician in the jungle of the Indonesian islands, remained silent. And probably, so it would have remained without Professor Emil Pop’s essential contributions.

During a trip in Zürich, he contacted Helen Kämpf-Mitrea, Petru Mitrea’s daughter and the untiring traveller and physician’s grand-daughter. She was a chemist in the great Swiss town, and she had obtained the PhD title with an exotic theme (colouring substances extracted from Indian shield louse). She got almost the whole archive from her father, preserving it carefully. I presume that her meeting with Professor Emil Pop impressed her deeply because then she decided to offer to the Romanian savant a large part of the archive, with many important original documents, acts and photos, as a personal donation. I think that Emil Pop choose the documents, after he studied the entire archive. Basing on these documents, Emil Pop published the first precise article on Hilarius Mitrea, in 1966. He drew it up in German, with the title “Der Arzt und Naturwissenschaftler der Hilarie Mitrea”. It was published in the periodical of the Cluj Branch of the Romanian Academy, “Forschungen zur Volks und Landeskunde”, band 9, nr. 1, pp. 5–30.

Emil Pop’s paper ends with the list of the pieces donated by Mitrea to the Museum of Bucharest, sheltered then, in 1882, by the new building of the University, and led by the geologist and paleontologist Gregoriu Ștefănescu. The list included Hilarius Mitrea’s inventory made on the occasion of the donation, the identification of the pieces being made by the specialists of the great Museum of Natural History of Vienna. Initially, it was published in “Transilvania” magazine and included 299 pieces: mammals, birds, reptiles and insects collected by Hilarius Mitrea in the islands of Borneo, Java and Sumatra, within the period 1870–1881. The Romanian version of this important article was published in “Revista Muzeelor” (“Journal of the Museums”), in 1968. Emil Pop’s paper, the first one based on a rigorous documentation, remains the most important illustration of the great scientist’s real life.

During 1970–1971, I also published some articles in “Travaux du Muséum d’Histoire Naturelle <Grigore Antipa>” and in “Revista Muzeelor” on the present state of the collection donated by Hilarius Mitrea to the Museum of Bucharest, in 1882 and 1895, and the presence of some pieces of his collection in “Naturhistorisches Museum” of Vienna. The reprints were sent to the Professor Emil Pop in Cluj, and he wanted to know me in one of his frequent trips in Bucharest. I was present at the Academician’s meeting with Dr. Mihai Băcescu, which took place in the museum, on the occasion of his donation of the documents of Hilarius Mitrea’s archive to this institution, I repeat offered by Helen Kämpf-Mitrea personally to Professor Emil Pop.

There were other meetings with the savant, who was so kind to write me from time to time. Sometimes in these letters, he let free his indignation on those authors who simply had invented all kinds of stories on some personalities less known to the Romanian readers, without having at their disposal the necessary documents.

For instance, they transformed Hilarius Mitrea in a passionate collector of Aztec art and Mexican ethnographic objects. They went too far, considering the young lieutenant-physician traitor of Maximilian de Habsburg, because he would have collaborated with the fighters of Benito Juarez’s team.

When I.D. Suciu’s article, “Apuntes Rumanos de la época de la guerra mexicana (1862–1867)”, was published in “Revue Roumaine d’Histoire” (“Romanian Journal of History”) of 1967 (vol. VI, no. 5, pp. 789–804), Professor Emil Pop was disgusted. There, the author asserted, without a valid argumentation, that the texts on Mexico would have been written by Hilarius Mitrea. These texts were published in “Albina” magazine from Vienna, in the summer of 1867, without signature, but specifying “Acestea despre Messicu le avem de la un român forst în armata austro-mexicana” (“This information on Mexico was received from a Romanian who was in the Austro-Mexican army”).

In a letter of 1968, he informed me that the author of the articles “Cetățile Mejicului și locuitorii lor” (Fortresses of Mexico and their inhabitants”) and “Locuitorii primitive sau indienii Mejicului” (“Primitive inhabitants or the Indians of Mexico”) was Ioan Arseniu (1838-1883), a Transylvanian born in Gura Râului, near Sibiu. He joined the Austro-Mexican expeditionary team, as Mitrea. He was a great nationalist, founding member of “Astra” Cultural Association of Sibiu, to which he made substantial donations from Mexico. Arseniu stood in Vienna about two years before he settled down in Brăila as a physician.

In 1971, Emil Pop’s article on physicians Hilarius Mitrea and Ioan Arseniu’s life and travels (“Aus Leben und Tätigkeit zweiter Ärzte des vorigen Jahrhunderts Ilarie Mitrea und Ioan Arseniu”) was published in the already mentioned publication of Cluj Branch of the Romanian Academy (Band 14, no. 2, pp. 25–42), where he established Arseniu’s paternity on the articles from “Albina”, basing on documents.

Information given by Emil Pop is the only one which we have on Ioan Arseniu.

Professor Emil Pop told me, several times, about his intention of making an “Ilarie Mitrea” monograph paper. The project was fulfilled but the text was published only after the savant’s death, in 1994, in Arad, by “Vasile Goldiș” Foundation, using the manuscript preserved in “Emil Pop” archive from Cluj-Napoca.

In a letter of 1972, asking him “what is new on Mitrea’s battle field from the museum”, Professor Emil Pop announced me: “I was informed that at least two-three Romanians prepare novels or fictionized biographies on Mitrea, if they inspire but not from Culcer’s annoying fiction”.

The research history on Mitrea and that of my relations with the Academician Emil Pop could eventually continue if I mention an exhibition which “Grigore Antipa” Museum dedicated to Hilarius Mitrea (March 1980–May 1981), where many of the documents got by Professor Emil Pop from the grand-daughter of the physician from Rășinari were presented. Also the article which I drew up together with Dr. Gheorghe Brătescu (“Les études médicales d’Hilarius Mitrea pendant les années 1860–1865” – “Hilarius Mitrea’s medical studies during 1860–1865”), published in “Travaux du Muséum d’Histoire Naturelle “Grigore Antipa”, vol. 23, 1982, was made after these documents.

I cannot skip the fact that due to Emil Pop’s recommendation I could contact Helen Kämpf-Mitrea and to see that part of “Hilarius Mitrea” archive which still is in Switzerland. There are very important documents which might complete the knowledge on Mitrea’s activities in the Dutch Indies. Also, there were some letters, with an odd elongated calligraphy, where Mitrea was giving some advice to his son, Petru, who prepared to work as an engineer in the administration of Congo. The advice was on the hygiene, which had to be strictly respected in the Tropical regions. Also, there is an extraordinary letter, received by Mitrea in 1895, written by his Indonesian wife, Watam, the mother of his two children, Maria and Petru. His children were born in Sumatra, but dramatically separated from their mother when he returned in Europe, in 1881. It was written in the Malay dialect, used in the island till the linguistic unification made after Indonesia conquered its independence and imposed Bahasa as official language. This letter is, probably, the only one which was preserved, and its content is still unpublished.

Professor Emil Pop’s remarkable contribution in the history of biology and medicine is, of course, much wider. It sums up over 200 studies and articles dedicated to some extraordinary personalities of the Romanian culture, from Dimitrie Cantemir to Emil Racoviță, to the first Romanian scientific societies from Transylvania or to some naturalists and explorers less or not known, as well as to some papers of synthesis, all of them rigorous, well-informed, models of objective historical studies. I do not intend to comment them now, but I shall mention only some of them.

In 1934, the study on Zaharia Panțu was published. He was the author of some studies on the flowers from the Bucegi Mountains, Ceahlău Mountain,

Dobrogea and the Danube, but also of the study on the vegetation of Bucharest and its surroundings. This last study, published in the Annals of the Romanian academy, between 1908 and 1921, sums up to 450 pages.

Zaharia Panțu had a daughter, Ana Păucă (1907–1969), also an eminent botanist (specialized in flowers, systematics and geobotany) to whom I cherish a touching memory. She was my professor at the faculty of Biology from Bucharest. Her husband, Mircea Păucă, geologist and paleontologist, Grigore Antipa's collaborator at the museum, was the author of some "Amintiri" ("Memories") full of interesting data for the history of science of Romania. But, coming back to Zaharia Panțu, he made an "admirable study" (as Emil Pop asserted), dedicated to the botanist Dimitrie Brândza's life and work (1846-1895).

Also, Panțu was one of the first collectors of vernacular names of plants, a subject to whom Emil Pop dedicated an excellent study, "Cei dintâi culegători ai numelor românești de plante" (The first collectors of the Romanian plant names"), in 1930.

In 1940, Professor Emil Pop published the article "Un explorator român al Balcanilor la începutul veacului al XIX-lea: C. Manolesco" ("A Romanian explorer of the Balkans at the beginning of the 19th century: C. Manolesco") – see "Memories of the Scientific Section, series III, vol. 16, pp. 111–120), the first and, unfortunately, the only study on the young naturalist from Banat. Between 1833–1836, he participated as an amateur botanist at "the longest and methodic naturalist exploration made ever by the foreign people in the Balkan Peninsula".

The gathered great collections (flora, fauna, mineral samples) were taken by Emeric Frivaldszki (1799–1870), the curator of the Museum of Pesta, the institution which financed the expedition.

Constantin Manolesco was "the first Romanian botanist which published a specialized contribution in a western scientific journal, "Flora" from Regensburg, in 1834".

Emil Pop studied the archive of the Museum of Natural History of Budapest and found there important information regarding Constantin Manolesco, but nothing is known on the period after his returning from the expedition. Documents seem to be absent and only the enigmas on this "methodic and capable explorer's" destiny and end, whose Emil Pop brought to light, persist obstinately. In fact, nobody has tried to solve them, remaining "a sad perplexity" for history.

In Timișoara, in 1942, a study which pointed out Emil Pop's great erudition, entitled "Naturaliștii italieni din veacul al XVIII-lea, cercetători ai ținuturilor românești" ("Italian naturalists of the 18th century, researcher of the Romanian land") was published in the moment when the University of Cluj, together with Emil Racoviță found refuge in here.

During one of my visits made at the museum, I think in 1970, I talked about the book, of only 80 pages, but extremely dense as regards the information, published with the support of an Italian Cultural Foundation. It was a rare book and

Professor Emil Pop was surprised when I took it from the book shelf of my laboratory, confessing to him that I was very glad when I had found it, because sometimes ago I was interested in Luigi Ferdinando Marsigli's personality. The famous Italian naturalist had a correspondence with the High Steward Constantin Cantacuzino and he was the author of a monumental work 'Danubius Panonico-Mysicus', published in 1726. The work had six volumes, in the fourth one being described the fish of the Danube, with a special specification on the sturgeons. I had read this volume in the French version of the paper.

Beside Marsigli, Professor Emil Pop also presented other three Italian naturalists: Francesco Grisellini (1717–1783) of Venice, Domenico Sestini (1750–1832) of Florence and the famous abbot Lazzaro Spallanzani (1729–1799). As it is known, the last one, made a hit with the spontaneous generation theory, so much commented in the Century of Light. Also him put "trousers to frogs", as Professor Radu Codreanu said, when studying the reproduction physiology.

In the supplement of Emil Pop's paper there is also a list of the minerals collected by Spallanzani from Transylvania, totally 60 pieces.

Born in Transylvania, in Bucerdea Vinoasă village, in 1897, Professor Emil Pop published numerous papers on the history of biological sciences of this Romanian province.

All of them are models of a perfect documentation, of a sober and clear presentation. I mention some of them: "Evoluția științelor biologice din Ardeal de la Unire până azi" (1939) ("Evolution of the biological sciences in Transylvania from the Union till today"), "Ardelenii și știința" (1942) ("Transylvanian people and the science"), "Naturaliști ardeleni în Academia veacului trecut" (1951) ("Transylvanian naturalists in the Academy of the last century"), "Afirmări naturaliste românești la Universitatea clujeană în veacul trecut" (1969) ("Romanian naturalist assertions at the University of Cluj during the last century"), "Etapa pregătitoare a Sociității Științelor Naturale din Sibiu" (1970) ("Traning stage of the Society of Natural Sciences of Sibiu"), "Sociétés culturelles et scientifiques roumaines en Transilvanie avant 1866" (1973) ("Romanian cultural and scientific societies in Transylvania before 1866").

He also evoked the great personalities of the Romanian botany, who count 12 ones "with their life and main activities", in a paper published in 1967.

Emil Pop met Emil Racoviță, when he lived in Cluj, when the last one founded and led the first Institute of Spelology of the world, but also during the distress period, when the University had to move in Timișoara. He was one of the organizers of Emil Racoviță's anniversary, in 1943, on the occasion of the 75 years since his birth. Emil Pop's noble figure is preserved in the photo made on this occasion.

Together with Constantin Motaș, he edited the huge volume of Emil Racoviță's "Opere alese" ("Chosen Works"), published in 1964, under the aegis of the Romanian Academy, for which he wrote a wonderful biography of the one we

consider the most illustrious Romanian biologist. He did not hesitate to assert in this text, objectively, that “large periods of Emil Racoviță’s activity are still unknown to us”.

The article which Emil Pop published after the study of some original manuscripts presented some activities ran during Racoviță’s youth in Paris (“Date noi cu privire la viața și opera lui Emil Racoviță pe baza unor documente inedite” – “New data on Emil Racoviță’s life and work basing on some unknown documents”, article published in “Studii și cercetări de Biologie”, vol. 8, 1957, pp. 43–56).

Also in 1957, in this journal of Cluj (pp. 7–42), Emil Pop published his important study on the beginning of Darwinism in Romania (up to 1880).

Emil Pop was the author, next to the zoologist Radu Codreanu, of a very useful volume, “Biologia în România” (“Biology in Romania”), published at the Publishing House of the Romanian Academy, in 1975, in the series “History of Sciences in Romania”.

But, beyond his great scientific contributions, Professor Emil Pop had an essential role in the interest revitalizing of the History of Science, in the organization and activity of the Romanian Committee of Science History and Philosophy within the Academy, in 1962.

Emil Pop is one of the founders of the Committee beside Mihai Ralea, Athanasie Joja and Ștefan Milcu, and after some years, in 1968, he proposed a new periodical written in foreign languages, for the history of science which “could integrate us honorably in the active movement of the history of science from the civilized countries”.

The first issue of the periodical named “Noesis” was published in 1973, and in the autumn of 2007 the volume 32nd was published, proving to be a viable journal, as Academician Emil Pop hoped.

How can I finish these lines dedicated to one of the brightest personalities of Romanian biology?

Probably confessing that, for me as well as for many other naturalists, I presume, the contacts with Academician Emil Pop were benefic and his work, a great stimulating example.