

Beyond Nations? Pierre Beron (1798 – 1871) and His Work A Typical Nineteenth Century Balkan Savant



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Abstract. During the nineteenth century, the Balkan people became free from the long-standing Ottoman occupation and started to form their own national identity. This procedure was necessary if we think in the widely accepted context of the ethnic nations, which prevailed gradually throughout Europe after the Enlightenment. However, if we see the Balkans as an organic unit, a region with common traditions, like the Orthodox religion and an education based initially on the works of the 18th century Greek scholars, we may examine the scientific development of the Balkans in a non-nationalistic framework. In the present paper we use as case study for such an approach, Pierre Beron (1798 – 1871), a famous Bulgarian scientist, who published also works in French, German, and Greek and could be considered as the typical 19th century Balkan savant. We will give a special attention to his work “*General climatology*” published in Athens in 1853 including his address in the prestigious Association of Natural Sciences titled *Earth before the Deluge*.

Key words: Pierre Beron, National identity, 19th century, Balkans, Meteorology

The contemporary trends in the historiography of science strongly support the idea that historians of science owe to reappraise their view considering subjects relative with the study of the development of the scientific thought in the European and not only – periphery [1-3].

History of science, as many other components of the political and cultural life of the human societies, has been used in many cases as a tool to support certain ideas, as an axis of a dipole, which has the characteristics of black or white, bad or good, developed or under development. We think that the limits of this paper do not allow us to refer certain examples in detail. It is rather easy for everyone to recall in our memory few, at least, relevant examples from our personal research on such subjects. The dipoles already mentioned, appear to be connected like links in a chain if we focus our interest currently in the area of Southeastern Europe.

However the conditions are now ripe, according to our opinion, for the emergence of a non-nationalist approach to history of science in Southeastern Europe, at least during the period when the Balkan states were created and began their development namely during the 19th century. We all agree that in many parts of Europe we may easily trace evidence of several types of cross-cultural experience. Balkans is a place where this evidence is profound in almost all aspects of life, like language, religion, culture.

Despite the common beliefs, supported by particular political circles that Balkan countries have a lot to separate them, we know, not only by the study of the regional history, but also by our personal experience that Balkan people have so much in common, that they easily could be considered as a unique case in the history of western civilization.

Coming to the point we are interested about in this paper we have to admit for example that the contemporary Bulgarian culture is based in sources such as the ancient Greek and Roman culture, the prehistoric cultures of the region, the Proto-Bulgarian Asian influence

and in particular the Orthodox Christian Slavic civilization. For the formation of the climate, which characterized the modern natural sciences education a prominent role was played by the ancient Greek natural philosophy, especially that of Aristotle and the orthodox Christian culture of the Middle Ages. In many cases, the Bulgarian scientists and educators of the late 18th and early 19th century received their education in Greek schools established in cities like Bucharest, Jassy and Plovdiv [4-5]. Very few of them, if any at all, had the experience of a direct contact with the scientific education in regions of the European centre, consisted at that time by England, Italy, France and the German-speaking lands. Therefore, a scheme of adaptation and assimilation is proposed for the formation of the status of science in the peripheral countries like the Balkan states [6-7].

For some time Bulgarians learned science through Greek textbooks and by Greek educators and they played the same role for the transmission of this knowledge to the other Slavic culture of the region. So that, we may argue that the understanding of the relationships between national/local and international/global in the making, development and transfer of science can benefit by representative case studies as the one we present here. As we have already mentioned despite the usual claim that nation building and liberation movement processes played a crucial role in the development of science it is the multilingualism, intercultural contexts and transnational goals that could be considered finally more important. In this framework, we shall try to look into the life and work of one of the most significant scientific figures of the 19th century, Pierre Beron [8-10].

Though a bit provocative, it seems quite strange that in the international literature of history of science the references for individuals like Pierre Beron are very few. Most of them do not belong to what one may consider as the mainstream trends of history of science. Maybe it seems to Bulgarian audience quite trivial. However, I would like to say a few words about his life and work in the perspective that Pierre Beron was naturally a Bulgarian with strong national conscience. At the same time with his work, he achieved to break the limits of the typical national scientist and became a Balkan savant.

As we know Beron was born with the name Pierre Hadji** Berovich in the mountain town of Kotel, where at that time existed the one and only school for Bulgarians. It is worth to mention that there is a possibility Beron's family to have a link with a small Greek minority lived at Kotel during that time.

Furthermore, it is surprising that many years later one could find references to Beron and his work in Greek sources under this early used surname.

As we know, Beron received the first stage of his advanced studies in the Principal Academy of Bucharest by the important Greek educator Constantinos Vardalachos. We consider nowadays Vardalachos as Greek because he used the Greek language, fought as Greek against the Ottoman occupation and wrote books in Greek, but in another perspective Vardalachos, as later Beron and many others belong to the Balkans and not to a single state of the Southeastern Europe.

Vardalachos' Experimental Physics published in Vienna in 1812 was probably the book inspired Beron's love for natural philosophy. As we know, Beron spoke nine languages and could write in five of them. Though this fact proves undoubtedly that Beron was a gifted

person, we may support that this practice was a common one among the educated Balkan people of the era due to the need to communicate with other Balkan ethnics and to have the possibility to travel abroad either for education or commerce.

In this respect, it is historically proven that until the middle of 19th century, when the independent Balkan states started to be established, the Greek language dominated the other Balkan languages in respect with general culture and science in particular. At this point of view, we would like to refer to the two exemplar works written by profound Bulgarian historians discussing this matter. The first one is Victor Roudometof's "*From Rum Millet to Greek nation: Enlightenment, secularization and national identity in Ottoman Balkan Society, 1453 – 1821*" and the other one is M. Todorova's "*Language as cultural unifier in a multilingual setting: The Bulgarian setting during the nineteenth century*" [11-12].

To show exactly the role that Greek culture played we will note that: "*Until the second quarter of the nineteenth century it was common for Bulgarians in Europe to pass themselves as Greeks*", so that "*Beron signed his Latin doctoral dissertation as Pierre Beron Thrax*" (according to Plamen K. Georgiev in his book *The Bulgarian Political Culture* published in 2007). Having all the above in mind, we cannot avoid to admire Pierre Beron because he represents the non-nationalistic way of science, culture and education, the multilingualism as a rule and the transnational life and work as a law. At the same time, he is the one who wrote the first Bulgarian primer for the education of children and played a central role for the Bulgarian national liberation movement. This book known more widely as *Riben bukvar* was published in 1824 and followed the pattern of a relevant book written in Greek by Dimitrios Darvaris some years earlier.

Discussing this early educational activity of Beron, we would like just to mention that just four years later in 1828 and in 1829 he wrote two books in Greek, having as co-author his close friend from Meleniko, Ioannis Giannoulis.

For many of us these two sides of Beron's personality are formal kind of a paradox. However, this paradox is only on the surface if we think for a moment the economical and political circumstances, which dictated the way Beron acted as a scholar. We must not forget that Beron lived in a turbulent era, when romanticism and revolutionary ideas met each other, idealism fought materialism and vice versa, imperialism emerged, new states founded based on just coined ideologies etc. Therefore, that it is easy to understand the cosmopolitan Beron who walked in the roads of Paris, Heidelberg and Munich during his studies there and the nationalist Beron who served cordially for the development of his home country.

Beron as other important Bulgarian intellectuals saw physics as the means for the liberation of people from slavery. It is not only the political slavery of the Ottoman administration but mostly by the slavery of the mind caused by the ignorance and superstitions, which prevailed among the lower social strata. This was also the general idea expressed by other prominent Bulgarian scientists like Ivan Seliminski and Hristo Botev who thought that Newtonian physics would prepare the people for a social progress. The idea we read usually also in the prefaces of the Greek physics textbooks of that time, which seems to be a common belief among the Balkan people.

Looking closer to Beron's scientific publications, we think his multi-volume *Panepisteme* deserves mentioned in particular [13]. In it, Beron tried to create a complete philosophical and scientific system, discussing all aspects related with the origin of the world, the laws of movement and the development of macrocosmos and microcosmos. In this work, Beron acknowledges the Aristotelian philosophy as the most important philosophical school of all ages and rejects the usual dichotomy between materialism and idealism adopting the view that objective and unconscious may be hand in hand, a very poetic, romantic and speculative view.

He put electricity as the pre-force of the Universe, most probably impressed by the new features of electricity invented during the 19th century. In general, Beron accepts some kind of weightless fluid as the basic substance of the Universe, an idea that we find also in several Greek authors of the time, like Benjamin of Lesvos and Theophilos Kairis, having probably the same, but still unknown origin.

We strongly believe that still lacks the detailed research it deserves about *Panepisteme* original ideas, structure and proposal. We cannot resist thinking if such a book would be written not by a scientist in the European periphery, but even by a clerk in England, Germany or France it would be appeared in the international literature of history of science as one of the masterpieces of the 19th century scientific production.

This would be also the case if one could read his books relative to Meteorology published in Greek in 1853, which according to our opinion could attribute to Beron the title of one of the founding fathers of modern meteorology.

It is of interest that early that year Beron was invited by the prestigious Physiographical Society of Athens (Natural history Society). This invitation was probably the result of the fact that just three years earlier John Lee presented Beron's work in the Royal Society of London. The Physiographical Society was established in 1837. Its founding members were some of the most important scientists of this period in Greece like the German professors of the University of Athens, Karl Nicolaus Fraas and Xavier Landerer.

During the period when Beron was invited, the society was at its peak and played a significant cultural role amongst the emerging middle class in Greece.

The lecture delivered by Beron was entitled "*Earth before the Deluge*".

Beron impressed his audience so much that his lecture was published almost immediately as a small pamphlet and later it was included as annex in his book of *General Climatology*. Other two books published by Beron were *Atmospherology* and *Magnetology*. Beron wrote all these three books probably directly in Greek, as he had a very good knowledge of the language [14-16].

These publications close in a sense the circle of the presence of Pierre Beron in Greek scientific literature, opened almost half a century earlier.

Closing this introductory paper about the role of Beron as a Balkan savant, we may conclude that in this particular moment when Europe faces not just a financial but more importantly a moral and political crisis, the only hope is that people like Pierre Beron will appear again and will play their role for the revival of the Balkans beyond the nations.

References and Remarks

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 14. **Ἀτμοσφαιρολογία** ἤτοι Ἑρμηνεία τῶν ἡμερονυκτίων περιόδων τῆς Ταχύτητος τοῦ Θερμομέτρου, τῆς Ἐξυδατώσεως τοῦ ἀέρος, τῆς Ἐξαερώσεως τοῦ ὕδατος τῶν Ἡλεκτρικῶν ρευμάτων, τοῦ Βαρομέτρου, τοῦ Ὑγρομέτρου, τῶν Νεφελῶν, τῆς Δρόσου, τῶν θαλασσιῶν καὶ Ὀρεινῶν ἀνέμων καὶ τῆς Αἰτίας τῶν μὴ περιοδικῶν ἀτμοσφαιρικῶν φαινομένων τῶν ἀνέμων, τῶν νεφῶν, τῶν ὀμιχλῶν, τῶν συννεφιῶν, τῶν ὑετῶν, τῶν χιόνων, τῶν ὄμβρων, Ἐν Ἀθήναις, Ἐκ τοῦ Τυπογραφείου Σ. Κ. Βλαστοῦ (1853).
 15. **Γενικὴ Κλιματολογία** ἤτοι Ἑρμηνεία τῆς κυκλοφορίας τοῦ ὕδατος εἰς τὴν γῆν, τῶν νόμων τῆς διανομῆς τῶν ὑετῶν, τῶν ἀνέμων καὶ τῆς θερμοκρασίας Ἐφαρμογὴ τῶν νόμων τούτων εἰς τὴν ναυτολίαν, ἀγρονομίαν, ἰατρικὴν γεωλογίαν, μερικὴν κλιματολογίαν, μεταβολὴν τῶν κλιμάτων, παραγωγὴν ἀτμοσφαιρικῶν φαινομένων καὶ ποταμολογίαν, καὶ Παράρτημα περὶ τοῦ κατακλυσμοῦ. Ἐν Ἀθήναις, Ἐκ τοῦ Τυπογραφείου Σ. Κ. Βλαστοῦ (1853).
 16. **Μαγνητολογία** ἤτοι Ἑρμηνεία Α΄. Τῶν φυσικῶν ιδιοτήτων τῶν Μαγνητῶν πρὸς ἀλλήλους, πρὸς τὰ ἠλεκτρικὰ ρεύματα καὶ πρὸς τοὺς εὐαπαθεῖς Β΄. Τῆς διανομῆς τῆς πυκνότητος τῶν σωμάτων των μαγνητικῶν χεიმάρρων καὶ τῆς διευθύνσεως αὐτῶν, καὶ Γ΄. Τῆς μεταβολῆς τῆς πυκνότητος καὶ τῆς διευθύνσεως χεიმάρρων ἔνεκα τῆς κινήσεως τῆς γῆς, τῆς καλλιεργείας καὶ τῆς μεταβολῆς τοῦ καιροῦ καὶ Παράρτημα Α΄. Ἐν Ἀθήναις, Ἐκ τοῦ Τυπογραφείου Σ. Κ. Βλαστοῦ (1853).

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***) Hadji - Palmer