

Annual report for the SEG Student Chapter Geneva

September 2010 through September 2011

Regular meetings and seminars:

Our student chapter has regular semester meetings with general discussions about our activities, field excursions, seminar talks and conferences. Additionally, if needed, we combine the SEG Student Chapter meetings with the regular Ore Deposit Group meetings of our department. During the fall meeting we elect our executive committee. At the beginning of the fall semester we introduce our Student Chapter with a PowerPoint presentation about all the activities of SEG and our SEG Student Chapter to the new master and PhD students at our department and invite them to join us. Furthermore, *weekly scientific seminars* on diverse topics are also held in our Department. The seminars can be consulted on our web page.

(<http://www.unige.ch/sciences/terre/Enseignement/ConferencesSeminaires.html>).

Organisation of conferences, workshops, short courses

Seminar: on the 3rd of December 2010, SEG Thayer Lindsley Visiting Lecturer Dr. Michel Cuney (Henri Poincaré Université, Nancy) visited our SEG Student Chapter Geneva. In three conferences he talked about uranium fractionation during magmatic processes, a genetic classification of uranium deposits and about the parameters controlling the formation of high grade uranium deposits on behalf of an example from the Athabasca Province in Canada. His conferences were followed by a common lunch with Chapter members and academic staff from the University of Geneva, during which we had the possibility to discuss with Michel.

Excursion: The 5th of December 2010, 13 members of our Student Chapter went for a **1-day excursion to the [Salt mines of Bex](#)** (Vaud Canton, Switzerland). Our two guides Jacqueline and Anita took us through an amazing underground labyrinth of small galleries, stairs and chambers. Along this 4km walk we went back in time discovering old wooden pipes left some centuries ago in a chamber, sometimes sliding on an old and ruin stair, knocking the helmet on the irregular roof of a gallery or seeing the sky from the bottom of a 115m deep shaft which is used for ventilation. We finished the visit in the underground historical museum before going back to surface on board of a miniature train especially build to fit the narrow galleries.

Short Course: 14th – 18th of March 2011 – MapInfo, Discover and Discover3D short course given by a professional from the [TYDAC AG](#) at the University of Geneva: a number of ten people followed the five days course during which we got an introduction to principles of georeferenced cartography and how to use MapInfo, Discover and Discover3D which are widely used in the minerals industry. As an example we learnt how to create georeferenced maps for our projects or how in mineral exploration the data from drilling together with geochemical analysis can be visualized in a 3-dimensional way.

Sports: In March 2011 we organized a common “**SEG ETH Zurich – University of Geneva Student Chapter Skiing weekend**”. About 15 of our members got together for a whole weekend in Fiesch, in the Swiss Canton Valais to enjoy outdoor activities and tasty Swiss food accompanied by inspiring discussions about our research projects and trends in economic geology. Pictures from this weekend can be found here:

<http://www.unige.ch/sciences/terre/mineral/studchap/Activities/Excursions/Skiing2011.html>

3-days field trip to Cevennes: In June 2011, 7 Master’s and PhD students joined a 3-day excursion organized by Alain Chauvet (University of Montpellier) and Kalin Kouzmanov (University of Geneva). Alain took us to the southeastern part of the French Massif Central, around the Hercynian Mont Lozere Massif to have a look at occurring gold mineralization. Under his supervision we mapped several key cross sections focusing on structural features and the evidence of hydrothermal fluid circulation related to mineralization. During the field course we learned how to interpret structural data with the aim to better understand the mesothermal gold mineralization in the district. In a typical countryside French restaurant we were awarded for our efforts by amazing food.

7-days field excursion to Sardinia (11th – 18th of June 2011): 7 members of our Student Chapter visited the sunny island of Sardinia to study the geology and metallogeny of this Mediterranean island. The field trip was organized by our members Johannes Mederer and Cyril Chelle-Michou, who put together an excursion guidebook with chapters written by the participants.

Just after landing in Cagliari we joined Maria Boni (University of Naples) who guided us during three days in the Iglesiente region. Mining in this area dates back to Pre-Roman times, and it used to be one of the most important zinc, lead, silver and barite districts in Europe. After an introduction to the regional geology, we visited several former mines where stratiform MVT- and SEDEX-type ores and their related supergene “Calamine” non-sulfide zinc products were exploited. One highlight of the trip was our visit to the deepest level of the underground fluorite-galena-barite Silius mine (Fluorite di Silius S.p.a) where we saw beautiful banded textures of these minerals typical of this lode deposit. The mine is currently closed and undergoing reevaluation and maintenance.

On our way towards the northern part of the island, we made a stop close to the high-sulfidation epithermal Au deposit of Furtei where we could observe a good example of supergene kaolinization. The following day, Marcella Palomba (University of Cagliari) guided us during a day dedicated to industrial minerals. Together, we visited the striking white albitite outcrops in the Ispaduleddas mine (Maffei Sarda S.R.L.) and the epithermal kaolin district of Tresnuraghes. Before driving back to Cagliari, mine geologist Antonello Aversano (Silver and Baryte Ores Mining Company S.A.) gave us an excellent tour in the underground Olmedo bauxite mine.

Many thanks to all those who made this field trip possible. Please visit our web site to have a closer look at our field guidebook and some pictures of the trip:

<http://www.unige.ch/sciences/terre/mineral/studchap/Activities/fieldtrips/Sardinia.html>

Goldpanning weekend (24th and 25th of September 2011): Around twenty students from the SEG Student Chapters of Zürich and Geneva met for a common goldpanning weekend in the

Napf area (Bern Canton, Switzerland). Equipped with rubber boots, gold pans, magnifying lenses, a sluice and a lot of optimism we worked during two days the sediments of the Gohl stream. After a night on the nearby campground and a barbeque over open fire we were rewarded on Sunday afternoon by the precious gold flitters which we had collected from our pans and the sluice.

Participation in conferences

9th-11th of August 2011 – 21st Biennial Conference: European Current Research on Fluid Inclusions (ECROFI) in Leoben, Austria: our Chapter member Melissa Orтели presented some of the results from her PhD research as a Poster presentation entitled “Fluid inclusion microthermometry in coexisting quartz and wolframite - a case study from Morococha, Peru.”

26th-29th of September 2011 – 11th Biennial Meeting of the Society for Geology Applied to Mineral Deposits (SGA) in Antofagasta, Chile: participating SEG Student Chapter Geneva members include Prof. Lluís Fontboté, Dr. Kalin Kouzmanov, Dr. Massimo Chiaradia, Cyril Chelle-Michou and Marie-Caroline Pinget.

11th – 13th of November 2011 – 9th Swiss Geoscience Meeting in Zürich, Switzerland: several of our members will present results from their research during this 3 days conference at the ETH Zürich.

Future plans:

Excursion: On the 29th of November 2011 our Chapter will visit the European Organization for Nuclear Research, known as [CERN](#) which is situated in the suburbs of Geneva. This organization is running the largest particle physics laboratory worldwide and about 20 members including academic staff already signed up for this excursion.

Short Course: In January 2012, Prof. George Beaudoin from Université Laval, Canada will hold a practically oriented 10 days **exploration workshop** for students from both ETH Zürich and University of Geneva SEG Student chapter members. Groups of students will create competing virtual mining enterprises working specific projects with fixed budgets.... pursuing mineral wealth! A course description from a similar course which took place in 2010 can be found on <http://mineral.cuso.ch/courses-and-meetings/details-of-course/item/courses/practical-course-in-mineral-exploration-from-discovery-to-evaluation-edsm-course-in-cooperation-with-ethz/>.

Planned excursion: An excursion to Turkey is suggested for 2012. Our chapter is planning an about 10-days long field excursion to Western Anatolia. This excursion would focus on the following commodities: nickel, chromium, lead-zinc and gold. Gold will be the main focus with the visit of some world class deposits like the porphyry-style Kisladağ mine and the low sulphidation epithermal mines of Efemcukuru and Ovacik. In addition, Western Anatolia is particularly interesting for the high sulphidation Au deposits of Agi Dagi and Kirazli, the Balya

carbonate-hosted igneous Zn-Pb skarn deposit, the Ni-laterite Caldag mine and the Mugla chromite mining district.

Seminar: The 13th of December we will receive the SEG International Exchange lecturer for 2011 Mark Hannington in Geneva. In addition to his talks we will discuss about VMS deposits with him.

Further plans for 2012 include another goldpanning weekend in Switzerland as well as a ski-weekend to Zermatt, both organized in collaboration with the SEG Student Chapter of the ETH Zürich.

Johannes Mederer and the SEG Student Chapter Geneva

Geneva, 30 September 2011