

# Final Programme



## CERCAMS-16 Workshop & Final Conference of IGCP-592

*“One billion years of crustal growth from Altaids to SW Pacific”*

**NHM London: 26-28 October 2016**

**Summary:** The conference combines the 16<sup>th</sup> workshop of CERCAMS (launched in 2002) with the Final Conference of IGCP-592 “Continental construction in Central Asia” (2012-2016). Resulting from recent decades of collaborative research it will review the progress made in the understanding of the Central Asian Orogenic Belt and draw conclusions from comparison with other orogenic systems such as the western and SW Pacific. Focus will be on the geodynamic and metallogenic evolution of Central and East Asia, comprising the territories of the former Soviet Union, China, Mongolia and Japan. Special attention is further paid to the characterisation of giant ore systems and unique mine camps, featuring state of the art research from the Central Asian Orogenic Belt (Altaids) to the Uralides, and also including selected examples from the adjacent domains of Siberia and China. The established research network seeks with this meeting a closer involvement of invited experts from Mongolia, Uzbekistan, Tajikistan, Kyrgyzstan and Kazakhstan to use their case study objects for a reality test of the developed geological models (combined plume & plate tectonics, ore potential of juvenile vs. recycled crust, OPS, ridge subduction, novel geochemical and mineralogical tools and implications for advanced mineral exploration models). The workshop aims to synthesize and reassess interdisciplinary knowledge and to catalyse novel research in the architecture of Central Eurasian metallogenic belts by bringing together teams from universities, academia and the mining industry. There will be a series of invited presentations on tectonics, geodynamics and regional metallogeny, as well as deposit case studies. We expect attendance from international mineral exploration industry to sustain the fruitful mutual relationship developed over past 15 years. The event is supported by LODE and by IAGOD.

**Venue:** Natural History Museum, Cromwell Road, SW7 5BD, South Kensington, London

**Registration:** **on Wednesday 26<sup>th</sup> Oct. 2016** - 18:30 – 19:30 if attending Ice-Breaker  
**on Thursday 27<sup>th</sup> Oct. 2016** - before the Session 08:00-08:50

**Registration Fee:** £60.- Pounds payable in cash - includes workshop materials, ice-breaker reception, morning coffee, buffet lunch and coffee breaks at both days.  
Subscribed CERCAMS Patrons 2016 – Free access (2 persons).

Contact for **late registration** : [R.Seltmann@nhm.ac.uk](mailto:R.Seltmann@nhm.ac.uk)

Tel. 0207 942 5042 / Mobile: 0791 718 7930

**Ice-breaker Reception:** Wednesday, 26 October 2016, 18:30 – 22:00

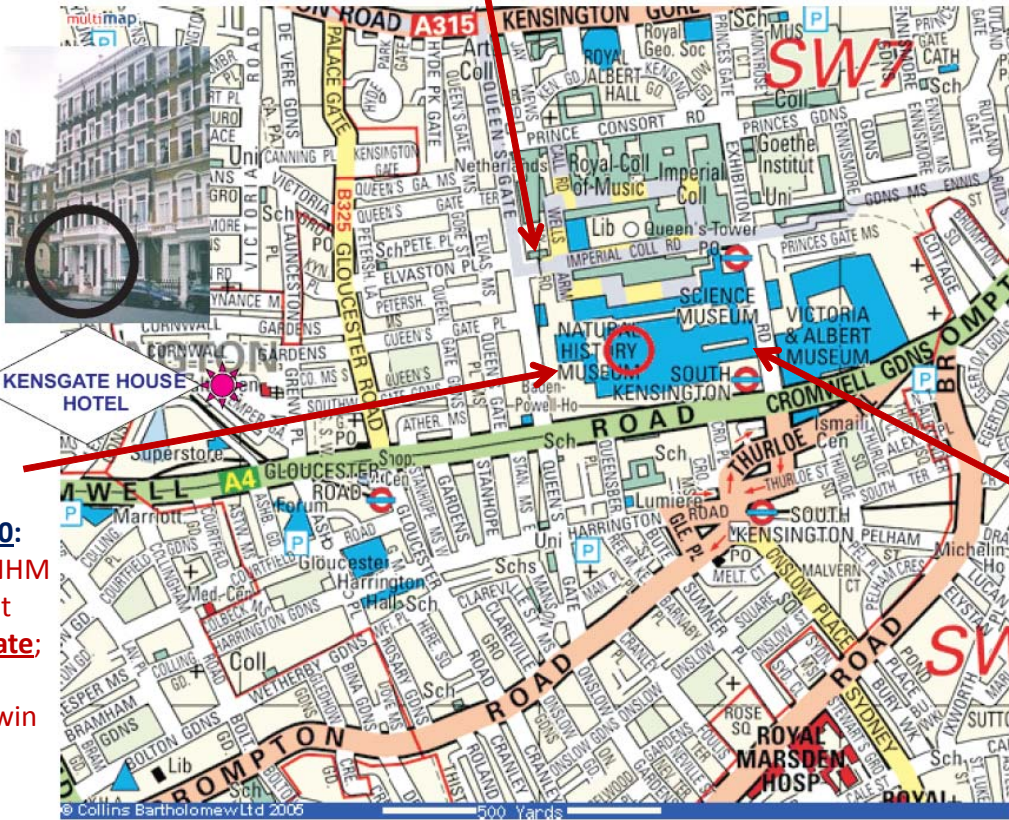
Venue: 170 Queen’s Gate, SW7 5HF; Guest Speaker - Douglas Kirwin:

*“Fifty Years of Looking at Rocks-Some Observations from Industry”*

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## CERCAMS-16: Location map & event schedule

Reception,  
27.10; 18:30  
170 Queens Gate



**Thursday,  
From 08:00:**  
Arrive to NHM  
entrance at  
**Queens Gate;**  
glass-door  
entry, Darwin  
Centre-2,  
"Cocoon"

**Friday,  
From 08:30:**  
Arrive to  
Museum's  
entrance at  
**Exhibition  
Road,** staff  
entrance



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## CERCAMS-16 / LODE Workshop \*

### Final Conference of IGCP-592

**THURSDAY, 27 OCTOBER 2016**

**ARRIVE AT QUEENS GATE ENTRANCE TO DARWIN CENTRE "ATRIUM" ONLY, FOLLOW SIGN POSTS**

**08:00 – 08:50      REGISTRATION**

- |       |  |
|-------|--|
| 08:50 | More than one billion years of crustal growth – what next? (Opening remarks)<br><i>Reimar Seltmann, NHM London, UK</i>   |
| 09:00 | Continental construction in the Central Asian Orogenic Belt: evaluation of juvenile vs. recycled crust and identification of Pacific-type orogens<br><i>Inna Safonova, Sobolev Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia</i>                       |
| 09:30 | Research progress on the Altai Orogenic Belt<br><i>Min Sun (The University of Hong Kong, China), Chao Yuan, Wenjiao Xiao, Karel Schulmann, Yingde Jiang, Keda Cai, Xiaoping Long, Jian Zhang, Pengfei Li, Ming Chen, Yang Yu, Arnaud Broussolle</i>                      |
| 10:00 | Ophiolites as fragments of seamounts and oceanic plateaux in the altaids and their contributions to the phanerozoic continental growth<br><i>Wenjiao Xiao (Inst Geol Geophysics, CAS, Beijing, China), Brian F. Windley, Bo Wan, Ji'en Zhang, Songjian Ao, Xijun Liu</i> |

**10:30 – 11:00      COFFEE BREAK**

- |       |   |
|-------|---|
| 11:00 | Hybrid accretionary/collisional mechanism of Paleozoic Asian continental growth: new plate tectonic perspective<br><i>Karel Schulmann (Czech Geological Survey, Prague, Czech Republic), Min Sun, Ondrej Lexa, Alexandra Guy, Vojtech Janousek, Yingde Jiang, Pavla Stipska</i> |
| 11:30 | Ridge Subduction in the Central Asian Orogenic Belt<br><i>Brian F. Windley (The University of Leicester, UK) and Wenjiao Xiao</i>   |
| 12:00 | A rollback model for the formation of the Kazakhstan Orocline, Central Asia<br><i>Pengfei Li and Min Sun, The University of Hong Kong, China</i>  |

**12:30 – 13:30      LUNCH BREAK**

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13:30	Tectonics and metallogeny of the Central Asian Orogenic Supercollage: A product of interplay between the Paleasian, Mongol-Okhotsk and Tethyan Oceans <i>Alexander Yakubchuk, Orsu Metals, London</i>
14:00	Porphyry deposits of the Urals: geological framework, timing, and metallogeny <i>Olga Y. Plotinskaya (IGEM RAS, Moscow, Russia), A.I. Grabezhev, R. Seltmann</i>
14:30	Types and models of large gold deposits in Kyrgyzstan <i>Nikolay Pak and Elena Ivleva, Institute of Geology NAS, Bishkek, Kyrgyz Republic</i>
<b>15:00 – 15:30          COFFEE BREAK</b>	
15:30	A geotraverse across two paleo-subduction zones in Tien Shan, Tajikistan <i>Dmitry Konopelko (St. Petersburg State Univ., Russia), R. Seltmann, Y. Mamadjanov, R.L. Romer, Y. Rojas-Agramonte, T. Jeffries, D. Fidaev, A. Niyozov</i>
16:00	Paleozoic structure of Kyzylkum and Nuratau sectors as a key of the South Tien Shan geodynamics <i>Pavel Mukhin (Israel), Rustam Mirkamalov and Farid Divaev (IMR Tashkent, Uzbekistan)</i>
16:30	Differentiation and stabilization of accretionary wedge: insights from the magmatic evolution of the Chinese Altai Orogen, central Asia <i>Jiang, Yingde D. (Guangzhou Institute of Geochemistry, CAS, China), Schulmann, K., Sun, M., Štípská, P., Guy, A., Lexa, O., Janoušek, V., Yuan, C.</i>
17:00	Intra-plate basalts and Ocean Plate Stratigraphy of the Paleo-Asian and Paleo-Pacific oceans: a key for understanding the formation of Pacific-type orogens <i>Inna Safonova, Sobolev Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia</i>
<b>END at 17:45      –      followed by individual dinner arrangements; you may wish to join to attend:</b>	
	
<b>Date: Thursday 27th October; Time: 17:30 onwards</b>	
<b>Venue: Upstairs, The Kings Arms, 2 Shepherd Market, London W1J 7QA</b>	
<b>Nearest stations: Green Park (Piccadilly &amp; Victoria), Bond St (Central &amp; Jubilee)</b>	



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**FRIDAY, 28 October 2016**

**ARRIVE AT EXHIBITION ROAD ENTRANCE: FLETT LECTURE THEATRE**

09:00	Arc-continent collisions and the implications for ore deposits: key examples from Eurasia <i>Richard Herrington, NHM London, UK</i>
09:30	Exploration Remote Sensing: What every geologist ought to know about technology and trends for 2017 <i>Dan Taranik, Exploration Mapping Group, Inc., USA</i>
10:00	Exploration and Mineral Resource Estimation – Lessons Learnt Working in Central Asia <i>Nick Szebor, Wardell Armstrong International Ltd, London, UK</i>
<b>10:30 – 11:00      COFFEE BREAK</b>	
11:00	Exploration in Kazakhstan: From talk to action <i>Kent Balas, Chief Geologist Aurora Minerals Group, Astana, Republic of Kazakhstan</i>
11:30	Cyanide management in the CIS <i>Christine Blackmore, Wardell Armstrong International Ltd, Stoke, UK</i>
12:00	Chlorite chemistry as a new exploration tool in the propylitic halo of porphyry systems <i>Wilkinson, J.J. (NHM London, UK), Chang, Z., Pacey, A., Baker, M.J., Cooke, D.R., Wilkinson, C.C., Inglis, S., Gemmell, J.B.</i>
<b>12:30 – 13:20      LUNCH BREAK</b>	
13:20	Propylitic alteration in complex porphyry systems: A case study of the Oyu Tolgoi Cu-Au porphyry deposits, Mongolia <i>Lisa Hart (NHM London, UK), Jamie Wilkinson, Robin Armstrong, Debora Araujo,</i>
13:40	Garnet fractionation records super-hydrous conditions in magmas forming giant porphyry Cu deposits – an example from Oyu Tolgoi <i>Matthew A. Loader (NHM London, UK), Jamie J. Wilkinson, Robin N. Armstrong, Alan Kobussen, Paul Agnew</i>
14:00	Assessment of lithospheric controls on Mesozoic volcanism in Mongolia <i>Thomas Sheldrick (University of Leicester, UK), Tiffany Barry, Batulzii Dash</i>

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14:30	Detrital zircon provenance analysis in the Central Asian Orogenic Belt of SE Mongolia - towards an improved tectonic model of the S Mongolian collage <i>Wilfried Winkler (ETH, Switzerland), Denise Bussien, Munktsengel Baatar, Anaad Chimedtseren, Albrecht von Quadt</i>
15:00	Wrap-up / Closing discussion

**COFFEE -                      END AT 16:00**

## POSTER CONTRIBUTIONS

Late Palaeozoic to Mesozoic gold-bearing ore deposits from Cornwall to Jiaodong – a plate-tectonic perspective for plutono-metasomatic systems

*Hugo de Boorder, Utrecht University, The Netherlands*

Correlation pattern of magmatic complexes of West Tien Shan (Uzbekistan)

*Farid Divaev & Rustam Mirkamalov, IMR Tashkent, Uzbekistan*

A newly-found large gold deposit in Xinjiang, China, Tien Shan: Geology, ore-fluids, S-Pb isotopic tracing and chronology of the Katebasu gold deposit

*Chunji Xue, Xiaobo Zhao, Xuanxue Mo, China University of Geosciences, Beijing China*

Paleozoic accretionary orogenesis in the eastern Beishan orogen: Constraints from zircon U–Pb and  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology

*Songjian Ao and Wenjiao Xiao, IGG CAS Beijing / Urumqi, China*

The late Paleozoic magmatism in the Yili-Balkash orocline and applications for the accretionary tectonics of the SW Central Asian Orogenic Belt

*Bo Wang (Nanjing, China), Yuchuang Cao, Bor-ming Jahn, Dominique Cluzel, Liangshu Shu, Linglin Zhong*

Metallogeny of the Central Asian Orogenic Belt: Mongolia's mineral resources

*Ochir Gerel, Mongolian University of Science & Technology, Ulaanbaatar, Mongolia*

Crust-mantle interaction in the formation of Kalmakyr and Muruntau ore giants, Uzbekistan

*Alla Dolgoplova, R. Seltmann, R. Armstrong (NHM London, UK), E. Belousova, D. Konopelko*

The Sekisovka gold-telluride deposit in Eastern Kazakhstan: tectonics and magmatism

*M. Mizernaya, A. Mizerny, A. Miroshnikova (EKSTU, Kazakhstan), A. Dolgoplova, R. Seltmann*

Mineral Resources Potential for the Economic Development of Tajikistan

*R. Bakhtdavlatov, Agency of Geology under the Government of the Republic of Tajikistan, Dushanbe*