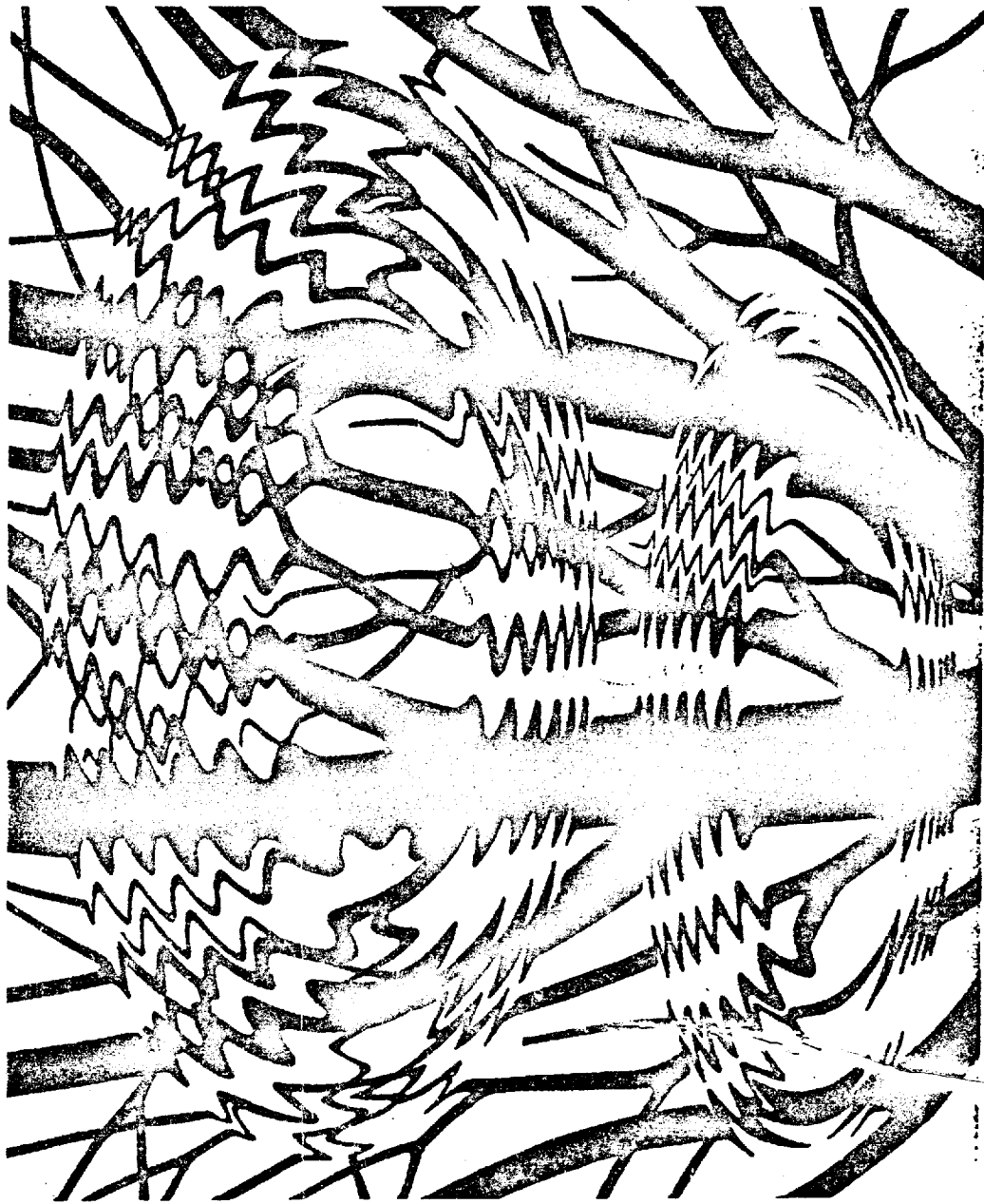


BIRMINGHAM GROTTO NEWSLETTER
NATIONAL SPELEOLOGICAL SOCIETY
JUNE 1979



DATES TO WATCH

JUNE

15-17 Summer SERA Cave Carnival, Kettering Mill, Chattanooga Grotto hosting.

JULY

2 Grotto Meeting, 7:30 pm
Red Mountain Museum Auditorium

29-
AUG

-4 National Cave Rescue Seminar
Albany, NY

6 Grotto Meeting
5-12 NSS Convention

30-
SEPT

3 The Original OTR
Alpine Shores Campground, WV.
10 Grotto Meeting (Holiday, don't
you know).

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

The Birmingham Grotto Newsletter is published approximately twelve times a year by the Birmingham Grotto of the National Speleological Society.

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Editors: Dave & Valerie Howell
1429 17th Avenue South
Birmingham, AL 35205

Submit materials for publication directly to the Editors. Deadline for receiving materials is the 20th day of the month preceding the month of issue. Materials received after this date will be published in the following issue.

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GROTTO OFFICERS

Chairman: Greg McGill
5185 Scenic View Drive
Birmingham 35210 (956-1267)

V.Chairman: Larry Moore
2340 Forestdale Blvd.
Birmingham 35214 (798-2728)

Secretary: Lynn Wright
8732 9th Court Circle So.
Birmingham 35206 (833-3998)

Treasurer: Valerie Howell
1429 17th Avenue So.
Birmingham. 35205 (323-3143)

The reaction (what reaction there was) to last month's double issue format was, shall we say, guarded. Fortunately, whether forced by the latter or inspired by the season, we do not have to resort to the same this month.

The ACS debate is warming up, and we have the first commentaries on that in this issue...STEVE PITTS forwarded his account of the 'thru' trip to BRINCO in Mexico he recently made - 22 km. in 13 hours! Re TUMBLING ROCK cleanup - it appears that LIN GUY and Co. may have beaten us there, as he reported to us of carrying out bags of trash...which isn't to say that the job is done or that that is the only cave in need of cleaning (unfortunately)... GREG MCGILL announces that BUCKEYE CAVE, COVERALL CAVE, and BECKY HOLLOW CAVE were 'significantly extended' this last month...KEN KIFER and LARRY MOORE have had some good luck with those pits on/near Ken's land - Ken has promised a trip report for next issue...TRIVIA DEPT: Can you name the Alabama cave which appears in the new movie in town, The Ravagers?

Back to ACS for a minute...an organizational meeting of the ACS is being planned for late July - dates and details next issue.

Blue Water, an outdoors store, has been featuring different sports via photo exhibits. They have asked the Grotto for slides/prints of caves/caving for a planned feature on caving. Deadline for submission is the next Grotto meeting - see or call Greg McGill for more info.

A very special thanks to JIMMY HARRISON of the FROG Grotto for the excellent slide program he shared with us last meeting - his slides of GLORY HOLE were, especially nice, and provoked a wide range of reactions - awe, surprise, and a good bit of nostalgia mixed with sadness for the way the cave once was.

LOST: May 25, 1979 - 1 US Divers brand wet suit top. Black with blue nylon lining, right sleeve torn with patches both elbows. Last seen near BECKY HOLLOW CAVE or downhill from there. Contact Greg McGill. It's his.

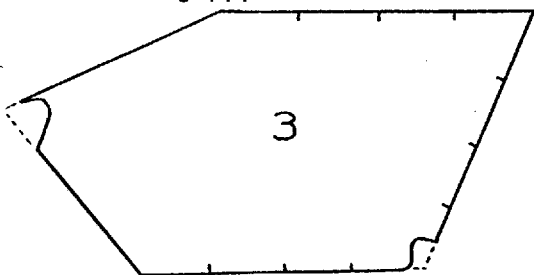
Opinions expressed in editorials in this Newsletter are not necessarily the opinions of the Birmingham Grotto. Guest editorials are welcomed.

IT'S TIME TO DUST OFF THAT OLD "LOCATION CONTROVERSY!"

By Lin Guy

Every so often the question arises, "Are we using the best system for locating our caves?" For years I thought we were, until about a year ago when I tried plotting CRICKET CAVE (A1 1696) on the Gadsden Topo, from information printed by the ACS. According to the printout, it breaks the surface of the earth at a point on the SW end of Big Ridge 690 feet above sea level, at 12S 5E 3 ANK. Having been to the cave several years ago with David Teal, who turned in the location, the process of plotting would double check my memory. As it turned out, Einstein would have had trouble doing this one!

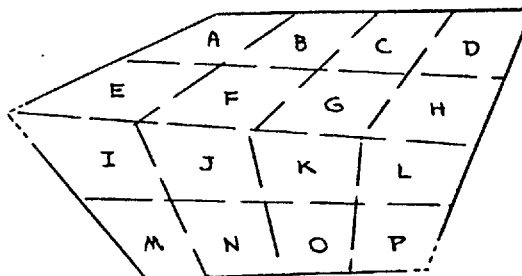
For those who may not have purchased the Gadsden topo yet, you should...it's a real winner! Section 3 is shaped like a whattzittglppp...



And if you think this is bad, let's hope there's no limestone in sections 2,4,9, 10,11, or 12!

Well, I guess David was as confused as I became, attempting to subdivide this section into 1/16ths for locating in the Public Land Survey (PLS) system. According to the system devised by Bill Varndoe, the four edges (hopefully there are four) are divided into quarters, and then these quarters are then quartered, and so on. Lines are then drawn across the sections until you have subdivided to the accuracy desired. This is supposed to work, even in lopsided sections such as are found in the downtown Gadsden area. This is supposed to be done to section 3, until you have a small, oddball-shaped figure to locate your cave in. Since the curved surfaces in the figure above, representing Big Wills Creek, were nothing but a hindrance in plotting A1 1696, they were eliminated, substi-

tuting the dashed lines for boundaries. Next, the north, east, and south edges were each divided by four, represented by the three tick marks in the sketch above. But how in the world do you subdivide the two-sided "west edge"? The only way I could figure out was...well, gaze at the finished product below:



Granted, all location methods are only as accurate as those doing the plotting, but with some PLS sections, plotting care has nothing to do with it. A cave has finally turned up in one of those screwed up sections. So what other coordinate systems are available for us to turn to? Latitude and longitude (L&L), the State Plane Coordinate System (SPCS), and Universal Transverse Mercator (UTM) grids could all be used on both standard topo scales of 1:24000 and 1:250000. (The old 1:62500 and 1:125000 scales are being phased out, even though 1:63260 is being retained for Alaska.) The method chosen should be compatible with both scales, as well as a variety of other maps, if possible. This rules out a distance measurement from the map boundaries as the only means of location, however it could be used parallel with another coordinate system or as an easy means of turning in locations for the operator(s) of the survey to convert to printout information. Let's see how the various means of plotting stack up against each other using several criteria:

Are the scales printed on both classes of topo maps?

1. PLS...Yes, on all Alabama maps. However, many sections are distorted, some beyond use. And the PLS system is not available to the eastern seaboard states or many mountainous areas in the Rockies.
2. L&L...Yes, on all topos, even those of other countries.
3. SPCS...Yes...at least on those dating back to 1945.
4. UTM...Not on maps printed before 1957,

"LOCATION CONTROVERSY" continued...

and there are a lot of old maps still in use.

It seems that UTM would be the worst choice here.

B. How many characters does it take to describe a location to a resolution that is practicable?

1. PLS...11, if we assume that 100 feet is about as close as you can locate something on a topo. Varnedoe currently uses 13 for the purpose of placing relative locations of two entrances in close proximity. However, this might be done another way, and 11 characters puts you within an 83 foot square (which is 0.0413 inches on the

- topo, or about the size of a dot made with a dull pencil).
2. L&L...13, which positions a cave to an area 93 feet on a side (or 0.0464 inches on a map).
3. SPCS...10, if you want to get within 100 feet. 13, if it is to be nailed down to 10 feet. (But that would be 0.005 inches on a topo!)
4. UTM...12 would locate something to 33 feet (0.0164 inches).

Here, I don't see any system having much of an edge, because accuracy beyond 100 feet is practically useless, as far as how the data is being used today. Perhaps some farsightedness is needed to make a final decision here.

As an example of how the information would actually look, take MARYVILLE CAVE (A1 787):

1. <u>PLS...</u>	11S-5E10odo
	TOWNSHIP
	RANGE
	SECTION 1/16 SUBDIVISION
2. <u>L&L...</u>	340516860515
	LATITUDE
	LONGITUDE
	(In degrees, minutes & seconds)
3. <u>SPCS...</u>	-420512837
	FEET EAST OF
	FEET NORTH OF
	a base line
	a base line
	(rounded to 100 feet)
4. <u>UTM...</u>	-58410-377200
	METERS EAST OF
	METERS NORTH OF
	a base line
	a base line
	(rounded to 10 meters)

Can information be submitted in millimeters north and west of the lower right corner of a topo be converted by a computer or calculator to the above coordinates?

1. PLS...No way! Impossible! It has to be done manually.
2. L&L...Yes. In fact, it can be done very easily with a programmable calculator (and with no trouble with an ordinary calculator). This program

will be described later.

3. SPCS and UTM...I have read that this can be done, but haven't seen it done.

If the PLS method is to be supplemented or eventually replaced, which of the other coordinate systems should be implemented I would suggest using latitude and longitude for several reasons. First, it is the most widely used system, being marked on

(Cont'd. on page 6)

VOICES FROM UNDERGROUND

 BRINCO: THE DEEPEST THRU TRIP *
 by Steve Pitts *

After sixteen hours of driving, our group arrived at the fieldhouse in Conrado Castillo, a tiny logging community located in the mountains of Tamalipus. Immediately upon arrival, we were informed that we had one hour to prepare for the twenty-two hour climbing odyssey. Thirteen cavers prepared gear and we entered CUEVA DEL BRINCO at 2:30 pm. The name Brinco describes the nature of the cave - brink after sheer brink, all freeclimbs with exposures of sixty to seventy feet. Quite a thrill, especially with a dim carbide light and large army duffel bag to contend with. The spectacular passages included countless climbs, huge trunks, large rooms, a 100-meter swim...Jules Verne would have loved it. This 8 kilometer caving adventure seemed as though it would take us to China.

For the first half of the cave we wore wetsuits, the last section we changed into dry clothes.

At this midway point, a group comprised of Peters Keys and Peter Sprouse took an alternate route to map a river segment called The Nile. Our group, led by Terri Tracy, began the long remainder of the trip out.

After having been in the system 14 hours, with only a 45 minute nap, we still had 4 kilometers of cave to traverse, including a gargantuan boulder chamber call The Netherhall. We passed The Netherhall, Camp Two, and on one rest stop the other group caught up with us. I was definitely running low on energy when we broke into the trunk passages which characterize the INFERNILLO entrance area.

After an hour of boulder-hopping, we emerged into the tremendous sunlit chamber of the entrance. To me, the magnificent view of the mountains from the inside of INFERNILLO was the peak of the entire trip. We rappelled down and began the long hike out of the arroyo at approximately 1:30 pm. It was the most challenging caving experience for me - comparable to descending the NEW FERN bottom cave route 15 consecutive times.

LETTERS TO THE EDITOR

(Ed. note: This letter was written to the BGN by Bill Varnedoe several months ago in response to an editorial concerning the Alabama Cave Survey. Publication was delayed to allow time to first run the ACS questionnaire which appeared in the last issue.)

February 27, 1979

I had intended to attend the midwinter SERA thing in B'ham and while there discuss the ACS with you - but that ice storm locked me to my mountaintop and I didn't make it.

I could not agree more that the ACS needs an organization! After I inherited it from Dr. Jones I had it alone; first as an agent for the Alabama Geological Survey, then they gradually slipped away and left me with it. Ever since about 1960 I've pretty well run it as a dictatorship - this has both advantages and disadvantages. You know the faults, but it also allows me to make on-the-spot decisions without being hampered by rules. For instance, the basic policy is to give location information only to NSS members - but - the Alabama Highway Department wanted a listing of cave locations and I gave it to them. The purpose was they would use this list to avoid caves in planning new roads, this is to our mutual benefit. (We keep our caves - they avoid having to write impact statements.)

The ACS now stands at 1911 caves. I guess we'll soon reach 2000 by about next year. I would like to publish then - once more; then I plan to resign - and if there's no organization to pick it up, it'll be up for grabs. I would like to see it through this one more book though.

I'll be happy to work with any group in setting up an organization and making the transition easy.

Many of the policies grew out of Dr. Jones' policies; others are mine. Few are written, except in occasional articles such as I sent you.

I have a feeling that a board to govern policies might be in order, with a "leg man" to handle the day-to-day files and work; but I'm open to suggestions.

I threw this whole thing out as a question when the Tennessee Survey organized, asking for suggestions or possible organizations in an article in the Huntsville Grotto Newsletter. Guess what? I got exactly zero response! Where were these detractors then? I throw it out again!

-- Bill Varnedoe

LETTERS cont'd.

Dear Dave,

May 7, 1979

I know I've run on at length about the philosophy of the ACS, but since you've asked for a poll, I thought I'd answer as an Alabama Caver, not as the present director of the ACS - and in writing for your records. I'll address your article in the order and by number as written in the BGN:

1. I prefer a combination of C and A, letting C elect or appoint A who holds office until (or unless) replaced by C for cause.

Too many decisions need to be made all along to wait on any group. One person is definitely needed to decide on questionable entries, whether "corrections" sent in are in fact better than the present listing, etc. - a thousand day-to-day questions that arise. Yet one person, alone, is not different than now - so a policy control group is needed with WRITTEN policies (which they, of course, can change).

2. I like A, like now. If members are utilized that, right away, excludes some and restricts the income (I mean data, not dough) to the survey!

3. See #1 .

4. C solidly! B restricts data input too much (as does A&D, mods of B).

5. I'd add an E. Updates, yearly, of listings only; new full publications every 500 additional caves.

6. Sales.

7. NSS membership; anything less is hard to administer and restricts input of data - anything more open is too open. Exceptions (to be decided by the governing body) would be NSS Library, Library of Congress, USGS Library (don't forget we've (ACS) got an exchange agreement with the USGS, topo maps for printouts and publications), Ala. Geo. Survey Ref. Library, etc.

8. No! Definitely not!

9. Utmost cooperation. Give 'em listings if requested, etc. The goodwill and contacts "inside" this establishment more than pays for any minor location leaks. The Alabama Highway Department has even been most helpful in sending in corrections on occasion! They definitely avoid caves in planning roads - this is much easier than trying to get 'em to move 'em after dollars are invested.

10. Yes, the SERA common format is a real compromise. It was done so that whole regional data sorts could be run.

But, with the Tennessee Survey so secretive, it can't be done anyhow, so I'm in favor of abandoning the SERA format (even though I'm one of the ones who instigated and pushed it through). The data itself is OK, but the order's not good and some stuff can be omitted (like the initial "A").

I'd suggest an order like this;

"K" " A " " B " " C "

A=Identification (number, name)

B=Location (coordinates & co. topo)

C=Data (length, depth, ent., etc.)

The K is the key or card type - this might be put at the end - or omitted for book printouts. I've put 23 years into these formats and have run thru some 15 or so versions for the ACS and I do know a few pitfalls that are not obvious. I'd like to work with whoever tries his hand at a new one.

Sincerely,

W.W. VARNEDOE (BILL)

NSS 3160 F

Pres. Dir Ala. Cave Survey

5000 Ketona Way

Huntsville, AL 35803

P.S.

I'd also like to see the results of a poll on how the publications should be:

1. Cheap but readable, or

2. Slick and expensive

...and where to draw the line between these extremes.

The next (2000 cave) issue will have to be in volumes, I fear; where to put the break - every 500 caves, 1000 caves,?? Most of the thickness is the maps, print-out is a small part. How about large size fold-out maps of the bigger caves - (much more \$/issue, too!)? How much is a good price? (+ 500 printed) Looseleaf to add maps and corrections, or bound? How bound? Etc., etc.

The Survey is up to 1937 caves today, movin' on.

Well, how about it out there? Any thoughts, feelings, ideas, additional survey questions? The 20th of each month is our publication deadline - we'll extend our deadline for replies to the above and the reprinted original survey until the end of July, and aim to print the results in August.

As we are all painfully aware, the Birmingham Grotto has been having a difficult time planning our monthly trips. Turnout for the planned trips is often disappointing. Since no one is complaining, I suppose those members who want to cave work it out among themselves. This is certainly resourceful but I wish to point out some drawbacks of this "system".

The Grotto has several new members and usually has 2-3 visitors at each meeting. Some of these visitors join the Grotto and immediately ask when the next trip is. If a trip is scheduled they naively believe that someone will show up and inevitably they are disappointed. This really is a shame because they hardly ever come back.

Another consideration is the Grotto social life, or the lack of it. We almost never see each other except at meetings, and then only briefly. It would be nice to actually go caving together, wouldn't it? This grotto almost never does things together where we might have a chance to get to know each other. How about a picnic at a cave this summer? I know just the place.

Yet another drawback is the absence of any Grotto project. The Grotto could resurvey all the caves in Jefferson County; it could clean up ANDERSON CAVE; it could go ridgewalking together; it could take more interest in local civic groups that ask for our services. Jay Clark made a gallant effort to clean up TUMBLING ROCK and I want to thank him and the few who showed up.

The Birmingham Grotto certainly has the potential of being the leader in Alabama caving. To do this we need to pull our act together. If anyone knows of, or has heard of an interesting cave, come to the meeting prepared to tell us about it. I would really like to see several caves proposed, so we can plan several months in advance.

While I'm at it, let me comment on the leadership of cave trips. You want a leader, not a guide! If you can find the entrance and have a map of the cave, what more do you need? I enjoy that first visit to a cave because if I haven't studied the map and don't have a guide I can pretend that I'm exploring the cave for the first time. The difference between passage that no one has

between passage that no one has seen before and passage that you haven't seen before would be difficult to define.

I implore you, pick a cave out of the ACS book and plan a trip there. I am afraid that I just don't have it in my nature to plan everything for you and lead you by the hand.

Some groups have a trip committee that plans trips and makes all the arrangements. To me this is about as exciting as a grammar school outing. I much prefer to see the planning handled democratically (when the group is small enough). This way anyone can try leading a trip and the effect to the group is minimized. But more importantly, the possibility for personal growth is maximized. Leading a trip is a responsibility, but it's also a recognition of our duty to future cavers and the future of caving.

Greg McGill

"LOCATION CONTROVERSY" continued...

all topos, regardless of age, and even on popular road atlases. It forms the base lines for all topos, and a simple formula converts distance from the bottom and right corners of a topo to latitude and longitude (this we'll show later), and another one handles the vice versa.

All data should be turned in to the ACS in the form of distance measured from the edges of the topo, which ACS coordinators can convert to a coordinate system, hopefully to reduce the large number of errors creeping into the present survey. Although it will require a little more work on the part of those involved with the ACS, the value gained in accuracy will be worth it. If the new ACS can afford and handle the luxury of several coordinate systems, perhaps a distance measurement on a 7½ minute topo as well as the PLS and L&L coordinates can be worked up.

Regardless of the route chosen, I would estimate that perhaps 10% of the present locations are by over 200 feet, and should be checked alongside a "master" set of maps, if one exists. We should work with Varnedoe to try to upgrade the drafting quality of as many maps in the present survey as possible, as he has expressed a willingness to do so.

BIRMINGHAM GROTTO NEWSLETTER
P.O. BOX 2
BIRMINGHAM, AL 35205

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