

GHEORGHE ASACHI (1788÷1869) IN THE ROMANIAN CULTURE AND ENGINEERING

Eufrosina OTLACAN¹
eufrosinaotl@gmail.com

ABSTRACT:

The paper presents a page of the Romanian history of education, science, technique – in fact, culture – linked to the name of one of the most important personalities of the 19th century, Gheorghe Asachi. The transition toward modernity in Moldavia of those times needed persons with general and technical education. Asachi could respond to the needs of his country, having high competence obtained after long studies. Asachi is recognized as the founder of the engineering education in Romania and that is why we have the “Gheorghe Asachi” Technical University of Iasi.

We are owed to Gheorghe Asachi at least for: the class of surveyors and civil engineers, where he taught mathematics with practical applications for geodesy and lessons of architecture; a gymnasium at Iasi; programs and books for schools of all degrees, including for higher technical education; the Philharmonic and Dramatic Conservatorium; a vocational school. Asachi set up the first printing house with Latin characters, the first paper mill in Moldavia, and has edited books, calendars, almanacs, as well as the journal in Romanian “The Romanian Bee”.

KEYWORDS: 19th century Romania, education, engineering, university, culture.

1. Introduction

What a nation is today and how is it presented in front of other peoples is, in a great measure, a heritage from those who, centuries ago, have contributed to the economic, scientific, spiritual progress of society. Such a contributor was Gheorghe Asachi, an emblematic personality of the Romanian people.

In the second half of the 18th century and the beginning of the 19th, the great powers, the Ottoman and Russian Empires, dominated politically and culturally the life of the Romanian Principalities. The transition to modernity in Moldavia at the beginning of the 19th century needed persons with a general and technical education. Asachi could respond to the needs of his country, because of his competence obtained through long studies.

¹ PhD University Professor, Vice-president of Division of History of Science, CRIFST, Romanian Academy

2. Some authors about Asachi's role in Romanian cultural life

The importance of Asachi's contribution to the development of the cultural, scientific, educational and technical level in Moldavia was highlighted by many authors whose books and articles told about the life and works of this learned patriot. The great Romanian historic Nicolae Iorga wrote about Gheorghe Asachi: "In those times, there was not Romanian to know as many as he did" [1].

In *Roumains des Principautés*, Paris, 1856, Edgar Quinet has underlined about Gheorghe Asachi: "he is the man who, more than anyone, contributed to the awakening and the revival of the Romanian nationality".

Already in 1855, the magazine *România literară* (Literary Romania) wrote that the name of Gheorghe Asachi is found "in all the intellectual and industrial beginnings of Moldavia – a tireless champion of intelligence, for half a century". One of the Asachi's biographers [1] characterized him as "having an exceptional scientific, cultural and artistic training, polyvalent spiritual capacities, being impregnated with the ideology of Enlightenment in the sense of the Declaration of rights of man and citizen, adopted in the revolutionary France on 26th August 1789, youthful optimism, an immense love for his country, which have increased in his travels in Italy, in front of the monuments showing the Latin kindred, all of these generating confidence in his forces, and determination to be a reformer in his country".

"Asachi has been the more representative Moldavian learned man of his time". His initiatives and his hard work were extremely necessary in that period, in order to build a solid foundation of the scientific disciplines, to organize schools in the national language, to stimulate the arts and trades, the industry, to promote the modern cultural values, to stimulate patriotic feelings through reconsidering the glorious facts of the past [6].

3. Gheorghe Asachi – life and education, studies

The Romanian scholar Gheorghe Asachi was born in Hertza (Herța, then being Romanian territory, today in Ukraine) on March 1, 1788 and died in Iasi (Romania) on November 12, 1869.

Being 9 years old, Asachi began his studies at a collegium in Lemberg (then Galicia, Austro-Hungary; today Lviv, in Ukraine), afterwards at the University of the same city, Faculty of Philosophy, attending courses in Polish, Latin and German and studying mathematical logic, natural history, physics, metaphysics and ethics. In 1804 he finished

here the university studies and obtained a diploma for engineering and architecture, such as himself wrote in his *Autobiography*. A conclusive proof of his competences as engineer and architect is the realization of plans and construction of a building in a district of Lemberg, as well as of other houses in the Moldavian city Iasi.

From 1805 till 1809 Asachi, with a stipend from the Moldavian department of education, studied in Vienna mathematics with the illustrious astronomer Burg and also attended painting courses.

A great avidity of culture, beside his desire of liberty, have determined Gheorghe Asachi to refuse the proposal to be integrated as lieutenant in the Russian group of engineers that was present in Moldavia in the year 1809. From 1809 till 1812 he lived in Italy, where he studied archeology, painting and Italian language and literature.

The years of study in Italy were for Asachi the more brilliant epoch of his spiritual formation. Literature, archeology and painting were the domains where he persevered with an enviable passion. His encyclopedian spirit did not tackle only Italian literature, but also in more other fields of European arts and culture, investigating them passionately. Asachi knew Greek and Latin literature, cognisance obtained in his studies at Lemberg and Vienna, and so he could use the archive of the library of Vatican. Here he has discovered the Dimitrie Cantemir's manuscript of the *History of Ottoman Empire*. About his life in Italy, Asachi wrote that: „only one single life is insufficient to observe the masterpieces of arts and the natural phenomena of this country” [7]. Here he wrote poetry and has been received as an extraordinary member of the Literary Society of Rome.

In 1812 Asachi came back in his country, Principality of Moldavia. After the Napoleon's defeat, the Moldavia's princes belonged to the Greek “Fanariots”, appointed here by the Ottoman Power from Istanbul. As a result, the Greeks had all the important offices in the state. Only the responsibility to establish the boundaries of the landed properties could not be executed by Greeks, because they did not know the Romanian as to read and decipher the existent documents. Asachi understood that the country needed surveyors, engineers, educated in the Romanian language and to this effect he created a special class of engineering within the existent Princely Academy of Iasi (1707-1821, 1835-1860): where he lectured in 1814 for the first time in Romanian. He trained his class until 1819.

Asachi had a multidisciplinary education: philosophy, literature, mathematics, painting, history, archeology, music; he knew Polish, German,

Latin, Italian, French, English, Russian, beside his native language, the Romanian.

Asachi was confident that the development of a country was possible not only through political actions, but also through the fulfilment of the spiritual life. For him, the priority was the introduction of the Romanian language in all forms of intellectual activities, thus the organization and development of the public education in the national language.

“The civilization of a nation has begun to exist when the fine arts flourished together with the sciences, because as the positive sciences illuminate the mind, the fine arts calm and ennoble the heart, explain the good taste and cheer the life of the people” wrote Asachi in his article about “The fine arts” [1].

Asachi’s biographer N.C. Enescu [4] remarks that this Moldavian learned man was the specialist, the technician and the counselor of the official leaders of schools, in order to better and accomplish the decisions taken by these ones or by the government.

Asachi worked also as a state archivist and as a referent (dignitary) in the Institution of Public Education (Epithropy, Guardianship) and in these qualities he once more was active in spreading cognisance about the historic past of the people, thus developing the field of civic education.

Asachi was certainly one of the coryphaei of modernisation: he did demonstrate the adaptability of the Romanian language for the higher knowledge, he accelerated the process to assimilate the modern European culture and he contributed to the creation of national institutions in order to realize and spread he new values throughout country [5].

Asachi was confident in the force of education for the social progress, he stated that the school must be a state institution in the hands of citizens, an institution of the development of the national culture, connected with the life of the people, with the problems of material production and organization of society. And in order to accomplish these tasks, the school had to assure a firm training (grounding) of the fundamental disciplines.

During his office of diplomatic agent (1822-1827) in Vienna, using his knowledge as an archivist, Asachi discovered old Moldavian documents, has bought them and so, in 1843 three estates were recovered from the Greek monasteries and passed back into the public domain (being allocated to the public education). But the period of his absence from country spoke about what important personality was Asachi for the

continuity of the development of education [5]. The historian of mathematics G. Șt. Andonie also reminded that almost all schools created by Asachi did not function long time, because the modern spirit of public school was not yet institutionalised and the professors taught only to the children of boyars in their private houses [2].

In September 1849 Asachi was appointed director of the department of culture and public education. In his office, he composed programs, scientific memories, lessons and books for schools.

Many Romanian intellectuals were formed in the schools founded by Asachi, where he brought from abroad illustrious professors.

In 1851 Asachi was a member of the committee to prepare the exhibition from London and in 1855 the exhibition from Paris. In this time he functioned as a censor for printings.

In the last part of his life, Asachi was dedicated to the activity of writer. His poetry is the best part of his literary works; some stanza (verses, strophes) could honor any anthology [5].

4. Some important years of Asachi's activity

- 1813: On 15th of November, an anaphora gave to Gheorghe Asachi the approval to teach a “course of theoretical mathematics with practical applications in geodesy and architecture”. The class of engineering had 33 students, many of them being sons of landowners, including the son of the Prince of Moldavia.
- 1814: the inauguration of the special class of engineering at the Princely Academy of Iasi.
- 1828: the setting up of a Gymnasium in Iasi.
- 1829: Asachi was convinced by the importance of media for the education and cultural level of the people. He is the founder of the Romanian press; since 1829 he began to edit the gazette *Albina românească* (Romanian Bee) and other publications. In order to avoid technical problems, he created a publishing house (Institute of the Bee) and his own paper mill, directing the politics to assure the raw material for the factory.
- 1829-1831: Asachi worked as a secretary of the Committee to elaborate the “Organic Regulations”, a sort of constitution for the Romanian Principality Moldavia (also for Walahia) and, in this framework, he masterminded laws for the development of the Romanian high education.

- 1830: Asachi, together with Mihail Zotta and Iacob Chihae, set up The Reading Cercle of the Physicians of Iasi and in 1834, The Society of Medicine and Natural History, the first scientific organism of Moldavia.
- 1832: Asachi founded a lyceum with two sections: one for sons of boyars and the other for children from petty bourgeois strata, these ones being named *stipend students*. Also in 1832, Asachi founded a printing house, named *Institute of the Bee*, where translated works and lithographs were published.
Understanding the desiderates of the national minorities, Asachi founded elementary schools for the Armenian and Jewish communities (1832-1842), and a printing Armenian section at the Institute of the Bee, to print handbooks.
- 1834: the first institute for education of girls was founded. At its inauguration, Asachi spoke about the role of women in society, the importance of their education as good wives, mothers, housewives.
- 1835: the opening of the philharmonic and dramatic Conservatorium, following Asachi's initiative.
- 1838: the first attempt to found the Mechanic Institute, with sections of agriculture and mechanics.
- 1840: Asachi has elaborated the "organic principles" of the vocational school; this school was inaugurated the next year.
- 1841: Asachi introduced the lessons of swimming and gymnastics for students of the Academy, reorganized the primary (elementary) education for girls and also the elementary education in villages and endowed these schools with manuals: Catechism, Arithmetic, Algebra for gymnasium, Elementary Geometry, Chronological table of the old History, Conspectus of the Moldavian History, Romanian Geographic Atlas.
- 1849: Asachi was appointed director of the department of culture and public education. He composed programs, scientific memories, lessons and books for school.
- 1855: Asachi published a geographical cart of Moldavia.
- 1868: a national reward is attributed to Asachi, for "important services brought to the country, since 1813 till 1862". In 1870, after his death, a statue of Gheorghe Asachi is revealed in Iasi, in front of a school founded by him.

5. Asachi's endeavor to found a higher education in Moldavia

As it already was noted, Asachi has insisted in the idea that the technical education in Romanian language is necessary for the progress of society. So, the first institution for technical education in Moldavia was organized by Asachi: the School of Arts and Trade (vocational education), that functioned in Iasi between 1841 and 1849 and prepared the first masters (foremen) of the workrooms created in many towns of Moldavia. The school assured both the practical and theoretical education: the practical education in the six workrooms, the theoretical education by the courses of ethics, reading, writing, arithmetic, linear drawing.

The creation of the institution of technical high education has several stages, the first stage could be considered the class of engineers attached to the Price Academy, founded by Asachi in the year 1814, but interrupted five years later. Being professor, Asachi has written three books: *Arithmetic*, *Algebra*, and *Geometry*. First time these were only translations from the books of Etienne Bézout, but the books published by Asachi in 1837 and 1838 were compilations with original contributions [2].

Asachi has tried four times to create an agronomical institute, but he always has failed. He proposed an agronomical-mechanical institute with two steps: a) in the first and second years, a theoretical education containing arithmetic, accountancy, elements of agriculture, chemistry, botany, zoology, technology, linear drawing, measurements of lands, applied mechanics; b) the third year – dedicated to apply all the economical knowledge on the land and on the model farm of that institute. At the end of these three years, the graduates were to receive certificates to be appointed as economists. The plan could not be realized because the abbot of the monastery refused to give the land to this institute of education.

Asachi began to prepare and organize the opening of the high education since 1832, announcing in his gazette *Albina Românească* (Romanian Bee) that “we are looking for professors with scientific knowledge and attestation” in the following disciplines: a) philosophy, logic, metaphysics, natural law; b) theoretical mathematics, theoretical and experimental physics, chemistry, history of nature; c) practical mathematics, geometry, civil architecture, hydraulics, mechanics, constructions of roads and bridges; d) agrarian economy, medicine for animals; e) French language and literature. Professors for the first four categories, a-d, must know Romanian and Latin languages”.

At the same time, Asachi proposed to the administration of schools (the Epitropy) to send young men to be specialized in Vienna and in France. This proposal was approved, so as in 1838 the first Romanian professors with university diploma obtained in Austria for superior mathematics, physics, chemistry and engineering came back.

The statutes of public schools of the Principality of Moldavia, drawn up by Asachi and approved by the Prince on 14th June 1835, stipulated, among other conditions, the obligation of students in engineering to end first the two years of the section of philosophy (also for those in law and theology).

The National Academy proposed by the Prince Mihail Sturza was inaugurated on June 16, 1834; Asachi named this school "Academia Mihăileană". This had classes of secondary school and three faculties: Philosophy, Law and Theology. The "School of engineers" and the Institute of Arts and Industry (vocational school) were attached. A department of geology was founded in the school year 1842-1843. Until 1847 new disciplines completed the programs with analytical geometry and descriptive geometry for engineering, agronomy, mineralogy, geology.

The project for statutes of schools was written by Asachi in 1838 and approved by the Prince on the first of October 1839. Beginning with the school year 1839-1840 the students, were received on the base of a competitive examination. The library of Academy was opened with the Prince's donation of 600 volumes. Asachi created technical rooms for physics, mathematics and chemistry and introduced programs of gymnastics and swimming.

Asachi has a high esteem for the career of professor and cared about this function to have a good wage and a convenient pension. Professors could obtain nobility titles and had a representative in the convention to elect the ruler [4]. About the academy professors, it might be said that Asachi has brought French, Greek, Czech, Italian, Polish, Romanian and Transylvanian Saxon professors, even a Russian engineer, and also teachers from Walachia, when he did not had specialists in Moldavia. But many difficulties took place because of the instability of teachers.

Also, in 1847 some courses were canceled, the Romanian language in the superior courses was replaced by the French language, some posts of professors were suppressed. Only on October 2, 1849 the Academy resumed its activity. However, a true higher education did not yet exist.

Nevertheless, although the Princely Academy was not a European university, it marked an important progress in education, and in the social and economic life.

6. Conclusions

History recorded some periods of time which had a special importance for the economic, social and spiritual life of the people from the Romanian Principalities. These periods are those of transition to modernity. For the principality of Moldavia, this was the first half of the 19th century. During this period, Gheorghe Asachi was the man who, with a thorough education, an open and creative mind, a persevering character, was an exceptional organizer and has understood the importance of school and of material instruments for the development of education. Asachi developed an activity with durable results, even if wars, epidemics, fire, political changes disturbed the normal progress of educative institutions. His activity lies at the base of the modern Romanian society.

As a conclusion, let us translate the words written by Cezar Buda [3] in his reverential article: „Gheorghe Asachi’s portrait from the auditorium of the Polytechnic Institute of Iasi - that bears his name - is a recognized proof of many generations who made use of the endeavors of the great scholar, opener of new horizons for education of all degrees, preparing the future, that is to say our present time, in which we now honor his memory”.

References

- [1] Aiftincă, Marin. „Portretul luminist al lui Gheorghe Asachi” [The Enlightenment portrait of Gheorghe Asachi] in *Gheorghe Asachi – Studii*, Editura Academiei Române, 1992.
- [2] Andonie, George Șt. *Istoria matematicii în România*, vol. 1, București, Editura Științifică, 1965 [History of mathematics in Romania].
- [3] Buda, Cezar. „Gheorghe Asachi, inițiatorul învățământului tehnic din Moldova” [Gheorghe Asachi, the founder of technical education in Moldavia], in *Gheorghe Asachi – Studii*, Editura Academiei Române, 1992.
- [4] Enescu, Nicolae C. *Gheorghe Asachi, organizatorul școlilor naționale din Moldova* (Gheorghe Asachi, the organizer of

national schools from Moldavia), Editura Didactică și Pedagogică, București, 1962.

- [5] Lovinescu, Eugen. *Gheorghe Asachi - Viața și opera lui*, Editura „Cartea Românească” SA, București, 1921 [His Life and Works].
- [6] Simionescu, Cristofor. „Gheorghe Asachi, cărturar al Moldovei” [Gheorghe Asachi, learned man of Moldavia], in *Gheorghe Asachi – Studii*, Editura Academiei Române, 1992.
- [7] Sorescu, George. „*Gheorghe Asachi [Viața și opera]*”, (Gheorghe Asachi [Life and Works]), București, Editura Minerva, 1970.