

Underwater Speleology

November/December 1994

Volume 21 Number 6



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The NSS and Cave Diving—Founded in 1941, the National Speleological Society joins together thousands of individuals dedicated to the safe study, exploration and conservation of caves. The first cave diving information ever published in the United States was in a 1947 *NSS Bulletin*. In 1948, NSS divers were responsible for the first cave dives in the United States using SCUBA. Prior to 1973, cave diving within the NSS was on a purely local level. That year saw the creation of the NSS-Cave Diving Section to provide a vehicle for cave diving information to be exchanged. Today, with over 800 members, the Cave Diving Section promotes safe cave diving through annual workshops, cavern and cave diving programs, warning sign installation, search, rescue and recovery, cave exploration and mapping, text and publications on cave diving, and the bimonthly newsletter *Underwater Speleology*.

NSS Membership—The National Speleological Society welcomes the interest of anyone who has a sincere concern about the safety, study, exploration and conservation of caves, wet or dry. You may join the NSS by writing to 2813 Cave Avenue, Huntsville AL, 35810 or by contacting the Cave Diving Section with a \$25 membership fee. The membership includes discounts on publications and conventions, as well as the *NSS News* and Directory. You are also eligible to vote in all NSS elections.

CDS Membership—As a sub-organization or "section" of the NSS, the Cave Diving Section is subject to the bylaws and ethics of the NSS. Membership in the Cave Diving Section is open to anyone in good standing with the NSS. Annual membership is \$10 and includes a bimonthly subscription to this publication, *Underwater Speleology*, as well as voting privileges, publications and seminar discounts. Please send membership requests to Bruce Ryan at the NSS-CDS Main Office. Make checks payable to the NSS-CDS.

Subscription—If you do not wish to join the NSS and CDS but would like to receive *Underwater Speleology*, you may subscribe to just this publication for \$20 per year. Send funds to Bruce Ryan at the NSS-CDS Main Office; make checks payable to *Underwater Speleology*.

Contents

Error and Apology

The editor would like to apologize for the error that ran in the September/October *UWS* in Wendy Short's "The Safety Line." The section that reads "Intentionally silt out a small section of a cave" was originally submitted by the author to read "Get off the main line into a small silty passage." I apologize for any inconvenience the readers or the author may have suffered as a consequence of this action.

The CDS, the Board of Directors, the Training Committee and the Safety Coordinator in no way assist intentional silting of a cave to practice safety drills. A real emergency exists at that point with potentially hazardous results. Additionally, no training course of the CDS allows intentional silting.

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(All photos that are not credited came from Sheck Exley's private photo collection. When known, photo credits were listed.)

Submissions

Due to problems experienced with the Post Office, recent submissions may not have made it to the new editor. To verify receipt of your submission, please contact the editor. *UWS* assumes that anyone submitting photos and/or graphics has obtained proper permission from the cartographer/photographer for reproduction of such material in *UWS*. We prefer prints to slides, but can accept both. All submissions are subject to standard magazine editorial practices. Unfortunately, we cannot publish everything we receive. If you have an idea for an article but are unsure if it is suitable for *UWS*, please feel free to contact the editor to discuss your idea.

Submission Deadlines

Jan/Feb.....	December 20, 1994
March/April.....	February 20, 1995
May/June.....	April 20
July/Aug.....	June 20
Sept/Oct.....	August 20
Nov/Dec.....	October 20

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Many thanks to Jennifer Andes Brown and Jeff Carson for all their hard work and invaluable assistance in the production of every issue of *Underwater Speleology*

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Push Back

Sheck Exley Memorial

By Paul DeLoach

[Eulogy delivered on April 12, 1994 at the Ortega United Methodist Church in Jacksonville, Florida.]

On behalf of the Exley family—Mary Ellen, Irby, Virginia, and Beth—I want to express their deepest appreciation for being here to honor Sheck, to celebrate his life and his achievements.

I would be remiss if I didn't mention those many friends of Sheck's who called but who could not be with us today. The calls came in from England, Australia, Poland, Hungary, Canada, Mexico, and throughout the United States.

I was asked to say a few words today about Sheck. I am humbled, honored and, quite frankly, scared to be standing up here talking about my friend, our friend Sheck.

I am not here today to re-shape your vision and image of Sheck, but rather have you join me in reinforcing those images that you hold and remember. I'd ask you now to close your eyes

for a moment and seize that image of how you remember him. Now, I'd ask you to open your eyes as I reflect and I hope you will bear with me as I share what I know of him (the man).

Sheck was a multi-dimensional man. He was an author, a musician, a karate instructor, a math teacher, a pilot, a scientist, a student, a teacher and a scholar.

But most of all, he was a diver, the world's most authoritative underwater cave explorer, a world record holder, the recipient of the highest honors that the National Speleological Society and the New York Explorers Club bestow.

He was a modern-day Christopher Columbus. He went places where no man has ever gone. He took his candle and pushed back the darkness.

His efforts have provided and will continue to provide information, data, maps and charts which cave scientists will use as the basis of future studies. This information will be used to further science and guide in the preservation and wise use of the hydro-spelean world.

Sheck authored several books and hundreds of articles. He logged over 4,000 cave dives, set world depth records and, in his own back yard, set a world distance record, diving over two miles in a vast underwater cave system.



Sheck at Hornsby Sink, May 1974

The Darkness

Sheck led the underwater world's version of the Starship Enterprise in both defining and exploring the last frontiers known to man.

With all of these accomplishments and contributions, the most important aspect of Sheck was our friendship and deep respect, not only for each other but for the things we valued. I think you value him for these things too.

He was a man with unquestionable character. He was a man of honor. He was courageous. He believed in telling the truth, and in doing his very best at whatever he did. Being less than his best was unacceptable for Sheck and, if he had a fault, some may say he expected too much of himself.

Sheck believed in having fun, playing jokes and sometimes was a real pest while decompressing. He could wreak havoc in underwater war games and was subject to attach turtles to your dry suit as you read your favorite novel at decompression, or tie a concrete block to your waist, awaken you and then drop the block, watching you as you tried to recover.

As a friend, I know Sheck believed that to whom much is



Sheck at Hornsby, 1974

given, much is expected. And Sheck never did things half way. He gave his best in meeting his personal and professional goals.

I stand before you as we honor and celebrate Sheck's life. Let us never forget that he died doing what he loved to do: seeing around the next corner; exploring the next lead; carefully checking side passages as only he could do; going farther and deeper to explore the unknown.

Sheck died doing what he loved most and he died, as he lived, with dignity and respect.

You might ask where do we go from here? I would submit to you that Sheck would expect each of us to live our life to its fullest. To give more than you ever thought you could give, and take your candle, wherever you are, and push back the darkness.

God bless you all. ❖

Caverns Measureless to Man

Another Man's Nightmare By Sheck Exley

[Excerpted from *Caverns Measureless to Man*, the autobiography of Sheck Exley, with the gracious permission of the publisher, Cave Books of St. Louis, Missouri. Please see page 12 of this issue for more information about the upcoming publication of *Caverns*.]

Invisible fingers grasped mine and drew me relentlessly downward, away from the surface of the sea. A powerful whirlpool was sucking me into the bowels of the earth along with myriad jellyfish, shrimp, and snapper. The large, dark eyes of the fish darted frantically back and forth as they struggled to escape the vortex. The harsh rasp of my scuba regulator echoed metallically in my ears as I inhaled. My exhaust bubbles sank with me into the narrow, pitch-black crevice instead of floating upward to the surface.

The spinning torrent slammed me into a rocky vise. I was wedged in so tightly that I could barely expand my chest to breathe. The rushing water flooded my face mask as I twisted to back out of the squeeze. Then a cloud of liquid mud descended upon me, blotting out what little vision I had left.

I laughed, thinking that my

predicament would make a great nightmare for most people. Wriggling backward out of the narrow slot, I cleared the water out of my mask, then relaxed while the natural escalator—the inflowing current—continued to carry me downward. In seconds, I was spewed from the narrow, muddy entrance into an underground room more than 100 feet wide and 25 feet high. The water was suddenly as clear as air and the powerful lights of my five companions completely illuminated the vast cavern in all directions. We looked like giant fireflies as we hovered weightlessly among hundreds of crystal stalactites that hung from the ceiling like giant icicles of stone.

We were very strange fireflies. Over our rubber wetsuits we wore 150 pounds of complicated equipment. On each diver's back were two large steel cylinders of air, double tanks connected with two valves. On one of the valves

Clamped to the other valve was an identical regulator, its mouthpiece dangling from a strap in case of an emergency. The first regulator had two extra rubber hoses attached, one of which went to an air pressure gauge that showed how much air was in the double tanks. The other hose was used for inflating the diver's buoyancy compensator vest at the press of a button. This vest, called a BC, was worn around the neck and on the diver's chest or was sandwiched between the tanks and his back. The diver released air into the BC vest to counteract the weight of his gear, enabling him to hover effortlessly above the bottom. Completing this array were several underwater lights, two guideline reels, a knife, a watch, and a depth gauge, all clipped on for easy removal and use.

Despite the high reliability of scuba diving equipment, each of us carried redundant gear so that every one of us could handle any emergency alone. Also we had been trained to help each other in the various courses of the Cave Diving Section of the National Speleological Society (NSS-CDS), sponsor of this 1982 expedition to dive Giant Cave in Belize, Central America. Included in our team of

"Now we were going somewhere no one had ever been before, a rare privilege enjoyed by only a few explorers"

was clamped a regulator with a small rubber hose leading to a mouthpiece that delivered air to the diver each time he inhaled.

Chapter One

NSS-CDS instructors and officers were Paul Heinerth and Shannon Heinerth, the original discoverers of the cave, and Bill Fehring, Sandy Fehring, Mary Ellen Eckhoff, and me.

I joined my companions in the huge room, put my hand in the light of my lamp for all to see, and signaled, "I'm OK." There was no sound except for periodic muted rumbles of our exhaust bubbles as we exhaled. I glanced at Mary Ellen to check on her and saw her blue eyes gleaming with excitement. She pivoted to lead us farther into the cave. We flapped our fins slowly to glide through a forest of huge calcite columns. The freedom from gravity was exhilarating, but each of us felt some slight unease from the realization that we were strangers in an environment where we could perish in an instant. Every few seconds we had to divert our attention from enjoyment of the cave to routine but grim matters of survival: gauge checks to see how much air was left, buddy checks to make sure our partners were OK, and line checks to verify our closeness to the guideline leading to the cave entrance.

As previously planned, Mary Ellen and I turned off into a side passage while the others continued down the main cavern to



Sheek donning gear, November 1981

explore another tunnel. The side passage was considerably smaller than the main cavern's 100-foot-plus width. It was still an impressive tube with a diameter of 15 feet containing thousands of stalactites. We quickly reached the end of the old guideline, and Mary Ellen unhooked a fresh spool of 1/16 inch nylon twine. She tied it to the end of the line while hovering 10 feet above the cave floor, then turned to confront the unknown.

Now we were going somewhere no one had ever been before, a rare privilege enjoyed by only a few explorers under the earth or the sea and on the moon. In one way, a cave explorer's thrill is

greater than that of undersea explorers or astronauts: in this day of telescopes, space probes, sonic probes, and remote cameras, they can study where they are going ahead of time; cave explorers go into the unknown. Moreover, unlike an explorer of air-filled caves, a cave diver is rarely worried by the nagging suspicion that a torch-bearing prehistoric Indian might have been there before him: the technology for exploring underwater caves is scarcely three decades old.

As Mary Ellen led into the new cave area, she installed the guideline. This indicated our way back to the cave entrance if our lights failed or the water suddenly became cloudy from our carelessly stirring up mud by swimming too close to the floor. As we swam down the winding conduit, I wondered where it was going. Would it lead us for hundreds of feet eastward under a nearby island, or would we find a huge new cave area around the next bend? Suddenly, Mary Ellen turned and waved her light back and forth at me to get my attention. She pointed to a dim glow far ahead of us. Had we found a new entrance to the cave?

Caverns Continued...

The mystery was solved when the glow gradually blossomed into the gleaming spotlights of our four companions. The tunnel they had explored and our side passage were connected as a loop several hundred feet long. After greeting each other and shaking hands, I checked my gauges to find that I was down to nearly two-thirds of my starting air supply, the cave diver's turnaround point that I had established many years earlier. I gave everyone the thumbs-up hand signal, indicating that we should start out, and the six of us began our exit via the side passage Mary Ellen and I had explored. As we swam along I measured the distance, depth and direction of the guideline and recorded it on an underwater slate so we could add this new section onto our map of Giant Cave.

By the time we had returned to the narrow entrance, nature's escalator had reversed. The current now swept us up and out of the crevice. This change in the direction of flow is caused by daily tidal changes in most caves that open into the sea. We could not let the current take us all the way to the surface, though. While our dive had lasted only an hour, we had been as deep as 90 feet at

one point, so had to stop at 10 feet below the surface for several minutes to give the nitrogen in our blood time to adjust to reduced pressure. If we went up too soon, the nitrogen would form bubbles, causing the bends, which can cripple a person. We use submersible decompression tables to calculate the amount of time

"Biggest octopus I ever saw," observed Bill, a marine biologist.

"And the biggest sea cave as well," I added as I finished totalling up the latest surveyed length of the cave.

"What?" All six of us hunched over my notes to verify my figures. Yes, we had passed Bermuda's Green Bay Cave

system's one mile of passage, making Belize's Giant Cave the world's longest salt water cave. As a matter of fact, the total of the measured lengths of all the tentacles now approached 10,000 feet,

"The various tunnels of the cave extended in all directions from the narrow entrance like tentacles"

needed to stop; it increases with the time and depth of a dive.

A couple of hours later, I was savoring the last of a lobster dinner and was wiggling my toes in the soft sand floor of a thatched-roof hut on Caye Cawlker as I plotted the latest information onto our sprawling cave map. Paul swatted a mosquito in the warm night air, then leaned over to squint at the map.

"It looks like an octopus!" he said in his French Canadian accent.

The various tunnels of the cave extended in all directions from the narrow entrance like tentacles.

nearly twice as long as the Green Bay System.

"You know, an octopus that big would have no trouble eating all six of us," Mary Ellen said, pointing at the map.

"Or a church," Paul added, opening a can of beer with his diver's knife.

"What do you mean?"

"Well, there's a story that many years ago a church on the beach disappeared during a hurricane."

"Probably blew out to sea."

"No, because even the foundation was gone. All they found was a hole in the ground, right about there," Paul said, pointing with

his knife at an area on the map just beyond the loop we had completed earlier that day.

"But we didn't see any offshoots there," I protested. "Probably fell into a sinkhole that doesn't connect with the cave."

We divided into two three-diver teams the next day. Paul, Mary Ellen, and I selected as our objective the southern area of the cave near the loop we had completed the day before. Minutes after rolling into the water from Paul's inflatable rubber boat we were in the cave, gawking at a huge stalactite column fully 10 feet in diameter, larger than any other dripstone pillar that had ever been found underwater. Just beyond the column I glimpsed a shadowy area in the wall. Was there an offshoot there after all?

Swimming over to investigate, we were amazed to see a wide, low passage leading farther southward. Paul tied a new line onto a nearby rock and we followed the 20-foot-wide passage for a couple of hundred feet. The ceiling was only three feet high, so we progressed by pushing off from the ceiling with our fins to avoid disturbing the muddy floor with swimming strokes. As we rounded a bend in the tunnel, Paul's light picked out a huge mound of glistening white beach sand that reached to the cave ceiling. Seeking a way onward, Paul first ran the line to a deadend



©Photo Courtesy of Ned DeLoach

Shek at Jackson Blue

around the right side of the mound, then reeled in and tried the left side without success.

While Paul cut the line off his reel and prepared to tie it to a rock, I thought I spotted something in the mound. Reaching into the sand, I pulled it out and showed it to Paul: an ancient timber. We looked at each other and nodded. We had found the missing church.

Yet other mysteries remain in Giant Cave. On our last dive Mary Ellen and I pushed a considerable distance into a tiny tunnel that she named Small World. It

soon became obvious that Small World was small only in diameter: even with four tanks each we could not explore all of its seemingly endless succession of small grottoes that extend more than 2,000 feet from the cave entrance. How much farther does it go? Until a future expedition finishes exploring it, we just don't know how long the world's longest sea cave really is. ❖

Contents of Caverns

Caverns Measureless to Man By Sheck Exley

Sheck Exley's autobiography, *Caverns Measureless to Man*, should be out mid to late December 1994. It has 338 pages, a 28-page index, 9 appendices, 16 maps, 55 black and white photos, 16 color photos, a color cover, and will be available in both softback and hardback form. *Caverns Measureless to Man* is published by Cave Books of St. Louis, Missouri, and will be available through the NSS-CDS, among other sources.

Maps

- Giant Cave, Belize
- Little River Spring, Florida, U.S.A.
- Morrison Spring, Florida, U.S.A.
- Eagle's Nest, Florida, U.S.A.
- Little Salt Spring, Florida, U.S.A.
- Boiling Hole, Bahamas
- Lake Tarpon Sink Cave, Florida, U.S.A.
- Atlantida Tunnel, Canary Islands
- Hughes Spring Cave, Alabama, U.S.A.
- Last Hope Syphon, Virginia, U.S.A.
- Manatee Springs Cave System, Florida, U.S.A.—plan
- Manatee Springs Cave System, Florida, U.S.A.—profile
- Suwanacoochee Spring Cave System, Florida, U.S.A.
- Cathedral-Falmouth Cave System, Florida, U.S.A.—plan
- Cathedral-Falmouth Cave System, Florida, U.S.A.—profile
- Nacimiento del Rio Mante, Mexico

Appendices

- Appendix I: A Brief History of Organized Cave Diving in the United States
- Appendix II: Progressive World Records for Underwater Cave Depth
- Appendix III: Progressive World Records for Underwater Cave Penetration
- Appendix IV: Multiples Sumps or Traverses
- Appendix V: Other Interesting Cave Dives
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Sheck doing decompression before Habitat depth at Wakulla

©Photo Courtesy of Wes Skiles

Profiles

- Profile for 12/16/90 dive by Sheck Exley to a penetration of 10,939 feet at Cathedral Canyon, Florida
- Profile for 3/28/89 dive by Sheck Exley to 867-881 feet at Nacimiento del Rio Mante, Tamaulipas, Mexico
- Actual DCP of 3/28/89 dive at Nacimiento del Rio Mante, Mexico by Sheck Exley ♦

Confessions of a Cave Diver

By Sheck Exley

[reprinted from *Underwater Speleology*, "Confessions of a Cave Diver, or, How to Make Your Own Sinkhole," July/August 1981 Volume 8/Number 4]

Caver: Forgive me Hodag for I have sinned.

Hodag: What is it my son?

Caver: I have violated your eleventh commandment.

Hodag: Ah, yes. The one about conservation.

Caver: That's the one. All my life I have taken nothing but pictures and killed nothing but time when in one of your sanctuaries.

Hodag: Good!

Caver: And I didn't even leave footprints since I am a cave diver.

Hodag: Well done, good and faithful.

Caver: But Hodag, I have recently gone astray.

Hodag: Uh—oh.

Caver: I didn't mean to do it, but you see we only have one cave in downtown Winter Park.

Hodag: A sorry state of affairs.

Caver: Yes, and it has been closed for years.

Hodag: You must not yield to temptation, my son.

Caver: But Hodag, you don't understand. I have broken no gates, nor erected graven ladders over fences in the night. Though I have considered it.

Hodag: He who has lust in his heart...

Caver: Yes, Hodag, I have lusted after that sinkhole. That's the problem.

Hodag: We can forgive that, my son.

Caver: But that was only the beginning. You see, I wanted that sinkhole in my own backyard.

Hodag: This sounds more serious than I thought.

Caver: So one day during decompression my buddy and I hit upon a diabolical plan. We had noted how catfish are able to penetrate underwater caves to depths and distances far in excess of what divers can attain. So, we hurriedly gathered one hundred catfish in a net.

Hodag: Protect my ears from such blasphemy.

Caver: But Hodag, they aren't cave adapted. Though that doesn't make me feel much better after what we did to them.

You see we equipped them with a cave radio transmitter/receiver, trained them to respond to directional signals from radio-triggered impulses...

Hodag: How ghastly!

Caver: And equipped each one with three pounds of plastic explosives and a remote trigger. Next, we threw the whole net bag over the fence into the closed sink.

Hodag: Egad!

Caver: The next step was to get a mobile

surface sending and receiving system, so we went over to Al's Used Cars to have the radio installed in one of his Porsches. That's when it happened.

Hodag: What happened?

Caver: We were trying the radio out at Al's when, wouldn't you know it, one of those darned catfish swam right under the used car lot.

Hodag: How awful.

Caver: Yes, and the worst part about it is that the city condemned the sink, put a fence around it, and won't let us dive it.

Hodag: Crime doesn't pay, my son.

Caver: Yes, Hodag, but there are 99 more catfish....❖



Close encounters? 1981

**The Sheck Exley Exploration
Award Memorial Fund**

Donation Form

Send to:

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NSS Cave Diving Section
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Stamp

Announcing the Sheck Exley
Exploration Award
and fund raising drive

The Sheck Exley Exploration Award recognizes and memorializes the many advances that Sheck brought to the diving and caving communities. His efforts have made underwater cave exploration safer, provided the basis for cave diving training, and set new standards by which all current exploration activities are measured. His untimely passing was a great tragedy, but his dedication and love of cave exploration have left a legacy which will long outlive us all.

**The Sheck Exley
Exploration Award
Memorial Fund**



Administered by the
Cave Diving Section of the
National Speleological Society, Inc.

The Sheck Exley Exploration Award

The Sheck Exley Exploration Award was conceived to support exploration involving cave diving. Any individual or group may apply for the award. Requirements include:

- Applicants be qualified to conduct the exploration activities
- Results of the explorations are copied to the NSS-CDS Cave Files
- Recipients make a formal presentation at the Cave Diving Workshop the following year

Sheck's lifelong dedication to such activities ranged worldwide. Accordingly, the granting of this award may be for any worthy project, regardless of location.

The award will be granted on an annual basis, recipients to be announced at the NSS-CDS Cave Diving Workshop. In years where appropriate applications are not received, no award may be merited.

The award fund will be maintained as a permanent restricted fund. Only the investment returns from the fund will be disbursed as part of the cash award. In no case may the principal from the fund be used as part of the annual award.

An application for the award is available from the NSS-CDS Board of Directors. This Board shall set any annual requirements for application.

In Memory of Sheck Exley

Sheck was one of the most experienced and accomplished cave diving explorers in the world, with a career which spanned more than four decades. He was one of the founding members and first Chairman of the NSS-CDS, and one of its original instructors. During his long and distinguished career, he was continuously involved with new exploration ventures, Section activities, and cave diving safety projects, giving generously of his time and experience.

Sheck's exploration activities spanned the breadth of cave diving, from the fresh waters of Florida's springs to ocean caves in the Bahamas, Canary Islands, and other worldwide sites. He continually pushed himself, setting new standards for both exploration and equipment. Deepest cave dive, longest cave dive, longest traverse, furthest penetration, first use of... all were titles which Sheck at one time held. Yet, with all of these, it was always the activity upon which he focused, not the notoriety.

No words would be complete without pointing out Sheck's efforts to improve the standard of safety in cave diving. As author of *Basic Cave Diving* (one of the first texts on cave diving) and hundreds of safety articles, speaker at myriads of workshops, and initiator of the accident analysis program, he has touched literally hundreds of thousands of divers. Sheck was truly a paragon of the community.

Donation Form

I would like to contribute the following tax deductible amount to the Sheck Exley Exploration Award Memorial Fund:

- \$1000
 500
 100
 50
 Other \$ _____

Enclosed is:

- Cash
 Check or Money Order (Please make the check payable to NSS-CDS Exley Award Fund.)
 Please bill my: Visa card
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Name on Card: _____

Signature: _____

- Please charge my credit card one-tenth of the amount each month for the next ten months (\$500 and \$1000 donations only)

I understand the return from investment of this restricted fund will be used to provide cash awards to support cave diving exploration projects. Further, I realize that the Board of Directors of the Cave Diving Section of the National Speleological Society, Inc. will manage the Fund, and will have sole oversight of the administration of the award.

The History of

By Sheck Exley

Cathedral Canyon is the cave that we hoped Wakulla would be. Ironically, the only entrance known before 1970—Falmouth Springs—was owned by the same folks that owned Wakulla: Ed Ball's St. Joe Paper Company. Like Wakulla, Falmouth was a tourist resort that is still marked as such on many maps. In addition to the resort and lodge, a dance hall was built over the brief but impressive run (called "The World's Shortest River" by Ripley's Believe It or Not!) separating the two cave entrances. Buses en route from Jacksonville to Tallahassee always stopped there. By the end of World War II, however, the resort was closed and the only commercial activity left at the spring was swimming. It is logical to assume that the NSS-FSS divers that pioneered cave diving in other parts of the state came to this well-known location in the 1950's also, becoming the first to venture into the huge upstream entrance, more than 50 feet wide.

In 1962, two teenagers drowned in Falmouth. Thereafter ensued a tragicomedy that would be replayed at Madison Blue and elsewhere before local law enforcement authorities learned their lesson: "let's call in the Navy divers!" Two weeks of inept blundering

less than 200 feet into the spring produced no bodies, only lots of silt. Finally realizing that there is no cave diving expertise in the military (except for John Zumrick and Bob McGuire today), the sheriff kicked out the "professionals" and humbly invited the "amateurs": Ozzie Park and Roy Stantamyre of the Jetty Jumpers, part of the Florida Skin Divers Association (FSDA) in Jacksonville. Ozzie and Roy quickly made the recovery, but the two-week delay had been costly. Owner Ed Ball closed the spring to diving and swimming, and used the event as an excuse to prohibit diving at Wakulla as well.

The Mystery of 1971

Early in 1971, rumors were flying in the cave diving community about discoveries by Florida's premier cave explorer of the 1960's, John Harper. The locations were a closely guarded

Merritt's Dive Shop in Gainesville. John couldn't resist teasing Dave with news of his finds.

"Both caves are huge," John ventured.

"How big?"

"As big as anything in the state."

"Aw, c'mon."

"No, really. The one that we're fixing to dive is almost as big as Hornsby, and the other is even bigger," John said. "Nothing but Wakulla can touch it in size. That's why we call it Aquarius."

"So where are these caves?"

Dave asked.

John laughed with glee. "You know I'm not going to tell you that."

The last laugh belonged to Dave, though. He quietly sent a friend to follow John's team from Gainesville. Unsuspectingly, John and his buddies led them right to a popular but small cave—Devil's Eye—and carelessly planned the

dive while Dave's spy listened from a tree overhead. Dave passed the information on to me, enabling yours truly to become the fourth diver to squeeze through The Cornflakes into the major section of the

cave. John had already regained his penetration record with a 2250-foot push there, and my partners and I would set four more world records at Devil's Eye in

"So where are these caves?"

Dave asked.

John laughed with glee, "You know I'm not going to tell you that."

secret, but the descriptions were not: huge tunnels that seemed to go on forever. One weekend Dave Desautels ran into John and Randy Hylton filling their tanks at

Cathedral Canyon

the early seventies, including the first 3000-footer.

But the other secret location was by far the most tantalizing. I started diving Eagle's Nest with one of John's partners, Jim Lockwood, and learned that Aquarius was a large sinkhole nearly a thousand feet from Falmouth. Sneaking through the pine forest at night, John and Randy had linked those two entrances, then continued 1711 feet further upstream to a third entrance, nearly breaking the traverse record John and Joe Fuller had set at Hornsby a decade earlier. This third entrance, discovered by Randy, was incredibly beautiful: three broad beams of sunlight plunged through gaping roof openings into a subterranean canyon two hundred feet long, with parallel vertical walls 20 to 50 feet apart and 13 stories high—still the deepest open water known in Suwannee County. The combination of Grand Canyon-like features and the cathedral lighting effect led me to name it Cathedral Canyon years later. Little did we suspect in the early 1970's that this awe-inspiring entrance would also prove to be the only reason-

able access to the biggest and most interesting part of this giant cave.

On October 15, 1971, I became the first human to enter the vast borehole leading upstream from Cathedral. Unfortunately, this was during a flow reversal, when high Suwannee River water had backed into the cave, so all I saw was little more than a pile of fossil



Cathedral Canyon in December of 1972

bones and brown water. But there was a cave there, and it was big! I returned on November 5, and was immediately blown away by what I found in 100-foot visibility. It is very difficult to describe the feeling that one gets in perfectly clear water in a giant, white-walled cave. Jim Lockwood used to call it "perspective," where one feels like a tiny firefly in a gaping chasm where house-sized boul-

ders can be seen so far away that they look like pebbles. I simply call it "heaven."

I quickly laid 500 feet of line into the pristine conduit, more than 50 feet wide and 15 feet high, twice passing under majestic, stratospheric domes whose parallel walls shot straight up out of sight, sister canyons to Cathedral that never quite made it to the surface. The floor was an undulating river of white sand lightly dusted with rippled tan silt, a silica glacier that formed huge dunes whenever eddies formed in the rushing torrent of spring water. On May 31, 1972, Billy Young and I found the biggest dune yet discovered in an

American cave, a mammoth mountain of sediment more than 50 feet high and even wider, which we named Mount Everest. By the end of that year, Dave Fisk and I had pushed nearly 2000 feet from Cathedral, discovering the largest canyon yet in the cave—called Grand Canyon of course—and the first side passage, China Route, which turned out to be nothing more than a meander

Cathedral Continued

which paralleled, then tied back into the main cave.

With depths averaging 130 feet and occasionally exceeding 160 feet, there appeared to be little more that we could do without enduring impossibly long decompression schedules. At the time, the longest duration of any of our dives was three hours. Besides, there were plenty of distractions, including linking the 16 entrances of the cave downstream from Falmouth. The story of the connection of Cathedral to the Suwannee River, covering an underwater distance of more than five miles in the course of which several traverse records were set, is a saga in itself and is in fact the subject of the next to last chapter in *Caverns Measureless to Man*.

Staging and Scooters Come to Cathedral

We had pioneered staging at Madison Blue in 1970, and Jamie Stone and John Harper demonstrated the first practical use of scooters in caves several years later, but neither technique was applied to Cathedral until 1979.

On January 27 of that year, Dale Sweet and I pushed nearly 300 feet further on a single stage dive, then I returned that fall, soloing another 500 feet using a Farallon

John Harper was just getting back into cave diving after a seven-year absence following the death of his best friend and favorite partner, Randy Hylton,

while diving with somebody else at Eagle's Nest. I was well aware that John had done virtually all of the early exploration from Cathedral to Falmouth, so I invited him to see some virgin passage upstream. On a two scooter stage dive, the two of us pushed to a penetration of 3440 feet, the longest in the world below a depth of 150 feet at that time. Unfortunately, on the latter dive John had one of his recurring bouts with the bends, so our efforts ground to a halt.

Meanwhile, I realized that to

proceed much further would require more resources than we were using: air bells and hot water for decompression, and some sort of restricted access to prevent tampering with these facilities and our stage bottles between our dives. The ideal approach was to buy Cathedral and the property around it. A fence line separated the Cathedral tract from the Falmouth/Aquarius tract, so I



Check at Wakulla, 1987

©Photo Courtesy of Wes Skiles

Mark VI and staging, discovering the two immense Double Rooms. Because of long-term deteriorating visibility caused by excessive pumping of water from the aquifer due to irrigation farmers and Oxydental Phosphate Company, the eastern walls of these rooms were not visible and in fact have not been investigated to this day. But the main tunnel beckoned us onward.

speculated that this could be done. Unfortunately, discreet inquiries with a local realtor and the son of the Falmouth caretaker netted the same result: Cathedral was part of the 220-acre Falmouth property, which could be purchased for half a million dollars (increased to \$750 million just a few years later).

After Clark Pitcairn, Bill Main, and I walled out Friedman's Sink at 7665 feet in 1981, it became obvious that the only caves in Florida with the potential to break that record were Wakulla, Hornsby, and Cathedral. At 300 feet of depth, Wakulla was far too deep (and still closed), and while my Seventh-Day Adventist friends at Hornsby generously extended diving privileges to us, on the longest push there, a 6743-foot scooter/stage dive by Clark and I on March 21, 1982, we had to suffer underwater for more than nine hours due to the excessive depth of 180 feet. The folks at Hornsby weren't interested in running electricity to the sink to make our decompression more endurable, and didn't permit Saturday or summer diving. Besides, at Hornsby the large trunk passage had gone dendritic, branching out into smaller and smaller feeder passages that would probably soon get too small to proceed further. So, our

best bet for a new record was to start sneaking into Cathedral again.

Imagine my surprise when I rolled up for a dive in 1983 and discovered a new mobile home on

spaces or submerged entrances) set by Dana Turner, Dave Fisk, and myself from Waterhole to Peacock Spring I, Florida, on the same day, had been easily exceeded by Oliver Statham and

Geoff Yeadon's 6000-foot dive at Kingsdale, Keld Head, England, on January 16, 1979. Of the two major cave diving records—depth and distance from the nearest airspace—only our 7665-foot Friedman record remained. The depth record of 360 feet set by Dale Sweet in 1980 and tied by

me in 1981 was almost doubled at Fontaine de Vaulcluse, France, by Jochen Hasenmayer (656 feet). Since Friedman's ended at 7665 feet, it appeared inevitable that the penetration on air record would also fall (as it did in 1985 on a 10,198-foot dive at La Doux de Coly, France, by Oliver Isler). It looked like Americans were out of the cave diving record business for good.

Then, late one night in 1984 I got a phone call. "Mr. Exley, are you still interested in buying my property?"

By April, cave divers had the first legal access in more than 20 years to any of the 19 entrances to what we were certain was the largest underwater cave in the world. Best of all, the entrance we owned—Cathedral—was arguably the most scenic and certainly the

Late one night in 1984, I got a phone call: "Mr. Exley, are you still interested in buying my property?"

the property. Knocking on the front door, I learned from the new owner that, while his four acres (including Cathedral) were surrounded by St. Joe land, his tract was separate and he had just bought it for an incredible bargain. I also learned that no, he was not interested in incurring the liability of having someone scuba dive on his property. Would he sell? "Heck, no."

Years passed, and so did the world record for cave diving—to other countries. The multiple traverse record of 7040 feet set by Lewis Holtzendorff, Court Smith, Dana Turner, Dave Fisk, and myself from Orange Grove to Waterhole, Florida, on July 7, 1973, had passed forever to Cocklebidy in Australia. The single traverse record (shortest distance between two different air

Cathedral Continued

most significant, being furthest upstream and closest to the major unexplored area of the cave and the most likely area for a penetration record. By fall of 1986 we had run power to the water's edge, installing America's first hot water warming system for decompression, and Wes Skiles, Tom Morris, and Paul Smith had installed the first habitrough—a cattle trough inverted and filled with air so that divers could drink hot liquids and stay warmer during decompression. We also invested in the expensive German AquaZepp scooters and a variety of other equipment. In three dives, Paul DeLoach and I pushed to 5127 feet.

Then the winter rains came, causing the Suwannee to rise and reverse into the cave, reducing the visibility to less than one foot. By October, 1987, the water had cleared again, enabling me to solo in three dives to 6850 feet, the second longest penetration in America. But then the Wakulla project intervened, demanding our full efforts for the rest of the year. Then it rained again.

The next two years were frustrating. Visibility in Cathedral was worse than ever, in my opinion too poor for high speed exploration on a scooter. The Suwannee River Water Management District (SRWMD) is, in the

words of a hydrogeologist who retired from there a few years ago, a case of "the foxes running the henhouse." Huge agricultural concerns have moved into Suwannee County, pumping many millions of gallons a day out of the aquifer. These same farmers comprise the SRWMD Board of Directors. The unrestricted mining

"Beginning in May 1989, the run at Falmouth, considered a first magnitude spring, dried up for the first time"

of groundwater has had a predictable result in the drought of the past two years: many springs have stopped flowing, including the largest in the county, the great subterranean river that courses through Cathedral and Falmouth. Beginning in May 1989, the run at Falmouth, considered a first magnitude spring averaging more than 100cfs, dried up for the first time in history. When the flow ceased in the cave, the bright walls became coated with dark algae and tannin and the oxygen levels plummeted, resulting in a massive kill in the largest known colony of *Procambarus Pallidus*, the rare and endangered blind crayfish. A bottled water company, on the verge of buying Falmouth from the eager-to-sell St. Joe Paper Company, took one

look at the cesspool that the spring had become and took their plans elsewhere. Except for a brief period from March to July 1990, the spring has not flowed since. Incidentally, the few crayfish that appeared to have survived the holocaust of 1989 died in the fall of 1990. The cave is now sterile as far as animal life is concerned; the schools of catfish are also gone.

Our efforts at Mante, Mexico, and Chip's Hole, Florida, had brought the cave diving depth and distance records back to Florida, and surveying efforts had established Cathedral/Falmouth as the world's longest (and by far largest in volume) underwater cave, but my dream of a penetration record at Cathedral remained and I was not getting any younger. I had vivid memories of John Harper and Jochen Hasenmayer getting the bends on easier dives. Finally, in the fall of 1990, I resolved to give it a shot regardless of conditions.

World Record Problems

Visibility in Cathedral Canyon itself is usually pretty good because of seep springs in the canyon walls. But visibility in the tunnel at the bottom was only 15 feet, the walls were very dark from the water pollution, and the lack of flow left deep deposits of soft, easily-riled brown silt everywhere. The bad visibility

was made worse when my rising air bubbles knocked silt loose from the ceiling, obscuring my return path. The worst, however, occurred 1500 feet back, where the main tunnel left the Grand Canyon to enter an area 150 to 160 feet deep. This section, the Black Lagoon, had completely filled with frigid river water, limiting visibility to as little as two feet for a distance of more than 200 feet. Another section with similar conditions and length, the Brown Lagoon, was encountered just 200 feet past the end of the Black Lagoon. Fortunately, my memory of the line position in these areas was good, so I was able to cruise at high speed on my scooter through these sections, carefully keeping my head down and my attention riveted to the line. If I veered from it for just an instant at that high speed in a cave that large, I might never find it again. Of course, diving with a partner in such conditions was out of the question, but then buddy diving on very long or deep cave dives even in clear water is not practical nor safe.

On October 21, 1990, I pushed to a distance of 7395 feet, noting with dismay that the deep section, Thirty Fathom Freeway (discov-

ered three years earlier) was continuing. Even with the hot water and habit through the decompression was already an ordeal. Much more of the 180-foot depths would mean that I would have to switch from the 160-foot



Cathedral Canyon, December 1987

decompression schedule designed by Dr. John Zumrick to avoid the bends to the much longer 170- or even the 180-foot schedule. The number of stage bottles required would become logistically excessive, since substantially more air is breathed at those depths. Most sinister was the possibility of oxygen toxicity from the prolonged exposure to depth, especially if I had to swim out due to scooter failure. An oxygen convulsion in the water would result in certain death.

The next push dive, on November 11, was like a prayer answered. After adding 300 feet, I started up a long slope that took me to a depth of only 120 feet.

The cave would get no deeper for the next 2500 feet. Exhilarated by the shallower depths, I didn't stop until reaching a point 8760 feet from Cathedral, surpassing Friedman's and making Cathedral once more the second longest penetration in America. This dive was also significant in that it represented the first time that Americans had staged scooters (Isler had done it at Coly in France). The next push, to 9880 feet, was much the same.

The huge 60-foot-plus wide trunk was continuing as big as ever, more than seven miles from its terminus at Ellaville Spring in Suwannee River State Park. No other trunk in the world, even in Kentucky's fabulous Mammoth Cave, can compare to it for uninterrupted length. And it looked like the penetration record was only one push dive away.

But to make each push dive, several extra dives were needed to stage extra bottles and scooters in

Cathedral Continued

the cave. To ensure my survival, I insisted on providing enough air to complete a worst-case scenario: having to swim out from maximum penetration. I had learned that swimming took about three times as much air as scootering. Also, the extra bottom time incurred from a catastrophic breakdown of one or both scooters at the worst possible moment would be substantial, requiring much more nitrox and pure oxygen for decompression.

As luck would have it, I was "road tripped" by my scooter on my longest setup dive, more than a mile from Cathedral. I was able to limp out on the much slower 12 volt power, but unable to place the bottles at 6850 feet as planned. Subsequent examination revealed a broken terminal wire on one of the two battery packs, rendering it inoperative. Rather than re-solder it myself, I hired a professional to do it at the local TV repair shop. So guess what happens on the next dive? Right! The same wire breaks again,

leaving me stranded at 3000 feet. Fed up, I replaced the wire and completely redesigned the termi-



Sheek hard at work at Mante

nal connection. But now the record that seemed so easily in reach was appearing unattainable. If the winter rains came early, the zero visibility would make further progress this year—and maybe ever, with the increasing pollution in the cave and my advancing age—impossible. Finally, on December 12, I got the 6850-foot set up dive completed, and three days later staged a scooter at 3200 feet. Now everything was ready. The biggest question mark was hypothermia. While Cathedral groundwater temperature is 65–

69°F, and the Black and Brown Lagoons some 5–10° cooler, the nearly four hours of exposure in a wetsuit on a scooter is a real ordeal. At Chip's Hole I had endured five hours swimming in 69°F water, but the convection of heat at the much faster scooter speeds make an enormous difference. Too bad that a dry suit could not be used. To do so would be to freeze during the long decompression, where

I could not avail myself of the hot water heating system.

Of course, the other question mark was, what would the cave do? While it was very unlikely that the trunk would end anytime soon, it could plunge to depths in excess of 200 feet, making further progress at that distance impossible. I was well aware that Mary Ellen Eckhoff and I had explored two caves nearly 300 feet deep less than ten miles away, and parts of the Thirty Fathom Freeway in Cathedral itself were 200 feet deep.

conclusion on next page...

World Record Success

An hour and a half into the dive, I dropped my 13th and 14th stage bottles at the end of the line at 9880 feet, parked my scooter, hooked on my line, and started swimming. On earlier dives I had discovered that adding line while swimming was more practical in the limited visibility (somewhat better in the back of the cave, but still less than 30 feet). It also enabled my body to warm up and the scooter to rest, cooling the motor and recharging the batteries slightly.

The cave maintained its impressive 60-foot height, and its depth was thankfully only 100–110 feet. Then I rounded a bend after 500 feet and grimaced in dismay as a long pit opened in the floor along the left wall. I swam its full length to the far wall in hope of a shallower continuation, but found nothing. Luckily, the pit quickly opened into a huge tubular borehole 40 feet wide and 20 feet high at a depth of 150 to 165 feet. After several hundred feet more my air was down to two-thirds, so I tied off and turned back to survey. During decompression I totaled my survey notes and learned that the new record was 10,939 feet, the world's first two-mile cave dive.

Many thanks to Paul DeLoach, Dale Sweet, Wes Skiles, Tom Morris, Paul Smith, and John Zumrick for their assistance and support during the 1990 Cathedral Canyon Project. ❖

Western Exposure By Woody Jasper

adapted from J.R.R. Tolkein

I sit beside the fire and think of all that I have seen
caves and rivers, skies of blue and multi-shades of green.
I sit beside the fire and picture friends who've gone before
and hope someday we'll meet again upon that Western Shore.
I sit beside the fire and wonder what will come to be
in those many future springtimes that I shall never see. ❖

Collection of Memories

Sheck's parents, his sister Beth and Mary Ellen Eckhoff are collecting reminiscences about Sheck for a collection they are putting together. Friends, admirers, strangers—all are welcome to write a few words about Sheck and forward them on for this compilation.

Please send your memories to them via *UWS*. Indicate on the envelope that this is a Sheck Memory and your submissions will be forwarded on to the family in bulk. Please send submissions for *UWS* separately, as the Memories will be forwarded unopened. ❖



Sheck at Mante after reaching 520 feet, April 1987

Inby "Sheck" Exley, Jr.

- 1949 • Born April 1, 1949—April Fool's Day
- First cave entered is Carlsbad Caverns National Park, NM before the age of one!
- 1960 • Second dry cave experience, also in Carlsbad at age 11.
- 1965 • Certified Open Water. 1965 dives go unlogged.
- 1966 • First cave log entry is on February 27 at Crystal River Springs, Florida. Depth 60 feet; Penetration 30 feet. Total time submerged: 20 minutes (later he divides this section into "Bottom time" and "Total Time Submerged").
- In Sheck's first logged year of diving, he makes 55 cave dives. He is 17 years old.
- 1967 • Sheck begins college at the University of Georgia in Athens. He arranges his classes so that he only has to be in school for two days a week, and can thus drive down to North

Florida regularly to dive the springs with his brother and others. Sheck completes 70 more cave dives in this year.

- In the summer of this year, he teaches his first SCUBA course.
- 1968 • Sheck first proposes the "Thirds Rule" for cave diving.
- Death of brother Edward at Wakulla while snorkeling on June 29.
 - Sheck trains for and receives his Black Belt in Karate.
- 1969 • Depth record set by Sheck on air to 292 feet at Eagle's Nest, Florida.
- Publication of *Dixie Cavern Kings Cave Diving Manual* by Sheck Exley.
 - First cave dive out of Florida: July 5; cave dive #218 at Cave Springs, Missouri. Depth 129 feet; Penetration 150 feet; night dive; Total time submerged: 15 minutes.
- 1970 • First dive out of country: August 1, North Wall, Cayman Kai, Grand Cayman. Scuba dive #533; Depth 60 feet.
- Sheck leaves college for one year to serve in the National Guard.
- 1971 • Dive #500 at Orange Grove Sink, Florida. Depth 75 feet; Penetration 60 feet. He is 22 years old.
- 1972 • Sheck receives his Bachelor's Degree in Business from the University of Georgia, then returns home to Jacksonville.
- 1973 • Formation of the NSS-CDS, founded by Sheck Exley.
- Dive #1,000 at Silver Glen Springs on January 21. Depth 105; Penetration 400 feet.
 - First cave dive out of country: March 31, Ben's Hole, Bahamas. Depth 50 feet; Penetration 300 feet. Cave dive #1029.
- 1974 • At age 25, Sheck crosses 1,000 hours underwater mark at Alachua Sink on May 17 on cave dive #1251. Depth 198 feet; Penetration 2350 feet.



Sheck at Tuscumbia Spring, Alabama 1975

1949-1994



Sheck at Hornsby, May 1974

- 1979** • Publication of *Basic Cave Diving—A Blueprint For Survival* by Sheck Exley.
- Sheck reaches cave dive #2,000 on May 27 of this year. The dive is at Devil's Eye, Ginnie Springs, Florida. Depth 90 feet; Penetration 350 feet.
- 1980** • Sheck crosses the 2,000+ hours underwater threshold while diving at Peacock Springs at age 31. He completes 2267 cave dives by the end of 1980.
- 1982** • Publication of the first *NSS Cave Diving Manual*, edited by Sheck Exley and India F. Young.
- 1984** • Sheck purchases Cathedral Canyon and moves from Jacksonville to Live Oak. He is 35 years old.
- 1985** • Sheck begins teaching at Suwannee River High School.
- 1988** • On April 5, Sheck sets the World Record for deepest dive on open-circuit scuba at Mante in Mexico. Depth 780 feet.
- During this time period, Sheck begins to teach fewer and fewer full cave courses and begins to concentrate his teaching on deep diving and mixed gas diving.
 - In August of this year, Sheck receives his pilot's license.
- 1989** • Sheck sets the World Record for Longest Swimming Penetration at Chip's Hole, Florida on January 28. His penetration is 10,444 feet.
- On March 28, three days before his 40th birthday, Sheck breaks his own World Depth Record at Mante in Mexico. Depth 867-881 feet.
- 1990** • Sheck receives his Master's Degree in Computer Science from Nova University.
- Cave dive #3,000 is reached at Cathedral Canyon on July 27 at age of 41. Depth 163 feet; Penetration 1900 feet.
 - World Record dive for Longest Scooter/DPV Penetration is set on December 16 at Cathedral Canyon. Penetration 10,939 feet.
- 1992** • 3,000 hours underwater mark is reached on May 31 on cave dive #3121 at Natural Bridge Spring, Florida. Sheck is 43. ♦



©Photo by Greg Balling



© Photo Courtesy of Wes Skiles

*"The credit belongs to the man who
is actually in the arena whose fall is
manned by dust and sweat...who at
the worst, if he fails, at least fails while
daring greatly so that his place shall
never be with those cold, timid souls
who know neither victory nor defeat."*

—Mohandas K Gandhi

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PO Box 950
Branford, Florida 32008

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PERMIT #77
LAKE CITY, FL
32055

UNDERWATER SPELEOLOGY

Volume 26 No.2



Remembering Sheck Exley:
April 1, 1949 - April 6, 1994

Visit the Cave Diving Section's Website at: www.caves.org/section/cds/

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On the Cover:

5 Years after his tragic death,
UWS remembers Sheck Exley, pictured here at
Bushmansgat, South Africa in 1992.

*This photo was generously
provided by the Exley family.*

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The Exley Influence - Still Felt 5 Years Later

It is hard to believe that five years have already passed since that fateful dive into the mind numbing depths of Zacaton. That dive, on April 6, 1994, more than any other, exists in time as a defining moment in cave diving history. That was the dive when Sheck Exley perished. From that point forward in cave diving, there would always be two distinct eras. The era before Sheck's death and the one that followed.

Unlike other cave diving pioneers who perished and faded with time, Sheck will always be with us. So many of the safety standards we use were developed and promoted by him, that by just performing the act of cave diving we honor his memory and accomplishments. He was the founder of the Cave Diving Section, the first Chairman, the first Editor of *UWS*. Sheck was also a prolific writer, record keeper and historian. So much so, that even now there is archived material that is unpublished, hand drawn maps that remain unseen and stories from the past that will have the effect of making even the most steely nerved cave diver wistful.

In this issue of *UWS*, we have the distinct honor of presenting Sheck's story of Dorado Chasm. As you read it, it will have the effect of making you reflect upon the earlier days of cave diving when every cave, spring and sink was pure adventure. When the crystal clear water that boiled forth from Florida's springs was unthreatened by notions like groundwater runoff, nitrate contamination and diver pressure. This is a story of what cave diving was in the era before Sheck's death.

For the newer cave divers who never met Sheck or experienced cave diving in those days, I hope this story can give you a taste of the innocence, a little of the feeling that anything was possible and that everything around you was a mystery waiting to be uncovered. Those feelings reside inside of us and Sheck was able to bring them out through his written and spoken word. As Sheck speaks to us from the past, his writings still evoke those feelings and his influence is still felt, even five years later.

-Mark Steingart-

"The credit belongs to the man who is actually in the arena, whose fall is marred by dust and sweat...who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold, timid souls who know neither victory nor defeat."

- Mohandis Ghandi-

Sheck Exley in March 1994



Photo Courtesy of Michel Therrien

Sheck Exley Memorial Chapel



This Chapel, Located at the Methodist Student Center at the University of Georgia in Athens, was formally dedicated this past December. Seating 500 persons at a cost of \$730,000.00, the Chapel is a memorial to Sheck, who received his Bachelors degree from the University in 1972. It is also a memorial to Sheck's younger brother Edward, who lost his life at Wakulla Springs in 1968. Funds for the project were provided by his parents.

Cave Diving Section Annual Workshop

On May 28-30, 1999, over the Memorial Day weekend, the Cave Diving Section of the National Speleological Society will host their annual Workshop weekend and social.

Join us for our Friday night Social on the 28th at the Sports Hall of Fame in Lake City for music and food. The workshop will be held at the Columbia County High School in Lake City, Florida.

Saturday the 29th presentations will include talks, photos and videos about caves and cavers in the Bahamas, Brazil, Mexico, and Australia to name a few. Also, seminars will be conducted on Sports Medicine and Failure Mode Analysis. On Sunday the 30th, sessions include Sidemounting with Lamar Hires, and Re-breathers with Tom Mount among many other notable speakers and presenters.

Your favorite vendors, retailers, and others will be exhibiting and available to answer questions regarding training, travel, publications, and equipment.

There will be door prizes and awards too!

Before May 15th registration is \$20.00 for members and \$25.00 for non-members. After May 15th and at the workshop Registration is \$25.00 for members and \$30.00 for non-members. You can join now to affect member pricing.

For more information on how to register as an attendee contact Bill Rennaker at 904-776-2299 or online at www.caves.org/section/cds.

If you are interested in exhibiting please contact Bruce Ryan at cdsryan@hotmail.com or 850-536-0351 for pricing options.

ATTENTION RECOVERY DIVERS

Please check the Recovery Diver listing on the CDS website: www.caves.org/section/cds/rescue1.htm . Verify that your name and address and other contact information are correct and that you are listed in the appropriate Area. Please send any changes to Henry Nicholson at henrynicholson@msn.com. If you are on the list and no longer wish to be a recovery diver, please let Henry know and your name will be removed.

DORADO CHASM

By Sheck Exley
NSS #13146

*Through sunlight and shadow
From darkness 'till noon
Over mountains that reach from
The sky to the moon,
A man with a dream
That will never let go
Still searches to find
El Dorado.*

Prologue

After the big dives at Devil's Eye and the Friedman entrance of Manatee springs, a lull of more than two years ensued before the next 300-foot-plus cave diving exploration in Florida. Friedman had access permission problems, and Devil's Eye was simply "walled out." A lot of exploration was going on, including long trips downstate and across to the Florida panhandle, but nothing appeared with distance potential unless it was hopelessly deep (greater than 150 feet). After a while I grew tired of the long trips and finally resigned myself to taking a closer look at some of the not-so-promising areas in my own backyard – the Peacock area. What follows is the story of how I, like the character in the famous short story, found my "acres of diamonds" in my own backyard.

Early History

In the mid-1800's a Rev. Wm. B. Telford homesteaded a large tract of land along the Suwannee River including the small spring that now bears his name. However, despite the fact that the spring lies adjacent to both the old and new bridges connecting Luraville and Mayo, there does not appear to be any colorful history regarding Telford Spring as is the case with its more remote neighbors, Baptizing Spring and Charles Springs.

My first dive at Telford came on 12/4/66, with Bob Gatling. By this time someone, probably John Harper (NSS 8352), had already connected the spring to the first sink, Telford sink, a traverse of 240 feet.

Editor's Note: This article is from the Sheck Exley Library. Please contact Annette Long for more information on the library.

On 3/13/68 Edward Exley and I duplicated this dive and continued on 270 feet, possible becoming the first to connect in the second and last sink, which I named Terrapin Sink. Edward took a quick look at the upstream continuation, but said it looked too narrow to get into.

The Early Seventies

It seemed like a lot of places that were "too narrow" for our crude equipment and procedures in the sixties were proving to be the scene of significant discoveries in the seventies (Little Dismal, for example), so Court Smith (NSS 15394) and Lewis Holtzendorff (NSS 14831) took another look at Telford. They did prove my brother wrong by continuing for a short distance upstream from Terrapin Sink, but were stymied at the "Mud Flats" – wide but very low and muddy area that was guaranteed siltout until we dug it out quite some time later. After Court and Lewis' dive, Telford was definitely "written off" as a small and insignificant cave that had been completely explored. Thereafter Telford became strictly a training site for cave divers, and that only because it was very shallow (max depth about 30 feet) and could be used at the end of the day without a need for repetitive dive decompression.

The Accident That Wasn't

A phone call from the Suwannee Co. Sheriff's Dept. on 8/28/76 advised me that a diver was missing and presumed drowned at Telford Spring. Four of our members, Troy Young, India Young (NSS #16861), Terry More (NSS #15798) and Mark Chestnut (NSS #16609) had already searched so I wasn't very hopeful about locating the body. Nevertheless, I drove on over and Terry and I made 4 dives more, in the process of which we searched the entire area of cave which was within feasible range of the missing diver's partially-filled single tank. I never thought there would be anything worse than finding a victim in an underwater cave, but now I discovered that there was: not finding him. The missing diver's family, distraught by the tragic circumstances, insisted that we continue searching or they would "send for the navy divers." Not knowing of any Navy diver other than John Zumrick that had any business being around a cave, we continued diving so that we wouldn't have to look for the bodies of Navy divers as well. Ken Hillier (NSS #17598) and Forrest Wilson (NSS #16631) later joined me on dives. To make a long story short, we found absolutely nothing, which inevitably led to speculation that perhaps the accident had never happened.

One of the byproducts of having to repeatedly search the "small and insignificant" cave was that we got to know it very well, pushing tiny cracks and fissures with

singles that normally we would have never bothered with. In the course of all of this Ken and I crossed the "Mud Flats," discovering the first of the "Rifts" (a series of high fissures that cut diagonally to the strike of the cave) and descended to a depth of 55 feet. A notation that I made in my dive log afterward unwittingly foretold what was to come: "Still going strong..."

However, any body recovery – even one that might not have happened – leaves a bad taste in one's mouth and I tend to avoid the site for a while afterwards. So I didn't return to check out the promising lead upstream from Terrapin for almost a year, when Paul Smith (NSS 14385) and I pushed on another 241 feet, going beyond the last of the "Rifts" to the edge of a grim bedding plane later to be known as the "Posturepedic Passage." The bedding looked a certain silt-out for the second man. I did not particularly relish the idea of fumbling around without sight if it could be avoided, and did not feel right about asking Paul to do so, so when I returned on 8/23/77 I was alone.

Great Expectations

I was rather nervous about going through "Posturepedic" with twin 100's on my back, but managed to slip through much like a wet bar of soap, making quite a mess of the water behind me. After 150 feet or so of the bedding suddenly the floor dropped and the walls expanded into a small room by most caves' standards but huge for Telford: "Great Expectations."

Unfortunately, what followed can only be described as frightening. As the end of the room the flow emerged from a bizarre, winding tube at a depth of 65-70 feet whose ceiling and walls seemed to consist solely of overhanging boulders attached to the rotten limestone by incredibly thin projections of rock. Just how unstable this area—the "Gauntlet"—was I discovered upon my exit when no fewer than three of the rocks fell and hit my tanks and legs glancing blows. Fortunately, by moving very quickly I was able to avoid most of the falling debris, which would of course have fallen on anyone traveling behind me. Although about everything that is going to fall has fallen by now, on buddy dives into the cave we still put a big interval between divers at this point.

Meanwhile, finally working my way through the "Gauntlet" I found a shallower and slightly larger tunnel that was mercifully free of the unstable pendants: "Roloids Road" (How do you spell relief? Etc.), but the big discovery came just as I was running out of the 800 feet of line I had optimistically carried along that evening. Suddenly the dark and dull limestone changed to the sparkling bright cream color of neighboring Peacock and the tunnel expanded into a huge maze of interconnecting passages that I reverently pronounced "Beulahland."

Thereupon I had that happy indecision which confronts the lucky cave explorer all too few times in his career: "Which way do I go?"

The Expressway

My instincts told me to go right then left, and subsequent exploration and survey has proved my instincts to be right. The next dive found me pushing past "Beulahland" and its innumerable side passages and parallel routes into an area where they combined into a single awesome trunk down which once more roared Telford's 20-30 mgd. This grand route I named the "Expressway." Amazingly, when the map was plotted we found that this section began almost exactly where the cave first crosses under State Road 51, the largest surface thoroughfare for many miles around!

About this time my enthusiasm became too much to keep to myself, so to maintain some degree of secrecy Terrapin was code-named "Dorado Chasm," which of course no one had ever heard of. This technique of renaming old spots had been mastered by Bob Goodman (NSS #17260) and Kirby Sullivan (NSS #17261) in Tallahassee, who virtually took a list of uninteresting dive spots out of an old diving guide and turned them into all important cave systems. Obviously, Telford now fell into that classification, having pushed past Dorado nee Terrapin 2280 feet already.

Goethite Glory, Ripple Canyon and Beyond

The next 500 feet added was disappointing in that the magnificent "Expressway" had ended, but boy, how it ended! Narrowing into a more complex route, the cave was now festooned with the most fantastic array of Goethite speleothems I have ever seen, their dark shapes perfectly set off by the bright, almost-white rock. I picked my way through this area with great delicacy, wincing almost with pain when I accidentally damaged a small piece in a particularly narrow are of "Goethite Glory."

However, I had very little time for remorse. Suddenly this wonderfully diverse cave once more changed complexion into a high, winding canyon with an undulating floor of gleaming white sand, rippled by the current like the ribs of some gigantic snake. But "Ripple Canyon" soon came to an abrupt end, narrowing to an impossibly small crack. Backing up about a hundred feet, I took new hope when I noticed a small hole on the left from which a good flow was emerging. A quick look suggested that this might prove to be a window to another parallel passage large enough to be explored, so I started digging. Finally bursting through, I found my instincts to be correct when the parallel passage did indeed open up.

September 1977 – Staging Comes to Telford

Just two weeks earlier I never would have believed that anyone would ever need to stage in Telford, but on the evening of the first of September I found myself doing just that. Initially I was reticent to drag a stage bottle through "Posturepedic Passage," but eventually a big boulder in the center of "Great Expectations" became Telford's equivalent of the "Stage Room" in Devils Eye. The big difference was that unlike the case at Devil's Eye, a single stage was all that was needed to reach the back of the Telford Springs Cave system because of its shallow depth (70 feet max.), despite that it proved to be a similarly long distance.

Speaking of long distances, I was now finding myself getting a little bit nervous as I pushed further and further into the cave, so I used an old trick that had been employed on the 4110-foot dive at Friedman, playing a relaxing tune, "Begin the Beguine" – in my head. Casting about for a name for the large parallel tunnel, I finally hit upon "Beguine Passage." "Beguine" ended after several hundred feet, in the "September Room" (discovered in September), where the cave made a 90 degree turn to the right and once more dropped down to the 65-70 foot level in "Tokyo Run." After a while, "Tokyo" led to the "Flat Room," where the cave became very wide but apparently too low for further progress. However, just as was the case with "Posturepedic," I soon discovered a rough through determined wiggling and "Tokyo" resumed.

The Aardvark Room

The penetration upstream from Dorado Chasm was now longer than Devils Eye—3330 feet—and the thought of pushing past the Friedman mark was definitely lurking in the back of my mind. Accordingly, I entered the water on the 4th of September with a goodly supply of line. Unfortunately, after only another 140 feet the cave came to an end in an odd-shaped room with five narrow leads running off for short distances. At the far end of the "Aardvark Room" flow was coming through the "front legs" and "snout" but everything quickly pinched down between huge boulders. After plotting the cave on a topographic map the culprit became obvious—a no-exit sink just south of the town of Luraville.

Not willing to give up so easily, I made one more dive, on the 25th, and managed to push one of the legs to a penetration of 3512 feet. At that point, wedged between the ceiling and the top of a huge boulder, I was able to catch a glimpse of an impossible narrow crack leading back down, before falling silt obscured my vision completely. Since that time Lewis Sollenberger (NSS #17572) and Dave Manor (NSS #18536) have also taken a look, but to no avail. There remains the hope that perhaps someone can find a route back down to base level beyond

the breakdown are caused by the sink, at which point a decent, explorable tunnel should resume.

Interesting Note: The mysterious "missing diver" mentioned at the beginning of the article was found years later by Roger Werner. Werner found what was left of the diver in a very low, silty side passage.

Editor's Note: The map of Telford on the facing page is a reprint of Volume 5, Number 6 issue of *Underwater Speleology* (1978).



Sheck Exley in 1994, teaching a trimix class at 40 Fathom Grotto.

Photo courtesy of Michel Therrien



DUES AND SUBSCRIPTIONS FOR 1979 ARE DUE NOW!!! THIS IS YOUR ONLY NOTICE! see p. 59



underwater speleology

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TELFORD SPRINGS CAVE SYSTEM

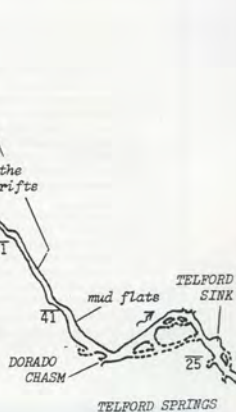
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*floor depths
 in feet below
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cave completely underwater
 total surveyed length, 12/81/78- 4760 ft.

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