No Moratorium on Trust

Veterans of international collaborations with China say that trust is the lubricant that makes such projects run smoothly. But the pump temporarily ran dry in the feud between Chinese geoscientists and Spencer Lucas, a paleontologist at the New Mexico Museum of Natural History.

"Anybody who approves a GSSP [global stratotype section and point] is taking a big chance," says Lucas, who fought with his Chinese collaborators last summer over the rules governing a field project and ultimately left the country without any samples. "Who knows what they will do at a site once it gets approved?" But Liu Dunyi, a geochronologist with the Chinese Academy of Geological Sciences (CAGS) and a vice president of the International Union of Geological Sciences, says that Lucas turned a simple misunderstanding into an unwarranted attack on the country. "[The incident] was an isolated case that has nothing to do with China's official policy," he says. "Professor Lucas has made it an excuse to negate all international collaborations in China and mar the reputation of Chinese scientists."

Last fall, Lucas urged the global geosciences community to impose a moratorium on its process of approving Chinese sites as models for understanding Earth's history until high-ranking state authorities promise free and open access to them. Although that campaign may have affected the voting on one site (see main text), it does not appear to have had a lasting effect on the process.

Now there are signs that the breach may be closing. Last month, Lucas and his co-investigators on the ill-fated expedition invited their Chinese colleague, CAGS's Cheng Zhengwu, to sign a joint research agreement and to participate in an analysis of the samples, now being kept in Beijing, once the material is sent to the United States. "We're happy to work with them, but we can't offer them any money," says magnetopaleontologist John Geissman of the University of New Mexico. "There's nothing in the original grant for analysis." The invitation followed a recent letter to Lucas from Cheng, recounting the incident and ending with his wish "to cooperate with the U.S. side and send the samples to the USA as soon as an agreement is signed." **–Jeffrey Mervis**

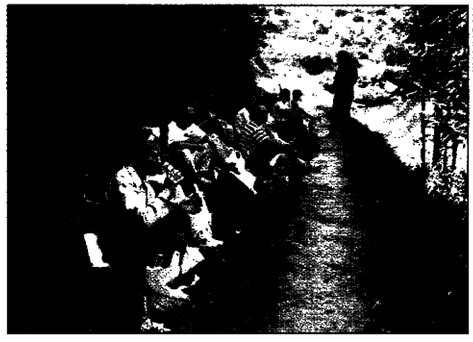
ago with some German geologists. "We were collecting data for our high-temperature and high-pressure research in Tibet when I found that my German colleagues had collected some rock samples," he says. "When I told them that rock collecting was illegal because it was not in the bilateral agreement, they refused to budge, saying that as long as it is beneficial to science, they were justified to do anything. I was really mad." Only when they realized they would have trouble getting these samples out of the country, he says, did they change their minds.

China is not alone, of course, in protecting its geological and fossil resources. Liu Jiaqi, director of the CAS's Institute of Geology, recalls that while visiting Yellowstone National Park a few years ago, he was tempted to hammer off a rock sample. "But my American host said to me: 'Do you want to go behind bars?' I understood him and dropped the idea."

And sometimes Chinese scientists can send a mixed message. Zhang Miman, of the well-known Institute for Vertebrate Paleontology and Paleoanthropology in Beijing, believes that some Chinese researchers have turned a blind eye to the collection and shipping of precious samples and specimens in return for personal gain, including round-trip tickets to a foreign country and the inclusion of their names on research papers written by the foreign parties. She emphasizes, however, that such behavior violates national sovereignty.

Money matters. Not surprisingly, money is often a source of friction. Geologist Larry Brown of Cornell University is a senior scientist on the International Deep Profiling of Tibet and Himalayas (INDEPTH) project (*Science*, 17 November 1995, p. 1144; 6 December 1996, pp. 1684–1694). He says his team had to cancel plans to film some of its work after learning about the high cost of access fees that non-Chinese participants were charged to enter Tibet. The negotiations, he says, left him with the impression that some Chinese are "more concerned with financial than scientific issues."

But CAGS geologist Xiong Jiayu, who is also head of the academy's Science and Technology Division, says many of the conditions are not set by scientists. For instance, Tibet has a local rule that forbids a single vehicle from going out to the field, he says. And housing costs are almost always higher for foreigners, he notes, because of rules that prohibit them from staying in the same, inexpensive guest houses typically used by their Chinese colleagues.



JIN YUGAN

Breaking bread. An international working group examining the Huangnitang site takes a lunch break.

Then there is the matter of setting aside what INDEPTH scientists euphemistically label a "public relations" budget. The money is used to smooth out any obstacles to progress, from a recalcitrant truck driver to an uncooperative local official. Once INDEPTH's foreign participants understood the importance of having such a budget, says Zhao Wenjin, a senior geophysicist at CAGS and co-leader of the project, they were able to carry out their work much more easily.

Veterans of joint projects say that one way to avoid mishaps in navigating the complex regulations, differing procedures, and rigid social norms in Chinese society is to put everything in writing. "Our Chinese colleagues are always faithful to the very word," says Brown. "The disagreements usually come over issues that developed during the course of the experiment."

Other tips from experienced collaborators are to select a partner carefully and be sensitive to cultural differences. Don't assume, for example, that a nod or smile means one's collaborator has understood the conversation or agreed to a particular course of action. For vertebrate paleontologist Richard Tedford, of the American Museum of Natural History in New York, there's really only one thing to remember: "Communicate, communicate, communicate," he stresses. "That's the secret."

Despite the occasional problems, China and its global partners are eager to reap the scientific advantages that flow from collaboration. In January, the International Union of Geological Sciences, in addition to ratifying the Ordovician site, took a small step toward cementing those ties by embracing a draft of guidelines compiled by geoscientists from 22 nations. The guidelines say that each visiting scientist "must respect not only the sovereignty, laws, and environment of the country in which he or she conducts research, but also the dignity and intellectual rights of its scientists." In other words, mind your manners when traveling abroad.

–Li Hui and Xiong Lei

Li Hui and Xiong Lei are reporters with China Features.