

Northeastern Cave Conservancy News

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At the Next Meeting...

- Reports from the Officers and Committee Chairs.
- Three trustee positions will be up for election to a three year term prior to the June 2000 meeting. Nominations should be given to Chuck Porter.
- Warner moves that representatives be appointed to the NSS 2000 Convention in Dailey WV for the purpose of maintaining an NCC exhibit in the space provided at no charge by the convention organizing committee. (2nd by Levinson postponed from Mar 25, 2000 meeting. No second is needed.)
- Addis moves that up to \$75.00 be allocated for the purpose of gating the Gun Barrel bypass in Knox Cave. (2nd by McLuckie postponed from Mar 25, 2000 meeting. No second is needed.)
- Warner moves to amend Article XII: Amendments from: Changes in the bylaws shall be initiated by the Board of Trustees. To: Changes in the bylaws shall be initiated by the Board of Directors. (By-Laws change. (21 day notice has been given from the March 2000 news letter, and 2/3's majority vote of the membership at the June 2000 meeting.)
- Warner moves to amend Article IX: Meetings Section 4. Quorum, have added: c. Trustees. Two thirds of the Trustees shall constitute a quorum. (By-Laws change. 21 day notice has been given from the March 2000 newsletter, and 2/3's majority vote of the membership at the June 2000 meeting.)
- Levinson moves that the NCC allocate money to hire an attorney to investigate or setup the NCC as a foreign corporation doing business in the State of New Jersey. (The purpose of this motion is to get feedback from the board about owning property in other states.)
- Nicola moves that the Northeastern Cave Conservancy, Inc. Join the Northeastern Regional Organization of the National Speleological Society, Inc. as a "Cooperative Organization."

Membership Based

by [Bob Addis](#)

By the time that you read this, the NCC's first election will have taken place or is nearly completed. Of our 80 or so members, many are actively involved with cave conservation in some manner. Holding a committee chair may not seem glamorous or even related to our mission statement, but it is only through a combined effort of several individuals that we are able to move forward with cave conservation and cave management.

I admit that I had a very lethargic position as president of the NCC from 1978 until 1999 when the NCC converted from an officers-only corporation to a membership organization. Years passed and not much happened at the Knox Cave preserve other than caving trips and an occasional clean-up. We talked about cave conservation and cave management, we attended seminars, wrote some articles, but really didn't take a proactive approach. The 3 perennial NCC officers (later only 2) believed that a low profile and a tiny pot of assets was Knox Cave's best protection. But the 1990s brought a change in thinking, and now we are membership based. What does that mean to you? Paying dues, to be sure, but does it make you feel responsible to become actively involved? The NCC can only move ahead on its programs with a base of volunteers, and I am continually

amazed at the diversity of our members. On several occasions, I have been surprised when the right talent for a particular job stepped forth to do it.

An example where you might help is with the Acquisitions Committee. We are all cavers and we all talk to landowners from time to time. There are changes in everyone's lives - deaths, marriages, retirement, financial changes - and these can affect the caves of the Northeast. A broad membership base is much more apt to pick these changes than just 2 Officers or a Board of 11. As a member, you may not feel that you have the talents to discuss purchases, donations or management proposals, but you can relay the information to the Acquisitions Committee or any Board member. The NCC will take action. Often action may appear to be slow, but it is rational and conservative. The preparation of a proposed project's management plan takes time, but it forces several people to address many issues and to think of possible solutions to problems. Thus the management is a valuable tool for both the landowner and the NCC.

There are several areas where you as a member can help the NCC. There is presently an opening to chair the Fund Raising Committee. This has the potential to become a very important branch of the NCC since we have gained our 501(c)3 status and can solicit donations from individuals, corporations and foundations that are tax exempt. I admit that this could call for specialized training and experience, but recently in Albany there was a week-long seminar on the subject and separate classes could have been taken. Obviously it would be in the NCC's interest to pay the registration for someone's training. Probably this will be offered again next spring and I am certain it is offered in some form all over the Northeast.

Join in!

The Diverse Caving Community (Part 2)

by [John H. Ganter](#)

Note, due to this article's length, The Diverse Caving Community will be presented as a multi-part series. If you're impatient and like to read ahead, the complete article (with pictures) can be found at <http://nerve-net.zocalo.com/jg/c/pubs/exconcat/>

Cave Production

Since as Consumers we often behave so irresponsibly (and perhaps even irrationally), it is not surprising that upon recognizing growing cave damage, we sometimes do strange things like blaming Producers. In some ways this is not surprising, because indeed the Producer does destroy and it is always part of the story. Destruction by Consumers --dispersed, chronic and cumulative-- is not newsworthy so we don't think about it.

Recognizing that Consumers are sometimes queasy about the origins of the caves that they enjoy, Producers often sanitize their accounts of exploration. Just as warm blood does not flow languidly from behind the swinging doors in the supermarket, the surgical removal of formations or a tight passage bend may be politely neglected in published accounts. Yet this is a problem, for how are we to develop personal standards of conduct (ethics) unless we discuss openly the tough decisions that we collectively face?

Jim Smith is one of the few explorers to have told it like it is, in national and international publications. Not only does Smith talk frankly about repeated aid-climbing and blasting in No Business Blowing Cave, but a sidebar explains his feelings on the price that must be paid.¹¹ He points out that "there has to be a tradeoff between conservation and exploration. Otherwise, new frontiers will never be pushed." Smith comments that he preserves formations with great care whenever possible, and states forcefully that he "abhor[s] willful, malicious vandalism of any kind."

Yet our mixed feelings about cave production continue, and they are most evident where blasting is concerned. Our reservations have been divided into two types: conservation and "fair play."¹² I have already noted that

blasting in the course of exploration may be insignificant, over space and time, compared to Consumption. There remains fair play -- what is reasonable in caving, an inherently human-powered activity? We are uncertain where to draw the line. Granted, we require artificial light to venture underground. But we may only dig by hand. Well, a shovel is OK. But then, we drive to the caves through vast roadcuts, so why not bring a bulldozer? And so our attempt at limits spirals outward. We are inextricably tied to technology in the form of nylon rope and mechanical ascenders and batteries and spectrometrically-monitored mixed diving gases and dive scooters and on and on. Attempts to draw the line are often absurd, like the Mennonite who piously drives a buggy pulled by horses wearing super-hardened alloy shoes from the cutting edge of metallurgy. Isn't blasting fair? We are not sure; the issue makes us uneasy. It's the antithesis of caves; great mountains of smoke and fire... right? Perhaps we should examine cave blasting in more detail. Cavers as a group seem uninformed about a subject that can incite such controversy.

Blasting in Cave Exploration

For the most part, our ideas about blowing things up come from two sources: Hollywood and quarries (or mines). Unfortunately, neither has much to do with blasting in caves. In order to titillate audiences and create visual excitement, Hollywood does not really explode things -- it burns them rapidly. Large quantities of gasoline and oil produce orange towers of smoke and flames. By contrast, cave blasting is quick, quiet and clean. In quarrying and mining, the great blasts which shake the ground and send nearby seismographs rocking involve hundreds or thousands of pounds of explosives, lifting thousands or millions of tons of rock so that it may be easily scooped up and carried away. Responsible blasting in caves is to quarrying as hand trowels are to bulldozers.

Cave-related blasting is directed at one of two basic goals: passage enlargement or excavation. Passage enlargement (which here will include reducing the size of breakdown) involves making rock yield and disintegrate by the extremely rapid application of a relatively small force. Small charges (typically 1 to 4 pounds) of high-velocity explosives are used. Modern, commercial high explosives are very stable and difficult to explode. But when initiated properly with an electrically-triggered blasting cap, these materials explode at 15,000 to 25,000 feet per second. The result is breakage of a very small adjacent area: indeed, firm contact between charge and rock is critical to the success of the blast. The explosion is like hitting the wall or breakdown with a small hammer... at 3 to 5 miles per second. It causes results, but it doesn't shake the whole cave. Energy falls off so sharply that in winding cave passages it is often difficult for blasters to hear whether the charge has gone off at distances over a couple of hundred feet. Most cave explorers use high-explosives designed and manufactured specifically for low fume production. These produce relatively small amounts of water, nitrogen and various oxides of nitrogen for minimal impact on the cave and cavers. Depending on air movement, the blast area may have to be allowed to ventilate for anywhere from a few minutes to several days. The second type of blasting used in cave exploration is excavation, where large amounts of material are heaved using larger amounts (20 to 100+ lbs.) of relatively slow explosive. Almost without exception, excavation blasting is applied to sinkholes in attempts to remove regolith (soil and other weathering materials) from potential cave entrances. It also may be used to restore sinks that have been artificially filled with stone or other debris. Slow explosives tend to produce larger amounts of toxic fumes, and, for our own safety, must not be used underground. The energy released in excavation blasting is less concentrated, and can affect much larger portions of caves and the land surface. Breakdown may be loosened, and projectiles may fly into the air.

Often, we are concerned about the effects of blasting on the animals inhabiting a cave. For discussion purposes these can be divided into those that commute outside (bats and other mammals, mostly) and whose presence can be observed, and permanent residents. Obviously, the effects of blasting on bats and other mammals varies from destruction at close range, to disturbed sleep at the range of the blasters, to peaceful slumber out of earshot. Simply put, blasting must always be scheduled for times when these occupants are not at home, particularly if caving is seasonally regulated to protect the population. If in doubt, knowledgeable persons must be contacted for assistance in assessing the situation.¹³

Then there are the smaller beasts, the amphibians and invertebrates. Basically they are of two types: ubiquitous and endangered. Small things tend to occur in large numbers: there are trillions of insects and millions of

sparrows and (there should be) thousands of raptors. If we sacrifice a few common worms or insects, who cares? No need to get distraught in the cave, because installing one guardrail on the interstate highway we drove there on killed a lot more. Instead we need to be concerned about effects on the ecosystem as a unit, the whole web which supports the whole population, not a concentrated blast that eliminates a few individuals.

Then there are the endangered species, those whose habitats have been so ravaged that a single cave may be all that they have left. In these caves we don't blast, because we don't cave. (Naturally, the Producer must be vigilant in new caves, so that potentially significant organisms or populations can be examined by qualified individuals and protected if necessary.)

There is a trend in passage enlargement towards even smaller charges -- doing the most with the least through careful design. In surgery, bigger is not better. The same trend is occurring in excavation. Setting off a large amount of explosive in a sinkhole is a wasteful gamble which assumes that the void below is large enough and stable enough to receive part of the heaved material and a lot of energy. Often it is not, and the potential entrance is destroyed. The trend is towards careful, patient digging in sinks so that a stable entrance can be maintained over a long period of time.

So we can see that blasting is not so simple as might be thought, particularly in terms of its damage to caves. It is quite limited in spatial and temporal effect, particularly since obstacles in need of enlargement are, by definition, small. The blaster (assuming that he or she caves softly) re-arranges small parts of caves, and leaves nothing but a small organic residue. Rock dust and fragments are quickly removed in high-energy caves. In moderate-energy caves, sediments (particularly weathering residue from the bedrock) often cover blast effects rapidly -- perhaps as soon as the muddy explorer returns to squeeze through the enlargement. In contrast, low-energy caves may show blast effects for long periods.

But how often are low-energy caves blasted? Caves have varied tolerances for blasting depending on their energy levels, but there also appears to be a correlated need for blasting. Low-energy caves are quiet because they are not part of active earth processes. Passages and rooms tend to be quasi-random, reflecting phreatic or other multi-directional genesis. The cave may not go anywhere in particular. With the exception of air, there may be nothing to lead the explorer on beyond the point where his or her body stops. But contrast this with the explorer who is lying on their side in a tight, sinuous canyon with water pouring down their legs. There is process here; the cave is alive! The explorer is witness to speleogenesis, and can see, out of the corner of their eye, a bit of randomness which is stopping progress: a protruding blade of rock. Why is it there? A slight imperfection in the bedding plane, an errant armoring by sediment, a sudden glitch in base level. One thing is for sure, it's a noise in the signal. The explorer decides to re-write history a tiny bit. The hammer swings or the bang explodes, and the alluring darkness at the end of the canyon slowly and painfully is revealed. And, at that point, it actually becomes cave, in the sense that caves are as large as we measure them to be.

Utility and the Criterion of Intent

Still we have not resolved the dilemma of technology. We have the means to do virtually anything where caves are concerned: about the only barriers are time and money. As Hetch Hetchy¹⁴ and James Watt demonstrated, neither is sufficient where irreplaceable natural resources are at stake. Where do we stop? Jim Smith says blasting is "[sometimes] a necessity that must be practiced in good taste."¹⁵ Red Watson admits that he uses artificial entrances tunneled through solid rock, because they make exploration easier. Yet in the next paragraph, he concludes that "I don't have any hesitation about my disapproval of blasting. Fair's fair."¹⁶ So caving is unfair. We don't belong down there; we are not natives of caves.

Somewhere between removing a meander that makes a passage extremely tight and sinking an elevator shaft into Angel's Paradise we cross a threshold. Too much. The threshold is defined and re-defined by the opinions of peers, and it is a distinction of degree that varies by cave region.¹⁷ Smith claims that "only those that pursue... exploration have the right to sit in judgement." And indeed we do. Together the entire caving community creates

a climate in which certain behavior is accepted or rejected. We cannot control the behavior of Producers working in specific caves, but we seek to set the trends.

But some, true preservationists, may say that the trends are all wrong. Lately, we cavers have been on a legislation binge, at both the federal and state level. Our intent is laudable: to make the public aware that caves are valuable and to impose penalties on those who destroy them. And we are not alone. Gradually, organizations devoted to the conservation of the earth in general have become aware that the underworld counts too. They see caves as significant sanctuaries, particularly for cave-dwelling biotic populations. That does not mean cavers. Is there the possibility that in the future cavers will be prosecuted under the very laws that we have put on the books? The threat has already been voiced, and sadly, it comes not from outside, but from a traumatized Consumer.¹⁸ Where there are laws, we go caving through the loopholes. Literally interpreted, caving is illegal. Again, a threshold. What is caving and what is vandalism?

A difficult question? Perhaps not. I suggest that we use the criterion of intent. A vandal does wanton, malicious, purposeless and destructive things that damage the cave. Damage is the goal. The vandal robs the future for the moment. The explorer also may damage the cave, but it is the means to a positive end: the production of knowledge. The explorer is concerned, creative and curious. A part of the cave is lost, but something else is created: significant new knowledge. The Producer creates documents and maps which describe and explain, and thus the proof of intent is on paper, film and disk. It is shared. It has been said that if he were prosecuted under a cave protection law, Smith's account would make good evidence in court.¹⁹ And that is precisely the point. The article proves that his intent is good -- that he is a Producer.

Conclusions: Fire Prevention and Fire Fighting

In the coming years we will repeatedly hesitate at caving thresholds, and we will probably redefine them. New technology will bring new capabilities for creation and destruction. We will question and debate whether we have gone too far. This is healthy and necessary, for we must make both newcomers to caving and newcomers to caves aware of the tough questions they present.

And I suggest that instead of getting too engrossed in the minutia of ethics, questioning of each others intentions, and prosecuting ourselves, we turn to vaccination or prevention. We need to continually remind ourselves to cave softly, and to teach ourselves and others the virtues of restraint. We must learn to cave soft and push hard. We must also turn outward and place caves in the context of karst. For as our population matures and returns to rural areas, dispersed and insidious damage will be done. What portion of this population knows that it really isn't wise to put dead animals in sinkholes, or build drain-fields on limestone, or shopping malls on aquifer recharge zones? One percent? Five percent? Those of us who do know can't police this kind of dispersed damage; instead we fight the fires¹ once they have started. By the time we start the petitions circulating, or enter the courts, it's too late -- the damage is done.

But what if we could double the percentage of people who know about karst, who know about the earth? Just a little bit, basic things like: Water moves through the ground. The ground is not a magic filter. Water is not limitless. What goes in comes out. Now zoom out¹ and visualize 250 million people. Imagine the farmer picking up the phone and calling the renderer, the prospective homeowner nailing the real estate agent about the septic system, and the mall developers hiring a geoscientist. Think about the subtle but vast effects of this gradually diffusing knowledge and you will, I think, see where cave conservation should be headed.

Acknowledgements

The opinions expressed in this essay are entirely my own. Their genesis has been influenced greatly by discussions with many individuals having a range of perspectives. Specifically, I would like to alphabetically acknowledge Tracy Cahn, Andy Grubbs, Jim Smith, Bill Steele, Bill Storage, Kirk Taylor and George Veni.

Notes

11. First published as Thin Leads, Fat Charges, Punctuate the Story of No Business Blowing Cave, in Descent (No. 81, April/May 1988, p. 32-35). No letters followed and indeed the British being practical cavers were probably keen on the story. Next it appeared as No Business Blowing Cave: Exploration of an Epic T.A.G. Vertical Cave, NSS News, Sept. 1988, p. 349-353.
12. Watson, cited.
13. An amazingly frank, well-written and balanced (read 'British') discussion of digging, blasting and bats appears in Fauna and Flora Protection Society, Bats Underground: A Conservation Code, Descent 84, October/November 1988, p. 32-33.
14. The Hetch Hetchy Dam was the first time that Americans chose between a resource (water) and wilderness. Nash (cited) devotes an entire chapter to this significant turning point in national outlook.
15. Cited, in sidebar.
16. Watson, cited, p. 305.
17. Sarah Bishop (Cave Wilderness: Who Needs It?, NSS News, Nov. 1988, p. 433-434) points out that management of specific caves will require the consideration of many such questions, and that cavers must "be there to offer our opinions."
18. Tim Hornaday, A Cave or a Quarry? (Letter to the Editor), NSS News, Dec. 1988, p. 444. With reference to Smith (cited), the author admits that he cannot define the difference between a cave and a quarry, but claims that he is entitled to a value judgement. He suggests that this style of caving should not be covered in the NSS News. He concludes by stating that Smith's article would make good evidence for prosecution under a state cave law.
19. Hornaday, cited.

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A Timeline for the NCC

by [Bob Addis](#)

1968 - Dr. D. DeLisa of Schenectady purchased Knox Cave at a tax sale auction as part of a large parcel of land. Chuck Porter (and others?) attended the auction with cavers' pledges, but were outbid.

1974 - Dr. DeLisa started the process to donate the 8 Ac. parcel containing Knox Cave to the NSS. John Mylroie, then Chairman of the NRO, assisted in contacting the NSS.

1975 - Accident -Ice block fell in the entrance, leaving one dead and one paralyzed for life. The donation negotiations are put on hold. Subsequently Dr. DeLisa is sued.

1977 - In a heated, prolonged debate, the NSS Board decided that it wouldn't accept Knox Cave because of the potential liability.

1978 - The NCC is incorporated as a nonprofit corporation in NYS to accept the donation of Knox Cave. Bob Addis-President, Art Palmer-Vice President, Jim Harbison-Secretary Treasurer. Jim, an attorney and caver, advised us to deliberately keep the NCC's assets small so as to look undesirable to potential litigants.

1990 - NCC started negotiations with Albany County for Onesquethaw Cave.

1999 - Onesquethaw was given to the Albany Land Conservancy and the NCC was asked to manage to manage the cave. The NCC converted to a membership organization, a Board appointed, new constitution and by laws provide for elections and committees.

As we entered the 1990's, it became apparent that Northeastern cavers wanted more involvement and more say in cave conservation, and the NCC was the natural vehicle to accomplish this. Judging from the climate of

caving in the United States and the growth of other cave conservancies, opening the NCC to general caver and noncaver membership had great potential for what we could do. The NCC officers, now two in number, decided to change the way we do business and to alter 20 years of a low profile. Donations and membership has been solicited.

Recently I was asked by an old time NSS member and follower of the NCC if we still have protection against liability, and the answer is not easy. Currently legal advice says "probably", although we are not yet a big mountain of cash. The availability and costs of insurance would certainly be raised, and the NCC Board is keeping up to date on this issue by following the leads of other cave conservancies, the NSS, and the nationwide Land Trust Alliance.

What does the future hold for the NCC and Northeastern caving? Based on our progress since reorganization last year, I am optimistic that we can accomplish much in cave conservation and cave management. Because we are a nonprofit corporation with a board and committees, the process may at times seem slow, even dreadfully too slow. But we owe it firstly to the caves and secondly to our members to be rational and conservative in our approach to any project. Members must search his or her soul to see if they can volunteer to help, and nonmembers to join and help. The NCC can only move as fast or with as much quality as our members supply. Please help.