

20th International Symposium on Vulcanospeleology Dak Nong Province, Vietnam, November 2022

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Many conferences start with an Icebreaker. Some that I have experienced included fancy drinks and canapes served on a terrace bathed in the warm glow of early evening light. More commonly, it has been a sizzling BBQ washed down with a couple of beers and a glass of wine in a draughty shed at the local sportsground. But the Icebreaker function at the recent 20th International Symposium on Vulcanospeleology (20th ISV) in Vietnam was a whole new experience. Never before had I been invited to sit on a low plastic stool on the steps of a provincial cultural centre and be the first to sip rice wine through a long bamboo straw from a 20 litre ceramic pot.



Rice wine (*Rượu cần*), commonly called jar wine or tube wine is flavoured with a secret mix of herbs and spices from local forests and is a speciality of local ethnic minority communities in Vietnam's central highlands. The wine is only consumed at celebratory functions or on ceremonial occasions, such as the 20th ISV Icebreaker. During that first evening all participants and guests were invited to celebrate the event by sipping the wine through the bamboo straws, which were carefully sanitised for every new sipper.

This was but one element of the function, which commenced with singing, dancing and musical performances by one of the local ethnic minority communities, before moving on to a fabulous banquet served to each table set up on the forecourt of the provincial cultural centre in Gia Nghia City, the capital of Dak Nong Province.

Performance during icebreaker function (below).

Dirk and several other participants toasting the success of the ISV with a healthy dash of Rượu cần, or jar wine (above).

Over the next few days participants, including six ACKMA members, came to realise that every evening was a ceremonial occasion. All elements of the Icebreaker, including the sipping of *Rượu cần*, were repeated at the Welcome Party, the Gala Dinner and the Gala Banquet, each at a different location in and around Gia Nghia. The Farewell Party, on the other hand, was appropriately more restrained as it was held at lunchtime and was tightly scheduled between the formal closing ceremony and the start of the field excursions. Nevertheless, the range, quality and number of dishes served was outstanding.



Of course, the social functions were only a small part of the ISV program. There were excursions to museums, cultural institutions and an afternoon visit to an ethnic minority community, complete with more *Rượu cần* and hot food.

There were also presentations – the serious and arguably most important element of an ISV. The theme for the 20th ISV was conservation and sustainable use of volcanoes and volcanic caves.

The opening ceremony was held in the main theatre of the Provincial Conference Centre. Photo: ISV20 Organising Committee.



The opening ceremony was very formal compared to what usually happens at an ISV, or at a typical ACKMA or ASF Conference for that matter. It was held in the very impressive main hall of the provincial conference centre and commenced with spectacular musical and dance performances by ethnic minority people. Afterwards, there were speeches by important dignitaries, including Mr Nguyen Hong Ha, the Vietnam Minister for Natural Resources and the Environment; Ms Ton Thi Ngoc Hahn, the Vice Chairwoman of Dak Nong Province and also Director of the Dak Nong UNESCO Global Geopark; Mr Christian Manfort, UNESCO Representative to Vietnam; Mr Guy Martini, Chair of the UNESCO Global Geoparks Council and also General Secretary of the Global Geoparks Network, and also by Mr John Brush, President of the Commission on Volcanic Caves of the International Union of Speleology.

The presentations were spread over three days and were arranged under four broad themes: Cave management and protection; Biology and human use of caves; Geology and volcanic processes; and Cave exploration and documentation.

For all participants, the field trips were the real highlight. Most chose the longer 2-day (actually 2½ day) option. On the first day, everyone was transported by minibus to the volcanic area in the new Dak Nong UNESCO Global Geopark, about 120 km (a 2-hour drive) from Gia Nghia City. Two different routes were offered: a faster trip on a national highway with stops at Bang Mo volcano and at a cocoa farm to sample the products. However, most speleologists chose the second option on slower roads. This route also included a volcano stop – a walk to the top of Nam Kar volcano.



As we drove out of Gia Nghia, our police escort was obvious, but it was not until stopping at Nam Kar that we noticed an ambulance at the rear of our convoy. Just in case.

After the volcano walk, stops at a couple of geological viewing points were scheduled, but we spent so long at the volcano, partly because some people did a lap of the crater rim, that it was dark before we got to the viewing points and, as we were running late for that evening's Gala Banquet, our mini-buses pushed on, even whizzing past our hotel so there was no chance to freshen up after the walk.

Heading towards Nam B'lang volcano, the principal source of the lava flows in which the Dak Nong caves formed.

The Gala Banquet that evening was held at Dray Sap on the lush lawns of an eco-resort. The dining tables were set up under a large blue and white striped awning shaped like a parachute. The organisers must have known it was going to rain. And when it did, the huge 'parachute' shelter did its job, and it was only the musicians and light show operators on the open-air stage who appeared to be worried. Fortunately, the rain shower passed quickly. At about that time I noticed several very well-dressed people in immaculate white uniforms with red trimmings, epaulettes and military-style peaked caps. It looked like formal naval attire, but we were nowhere near an ocean. Intrigued, I asked one of the organisers who these people were and was told they were food safety inspectors. Five of them! I was informed there were also health inspectors, first aid attendants, security people and police and, if the organisers and translators were included, there was a total of about 70 locals looking after the relatively small number of participants. More than two for each of us!



*Left: Teachers from local schools played an essential role in translating between Vietnamese and English (and vice versa)
Right: ACKMA members enjoying lunch with a local schoolteacher. Photo: Noy (Phaithoun Somepilavong).*

The translators, in particular, worked very hard. They were all English teachers from local schools (where learning English is compulsory) and spoke better English than many of us. The teachers did simultaneous translations during the opening ceremony; presented in both Vietnamese and English at the evening functions each night; and were on hand to explain the museum displays and the special exhibitions by local school children and agricultural producers put on especially for the ISV. The teachers were very interesting to talk to about Vietnamese life, customs and traditions during the lunchtime meals and evening functions.

Next morning we all split into three groups for caving trips, based on the degree of difficulty we had opted for on the registration form. There was a horizontal cave option, an option that included a cave with an 11 m entrance pitch and another that included a cave with a 26 m entrance pitch. All three groups ended up being of much the same size. Greg Middleton and I chose the second option, which included the cave with the 11 m entrance pitch. This was rigged for both SRT and laddering.

It was necessary to walk to all of the caves, and for the most distant, it was a two-hour walk each way. Consequently, many participants were able to see only a couple of caves each day. However, the organisers had carefully selected caves so that each group had an opportunity to see good examples of entrances with luxuriant vegetation, interesting passage morphologies and lava features, cave fauna and secondary calcite growths.



All three groups visited a cave (Cave C6.1) that has become a very important archaeological site where, among other things, seven human skeletons have been excavated. The section of cave with the excavation sites has highly restricted access and is gated off and we were not able to inspect the site except at a distance through the bars of the entrance gate. Dating work indicates they range in age from around 5230 to 6680 years BP. It is most unusual for old bone material to be preserved in volcanic caves because they generally have an acidic environment. A paper presented at the ISV suggests the reason bone preservation in this cave was so good is because of a high level of calcium carbonate in the cave fill. It is postulated that this results from a huge number of mollusc shells discovered in the dig horizons, suggesting that terrestrial molluscs were a major dietary component of the cave's inhabitants over a period of 2,500 years.

In cave C6.1, one section of which is an important archaeological site. Almost everywhere we went in the caves, we were followed by a large media contingent.

Several of the caves also contained quite a bit of mud that either partly or totally obscured the original lava floor of the cave. Most of the mud appears to have been washed in from the surface during the wet season, and for some caves, farming activity on the surface above was probably a contributing factor.



Passage view in cave C9.

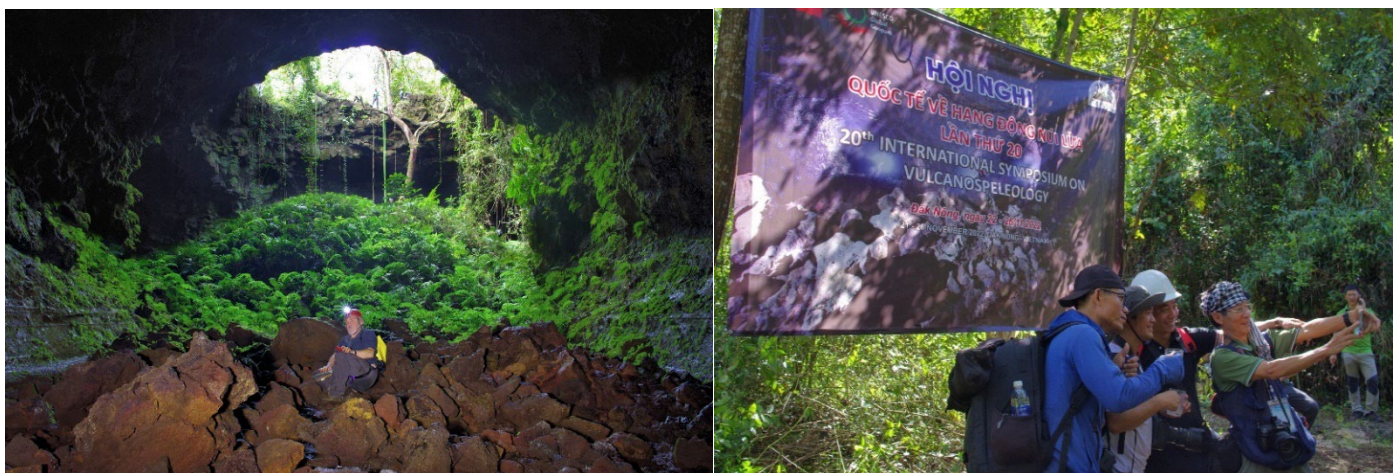
Typical passage in cave C8. Photo: Dave Bunnell.

Everywhere we went in the caves, we were followed by a large media contingent from national and local TV and print media. This came close to being a little irritating at times, but they were very obliging and not too intrusive – perhaps because we had already become accustomed to their presence during the presentation sessions.

As the 4760 km² Dak Nong UNESCO Global Geopark was established only a short time ago and is the first volcanic area in Vietnam to be included in a geopark, the Management Board is still feeling its way on managing the caves and surface areas above them. The Geopark people sought our comments on the caves and also advice on how we thought they should be managed. This resulted in an informal group of field trip participants providing comments which were consolidated by the Commission on Volcanic Caves and submitted to the Geopark in mid-January 2023. Among the key concerns raised were:

- apparent absence of an on-site management presence
- illegal farming activities and land clearing
- poor signage with inconsistent or conflicting access advice
- lighting of fires in caves (for partying?) and in the entrance areas (for meal cooking and to make smoke so that sunbeams stand out more prominently)
- lack of any constraints on where in a cave visitors can walk, resulting in:
 - damage to vegetation in entrance areas
- mud tracking
- floor compaction (possibility of damage to cave invertebrates and their habitats) and
- possible damage to floor features, including to calcite speleothems.

All in all, the ISV was very interesting from both the vulcanospeleological and management perspectives. It was also culturally enriching and provided an opportunity to learn more about a part of Vietnam that is not widely known about outside Vietnam and is not (yet) on the radar for many foreign visitors. It is hoped that adequate management arrangements are in place for the caves before the onslaught happens.



Left: Franz having a rest near the entrance of cave C.7, which has an 11 m pitch.
Right: Even media photographers enjoy taking selfies.

Below: John Brush, President of the UIS Commission on Volcanic Caves, being presented with a framed image of the Dak Nong Geopark by Ms Ton Thi Ngoc Hahn, Vice Chair of the Province. Photo: ISV20 Organising Committee.

