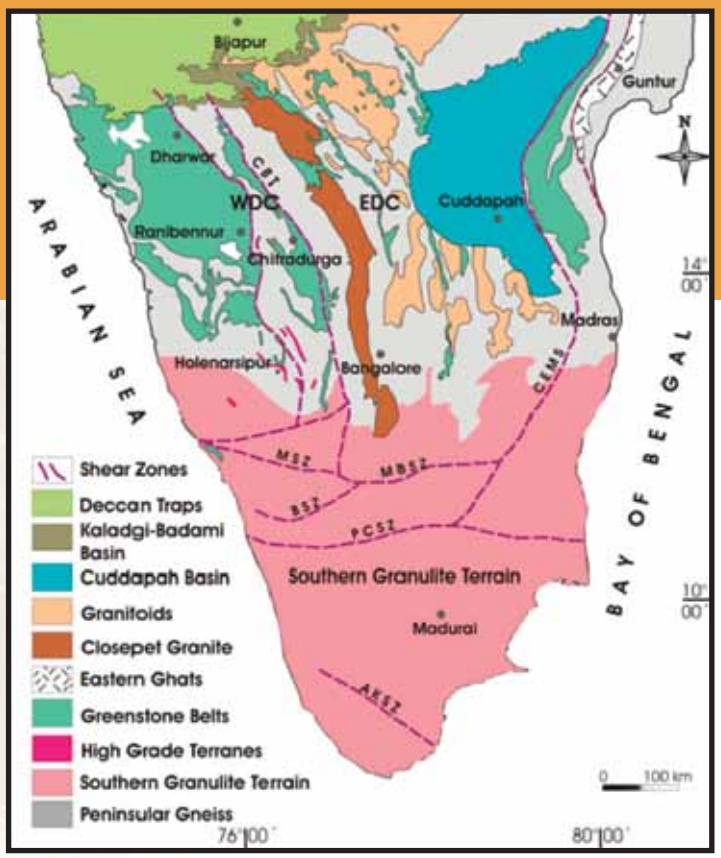
GOLD IN THE DHARWAR CRATON, INDIA — underendowed or underexplored?



A one-day workshop for gold researchers and explorers to be held at Curtin University

Perth, Western Australia
Wednesday 6th February 2013
Commences 9.00am

Supporting Geoscientists

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Curtin University

The last two decades of research into the 4D evolution of the gold-rich Eastern Goldfields Province (EGP) indicates a complex mosaic of different terranes accreted to the older nuclei of the proto-Yilgarn Craton.

The timing of various igneous and metamorphic events in each terrane, together with reliable dating of gold mineralisation, provides an absolute timeframe from greenstone formation to cratonisation. Important outcomes from 4D studies include the recognition of coeval gold mineralization within terranes (but not necessarily between terranes), regional fertility possibly related to lithospheric structure, a mantle link via the presence of coeval lamprophyres, and a tectonic link between gold and late basins.

The most significant recent advances have come from specialised isotope geochronology. The EGP provided a natural laboratory to develop advanced analytical techniques in geochronology and exploit multiple minerals to determine reliable age data for most geological events. The majority of ages for EGP gold deposits and their environs are currently unpublished, but will be reviewed and interpreted at this Workshop.

The main aim of the Workshop will be to report on a parallel 4D study of the Neoarchean Dharwar Craton in southern India, using the EGP as a template. The same specialised geochronology techniques developed for the EGP are utilised.

The Dhawar Craton comprises the Western and Eastern Dharwar Cratons (WDC and EDC). The EDC hosts world-class gold deposits similar to the EGP, whereas the WDC is less well endowed. However, the overall known gold endowment of the cratons is significantly less than the Yilgarn and Abitibi. Is this an anomaly, or a reflection of under exploration?

The two world-class deposits of the Dharwar Craton are at Kolar and Hutti. Both occur in the EDC and are adjacent to an extraordinary ~400 x ~20 km granite batholith (the Closepet Granite), that is parallel to the collisional boundary between the EDC and WDC. The EDC and WDC have distinctly different rock associations, crustal thicknesses and sublithospheric mantles. Gold mineralisation occurred at two different times and was broadly coeval with phases of the emplacement of the subduction-related Closepet Granite batholith, major thrusting, and late basin development.

The distribution of major gold camps in the EDC and WDC is broadly analogous to the Yilgarn, with the largest gold camps in the thinnest and most juvenile Archean crust. Further, the age data from the EGP indicate a ~50-80 m.y. cycle from greenstone development to gold mineralisation. Similar cycles are recognised in the Dharwar, although importantly, the Dharwar cycles postdate the EGP cycles by ~100 m.y.

This one-day workshop focuses on the 4D evolution of the Dharwar Craton, particularly on events in the mineralised terranes that are broadly coeval with gold mineralisation. Presentations will begin with introductions to the geology, geophysics and gold deposits of the Dharwar Craton by Indian specialists from the National Geophysical Research Institute, Hyderabad (D.S. Sarma, M. Ram Mohan, Sandeep Gupta) and Pondicherry University (S. Balakrishnan). This will be followed by a keynote presentation on the "Indian gold industry: regulations and opportunities" given by V.N. Vasudev, Chief Consulting Geologist, Deccan Gold Mines Ltd. Dr Vasudev has extensive knowledge of government policies, the practicalities of exploring and mining in India, and the issues facing non-Indian explorers. Thereafter, new unpublished age data and interpretations from the Dharwar Craton will be presented by Neal McNaughton (Curtin) and comparisons drawn with the EGP and the North China Craton (Simon Wilde, Curtin). The latter has been linked to the Dharwar by similarities in their event stratigraphy and timing. Lastly, a Q&A panel discussion on any aspects raised by participants will be chaired by David Groves.

This research and Workshop is supported and sponsored by the Australia-India Strategic Research Fund (AISRF), Curtin University, the National Geophysical Research Institute (Hyderabad, India), Pondicherry University (Puducherry, India), and the AIG. AISRF has subsidised speaker attendance at the workshop.

Please Return: By email to jaytee@iinet.net.au. By fax to +61 (0)8 9355 2164
By mail to: Geoscientists Symposia 34 Washington Street, Victoria Park, WA 6100, Australia

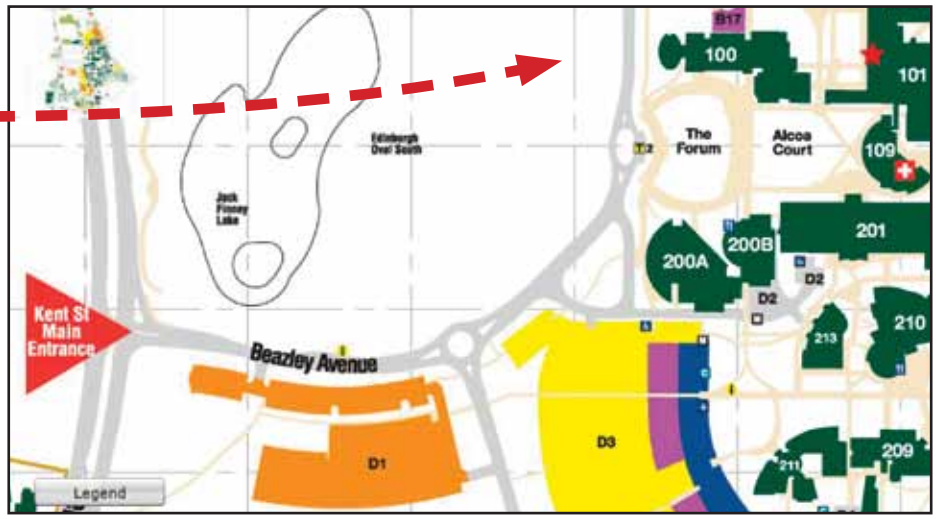
GOLD IN THE DHARWAR CRATON, INDIA — underendowed or underexplored?

VENUE:

Council Chambers, Building 100
Curtin University of Technology
Kent Street , Bentley, Perth
Western Australia 6102

PARKING:

Free parking in green or orange zones, or paid parking in visitor zones



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PROFESSIONAL DEVELOPMENT:

This course may assist with Continuing Professional Development (CPD) compliance for many AIG Registered Professional Geoscientists (RPGeos).

Further information on the AIG RPGeo program is available at http://www.aig.org.au/index.php?option=com_content&view=article&id=77&Itemid=97

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REGISTRATION DETAILS

(ALL PRICES INCLUDE 10% GST)

Tick to Attend		Delegate	Fee TALLY
	1-Day Workshop (Perth) - 6 February 2013: Gold in the Dharwar Craton, India – underendowed or underexplored? *(Includes lunch and refreshments)*	$250	
		TOTAL (AU$):	

PAYMENT DETAILS

We encourage non-members to join. AIG membership is: University Student $0, Graduate $77, Associate $99, Member $121.

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