

Report on the XXVIII UNESCO-SEG-SGA Latin American Metallogeny Course, in Belo Horizonte, Brazil, 19-26 May, 2009

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The last edition of the UNESCO-SEG-SGA Course on Metallogeny has been hosted by the CDTN-CNEN (Centro de Desenvolvimento Tecnologia Nuclear - Comissão Nacional de Energia Nuclear, Brasil), in Belo Horizonte, Brazil and was organized by Francisco Javier Rios as regional academic coordinator and Fernando Tornos as his international partner. The field trip of this course was planned and led by Javier (CDTN) and Carlos Rosiere as well as Lydia Lobato from the CPMTC-UFGM,

Brazil. For the organizers, this has been a big gamble since it has been the first time that we have jumped from a Spanish speaking country to a Portuguese speaking one. Also, geology in Brazil is dramatically different from that of previous editions of the course, with an old cratonic basement that strongly contrasts with the „young“ Andean volcanic arc that we were used to in the previous editions.

However, Javier and his great team (Sonia, Tatiana, Lucilia, and Ana Rosa) sorted

out all possible problems, made life easy to all of us and organized a fantastic course. The theoretical part included talks on radiogenic geochemistry and isotope dating (Fernando Barra, University of Arizona, Tucson, USA), orogenic gold and iron deposits (Steffen Hagemann, ET, University of Western Australia), fluid inclusion analysis and the transport of Cu-Au in magmatic-hydrothermal systems (Christoph A. Heinrich (ETH Zurich, Switzerland), gold deposits in Brazil and the Quadrilátero Ferrífero



The speakers of the course.

(Lydia Lobato, Universidade Federal de Minas Gerais, Brasil), iron deposits (Carlos Alberto Rosière, Universidade Federal de Minas Gerais, Brasil), geochemistry of ore deposits and IOCG-like deposits (Fernando Tornos, Instituto Geológico y Minero de España, Spain), gold deposits in Carajas (Raimundo Netuno Nobre Villas, Universidade Federal do Pará, Brasil) and fluids in IOCG systems (Prof. Dr. Roberto Perez Xavier, UNICAMP- Universidade de Campinas, Brasil). It was complemented by an afternoon short practical course on electron microprobe, fluid inclusions and geochemistry. This theoretical part was attended by about 70 scientists, M.Sc. and Ph.D. students, professors and geologists belonging to different mining companies and coming from Brazil, Colombia, Argentina and Peru. It is worth to note that the course hosts more and more people coming from the industry and that most of them are really interested in what in South America have been traditionally considered as academic disciplines, such as theoretical geochemistry, fluid inclusion studies or isotopic dating.

One of the most fascinating aspects of the course was communication. Talks were

presented in Spanish, Portuguese and English, with imaginative answers in those languages and many of them in portuñol (a mixture of Portuguese and Spanish). Here we would like to acknowledge the big effort done by speakers and attendants in order to solve the barrier problem. This reached its maximum during the after work. If all the courses have been great, Brazil will pass to the history of these courses as one of the most vivid nightlife, all of them organized and encouraged by our Brazilian colleagues. That included dinners, wine tasting parties and long nights of dancing.

The practical course included visits to some of the most prominent deposits of the Quadrilátero Ferrífero, including the famous Itabira iron mine as well as the orogenic gold deposits of Corrego do Sitio and Lamego and the iron mine of Samarco. They were complemented with the visit to the famous outcrop of itabirite of the Serra da Piedade and some prospects of Au-U in conglomerate that are strikingly similar to the Witwatersrand. All the speakers accompanied the field trip. Nights were at the natural reserve of Serra de Caraça and the World Heritage City of Ouro Preto, one

of the most prominent mining cities of the world.

As previous editions, the course could not be held without the collaboration of international and local institutions. The attendance of students and some professors was possible due to the economic support of UNESCO, SEG and SGA while the general costs were covered with the generous contribution of the CDTN and the Government of Minas Gerais as well as Ministerio de Minas e Energia of Brazil, Anglo Gold Ashanti, Votorantim, Vale, Anglo American, Ferrous, Terra Ativa, and other institutions and companies.

The next course will be held in Concepción (Chile) and organized by Bernhard Dold, and will be devoted to the environmental aspects of mining. The 2011 edition will be probably held in Colombia and coordinated by Juan Carlos Molano (University of Bogotá) and Fernando Barra.

More information on the course can be found in http://www.unige.ch/sciences/terre/mineral/seminars/belo_horizonte09/belo_horizonte09.html



Group photo of the 28 Latin American Course of Metallogeny held in Belo Horizonte.



As always, the auditorium was full of attendants coming from all Latinamerica.



Lydia Lobato explaining the peculiarities of the orogenic gold deposits at Lamego.



At the Sierra da Piedade outcrop of itabirite.



Explanation on the geology of the Corrego do Sítio mine.