

The World's Salt Lakes: Today and Tomorrow

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The 12th International Conference on Salt Lake Research, which is organized jointly by International Society of Salt Lake and The Institute of Mineral Resources, Chinese Academy of Geological Sciences, will be held on July 14–18, 2014 in Langfang, Hebei Province, China. The conference themes focus on future and global salt lake sustainable research and development and will bring together international specialists in limnology, sedimentology, geology, geochemistry, biology, ecology, management and conservation to present the latest results and ideas on research and use of saline lakes. The five-day meeting will be organized by topical symposia and problem-oriented sessions on current issues within salt lake research and sustainable development.

A total of 226 abstracts from more than 10 countries have been received and these fit into 7 topics: (1) the salt lake record and global change, (2) salt lake ecology and resources, (3) geochemistry and biogeochemistry, (4) salt lakes, surrounding environments and environmental management, (5) salt geology and resource prospection, (6) salt chemistry and chemical engineering, and (7) general issues. These abstracts* contain the latest academic achievements in the field of salt lake research and are well worth reading.

There are two post-conference field trips planned: a 7-day one to Qinghai salt lakes and 3 days to the Yuncheng salt lake.

1. Qaidam Basin Salt Lakes in Qinghai

There are two saline lakes in the Qaidam Basin – Qarhan and West Taijinar.

Qarhan and West Taijinar are two dried saline lakes, which are important production bases for salt. The field trip includes visiting the latest technique for sylvine production developed by the Salt Lake Group, National Mine Park in the salt lake and Salt Lake Museum; scientific drilling site for a 3500-m-depth whole-core; and discussions on the evolutionary history of the Qarhan salt lake. This will reveal the mineralization pattern for oil and gas and the sylvine and evolution of high-resolution climate change in the region.

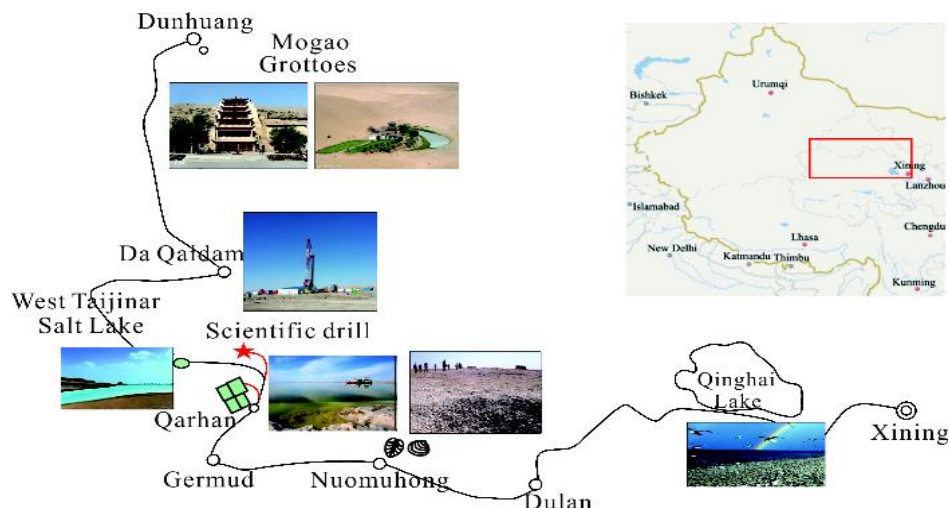


Fig.1. Fieldwork route map of Qinghai Salt Lakes

2. Yuncheng Salt Lake in Shanxi Province

The salt lake in Yuncheng, southwestern Shanxi, was the earliest in the world to employ the solar pond technique to produce salt. It has 4000 years of history in salt production.

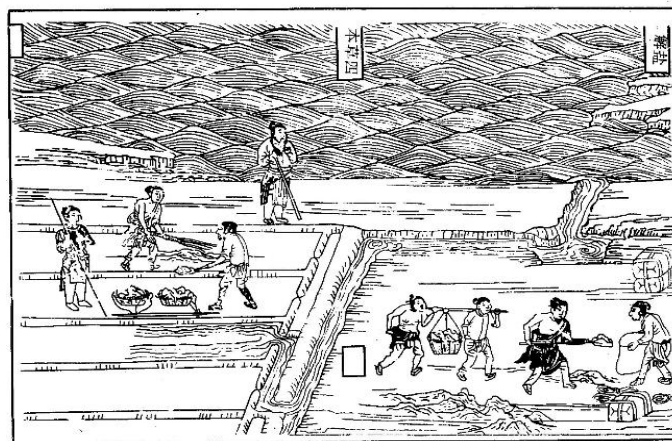


Fig 2. Drawing of the 'reclamation-furrowing-irrigation (with brine)-solar evaporation' technique about 4000 years ago (after 《Zhouli,Tianguan , Yanren》, B. C.2053).

The Ken-qi-jiao-shai technique (generally mean: a salt production technique by building square-shaped fields, poured into the salt lake water, sun exposure), named by the late scientist Joseph Li, is regarded as China's treasure. Historical relics, such as Chishengmiao, Shundi Tomb, Qinqiang, Bolishima, and others contribute to a unique salt culture. The trip comprises visiting those factories producing Glauber salt, magnesium sulfate and laundry soap, and experiencing the leisure industry such as floating in the lake and mud treatments, so as to understand the comprehensive utility and economy of the modern salt lake.

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