



# SOCIETY OF ECONOMIC GEOLOGISTS, INC.

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## Student Chapter Annual Report Form

This form is used to report on Student Chapter activities over the previous year. The report provides a useful medium to document the status and progress of individual chapters. Annual Reports are used to evaluate applications for SEG support and to keep information up-to-date on the SEG website. Please provide a summary of chapter activities in a concise form as suggested below. Description of programs may be supported by a limited number of photographs and figures in a format appropriate for publishing on our website.

**Submission Deadline: September 30th**

**Submit to: [studentprograms@segweb.org](mailto:studentprograms@segweb.org)**

Month/Year Reported: From October 2016 (mm/yyyy) – To September 2017 (mm/yyyy)

Chapter Name: Aristotle University of Thessaloniki (AUTH) SEG Student Chapter

Chapter Mailing Address: Department of Mineralogy-Petrology-Economic Geology Faculty of Geology School of Sciences Aristotle University of Thessaloniki GR-541 24, Thessaloniki, GREECE

Chapter E-mail: [segweb@geo.auth.gr](mailto:segweb@geo.auth.gr)

Chapter Website: <https://authseg.wordpress.com/>

Chapter Facebook: <https://www.facebook.com/AUTH.SEGStudentChapter/>

Chapter Executive Committee (*in office during the time frame captured on this report*) (type "Vacant" if position not filled):

President:	<u>Margarita Melfou</u> Name	<u><a href="mailto:melfmarg@geo.auth.gr">melfmarg@geo.auth.gr</a></u> E-mail
Vice President:	<u>Maria Tsivilika</u> Name	<u><a href="mailto:tsivilikamaria@gmail.com">tsivilikamaria@gmail.com</a></u> E-mail
Secretary:	<u>Christina Mytiglaki</u> Name	<u><a href="mailto:mytiglaki@geo.auth.gr">mytiglaki@geo.auth.gr</a></u> E-mail
Treasurer:	<u>Despoina Ekleme</u> Name	<u><a href="mailto:debby_ekleme@hotmail.com">debby_ekleme@hotmail.com</a></u> E-mail

Chapter Academic Sponsor (*SEG Fellow membership in good standing*):

<u>Vasilios Melfos</u> Name	<u><a href="mailto:melfosv@geo.auth.gr">melfosv@geo.auth.gr</a></u> E-mail	<u>+30 2310 998539</u> Phone
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Chapter Industry Sponsor (*SEG Fellow membership in good standing and not affiliated with the student chapter's institution*):

<u>Thomas Sant</u> Name	<u><a href="mailto:tsant06@gmail.com">tsant06@gmail.com</a></u> E-mail	<u>+44 798 135 9811</u> Phone
<u>14 Park Road, Timperley, Altrincham, Cheshire, UK</u> Address		<u></u> Fax

Sponsoring Institution or Company (name): Independent Consultant

- Attach:**
1. a list of names of **all** Student Chapter members (please indicate by \* if SEG Student Member).
  2. complete Student Chapter Membership Information form with the current Executive Committee listed on page 1.

**On a separate page(s) provide a summary of student chapter annual activities:**

1. Regular meetings, lectures
2. Field trips (dates, area visited, field trip leaders, number of participants, sponsors, benefits for students).  
Note: this is not the place for a detailed field trip report that is required from a chapter who has received funding from the Stewart R. Wallace Fund.
3. If your chapter received funding from the Stewart R. Wallace Fund, please submit a separate actual accounting of how chapter funds were spent/used.
4. Organization of conferences, workshops, short courses (theme, number of participants, benefits for students)
5. Participation in conferences, workshops, short courses (theme, number of participants from the chapter, benefits for students)
6. Fund-raising programs
7. Other programs
8. Future plans



## ANNUAL REPORT 2016-2017

AUTH SEG STUDENT CHAPTER

Submitted by Melfou Margarita, President

ARISTOTLE UNIVERSITY OF THESSALONIKI

AUTH SEG STUDENT CHAPTER

ANNUAL REPORT FORM 2015-2016

## General Information

YEAR REPORTED: 2016 – 2017

CHAPTER NAME: AUTH SEG Student Chapter

STUDENT CHAPTER WEBSITE: <https://authseg.wordpress.com>

STUDENT CHAPTER E-MAIL ADDRESS: [segweb@geo.auth.gr](mailto:segweb@geo.auth.gr)

STUDENT CHAPTER FACEBOOK PAGE:

<https://www.facebook.com/AUTH.SEGStudentChapter>

STUDENT CHAPTER ACADEMIC SPONSOR: Dr. Vasilios Melfos, Assistant Professor,  
Department of Mineralogy, Petrology and Economic Geology of the Faculty of  
Geology, Aristotle University of Thessaloniki

STUDENT CHAPTER INDUSTRY SPONSOR: Dr. Thomas Sant, Independent Consultant

## Outgoing Executive Committee 2016-2017

	Name	Title	E-mail address
1	Margarita Melfou	President	<a href="mailto:melfmarg@geo.auth.gr">melfmarg@geo.auth.gr</a>
2	Maria Tsivilika	Vice President	<a href="mailto:tsivilikamaria@gmail.com">tsivilikamaria@gmail.com</a>
3	Christina Mytigliaki	Secretary	<a href="mailto:c_mitigliaki@hotmail.com">c_mitigliaki@hotmail.com</a>
4	Despoina Ekleme	Treasurer	<a href="mailto:ekledesp@geo.auth.gr">ekledesp@geo.auth.gr</a>
5	Eftychia Peristeridou	Other Exec. Member	<a href="mailto:peristee@geo.auth.gr">peristee@geo.auth.gr</a>

## Newly Elected Executive Committee 2016-2017

	Name	Title	E-mail address
1	Eftychia Petika	President	<a href="mailto:epetika@geo.auth.gr">epetika@geo.auth.gr</a>

2	Margarita Melfou	Vice President	melfmarg@geo.auth.gr
3	Sofia Christoforidou	Secretary	scchrist@geo.auth.gr
4	Foivos Kiniklis	Treasurer	kiniklis@geo.auth.gr
5	Christos Stergiou	Other Exec. Member	cstergio@windowslive.com

## Members of AUTH SEG Student Chapter

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\*indicates SEG Student Membership

## Activities and Field Trips

The AUTH SEG Student Chapter organized several activities and field trips during the academic year 2015-16, and the participants were involved in the various subjects of economic geology. The significance of these activities was recognized by the Administrative Authorities of the Aristotle University of Thessaloniki which acknowledged our Student Chapter as one of the most active in the University at a special ceremony.

The activities of the student chapter in the academic year 2015-16 are listed in details below:

### **1. October 15<sup>th</sup> and 16<sup>th</sup> 2016. Field trip to epithermal and VMS mineralizations of the Rhodope Metallogenic Province (Greece-Bulgaria).**

On Saturday 15<sup>th</sup> and Sunday 16<sup>th</sup> October 2016 the AUTH SEG Student Chapter organized a field trip in Southern Bulgaria and Northeastern Greece. A group of 20 members of the chapter visited three important ore deposits of the Rhodope Metallogenic Province. In total 12 undergraduate students, 6 MSc students and 2 PhD students participated at this field trip together with the Academic Supervisor Assistant Professor Vasilios Melfos.

The Tertiary Rhodope Metallogenic Province belongs to the Western Tethyan Metallogenic Belt and spreads to Bulgaria and Greece hosting several major ore deposits of various types. The AUTH SEG student chapter visited Ada Tepe, a sedimentary-hosted low-sulfidation epithermal gold deposit that in the present is operated by “Dundee Precious Metals” (Fig.1), the Perama Hill deposit, a high- and intermediate- sulfidation Au-Ag-Te-Se epithermal system owned by “Eldorado Gold” and the Xylagani Mesozoic gold-bearing Fe-Cu VMS deposit. Additionally we had the opportunity to see the environmental impact of the abandoned mineral processing plant near Kirki of Evros, NE Greece.

The purpose of this field trip was a great opportunity for the students to visit deposits of a great scientific importance. Furthermore, we got familiar with the regional geology, the ore deposit types and the ore mineral paragenesis, and had the chance to explore the specific metallogenic and the structural control processes of

these deposits.

## **2. February 17<sup>th</sup> 2017. Scientific Meeting “New ideas and methods of tectonic geology in applied research. Examples and applications”**

On Friday 17<sup>th</sup> February 2017, the scientific meeting “New ideas and methods of tectonic geology in applied research. Examples and applications” organized by the AUTH SEG Student Chapter in collaboration with the School of Geology of the Aristotle University of Thessaloniki, took place at the Aristotle University Research Dissemination Center (KEDEA). The main lecturers were Dr. Alexandros Chatzipetros, Assistant Professor of Geology, and Dr. Annie Rassios, Geologist at the Kozani branch of the Institute of Geology and Mineral Exploration (IGME) of Greece. The scientific meeting reached the 150 attendants (Fig.2), the majority of whom were undergraduate students, which demonstrates the potential of our student chapter in organizing events focusing especially on the students’ interests.

Assistant Professor A. Chatzipetros explained how the Unmanned Aerial Vehicles (UAV) can help the study of structural geological phenomena in the field and provided some examples from his own recent research in the regions of Apennines and Vikos. Dr. A. Rassios in her first lecture shared with us her experience in the introduction of the Geopark of Tethys in Grevena (N. Greece) into the UNESCO Global Geoparks Network. The second talk was about the explorationist structural mapping and its use in the 21<sup>st</sup> century geotectonic reconstruction. She showed to the students some models of the region of Vourinos which were related to the lithosphere development.

In the end of the scientific meeting the attendants had the opportunity to watch the documentary film “With a hammer and a loop” directed by Ioanna Parlantza, illustrating the various subjects of the magnificent world of Geology. This event was financially supported by the AUTH Research Committee.

## **3. March 3<sup>rd</sup> 2017. Field trip to the mixed sulfide ores of Olympiada’s mines at Chalkidiki.**

On Friday 3<sup>rd</sup> March 2017 seven under- and post-graduate students, members of the AUTH SEG student chapter, had the opportunity to visit the Olympias mine of the

Hellas Gold in NE Chalkidiki. The Senior Mine Geologist of the company, Dr. Panagiotis Zachariadis, and the geologist Dr. Konstantinos Kydonakis introduced us the geological context of the mines and their potential, and then guided us into the galleries. The specialized geologists explained to us all the details of a carbonate replacement Pb-Zn-Au-Ag deposit, on site, showing many examples how an ore deposit of this type occur in the underground mines and we checked a lot of samples of the mineralization and the hydrothermal alterations.

An important part of this visit was to get practiced in the geotechnical engineering and mainly in the rock mechanics, which is very critical on the mine fronts (Fig.3). In the end the students were guided to the coreshed where drilling cores were held and were practiced in the logging of the cores, a very detailed work which affects the mining progress.

#### **4. March 18<sup>th</sup> 2017. Field trip at the Pangeon metallogenic area, Northern Greece**

The student chapter organized a field trip at the metallogenic area of the Pangeon Mountain in Northern Greece (Fig.4), on Saturday 18<sup>th</sup> March 2017. Twelve participants, members of the AUTH SEG Student Chapter, accompanied by the Academic Supervisor Assistant Professor Vasilios Melfos, were guided by Dr. Markos Vaxevanopoulos to the Au-Ag-rich deposits. Dr. Vaxevanopoulos had just presented his PhD which was focused on the different mineralization types of Pangeon and the ancient mining and metallurgical activities. The students had the opportunity to visit a typical intrusion related gold system with many mineralization types which are genetically related with the Pangeon granodiorite occurrences. The mineralization is distinguished in the following types: sheeted quartz veins in the granodiorite, quartz veins in the schists and the marbles, and carbonate replacements, rich in Fe, Pb, Zn, As, Cu, Ag, Au and minor of W, Bi, and Sb. We entered old abandoned underground mines and observed typical textures of the mineralization. Dr. Vaxevanopoulos shared also his knowledge and his experience about the ancient mining of Pangeon and the metallurgical areas, since Hellenistic and Roman periods. He explained to us the methods used by the ancient in order to extract the ore and then to obtain the metals, which were surprisingly very innovative 2,000 years ago.

**5. April 25<sup>th</sup> 2017. Scientific course “Exploration and Exploitation of Mineral and Resources since Antiquity” with the SEG Distinguished Lecturer of 2017 Lluís Fontboté.**

On Tuesday 25<sup>th</sup> of April 2017 the SEG Distinguished Lecturer of 2017, Lluís Fontboté, visited the School of Geology at the Aristotle University of Thessaloniki in the framework of traveling lectureships sponsored by the SEG (Fig.5). Dr. Fontboté from the University of Geneva, Switzerland, presented two very interesting talks. More than 150 people, students and professors, attended this scientific meeting that was organized by the AUTH SEG Student Chapter in cooperation with the School of Geology of AUTH. His first talk were entitled “Future of mineral resources: challenges and needs” and his second talk was about the “Cordilleran Polymetallic Deposits as a Class in Porphyry Systems”. The attendants had the opportunity to learn a lot about how society must deal with some important issues on mineral resources, and to get familiar with the economically significant polymetallic deposits that are many times related to porphyry systems. In addition to the talks of Prof. Fontboté, two other talks were presented in this meeting by Prof. Michael Vavelidis and Prof. Anestis Filippidis, from the Department of Mineralogy-Petrology-Economic Geology, Aristotle University of Thessaloniki. Prof. Vavelidis presented “The ancient Gold of Greece”, and Prof. Filippidis were focused on the mineral resources of Greece and their reserves and values, as well as the specifications and uses of the very high quality Zeolitic Tuffs. The very motivating lectures and the high number of the attendants, around 160 post-graduate and under-graduate students, student members of the AUTH SEG Student Chapter, many professors and people who work in industry, is an apparent evidence that our student chapter events in Thessaloniki are highly recognized.

**6. September 29<sup>th</sup> and 30<sup>th</sup> 2017. Field trip to porphyry and epithermal deposits of the Timok Metallogenic Province (Serbia)**

On Friday 29<sup>th</sup> and Saturday 30<sup>th</sup> September 2017 the AUTH SEG Student Chapter organized a field trip in the Timok Metallogenic Province of Eastern Serbia. This field trip was funded by the SEG Stewart R. Wallace Fund. Six undergraduate students



and six MSc students participated at this field trip guided by the Academic Supervisor Assistant Professor Vasiliios Melfos.

The Cretaceous Timok Metallogenic Province belongs to the Western Tethyan Metallogenic Belt and hosts several major ore deposits of various types. The student chapter visited several porphyry and high sulfidation epithermal systems in the broader area of Bor city. We were guided by the geologists of “Mundoro Capita Inc.”, a Canadian exploration company. The people of the Mundoro were very friendly and explained us in details the geological context of the area and the metallogenic model of the mineralization formation. As a result the members of the AUTH SEG Student Chapter got familiar with the work and the research of an exploration geologist in the field and in the laboratory such as soil sampling or core logging (Fig.6). Also, we had the opportunity to recognize in the field the characteristic minerals of the alteration zones of the high sulfidation epithermal and the porphyry type mineralizations.



Figure 1. Visit of AUTH SEG SC at a sedimentary-hosted low-sulfidation epithermal gold deposit of Ada Tepe in Bulgaria, operated by “Dundee Precious Metals” in October 2016.



Figure 2. The Scientific Meeting entitled “New ideas and methods of tectonic geology in applied research. Examples and applications”, held at the Aristotle University of Thessaloniki in February 2017.



Figure 3. Visit of the members of the AUTH SEG Student Chapter in the underground mine of the carbonate replacement Au-Ag-Pb-Zn deposit, in NE Chalkdiki, operated by Eldorado Gold, in March 2017.



Figures 4. The student chapter members and Dr. M. Vaxevanopoulos during our visit at the Pangeon intrusion-related gold system in March 2017



Figure 5. The 2017 SEG Distinguished Lecturer, Professor Lluís Fontboté, who gave two lectures at a large audience of more than 150 attendants at the Aristotle University of

Thessaloniki in April 2017.



Figure 6. The field trip of the AUTH SEG Student Chapter at the Mundoro Capital Inc. projects at Timok Metallogenic Province of Serbia, in September 2017.

## Future plans for the academic year 2017-2018

- Host a SEG Lecture during 2018
- Organize workshops that include presentations by industry people
- Organize presentations among the members that are related with significant ore deposit of the earth
- Organize a 2-day seminar on ArcGIS