
THE GEOLOGICAL ASSOCIATIONS AND SOCIETIES AS A MOTIVATOR OF THE STUDENTS FROM SOFIA UNIVERSITY

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Abstract: The membership in geological professional and non-profitable associations and society helps students in financing their activities and gives self-confidence to implement the gained knowledge into practice. Large number of students from Sofia University “St. Kliment Ohridski” (Bulgaria), majoring in geology, are members and actively participate in such organizations. Parts of their educational and practical activities are covered by variety of resources, including financial grants and awards from the American Association of Petroleum Geologists (AAPG) and Society of Economic Geologists (SEG). Last year PhD and undergraduate students in geology took advantage of the opportunity provided by the Doc Center of Sofia University and its common project with the Ministry of Education to field trip travel in Greece. Student interests and specific activities are directed towards organized working groups, buying books, participation in field trips and applied investigations. These non-profitable organizations integrate in the best way the knowledge from university and geological experiences from the industry into trainings and future career development of young people.

The Sofia University Student Chapter of AAPG, since its establishment in the beginning of 2016, actively contributes in the development of student practical skills, enriching educational capacity and expanding geological expertise of its members in the field of Petroleum geology. As the representatives of younger part of the AAPG world they meet new people – visiting professors, students and people from the academia and petroleum business, who contribute to the development of members as geologists. More over, the AAPG Chapter activities are filled of new experience, including study-related travels, field trips, personal friendships and many useful efforts. It is worth mentioning participation with presentations and posters in the XVII Geology and Geophysics Students’ National Symposium (Bucharest, Romania 2016), in The Fourth AAPG European Student Chapter Leadership Days (Hungary 2016), as selected delegates at Total Energy Summer School (TESS Fontainebleau, France 2016), as volunteers in the Fourth Annual Black Sea Oil and Gas Conference (Sofia, Bulgaria 2016), and the visit of Romanian oil and gas deposits supported by Total and OMV Petrom company (Romania 2017). The Sofia University Student Chapter of AAPG is also proud with some valuable prizes – Total “Dream Ticket” Award (2017), Outstanding Small Student Chapter Award (2018) and L. Austin Undergraduate Grant (2019).

The Sofia University SEG Student Chapter supports student field trips with the idea to help understanding of main geological characteristics of the visited geological sites and obtain specific skills of investigation and mining exploration. Some of its members also participate in Sofia University Student Chapter of AAPG, which strengthens student relationships and broadens their professional horizons. The positives of this mutual cooperation resulted in organizing together with PhD students of scientific visit and field trip in Northern Greece (2019), financially and logistically supported by Doc Center of Sofia University.

The main purpose of Sofia University student chapters is to create favorable conditions for sustainable development and continuity among students and to establish a strong reputation among geological community. These student chapters influence the younger colleagues to benefit from the knowledge and experience of the already developed geological organizations.

Keywords: AAPG, SEG, Doc Center of Sofia University, geology.

1. INTRODUCTION

Sofia University “St. Kliment Ohridski”, (Bulgaria) has always been an example of the effective interaction between the education and practical implementation of traditions, science and innovations. On the other hand the educational and scientific activities of the University are complemented very well by students' initiatives in various fields of geology. The academic rules are very liberal, allowing but not limited to lectures, scientific research, work on projects and field trips. It means that seeking of high quality of education along with the research priorities do not confine student extracurricular activities.

The membership in geological professional and non-profitable society and associations helps students in financing their outdoor works and increases their self-confidence that they could do it well. Student interests and specific activities are directed towards organized groups, buying books, participation in field trips and applied investigations. These non-profitable organizations integrate in the best way the knowledge from university and geological experiences from the industry into trainings and future career development of young people.

Many students, studying geology, are members and actively participate in society and associations, namely the American Association of Petroleum Geologists (AAPG) and Society of Economic Geologists (SEG). These additional efforts are rewarded by winning variety of financial grants and awards from them. There are also internal university sources, which can support students. Last year PhD and undergraduate students in geology took advantage of the common project between Doc Center of Sofia University and the Ministry of Education. They made good use of the opportunity to do a field trip and travel in Greece.

2. GEOLOGICAL SECTIONS AT SOFIA UNIVERSITY

The Sofia University academic and research strategy stimulates project funding as the main tool of financing field and scientific work (retrieved from <https://www.uni-sofia.bg>). The University rules and regulations contribute significantly not only to the development of science and education in Bulgaria, but do not limit student free will and participation in the professional and/or non-governmental organizations. The academic institution successfully maintains the best practices in the management and implementation of scientific achievements in very important fields of society life, including Economic geology.

Many students from Sofia University “St. Kliment Ohridski” (Bulgaria), majoring in geology, are or have been members and actively participated in AAPG and SEG Chapters. AAPG (American Association of Petroleum Geologists) considers student member participation a vital part of the association (retrieved from <https://www.aapg.org>). The Student Chapters play a critical role by providing a place of action where undergraduate and graduate geology students can engage in meaningful networking opportunities, and connect with professionals in geological careers, both inside and outside of academia.

The Sofia University Student Chapter of AAPG recent programs are a direct way for members and their advisor to build friendships with colleagues and to gain knowledge and field experiences in informal and natural setting. Those connections made are of benefit to the chapter, to the students and to the geologic profession as a whole.



Fig. 1. Leaders of the Sofia University Student Chapter of AAPG 2019

SEG (Society of Economic Geologists) Student Chapters seek to bring together like-minded individuals interested in better understanding of the Earth resource-rich environment and the minerals it contains (retrieved from <https://www.segweb.org>). SEG encourages the formation of such chapters to help promote the Society's objectives, firstly by advancing the study of mineral deposits and applying geological science to exploration, evaluation, and production, and secondly by disseminating scientific information through publications, courses, meetings, and field trips. SEG Student Chapters are the key to linking students with both other students and professional geoscientists in industry, academia, and government.

Sofia University SEG Student Chapter unites students who share a common interest in economic geology. The Chapter provides opportunities for cultivation of ideas and opens the door for those who actively participate in projects and initiatives that promote the geology.



Fig. 2. Sofia University SEG Chapter in 2013 (retrieved from <https://www.facebook.com/susegsc/>)

3. STUDENT ACTIVITIES AND ACHIEVEMENTS

The implementation of geological education into practice is largely provided by student membership in the Sofia University AAPG and SEG Chapters. The organized geological activities focus mainly on participation in professional working groups, field trips and applied researches not only in Bulgaria. The non-profit associations and society integrate in the best way geological traditions from the industry and knowledge from University into the future career development of students.

The Sofia University AAPG Student Chapter actively contributes to student educational and professional success also expanding geological expertise of its members in the field of Petroleum geology (Markov et al., 2016). It is worth mentioning participation with presentations and posters in the XVII Geology and Geophysics Students' National Symposium (Bucharest, Romania 2016), in The Fourth AAPG European Student Chapter Leadership Days (Hungary 2016), as selected delegates at Total Energy Summer School (TESS Fontainebleau, France 2016), as volunteers in the Fourth Annual Black Sea Oil and Gas Conference (Sofia, Bulgaria 2016), and the visit in Romanian oil and gas deposits supported by Total and OMV Petrom company (Romania 2017), (Fig. 3). The Sofia University Student Chapter of AAPG is also proud with some valuable prizes – Total “Dream Ticket” Award (2017), Outstanding Small Student Chapter Award (2018) and L. Austin Undergraduate Grant (2019).

The Sofia University SEG Student Chapter supports student field trips with the idea to help understanding of main geological characteristics of the visited geological sites and obtain specific skills of scientific investigation and mining exploration (Nanov et al., 2013, 2014; Kuncheva et al., 2015; Grahlyova, Milenkov & Markov, 2016; Markov et al., 2017). Their activities in several consecutive years include the Western Anatolian precious metal deposits field trip (2013); Cu-porphyry and epithermal Au systems in Serbia and Macedonia field trip (2014); Au-epithermal systems in Golden Quadrilateral, Romania field trip (2015); Ore deposits of NE Greece field trip (2016); and Mineral deposits of Czech Republic field trip (2017). Some of the Sofia University SEG members also participate in AAPG Student Chapter, which strengthens student relationships and broadens their professional horizons. The positives of this mutual cooperation resulted in organizing together with PhD students in geology of scientific visit and field trip in Northern Greece (2019), financially and logistically supported by Doctoral Student Center "St. Kliment Ohridski" (Doc Center). It is a project of the Sofia University funded by the Operational Program “Science and Education for Smart Growth”. It provided support for PhD students and researchers from the University in several areas, part of which is conducting scientific visits (Mobility Work Package).



Fig. 3. Part of the winning teams at TESS 2016

The aim of the research trip was a field study of ore and non-ore mineral deposits and geological outcrops in the context of the regional tectonic settings of the Balkan Peninsula. Funding from the Sofia University Project BG05M2OP001-2.009-0013 enable academics, PhD students, undergraduates and AAPG and SEG Chapter members to establish academic relationships with their colleagues from Greece, to enrich their practical knowledge and fieldwork skills. The planned to visit deposits include not only very well-known Ada Tepe epithermal Au-Ag deposits, near Krumovgrad, but also many interesting geological sites in Northern Greece (Fig. 4).



Fig. 4. Preserved contact between the oceanic mantle and crustal sequence at locality of Vourinos.

It is worth mentioning the intrusion-related Bi-Te-Pb-Sb±Au mineralization in Palea Kavala, the intrusion-related Cu-Mo-W quartz veins in Kimmeria, Xanthi, the Tertiary porphyry Cu-Mo deposit in the Maronia area, the Perama Hill high sulfidation epithermal Au-Ag-Te-Se deposit in Petrota graben, the Xylagani Mesozoic gold bearing Fe-Cu-(Zn-Pb) VMS deposit, the carbonate-replacement Pb-Zn-Ag-Au deposits of Olympias and Mavres Petres, NE Chalkidiki and the chromite deposits in the ophiolites of Vourinos (Marinov et al., 2019).

4. CONCLUSION

Sofia University “St. Kliment Ohridski” is a modern academic institution with main emphasis on creating programs, which integrate education and science into practice. The students, studying geology, are members and actively participate in the AAPG and SEG Student Chapters. The academic rules are liberal enough, allowing successful

mixture of high quality of education and practical skills along with the student extracurricular activities in these chapters.

The main purpose of the geological association and society student chapters is to create favorable conditions for sustainable professional development in the faculty and university. It not only supports students in their activities, but also increases the reputation among geological community. These student chapters influence the young people to benefit from the knowledge and experience of the already developed geological organizations.

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