



## ORIENTATION

### The International Centre of Rock Art Dating and Conservation (ICRAD)

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The rock art dating expedition of June 2014, covering a series of sites in three provinces of China (Henan, Ningxia and Jiangsu Provinces), has resulted in an unprecedented increase in credible rock art age estimates in China (Tang et al. 2014, 2016). Within just three weeks it produced twenty-seven 'direct dating' results from eleven sites of over twenty investigated, thereby more than doubling the number of all rock art dating attempts ever undertaken in China for the previous thirty years (Wang 1984; Qin et al. 1987; cf. Li 1991; Bednarik and Li 1992). This successful project not only increased our understanding of the antiquity of Chinese rock art significantly, it also persuaded its leader, Tang Huisheng, to consider establishing a rock art dating facility in China. He announced this intention at the Business Meeting of the International Federation of Rock Art Organisations (IFRAO) on 18 July 2014 in Guiyang City, and then began acquiring the necessary approvals and funding. In selecting a site for this international centre he considered several potential candidates and then decided on the Archaeology Department of Hebei Normal University in Shijiazhuang, primarily because it is a venue with an emphasis on advanced technologies. This would be of obvious benefit to the proposed facility, because the required equipment is in many instances already available at Hebei. This includes facilities for AMS radiocarbon, uranium-thorium and OSL analyses.

The age estimation ('dating') of rock art is of particular importance to archaeology, because if its age is unknown, rock art cannot be effectively connected to archaeology: it cannot be slotted into an archaeological chronology derived from stratified sediments. Without a reliable indication of its age, rock art simply has no temporal depth and no archaeological relevance. Without knowing whether a particular corpus of rock art is 200 years or 20 000 years old, any archaeological speculations about its significance are obviously in vain. And there have been many cases where archaeologists have assumed that rock art that is in fact in the order of 200 or so years old is in excess of 20 000 years (e.g. Zilhão 1995; Bahn and Vertut 1997). Such

consummate errors have been quite common in the discipline, including in China, confirming that without credible dating, rock art lacks any archaeological depth which can lead to significant misinterpretation. This emphasises the fundamental need for age estimation of rock art, a need that the newly created facility at Hebei Normal University will endeavour to address through a broadly based program.

In establishing ICRAD the initial emphasis will be on the creation of a fully comprehensive archive of all the direct rock art dating work that has been conducted up to the present time and in the entire world. So this new research centre will not only serve Chinese researchers; it will become a world repository of all relevant work. In this initial goal, ICRAD will have the full support and collaboration of IFRAO, through its fifty-four member organisations. The ICRAD Archive will hold these extensive records and will eventually make them available to the researchers of the world through the Internet, thus providing an invaluable resource to all rock art students of the world. ICRAD will also forge links with various institutes in various countries, particularly in those that have been most active in the specific field of rock art age estimation. At the same time, ICRAD intends to commence its own fieldwork and analytical program, essentially building on the work that has been conducted in China in recent years (Tang and Gao 2004; Tang and Mei 2008; Tang 2012; Tang et al. 2014, 2016).

Finally, ICRAD will also develop teaching capability. As an initial step, Professor Tang announced the appointment of four Visiting Professors at the very opening ceremony of the facility (Fig. 1), all of whom were present at this event. They are Maxime Aubert, Robert G. Bednarik and Paul S. C. Taçon from Australia, and Giriraj Kumar from India. Tang has secured funding for capital expenditures, which will largely comprise the acquisition of scientific equipment in addition to that already available to him at Hebei Normal University. On that basis the successful operation of ICRAD as an international research centre seems assured for years to come, and the establishment of this facility represents a major boost for global rock art research.

#### REFERENCES

- BAHN, P. G. and J. VERTUT 1997. *Journey through the Ice Age*. Weidenfeld and Nicolson, London.



- BEDNARIK, R. G. and LI F. 1992. Rock art dating in China: past and future. *The Artefact* 14: 25–33.
- LI F. 1991. Rock art at huashan, Guangxi Province, China. *Rock Art Research* 8(1): 29–32.
- QIN S., QIN T., LU M. and YÜ J. 1987. *The investigation and research of the cliff and mural paintings of the Zuojiang river valley in Guangxi*. Guangxi National Printing House, Nanning.
- TANG, H. 2012. New discovery of rock art and megalithic sites in the Central Plain of China. *Rock Art Research* 29(2): 157–170.
- TANG, H. and GAO Z. 2004. Dating analysis of rock art in the Qinghai-Tibetan Plateau. *Rock Art Research* 21(2): 161–172.
- TANG, H., R. G. BEDNARIK and G. KUMAR 2014. Preliminary report of the 2014 rock art dating expedition of China. *Purakala* 24: 63–75.
- TANG, H. G. KUMAR, LIU W., XIAO B., YANG H., ZHANG J., LU XIAO H., YUE J., LI Y., GAO W. and R. G. BEDNARIK 2016. The 2014 microerosion dating project in China. *Journal of Archaeological Science – Reports*
- TANG, H. and MEI Y. 2008. Dating and some other issues on the prehistoric site at Jiangjunya. *Southeast Culture* 202(2): 11–23.
- WANG N. 1984. An introduction to rock paintings in Yunnan Province (People's Republic of China). *Rock Art Research* 1(2): 75–90.
- ZILHÃO, J. 1995. The age of the Côa valley (Portugal) rock art: validation of archaeological dating to the Palaeolithic and refutation of 'scientific' dating to historic or proto-historic times. *Antiquity* 69: 883–901.