

2nd INTERNATIONAL KIMBERLITE CONFERENCE
SANTA FE, USA
1977



The second IKC was held in the United States in October 1977 at Bishop's Lodge, 3 miles north of Santa Fe in New Mexico (**Figure 2 IKC-1**).



As with the first IKC there were fieldtrips before and after the Conference. The pre-conference fieldtrip started in Little Rock, driving to Murfreesboro, in Pike County, Arkansas, where the Prairie Creek kimberlite resides. We then travelled by air from Little Rock to Denver, Colorado, for the Colorado/Navajo part of the trip. Here we visited the kimberlites of the Wyoming/Colorado border, including the Sloan Kimberlite field. Finally, we went on a raft trip down the San Juan River (part of the Grand Canyon complex) to Medicine Hat and thence by road through Monument Valley ending up in Albuquerque, south of Santa Fe.

The post-Conference fieldtrip was called the Basalt Nodule Trip and started with a flight from Santa Fe to El Paso. Then over two days we went to Kilbourne Hole and then a 300-mile trip to the famous peridotite locality at San Carlos. From Phoenix, we visited the Chino Valley volcanics and ended up on the rim of the Grand Canyon at sunset.



On the pre-conference field trip, **Figure 2 IKC-2** shows part of the Prairie Creek kimberlite suitably ploughed for visitors looking for diamonds with an old shack in the background. Conference delegates firstly went to see some kimberlite tuff, now termed lamproite.

Figure 2 IKC-3 was taken in some heavy undergrowth. A group discussion involved Barry Hawthorne and Bruce Wyatt with Ken Applin behind Bruce. On the kimberlite the delegates got to work gathering samples. We have Roger Clement with the red rucksack, an Unknown talking to Barry Hawthorne, Demay Du Toit digging, Bram Janse, Jan Stracke, Paddy Lawless with briefcase, and Derek Robinson behind. Then Ken Applin and John Gurney, leaning over to Joe Brummer. It was not long before Barry Hawthorne tried his hand at diamond recovery in a sluice provided.

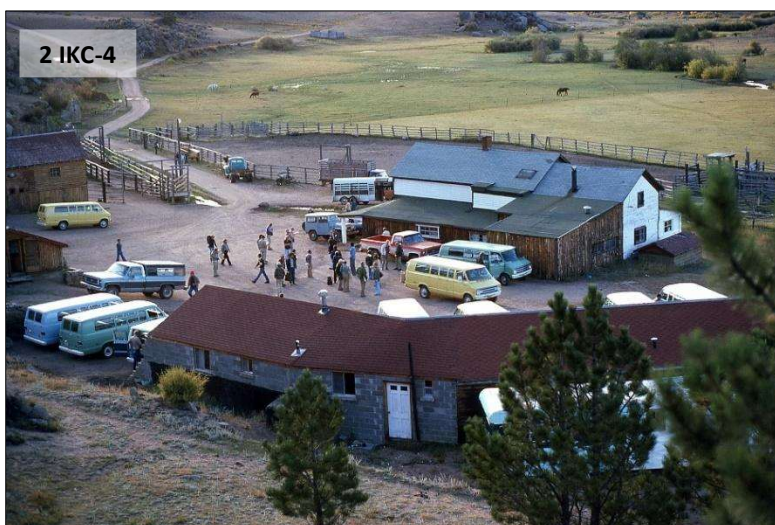
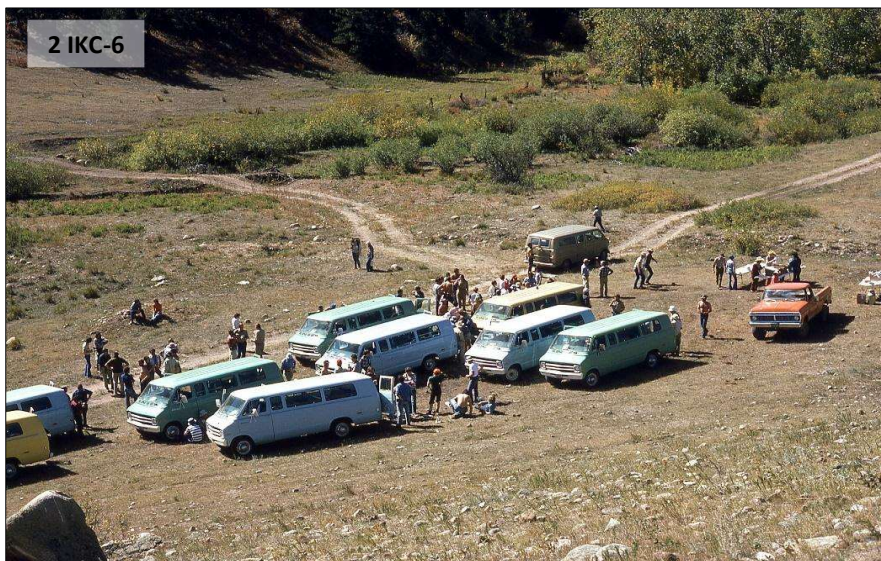


Figure 2 IKC-4 shows the party arriving at the two-bar-seven Ranch (=7 Ranch) in the Front Range where we stayed. The ranch straddles the Wyoming/ Colorado boundary. The Schiffer and Ferris kimberlites are in Wyoming and the Nix and Sloan kimberlites are in Colorado. The kimberlites in both States tend to blend in with the topography, and exposures are not on a grand scale.

Figure 2 IKC-5 shows the delegates on Schaffer 3, several clearly having difficulty finding kimberlite (there are 19 Schaffer kimberlites in all). A similar situation existed on Schaffer 11. On Ferris 2 there was only one outcrop, around which most delegates resided, the pipe extending down the hill. The last picture finally shows Barry Hawthorne sieving for concentrate at Ferris 2 with Alex van Zyl watching and Roger Clement, Demay Du Toit and Dr Hallem.



After all that exertion lunch is called for, which also gives some idea of the size of the excursion, **Figure 2 IKC-6**.

In **Figure 2 IKC-7**, at Nix No.1, there is Henry Meyer (holding samples over his back), Mal McCallum facing, John Ferguson with beard and Peter Jackson in a checked shirt (a student of Ben Harte). A so-called quarry area exists at the west end of Sloan No.1, but the main part of the pipe is shown in the third picture - note the absence of exposure. The trench is on Sloan No.2 pipe with delegates seriously examining the kimberlite.



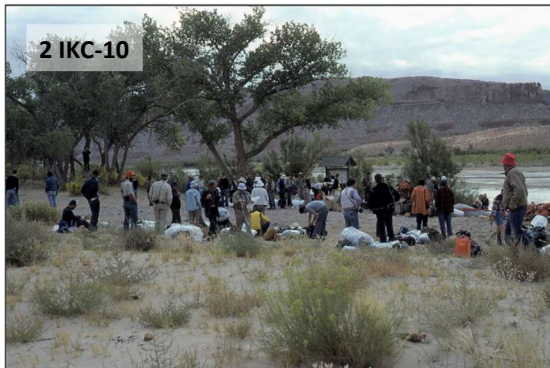
The party then went to Fort Collins airport where John Gurney and Nick Sobolev had time for a chat, **Figure 2 IKC-8**, whilst Ben Harte wrote up some notes. At our destination at Cortez airport bags were sorted. On the left is Jan Kramers (grey shirt), Bram Janse in blue, Barry Hawthorne in white hat, John Gurney talking to Andy Moore and Roger Clement on the right.



The raft trip started at Bluff and **Figure 2 IKC-9** shows dinner being prepared on the riverbank.



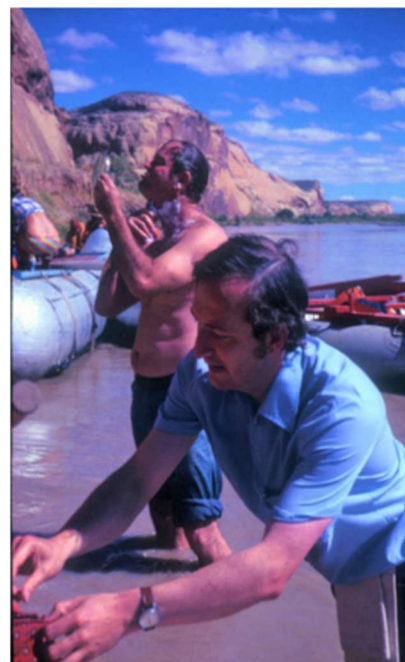
Before we set off there was a briefing (**Figure 2 IKC-10**). The plastic contains sleeping bags, as no tents were needed on this trip, and Barry and Margie Hawthorne with Pete Nixon had great fun putting on life vests.



The great send-off is shown in **Figure 2 IKC-11** and boats gently drifted down the river. Joe Smith and Barry Dawson dangled their feet in the water and Steve Haggerty showed his prowess at rowing.



En-route delegates visited cliff carvings and former Apache dwellings, **Figure 2 IKC-12**, which was an opportunity for Barry Hawthorne and the Author to maintain the high standards on IKC fieldtrips by having a shave.



At Medicine Hat, **Figure 2 IKC-13**, with Steve Haggerty and Saxon (our rower) we left the river to cross part of Monument Valley towards Kayenta, the Author posing for a photograph.



Outside Kayenta we visited a nodule-bearing minette called Agathla, **Figure 2 IKC-14**. Delegates can be seen looking for this material between some impressive boulders.



Figure 2 IKC-15, Joe Boyd at the hotel in Kayenta.



The next day we visited the four-mile-long Moses Rock kimberlite dyke for which we needed a car caravan, **Figure 2 IKC-16**. Looking north the dyke has a definite horseshoe shape. The excursion was led by Tom McGetchin.

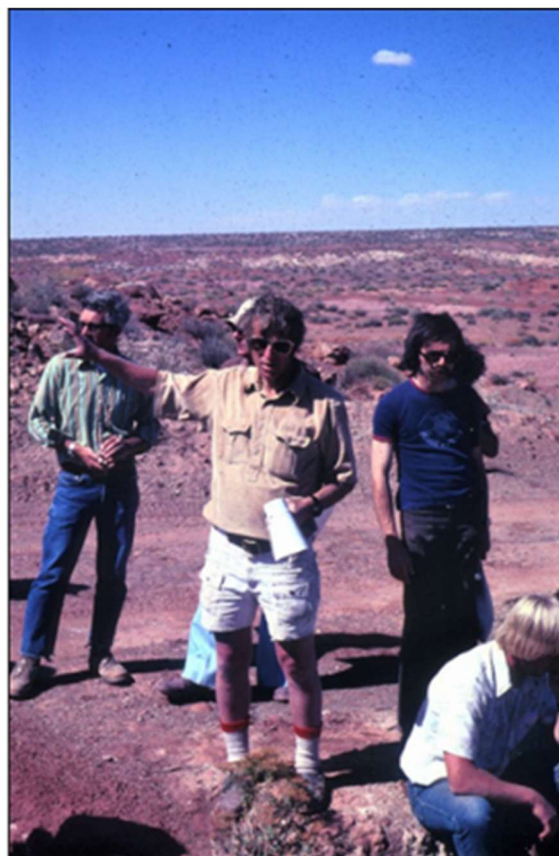


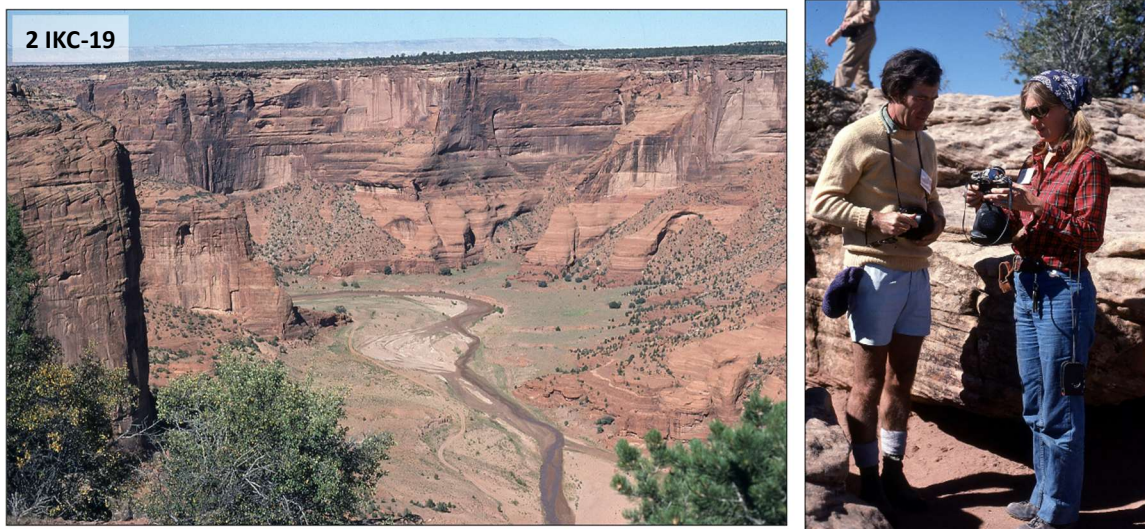
Figure 2 IKC-17 shows John Gurney and Nick Sobolev listening to a lecture by Tom about his favourite dyke. The other pictures are the delegates looking for nodule and minerals. The bottom two pictures are of John Ferguson, Bruce Wyatt and Bobby Danchin and Roger Clement with Barry and Margie Hawthorne.



As the sun began to set, we went home with some difficulty because of the loose nature of the track, **Figure 2 IKC-18**.



The following day we visited the Canyon de Chelly National Park, **Figure 2 IKC-19**, where ‘ever the gentleman’ Pete Nixon, tried to help a delegate with a problem to her camera.



We then travelled the Buell Park kimberlite pipe and the Green Knob diatreme. Buell Park is a large and geologically complex diatreme. Initial kimberlite was followed by a minette diatreme associated with kimberlitic tuffs. The ring dyke is a late-stage feature. **Figure 2 IKC-20** shows that this will not be a ‘stroll in the park’, so we had better have lunch before we start. The third picture shows a massive greenish kimberlite tuff breccia with a layer of minette material above, the former being emphasized in the fourth picture.





Figure 2 IKC-21 gives some idea of the hike; our transport is in the central far distance. The ring dyke is a very prominent feature.



The Green Knobs kimberlite was next visited, **Figure 2 IKC-22**. The diatremes consist mainly of kimberlitic tuff but contains nodules and xenoliths. The red country rock is Triassic sandstones. Bobby Danchin and Barry Hawthorne collect a mineral sample from a dried stream bed with Margie Hawthorne looking on.



The Pre-conference fieldtrip ended with a visit to the basaltic Puerco Plugs, in particular Cerra de Guadalupe, **Figure 2 IKC-23**. The basalt contains mafic and ultramafic rocks and delegates were very enthusiastic in collection of material. En-route to the main road, a vehicle got stuck in a donga – a dry gully - but was rescued.



After a hard day in the field, Dave (?), Herb Helmstaedt, Ben Harte and John Gurney, are still in good spirits, **Figure 2 IKC-24**, although John took advantage of the smooth ride to Santa Fe.



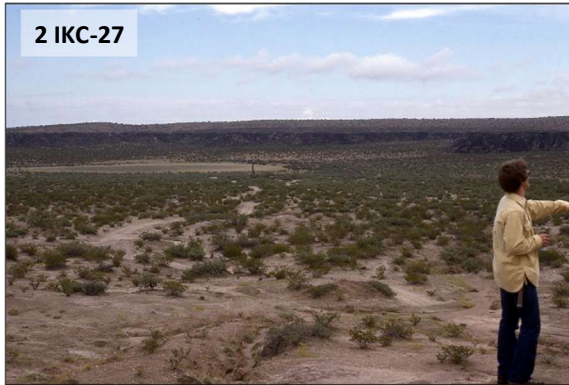


Figure 2 IKC-25 shows the main entrance and the accommodation block of Bishop's Lodge, where the Conference was held. On the half-day when there were no lectures, some delegates visited Sante Fe.

Figure 2 IKC-26 shows some of the churches in this town. The church in the portrait picture may be the oldest in the United States. It was first documented in 1628, but some of the adobe (mudbrick) walls may date from 1610.



As noted at the beginning of this text, the post-Conference field trip started in El Paso on the USA/Mexico border. We travelled NW to Kilbourne Hole one of three maars (a low-relief, broad volcanic crater), part of which is shown in **Figure 2 IKC-27**. Lapilli tuffs rest on sediments of the Santa Fe group, but more pronounced lapilli are shown in the third picture, the ‘usual suspects’ Ben Harte, Paddy Lawless, Barbara Scott-Smith, Andy Moore and John Gurney pose for a picture.



After all that effort some people had to have lunch. **Figure 2 IKC-28** shows Demay du Toit (facing), Bruce Wyatt, Roger Clement, Mike Skinner, Margie Hawthorne, and Bobby Danchin, associated with John Gurney (bottoms up) and Dan Schultz.



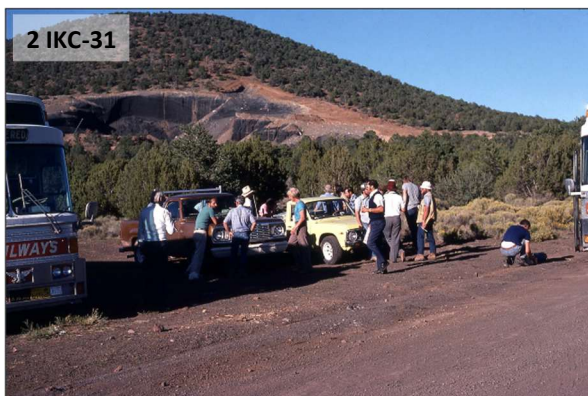
After a night in El Paso, we went to San Carlos, world famous for dunite nodules in basalt. Small quarries are mined by the local San Carlos Apaches, for peridot, the gem form of olivine. **Figure 2 IKC-29** shows delegates scrambling over one such quarry with an example of the size and quantity of dunite nodules scaled by someone's foot. The nodules are found in the Mesa Plateau flats and Mike Skinner decided to 'take a hike'. For Mary and Pete Nixon, the day was all too much on the return to a hotel just in the outskirts of Phoenix.



The following day we visited the Sullivan Butte Latite (trachyandesite) in the Chino valley, a locality which contained a range of garnet nodule types. As **Figure 2 IKC-30** shows the outcrop blended with the topography, but nodules were reasonably abundant. The final picture is an indigenous American lookout post on one of the rock promontories.



Our next stop was a basaltic cinder cone at Williams, and **Figure 2 IKC-31** shows the party gathering for the walk, Volcker Lorentz talking to Roger Clement by the truck on the left. The cinder cone is mined for road material but contains peridotite xenoliths and once more the delegates got 'stuck-in', John McIver being in evidence.



The locality of first part of **Figure 2 IKC-32** is a small mystery. The excellent picture of Tony Erlank, included here, was taken on the post-Conference fieldtrip by John Gurney, but with no designation. Those on the left of the bus are Pete Nixon, Andy Moore, Simon Shee, Tony Erlank (with the same fancy hat) and Steve Haggerty.



The Grand Canyon near sunset is quite a sight, **Figure 2 IKC-33**, with Barry and Margie Hawthorne, John Gurney and an Unknown, plus the author. The third picture was taken early the next day.



Figure 2 IKC-34 shows Bobby Danchin chatting to Joe Boyd, the third figure being our dynamic bus driver.

