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## **Association of Mexican Cave Studies Newsletter, Volume 1, No. 1, January 1965**

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THE ASSOCIATION FOR  
MEXICAN CAVE STUDIES

NEWSLETTER

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## The History and Goals of the AMCS

The AMCS was founded in the latter part of 1962 by T. R. Evans to collect information on the caves of Mexico. The original name was the Speleological Survey of Mexico, but it soon became evident that it would be several years before even a small percentage of the Mexican cave areas could be visited; and it was felt that the organization should have a name that did not imply extensive knowledge of Mexican caving areas, so in the spring of 1964 the present name was adopted. Also about this time it was noted that there was a great deal of interest in the caves of Mexico among cavers from all parts of the United States, therefore it was decided to broaden the membership of the organization to include all interested persons.

The AMCS has compiled information on about three hundred Mexican caves about which they have definite knowledge and organized this information, along with many less reliable reports and rumors, into what is probably the most comprehensive file of information on Mexican caves in existence. If members of the organization have specific questions on any area of Mexico, they are urged to write and we will answer any questions that may arise as completely as we can. The AMCS will try to describe most of the well visited cave areas of Mexico in future issues of the Newsletter. The next issue will feature caves on the El Abasco Range NE of Cd. de Valles. It is hoped to cover all important areas before summer so that the information will be available for those planning summer trips. We also plan to compile speleological road logs of the main Mexican highways that will answer most general questions about Mexican caves.

The AMCS is not a large organization and each member should actively recruit as any increase in membership will enable the AMCS to provide more services for each member. All money collected is used to maintain the files and provide benefits for the membership. Copies of maps, reports, and photographs are sent to cave owners and other interested people. We also receive biological collections from Mexican caves and send them to the proper specialists for identification. But the main activity is collecting and distributing information on Mexican caves, both to encourage work in these caves and to prevent duplication of previous work. Most of this will be done through reports submitted by members and summarized in the Newsletter. This effort will not be a success unless all members contribute.

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The AMCS Newsletter is published monthly by the Association for Mexican Cave Studies, P. O. Box 7672 UT Station, Austin, TX 78712. Membership in the AMCS is \$5.00 for the calendar year, with memberships starting at the first of each year. Persons joining after the first of the year will receive all back publications for that year.

Members are urged to submit articles for publication. Maps submitted for publication should be of a type suitable for copying onto a standard or legal size mimeograph master or for printing. Longer articles with detailed maps are invited for publication in a bulletin. Trip reports are requested from all trips.

## Trip Report - November 1964

Wexyditk Turner, Mike Erickson, Ed Alexander, and Philip Winsborough left Austin the evening of the 24th of November. They spent the night in San Benito, Texas and reached Cd. Valles about five o'clock the next day. The next morning they contacted the owner of Sotano de la Tinaja, Sr. Luis Martinez, who lives in Valles. He unlocked the gate on the road to the cave enabling the group to drive within a few hundred yards of the cave. (The road to the cave heads to the east from Highway 85, just to the north of Valles at approximately Km. 474.5. Keep to the left until reaching the ranch then park.) The rest of the day was spent in establishing camp and rigging the first drops. The next day the group explored the main downstream passage. The passage is a high fissure that descends down a series of small drops to the previous end of exploration. From this point the passage was found to continue over several more drops and small pools until it encountered a very high fissure extending to both the left and right. There was no continuation of the passage they had been exploring, and exploration to the left and right was blocked by a deep lake. This lake is perhaps 40 feet wide where the passages join but it narrows in both directions. Some type of flotation gear will be necessary to further explore this passage. A total of 45 hours was spent in the cave, with the trip down the main passage requiring 23 hours.

David McKenzie, Phillip Schiffert, John Fish, and Orion Knox left Austin on the night of November 25th. First they visited Cueva de El Abra, located just north of Antigua Morelos, and then they traveled south to Sotano del Tigre, located a few miles NE of Valles. The entrance to this sotano, which is like that of Tinaja, receives the flood waters from a large surrounding area and is a 300 foot vertical drop broken by a ledge 190 feet down. At the bottom of this drop two short passages lead to pits, each about 30 feet deep, which were not descended due to lack of equipment. Next the group went to Sotano de la Tinaja and explored what was thought to be the end of the entrance passage. They found a continuation of this passage above a flowstone slope that lead a short distance to an 80 foot drop into a large room or passage. Lack of equipment prevented further exploration. On the return trip to Austin, Grutas de Quintero were visited and the first section of the cave mapped.

James Reddell, Jim Duke, Dick Smith, Neal Prescott, and Dick Childers accompanied the car with Knox and McKenzie to El Abra and Tigre and they picked up John Fish and went to Sotano del Arroyo to try and map the water passage. Unfortunately they were turned back by deep water. While at Arroyo they attempted to discover a pre-capture course of the stream that now enters the cave, but no evidence of such a stream bed could be found. On the return trip to Austin the group visited Grutas de Quintero.

Jim Moran, Ken Wyrick, Bob Thomas, and Frank Wiseman left Austin on the 23rd for caves in the Xilitla area. First they visited a pit a few hundred feet from the entrance to Sotano de Tlamaya and at least thirty feet higher on the mountain. This cave was found to connect with Sotano de Tlamaya at about the 600 foot level. This means the system is at least 30 feet deeper than the official surveyed depth. On the way back a group of pits just off the Xilitla - Y Griega road were checked. These pits are located at the bottom of a large sinkhole near a school and basketball court. They were found to be promising but lack of time prevented complete exploration.

John Kreidler, Colly Kreidler, Tommy McGarrigle, Susan Holstrom, Bud Stewart, Dexter Hill, and Bill Russell left Austin in the evening of the 24th, spent the night at McAllen, and continued on the next day. The first place they visited was El Encuentro del Rio Mante, where the Rio Mante flows from an underwater cave near the city of Mante, Tamaulipas. The only lead was a small fissure cave that opens on the south edge of the resurgence, but it extends for only about 300 feet to where it is blocked by breakdown. That night they slept at Grutas de Quintero and the next day was spent checking several small caves and pits east of the small village of Venidito. Saturday found them looking for Sotano de Venidito, but fog in the morning hampered the search and the cave was not found. Cueva de El Abra was visited on the return trip.

20 Nov After several hours of hasty preparation Bill Bell, Terry Raines, Bob Burnett, and Benny Martin left Austin at 7 PM in Terry's pickup truck. The trip to Cd. Valles took 14 hours with only stops made at gas stations and the Mexican Customs.

21 Nov While in Valles they ate, bought a few things that had been forgotten, and exchanged money. From here they headed on to the cave area near Xilitla and the ranch of Sr. Modesto Gomez. With the weather as usual, rain and fog, it was decided to spend the few remaining hours of the day preparing the equipment for the descent the following day.

22 Nov By 7:30 everyone was up and eating breakfast. From here it was only a 3/4 mile drive to the edge of the small village of Tlamaya and the entrance of Sotano de Tlamaya. They entered at 9 AM and remained in the cave for the next 26 hours.

23 Nov Upon arriving back at the entrance they decided to leave the ropes in place for a return trip the next day, so from here a quick trip back to the ranch was made. Sr. Gomez was interested in what had been found and after telling him all that had happened they ate and sacked out.

24 Nov Early the next morning Bob and Terry returned to the entrance of the cave and found, much to their surprise, that the rope was gone. It could not have been removed from the cave since it was tied off 200 feet below, so they figured that someone in need of rope had pulled up as much as he could then cut it. This later proved to be true but for the present it meant that they would have to drive to Xilitla to buy more rope and

therefore loose a day. In Xilitla they went to several stores then decided to buy 300 feet of sisal rope. After doing this and several other errands a collecting trip was made several small caves near Almacatlan, the first town west of Xilitla. On the 15 mile trip back a stop was also made at Cueva de la Salva to map the main passage and collect more insects. By 8 PM they were back at Gómez's patio and ready to sack out.

25 Nov The morning was spent readying the equipment and eating. Just before noon everything was loaded in the truck and the drive made down to Tlamaya and the cave. The weather was good and they entered the cave at noon.

26 Nov After spending 31 hours in the cave they returned to the surface just at sundown. It still required nearly an hour to raise the ropes up the last drop but after doing this no time was lost in returning to the ranch. They learned that a party made up of Jim Moran, Frank Wiseman, Ken Tyrick, and Bob Thomas were at that time exploring a cave that later proved to connect with Sotano de Tlamaya.

27 Nov Around 3AM the group of explorers returned from the cave and went straight to bed. The next morning experiences were exchanged and then after thanking Sr. Gomez for his hospitality everyone went into Xilitla where Frank had left his car. Here they ate and passed several hours then each group went their separate ways. Benny, Bob, Terry, and Bill headed to Valles and the El Abra Range to meet several groups who were coming down from Austin. Everyone met at Los Sabinos about dark and from there went into Valles to eat and find out what each other had been doing.

28 Nov The day was spent in Sotano de la Tinaja where insects and blind fish were collected and pictures were taken. That night everyone went north to Mante and Grutas de Quintero where several hours were spent in partially mapping the cave.

29 Nov Everyone left for Austin one group that now consisted of Benny, Bob, Terry, and Richard Smith. They spent the morning in Mante restocking their food supplies and then that afternoon they went to "El Macimiento" just outside of town where clothes were washed and the truck cleaned out.

30 Nov They headed north from Mante some 20 to 30 miles to Encino a small village on the highway. From there a very bad lumber truck road was taken to the west into the mountains. Good progress was made for 5.6 miles until it started to rain. This turned the undeniably steep road into a mass of slippery mud and rocks that made passing almost impossible even with tire chains. It was decided to turn back and go south then west to Ocampo, also located in the mountains but on a much better road. They arrived just after dark.

1 Dec From Ocampo they intended to go to Tula, the only trouble being that everyone they asked didn't know exactly where the road was. Finally after nearly an hour of driving around an old man directed them to a slippery mud road that headed out across the large farming valley of Ocampo towards the mountains. After passing through several ejidos, taking the wrong roads, and fording two streams, they came to Rancho de Corrales, Ejido P.E.G. Municipio de Ocampo. Here again directions were asked but instead

of just pointing a man told them that the road to Tula was impassable and that they should stay at the ranch where they could collect insects and explore caves. Everyone was very friendly and that afternoon Roberto Garcia took them on a collecting tour of the ranch. The time was spent turning over logs, wading through a swamp called "La Laguna", and wandering around in the valley. That night was spent at Roberto's house.

2 Dec Ejido P.E.G. or Rancho de Corrales occupies a large N-S valley that is separated from the larger Ocampo valley by a range of low limestone hills on the east. To the west some 7 or 8 miles away is a range of much higher mountains also composed of limestone that mark the western boundry of the valley. Looking to the south a low, rugged hill is seen in the center of the valley and is called "Cierro Partido" by the local inhabitants. From all indications this is the cone of an extinct volcano that during its active period covered the valley floor with volcanic debris. From the peak the land slopes gently away in all directions.

From Roberto's house, located near the eastern hills, they headed out in the truck for the mountains to the west. It seems the ejido was in the process of building a new road in the order to get corn to the market. As it turned out they spent the whole day driving through corn fields, fording streams, taking down fences, and even chopping a way through the undergrowth. Everyone arrived at the house of Guadalupe Portales around 8 PM after spending eight hours and going 4.4 miles.

3 Dec From Guadalupe's house, located part way up the side of the western mountains, a good view could be had of the valley below and the hills to the east. The morning was spent touring his land and about 11 AM they went down to the truck for the caving gear. Guadalupe told them of several large and beautiful caves in the Cierro Partido but considering how late it was, that it was a 6 to 8 mile walk, and we had to return to Mante that day it was decided to go to a smaller cave about 1 km. above the house. After reaching the area he found that it had grown up so much that he couldn't find the entrance. They returned to the truck and began the journey back to Mante. All the roads were dry which made driving much easier, especially through the construction between Ocampo and Highway 85. The night was spent at El Nacimiento near Mante.

4 Dec The morning was spent cleaning out the truck and getting the equipment in order. At 11 AM they began what was to be a driving tour that would take them through some extremely beautiful country and good possible caving areas. From Antiguo Morelos they turned west, winding their way up through the heavily vegetated limestone mountains to the much drier Central Plateau near Cd. del Maiz. From here on through Tula to Cd. Victoria the mountains were of a completely different nature than those of the more tropical areas like Gomez Farias or Xilitla. In an area of so little rainfall the mountains were nearly completely bare of vegetation as was everything else. With access to them very limited and not many people living in the area, one might have difficulty in locating the large solutional type caves that are most assuredly there.

The afternoon was spent driving along the unbelievably dusty detours around the new highway under construction between Huizache

and Cd. Victoria. Near dark they stopped beside the road just outside Palmillas and camped.

5 Dec From Palmillas they drove on, passing through one of the most beautiful mountain areas in Mexico and arriving in Cd. Victoria around noon. Here they ate lunch then headed south to Gomez Farias, arriving at Sotano de Gomez Farias that afternoon. They went into the cave shortly afterwards and mapped the upper levels, leaving four pits to be explored the next day.

6 Dec They returned to the cave and found many more interconnecting pits in the lower levels than they had thought were there. It took most of the day to map them and find that they all connected to one horizontal passage that ended in mud and a small hole where water disappeared. Late that afternoon they left the cave and drove on up the road as far as they could before dark then camped.

7 Dec It seems the place they camped was the beginning of the very steep part of the mountain road and that without four wheel drive it would be hopeless to try. It was then decided to return to Austin, stopping on the way to tour the commercial Grutas de Villa de Garcia near Monterrey.

## THE STATUS OF MEXICAN CAVE BIOLOGY

by James R. Reddell  
Austin

Considering the size of Mexico and the abundance and diversity of her caves it is remarkable that no more has been done in the area than has been. The purpose of this report is to indicate what has been done and what is hoped to be accomplished by the AMCS in the field of biology. Later reports will include detailed accounts of the biology of individual caves or of areas or will discuss other aspects of Mexican biospeleology.

The first study of Mexican cave biology was written by D. Bilimek and published in 1867. In this he discusses the fauna of Cacahuamilpa Cave, in Guerrero. As late as 1936 only 14 species of animals, both vertebrates and invertebrates, were recorded from Mexican caves and all of these were from Cacahuamilpa Cave. In 1936 and 1938 the Carnegie Institute published the results of several expeditions to study the caves and cenotes of the Yucatan Peninsula. Over 500 species of animals are recorded in two very important bulletins, edited by A. S. Pearse. Almost all work in Yucatan since this time has been based on Pearse's work. In 1936 Carl L. Hubbs and William T. Innes described the genus, *Anoptictylus*, from Mexico which came from a locality outside of Yucatan. J. Alvarez followed with the description of two additional species in 1946 and 1947 from Cueva del Pachon and Cueva de los Sabinos. Intensive work has been done on these animals by a number of students since that time. During the early 1940's Drs. F. Bonet, S. Bolivar y Pieltain, and B. F. Osorio Tafall made intensive collections in a large number of caves throughout Mexico. Their work has been published in a large number of papers and some of the results still await



publication. With the exception of work by Alejandro Villalobos, Enrique Rioja, and Stanley B. Mulaik, all of whom worked with various crustacean groups, work in Mexican caves to the present has been the direct result of the work of Bonet, Bolivar y Pieltain, and Osorio Tafall. Their collections, however, were generally made in large easily accessible and easily entrable caves. Essentially no systematic studies of areas away from the main highways or difficult of entry have been made. Dr. F. Bonet made intensive collections in caves in the Xilitla area, published in 1952, but the animals found there have, in general, not been positively identified in the literature or described. Recent work by a number of mammalogists and bat specialists have resulted in the publication of many records for bats in Mexico and Dr. Paul S. Martin made an intensive and excellent study of zoogeography of the Gomez Farias Region, including many collections of reptiles and amphibians in caves and sinks.

In general, however, Mexican cave work is on a very primitive basis with only the large, well-known caves adequately studied. Even these have turned up significant finds. In 1962 members of the AMCS collected millipeds in Sotano del Arroyo. One of these proved to be the type of a new genus and species, described recently by Dr. Nell Causey as Meritorpes sabinus. A new genus and species of terrestrial isopod, Mericoniscus tlamayensis, has also recently been described, in a paper by George Schulze. Several additional new genera and species are either under study or in press and collections have really only begun.

Among the most potentially interesting groups are members of the extremely rare arachnid order, Ricinulei, represented by less than 20 species in the world. To date at least two and possibly three undescribed species have been taken from caves in Central and North-Central Mexico indicating that the order may prove a common cave inhabitant. This is only one example of many possible ones which might be used to demonstrate the lack of information on Mexican caves and their possible importance to biology in general.

Only the barest beginnings of a study of Mexican biogeology has been made so far. The study of Mexican cave biology will take many years of collecting and more years of description and publication before it can approach even the lesser known regions of the United States.

#### THE EXPLORATION OF SOTANO DE TLAMAYA

by Terry M. Raines  
Austin, Texas

On November 22, 1964, Bob Burnett, Benny Martin, Bill Bell, and Terry Raines, all members of the University of Texas Speleological Society, entered Sotano de Tlamaya, a pit located in the Sierra Madre Oriental near the small village of Tlamaya, San Luis Potosi. With high spirits and much enthusiasm they hoped to explore and map the deepest cave in the Western Hemisphere. Although this was not the first visit to the cave it did promise to be one of the most successful.

Previously, during February 1964, Frank Wiseman and Bob Thomas had entered the pit, exploring to a depth of 502 feet before turning back. Then, on July 28th Jimmy Peters, Glenn Boydston, and Terry Rains also members of the UTSS explored and mapped to a depth of 841 feet before running out of rope.

This was the situation when the four cavers awoke that morning of the 22nd to find it still raining and a heavy fog blanketing the mountains. They were camped on the patio at El Rancho de Nuitzmolotitla, owned by Sr. Modesto Gomez. On previous trips, especially the exploration of Sotano de Nuitzmolotitla, Sr. Gomez had provided invaluable aid to the explorers and made many of the fine discoveries in the area possible. Now, on this occasion, everyone ate a good breakfast and prepared his gear for the descent into the cave.

It was a short three-quarter mile drive from the ranch along the truck road to where they parked, a 300 yard walk from the entrance. Located on the southern edge and some 20 to 30 feet above the floor of the large Tlamaya Dolina, the entrance consists of two separate pits. The smaller one is 15 feet in diameter, drops free for 277 feet, and is the one where the rope is usually rigged; the other is 20 feet away, 30 feet in diameter, and drops 150 feet before slanting towards the smaller pit and intersecting it. Both entrances, located in the bottom of an arroyo, now pirate away the flood waters that once ran into the dolina.

Benny and Bob headed on up to the cave with the greater portion of the ropes while Bill and Terry made last minute preparations before joining them. At the entrance the 600 foot Nylon rope was unbraided and lowered into the hole. With each one carrying an additional 300 feet of rope, Terry was given the honor of rappelling in first, followed shortly by the others. From the bottom of this entrance drop the party continued on down the next two drops, 73 and 76 feet respectively, and arrived at the first room. This room is some 30 feet in diameter with a small stream passage 5 feet wide and 25 feet high running tangent to it. The upstream section continues for nearly 200 feet before ending in a dome with a small stream cascading from the top. This is the first point where a flowing stream is encountered and throughout the rest of the cave water is found descending over every drop. As for the downstream section, it immediately drops 12 feet then continues on as a fissure passage for 150 feet until the stream suddenly disappears over a 100 foot drop. Along this passage they relayed the ropes over the small pools and upon reaching the drop a 160 foot rope was rigged. This length was used because the nearest tieoff point was some 40 feet back up the passage. Now with every thing set each of the four rappelled in turn paying special attention to the waterfall and trying to keep out of it. On this drop it was found necessary to loop the rope over certain projections and rappel at a smooth steady pace, for if one became too careless the rope would slip off and he would soon learn that rappelling under a water fall can be a wet, cold experience. Upon arriving at the bottom they quickly skirted a large, deep-looking pool and found a convenient dry spot on the other side where relatively little water fell. It is at

the bottom of this 25 foot in diameter pit that the waters of the cave first divide. One way, the passage the explorers took, continues level for 61 feet before the cold waters again loose themselves in the blackness. As for the other way, a pit located on the opposite side of the room, it also takes half of the water and drops for an undetermined distance. This passage is unexplored. Continuing on down the explored passage a tricky chimney over a deep pool is encountered just before reaching the next drop, which totals 200 feet. Because the longest rope available was 200 feet it became necessary to rig it as close to the edge as possible. This was done by using a short tieoff rope and tying one end to a natural bridge 30 feet back up the passage and the other to the 200 foot rope. With the rope running over his brake bars, Bob disappeared over the edge, again being careful to avoid a soaking under the waterfall. Sixty feet down he found it possible to get out of rappel and climb down some 50 feet before it became necessary to return to the rope to complete the drop. Hearing the bottom, Bob spied a ledge that he was able to swing over to and climb down from, thus eliminating that extra nine feet that the rope lacked. Following his example Terry also put his brake bars to the rope and joined Bob below, being followed shortly by Bill and Benny. After again regrouping at the bottom everyone shouldered his equipment, ropes and a small side pack, and started off. The next couple of hundred feet found the explorers clinging to the walls like flies in order to avoid the numerous deep pools that made up the greater portion of the floor in this section of horizontal passage. As they neared the next drop they could hear the roar of the waters as they tumbled into space. Eagerness was the feeling in the air as they peered into the nothingness below that no other human had ever passed. This was at the 841 foot level - the end of the previous survey. Of note is a stream that enters at this point from a passage some 30 feet up on the right wall and which remains unexplored. Several minutes of searching along the honeycombed walls revealed a small interconnecting hole between two solution pockets what was used as an anchor for the rope. Mapping began at this point so with steel tape in one hand Terry began the rappel. After a free drop of 42 feet he swung over to a natural bridge and could see that the stream continued on steeply but would not require equipment. Bob was next and after taking the azimuth and vertical Benny and Bill followed. Continuing on down the passage for two more stations it was found to suddenly end in a small siphon. This caused some immediate worries but after surveying the situation for a moment it was noticed that the passage didn't have a ceiling. A short 20 foot chimney brought them up into quite a large room that was immediately christened the "Big Room". Although the actual dimensions were 130 feet long, 40 feet wide, and 30 feet high the dim carbide lights and black walls gave one the feeling of being outside on a dark night. By unanimous vote they stopped in one corner, rested, and ate a little snack. After thirty minutes mapping was continued again to the far end of the room. Here another stream was discovered and in it were many transparent earthworms. This of course halted every thing except collecting, for up to this time all that had been collected were millipedes and cave crickets. Along with the worms hundreds of isopods were found of which an adequate number of each were collected. Positive identification of all fauna will be given in future newsletters. They continued

mapping along the most obvious route, the upstream section of this new stream. Unlike the other fissure type passages throughout the rest of the cave this passage was found to be of elliptical cross-section, obviously of purely pneumatic origin. It averaged 20 feet high and 25 feet wide with banks of black dirt sloping towards the stream from both sides. After several minutes and 470 feet they came upon what at first seemed to be a formation plug but within a few minutes Benny found a continuation to the passage. It consisted of some five inches of air space over a shallow, cold, muddy pool located at the base of the formations. It was made more promising by the fact that what seemed to be a very large waterfall could be heard on the other side. After several minutes of discussion Benny decided to make the supreme sacrifice, so with clothes left on a dry mud bank he inched his way through the icy water and arrived in the continuation of the passage where the other three were now waiting. With promises to return soon he roared off. Some twenty to thirty minutes later found Bill, Bob, and Terry deciding who was going in to see what had happened to Benny. About this time the lost explorer popped his head back through the hole and found everyone anxious to hear what had happened. It seems the passage continued on for several hundred feet before intersecting a larger room. Here one large passage continued on to the right and another smaller one was seen up on the wall. He took the larger which soon branched into two, both leading in the same direction for the same distance before ending in breakdown. Upon returning he found that the "waterfall" was actually made by air roaring through the small passage under the formation plug. Benny climbed back into his warm clothes and all returned to the Big Room. Here they rested a while then started searching for more leads, discovering the downstream section of the passage they had just explored. With spirits renewed the Brunton and tape were put back into operation and the party continued ever onward. The passage resumed its old familiar shape, a high fissure averaging 3 feet wide, often not having a ceiling, and containing deep pools from wall to wall every few feet. As one can see this requires the explorer to cling to the walls a large percentage of the time and makes traversing this type of passage very fatiguing. Mapping was continued for 393 feet before it was decided to start thinking about returning to the entrance. Of the three baby bottles of carbide the group had brought in, one almost full bottle remained. Finally they decided to stop mapping and continue on only to see what was going to happen. Exploration was extended until half a baby bottle remained, their only way of measuring time since no one had a watch, and they had seen roughly 500 feet more of the same type of passage. From here an estimated four hours were spent in reaching the entrance. This was a reasonably short time since everyone was using Jumar Ascenders and all ropes were left in place since they knew they would return. The only thing of note on the way out was the higher volume of water running over the waterfalls, evidently due to rain during the night. This made everyone a little wetter but caused no other difficulties. Upon reaching the surface, some 26 hours after entering, a dash was made for the truck then to Sr. Gomez's patio. This later proved to be a mistake for when they returned the next

day they found that some person in need of rope had pulled up as much of the 600 as possible (it was tied off in two places below) then cut it, letting the remainder fall back into the hole. This caused some trouble since it required a trip into Xilitla to buy 300 feet of sisal rope.

The morning of the 28th found the group again preparing their equipment for a return trip to the cave. This time, due to illness, Benny decided to wait on the surface so after rigging the new rope Terry rappelled in. At the bottom he tied the Nylon rope on and Bob and Bill raised it, retieing the frayed end to the tree. They then rappelled in and all three continued on to the point reached two days before without incident. Here all the extra ropes were left behind and mapping begun. As they forged ahead several side passages adding more water to the main stream were noted. One particularly impressive dome rose over 150 feet into the limestone above and contained a good-sized waterfall that issued from some passage far above. When the karst features of the overlying mountains are explored it is very probable that these side passages will turn out to be new entrances to this large drainage system. Some 8 hours later found Bill, Bob, and Terry 1053 feet from the day's beginning point and the drops getting bigger. After encountering an easy 15 foot climb-down a much more difficult 30 foot waterfall was discovered. Several minutes were spent in discussion and study before Bill managed to find a route down the right wall. The other two quickly followed and mapping continued another 85 feet before every thing came to a complete standstill. At this point the whole bottom dropped out of the cave, or at least that is what it seemed like. From the two observation points, the top of the waterfall and a small "window" just to the left, all one could see was blue mist made by the falling water. Once more, a rock thrown down the pit could not be heard to hit above the roar of the falls. With mixed emotions the three sat down to contemplate the situation. Several minutes of discussion and deliberation later a decision was made to return the 1259 feet, get the ropes, and come back to explore the drop. So with heavy footsteps and without a word the small group began the long, never ending chimneying over the many pools back to the ropes. Upon arriving Bob decided that due to fatigue it would be best if he continued on to the Big Room and wait for Bill and Terry. Shouldering the one, 180 piece of waterlogged Goldline the party, now reduced to two, turned around and headed towards the drop. It was with little energy and a smaller amount of carbide that the two finally arrived at the drop. They promptly rigged the rope at the window and prepared to descend. Terry, being the first, went down 20 feet, ran along a narrow ledge, then climbed back up 10 feet to a pinnacle that overhung the center of the pit. This was done to avoid the water that still got him partly wet. Bill then took the Brunton readings and afterwards joined Terry out on the pinnacle. They collected several insects then Terry rappelled on down finding the drop to be 74 feet and then immediately followed by another 17 foot drop. At this point the passage turned sharply to the right and continued on. Going only a few feet until he could hear the water continuing in the

distance, Terry returned to the rope and prusiked back up to where Bill waited on the pinnacle. From here they began the long journey back to the Big Room where Bob waited. Upon arriving they ate a good meal and rested before facing the long prusik out. The job was harder for the fact that all the ropes that had been rigged earlier were now soaking wet and weighed considerably more. The progress was very slow but after spending 31 hours in the cave all returned to the surface, tired but happy. Total surveyed length was 3212 feet, and total depth was 1281 feet.

Editor ..... Terry Raines

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John Fish  
Bill Bell