



# SearchLites

Vol. 9 No. 2, Spring 2003

The Quarterly Newsletter of The SETI League, Inc.

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## Betting On Life Aplenty: Thoughts of an Unknown Homo Sapiens

by Niladri Sarker, Ph.D.

University of Arizona

"Hydrogen atoms," it has been said, "are things that, if left alone long enough, give rise to thinking humans."

While that's been the story of terrestrial life in a microscopic nutshell, just what are its details? Specifically, are we jaundiced to see life through eyes that have learnt to recognize creatures of astounding levels of similarity on only the third planet from an otherwise mediocre star-system, and have thus lost the ability to see other, perhaps more virulent, lifeforms? In a more abstract sense, can any living system completely explain life so long it is itself living? How can you know about a system to any degree of completeness unless you stand outside of it? But leaving a living system to define life brings us, by definition, to a system that is non-living, so aren't we caught in this pattern of infinite regression? Yet, philosophy aside, as a thinking lifeform unweaving the mysteries of life (and bearing our present state of knowledge, and ignorance, in mind), just what factors might cook up a working definition of life?

To me one such factor that has been sadly ignored is the substantial effect of life on non-life. Categorically speaking, any sufficiently intelligent and technologically advanced society would be able to manipulate its environment to an extent that would leave a permanent mark in our universe. In contrast, human influence on our planet has gone widely unnoticed save for those putrid wars, forced extinction of countless species and systematic widening of the ozone hole. But even this hasn't played any role in the evolution of our universe. Our earth will probably live for a while if we manage to dodge the dogs of war or every passing asteroid. It will, however, be devoured by our red-giant sun in a few billion years. Intelligent life-forms, if still on earth, would move on to other planetary niches to save themselves from getting extinct. However, another possibility that isn't realistically considered is that earthlings then should certainly possess the technological prowess to control the mood-swings of their parent star. It is not illogical to imagine Homo sapiens, its cousins or descendants to deliberately slow down, shut down, or even reverse, nuclear fusion reactions and stop the sun from becoming too huge too soon. Stellar astrophysics is studied even now, and there is no reason under the sun why we wouldn't be able to manipulate a stellar system to our advantage. This requires that the evolution of stars, even their birth, life and death, be actively regulated, and would significantly differ from the way such evolution would otherwise occur in nature. By a similar token, super-intelligent civilizations can be thought to artificially transform entire galaxies to their needs. It is clear, then, that the evolution of nontrivial portions of the universe could be heavily influenced, even tailor-made for the purposes of life. Life is hence capable of molding the very stardust from which it was born.

Our existence could merely be due to the accidental juxtaposition of certain parameters in the physical laws, or, it could be meant to bring thought and kindness to an otherwise silent and unaffected universe. Both prospects are immensely exciting, and for all we know, equally probable. But one thing - once we shed our heavily anthropocentric skin - becomes certain: life should be a common phenomenon in the cosmos. Granted, its detection could call for revolutions in the way we think. Among them might be studying isolated systems in equilibrium, local discrepancies from the laws of thermodynamics, Dyson spheres, and even tracking of unappreciated artifacts. Our technology for such detection is at best nascent, but I guess it's never too late to weave some original ideas.

And in case my words make you think I am an idle dreamer, I'll teach you a lesson in aerodynamics. Parachutes are meant to surf the winds, to stay afloat amidst harsh situations, and are made by humans for humans.

If they can work best wide open, why not the human mind?



# The Only Game in Town

by H. Paul Shuch, Ph.D., Executive Director

## Abstract:

*Current SETI technology is hardly recognizable from the perspective of the first experiment some forty years ago. The state of the search forty years hence will be equally remote from today's scientific practice. Even neglecting the profound consequences of contact, SETI as much reflects as it stimulates societal change.*

We were the only game in town -- but not for long. The young radio astronomer was fresh out of grad school. The ink on his diploma was as wet as he was, behind the ears, when he hit upon this ludicrous idea. Why not, Frank Drake figured in 1959, use his employer's radio telescope to search for intelligently generated signals from the stars? Only do so quietly, Drake cautioned himself; this science-fiction search might well be professional suicide. So he set to work, quietly assembling a crude, one-channel listening station, to train on two nearby, sunlike stars.

Then the Cocconi and Morrison article came out. In a brief letter in the scientific journal *Nature*, the two Cornell professors proposed the very search which Drake was setting out to perform! This is a prime example of what I call the Parenthood Principle: when a great idea is ready to be born, it goes out in search of a parent. Sometimes, it finds more than one. Now Schrodinger's cat was out of the bag, and Drake had to go public. But discretion still ruled the day. Even his first detection, of a classified military aircraft, was of necessity held close to the chest.

Today, SETI science has emerged out of the fringes, into the scientific mainstream. Along the way, we have developed technologies the likes of which the young Drake could scarcely have dreamed. Drake has grayed into the elder statesman of an established scientific discipline. In the past four decades, thousands of humans have conducted hundreds of searches for our cosmic companions, scanning billions of microwave and optical channels and spending millions of dollars in the process. SETI is no longer a four-letter word.

But for all of our efforts, we are today no more successful than Drake had been with that first search at Green Bank.

So why do Drake, and his professional colleagues, and many a dedicated amateur, and your faithful correspondent himself, all continue to hit our heads against the brick wall of SETI silence? Possibly because this is the cheapest lottery ticket, with the highest potential payoff, in humanity's history. What is the worth of that one-in-a-zillion longshot of gaining entry into the cosmic community? The value of *Encyclopædia Galactica* is incalculable. Even if we never manage to pry open its cover, the sure knowledge of its existence is enough to shake our species out of its chronic complacency. What's a trifling telescope or two, alongside that kind of payoff? To play is to anticipate defeat; to pass is to demand it.

We can improve our chances for success by redefining SETI. For as presently practiced, SETI is as narrowly focused as the spectral emissions which we hope to intercept. What started off as a search for microwave beacons should be ex-

panded to encompass all signaling technologies which we can conceive, whether or not we can achieve them ourselves at our present level of societal and technical adolescence. Might we some day launch robotic interstellar probes? If so, then we should have an organized strategy for seeking out such probes launched by more advanced societies. Can we imagine the day when we will be capable of great feats of astroengineering? Then our present efforts should include a search for the engineering marvels of our more capable neighbors. Might our own starships someday leave a detectable residue? Then the search for the advanced propulsion signatures of others should be on our agenda. If we can imagine it, then we should be looking for it! For, as Haldane's Law teaches us, the universe is not only queerer than we imagine, it is queerer than we *can* imagine.

It could well be that we are at the midpoint of SETI. If technology continues to advance as it has in the past, forty years from now will likely see another billion-fold increase in search space. And perhaps that's what it's going to take to achieve SETI success. For this field of study offers little to her or she who demands instant gratification. Lest we become discouraged, we should remember that the forty years since Drake's first search constitute a mere eyeblink in human history.

So, where will SETI be in four more decades? Thus far, our technological progress (which SETI both reflects and stimulates) has been exponential. Like the expanding universe hypothesis, we have insufficient data to detect any slowing of that trend. In all likelihood, our receivers will soon span the electromagnetic spectrum, from radio through microwaves into the infrared, across the visible, ultra-violet, X-ray, gamma ray and cosmic ray spectra, all in real time. We are developing technologies today that will enable us to see in all directions at once. Forty years from now we will be scanning farther out in time and space than Drake ever deemed possible. If there are electromagnetically polluting civilizations out there, surely we will have detected their photonic debris by then!

Or, perhaps not. It could well be that a civilization advances, they become, by design or chance, effectively invisible. In which case, forty years from now, we'll have arrived at an epiphany: we are not alone, but we might as well be.

And how might such an understanding impact on our view of humanity's place in the cosmos? My guess is that it would send us back to forty years ago, when we were the only game in town.

## About the Author:

A retired engineering professor, H. Paul Shuch is the aerospace engineer credited with designing the world's first commercial home satellite TV receiver. A lifelong radio amateur, Paul has been building his own radio telescopes since shortly after Drake's first search. He has spent the past eight years heading the nonprofit SETI League, an international alliance of over a thousand amateur and professional scientists engaged in circuit design, software development, and grassroots SETI research.

*Prepared for the Future Generations Forum of the World Future Society; used here by permission.* ❖

## Special SETICon Section



*A Celebration of Privatized SETI*

### SETICon03 Program

#### Friday, 25 April 2003:

##### Armstrong Hall, The College of New Jersey

- 9 AM – Noon Hardware Workshop (prereg. required)
- Noon - 2 PM Registration
- 1 PM - 2 PM Greetings and Keynote Address
- 2 PM - 5 PM Technical Sessions
- 5 PM - 7 PM Dinner Break

##### Hampton Inn, Yardley PA

- 7 PM - 11 PM Hospitality Suite

#### Saturday, 26 April 2003:

##### Armstrong Hall, The College of New Jersey

- 8 AM - Noon Registration
- 9 AM - Noon Technical Sessions
- Noon - 2 PM Lunch Break
- 2 PM - 5 PM Technical Sessions

##### Campus Center, The College of New Jersey

- 6 PM - 10 PM SETI League Awards Banquet

##### Hampton Inn, Yardley PA

- 10 PM – Midnight Hospitality Suite

#### Sunday, 27 April 2003:

##### Hampton Inn, Yardley PA

- 7 AM - 9 AM Volunteer Coordinators Breakfast

##### Armstrong Hall, The College of New Jersey

- 10 AM – Noon SETI League Annual Meeting
- Noon - 1 PM Board of Trustees Meeting

### Awards Banquet

The SETI League's Third Annual Awards Banquet is scheduled for 6 - 10 PM Saturday night, 26 April 2003. Banquet tickets (at \$30 each) are available only in advance. The Banquet, to be held in the Campus Center at The College of New Jersey, will include a guest speaker and door prizes. It will culminate in the presentation of our two annual awards: the Giordano Bruno Memorial Award, The SETI League's highest technical honor, to an individual who has made significant contributions to the art and science of SETI, and the Orville N. Greene Service Award, honoring outstanding service to The SETI League.

Banquet tickets may be ordered at \$30 US per person, when pre-registering for the Conference by 31 March 2003. Dress code is conference casual. As banquet seating is limited, it is unlikely that additional banquet tickets will be available at the door.

### Conference Proceedings

Don't miss out Proceedings of SETICon03, one copy of which is included in your registration fee. Additional copies may be purchased at the Symposium, for \$20.00 US apiece, along with a limited number of copies of the 2000 and 2001 Proceedings. SETICon03 presenters are reminded that a final camera-ready copy of your paper is due at SETI League headquarters by 28 February 2003.

### Microwave Circuit Construction Workshop

New at SETICon this year is a hands-on hardware workshop for those of our members who wish to learn more about constructing microwave circuitry. Under the expert guidance of experienced SETI League members, you will learn about component identification and microstrip assembly techniques, and then build and test your own Low Noise Amplifier.

The \$150 workshop fee (payable in advance) includes your quality LNA kit and all associated tools and components. Attendance is limited, and advance registration is required. Prerequisite: workshop participants must be able to figure out which end of the soldering iron is the handle!

### Door Prizes Galore!

Through the kind support of several vendors, the door prize table at the first two SETI League Awards Banquets was filled to overflowing, and nobody went home empty-handed. We hope that present economic conditions will not deter our prize donors from being equally generous this year. Potential prize donors should contact SETI League executive director Dr. H. Paul Shuch at the earliest possible date. He may be reached by email to <drseti@setileague.org>. Prize donors will be acknowledged on The SETI League website, and in a future issue of *SearchLites*.

### Annual Meeting Announcement

In accordance with Article IV, Section 1 of our duly approved Bylaws, as amended, the Trustees of The SETI League, Inc. hereby schedule our Ninth Annual Membership Meeting for 10 AM Eastern time on Sunday, April 27, 2003. The 2003 Annual Meeting will be preceded by a two-day SETI League Technical Symposium. Both events will be hosted by the Engineering Department of The College of New Jersey, Ewing Township (Trenton area) NJ.

As attendance by one percent of the League's membership constitutes a quorum, all members in good standing are encouraged to attend the Annual Meeting. The preliminary agenda for annual meetings appears in Article XII of The SETI League Bylaws, and is reproduced on our website.

Per Article IV, Section 3 of our Bylaws, as amended, written notice of this Meeting is being mailed to all members in good standing, not less than ten days nor more than ninety days prior to the meeting date. Members are encouraged to submit additional New Business items for inclusion in the Agenda. Please email proposed agenda items to n6tx@setileague.org, not later than **28 March 2003**.

The annual Board of Trustees Meeting required per Bylaws Article V, Section 3 will immediately follow the Membership Meeting. All SETI League members in good standing are welcome to attend. These meetings are open to all members without charge, and do *not* require Symposium registration.

Special SETICon Section



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**Lodging**

The official Conference Hotel is the **Hampton Inn and Suites Newtown**, 1000 Stoney Hill Road, Yardley PA 19067. (Yardley is directly across the Delaware River from Trenton NJ.) Phone: (215) 860-1700. Fax: (215) 860-1771. Evening Hospitality Suites and various other Symposium social functions will also be held at the Hampton Inn. A block of non-smoking rooms is being held for Symposium attendees for Thursday through Saturday nights, at a rate of \$99 per night plus 8% tax. The room rate includes a full buffet breakfast. Check-in time is 3 PM, and checkout time is 12 Noon. Reservations must be made *no later than 23 March 2003*, directly with the hotel. Be sure to mention "SETI Conference" to secure the quoted room rate. For those desiring more economical lodgings, alternatives in the Trenton, NJ area include:

<u>Hotel</u>	<u>Telephone</u>
Red Roof Inn	(609) 896-3388
Macintosh	(609) 896-3700
Stage Depot	(609) 466-2000



**Transportation**

SETICon03 is being held at The College of New Jersey, Ewing NJ (adjacent to the city of Trenton). Trenton NJ is located about forty miles Northeast of the Philadelphia International Airport, which is served by numerous domestic and international airlines. Driving time from the airport is approximately one hour. Rental autos are available at the airport, from the following companies:

<u>Rental Car Agency</u>	<u>Telephone</u>
Alamo	(800) 327-9633
Avis	(800) 331-1212
Budget	(800) 527-0700
Dollar	(800) 800-4000
Enterprise	(215) 497-9048
Hertz	(800) 654-3131
National	(800) 227-7368

Train service to the Trenton area is provided by:

<u>Railroad</u>	<u>Telephone</u>
Amtrak	(800) 872-7245
New Jersey Transit	(973) 762-5100

Taxi, limousine and shuttle services between the airport, campus, and Conference Hotel are provided by numerous companies, as listed on The SETI League website. Carpooling between the hotel and campus is encouraged. A sign-in board will be provided in the Hampton Inn lobby, for coordination between those offering and those needing rides.



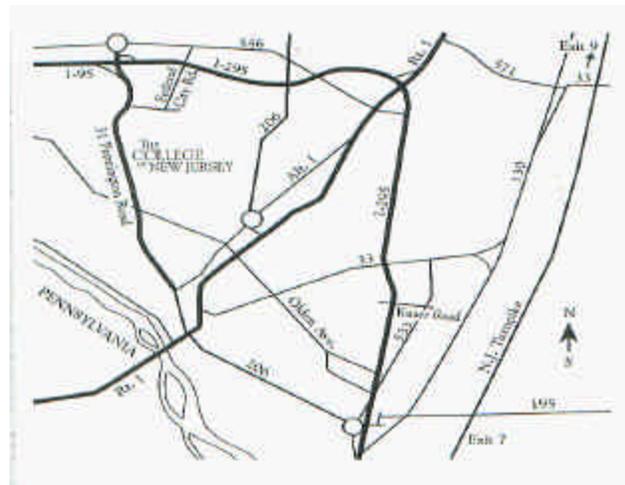
**Conference Venue**

SETICon03 is being hosted by The College of New Jersey, Ewing NJ (adjacent to the city of Trenton). The Technical Symposium sessions, Annual Membership Meeting and Board of Trustees Meeting will all be held in the Department of Engineering, Armstrong Hall, 2000 Pennington Road, Ewing NJ 08628 USA. (Armstrong Hall is directly across from the college's Main Entrance from Route 31.) The Awards Banquet will be held in the Campus Center. Parking on campus is available in the lot and Armstrong Parking Garage, directly behind Armstrong Hall. Addition parking is available across the circular drive. All gates will be up in these parking areas, Friday through Sunday.

The evening Hospitality Suites, and possibly other Symposium social functions, will be held at the official Conference Hotel. See the accompanying maps, or The SETI League website, for details.



Road map to the official SETICon03 Hotel



Road map to The College of New Jersey

## Driving Directions to SETICon03

### From the New York State Thruway:

Take the New York State Thruway/I-87 South. Take the I-287 South/Route 17 South exit. Merge onto I-287 South. Take the U.S. 202 South/U.S. 206 South exit. Continue on U.S. 202 South. At the Flemington Circle, continue on U.S. 202/31 South. Exit U.S. 202/31 onto Route 31 South (Trenton). Follow Route 31 South until the entrance to The College (about 1.5 miles past the junction of I-95, left at the second traffic light).

### From Long Island:

Take the Verrazano Bridge to Staten Island. Stay on 278 West to Goethals Bridge. After crossing the bridge, take first exit for 95 South (NJ Turnpike). Follow directions from NJ Turnpike below.

### From the New Jersey Turnpike (Newark International Airport and North):

Using the New Jersey Turnpike, travel south to exit 7A, Trenton and Shore Points. Follow signs toward Trenton onto I-195 West. Follow signs marked 295/ Princeton/ Camden. Exit at 60B for "I-295 North/ Rt 1/I-95 South/Princeton". Continue on I-295 (becomes I-95 South) to exit 4. Turn left off the exit ramp onto Pennington Road/Route 31 South toward Ewing.

### From I-80:

Take I-80 East to the U.S. 206/Route 183 exit. Keep right at the fork in the ramp. Merge onto U.S. 206. Take the I-287 South ramp toward Somerville (I-78)/Princeton. Merge onto I-287 South. Take the U.S. 202 South/U.S. 206 South exit. Continue on U.S. 202 South. At the Flemington Circle, continue on U.S. 202/31 South. Exit U.S. 202/31 onto Route 31 South (Trenton). Follow Route 31 South.

### From New Brunswick:

Take Route 1 South to I-95 toward Pennsylvania to exit 4. Turn left off the exit ramp onto Pennington Road/Route 31 South toward Ewing.

### From Asbury Park-Freehold Area:

Take I-195 West toward Trenton. Follow signs marked 295 Princeton/Camden. Exit at 60B for "I-295 North/Rt 1/I-95 South/Princeton". Continue on I-295 (becomes I-95 South) to exit 4. Turn left off the exit ramp onto Pennington Road/Route 31 South toward Ewing.

### From Route 78 (Easton, PA and the West):

Take Route 78 East into New Jersey. Continue to exit 17 (Route 31 South/Flemington and Trenton). Continue South on Route 31 into the Flemington Circle. Take Route 202/31 South. Exit at Route 31 South (Trenton). Follow Route 31 South.

### From Atlantic City:

Take Atlantic City Expressway West (toward PA). The expressway ends at Route 42. Follow Route 42 North to I-295 North. Continue on I-295 (becomes I-95 South) to exit 4. Turn left off the exit ramp onto Pennington Road/Route 31 South toward Ewing.

### From the PA Turnpike (Pittsburgh and Ohio):

Take the Pennsylvania Turnpike/I-276 East to the

Philadelphia/U.S. 1 exit. Keep left at the fork in the ramp. Merge onto U.S. 1 North Lincoln Highway. Stay straight to go onto U.S. 1 North. Take the I-95 North exit toward Trenton. Merge onto Delaware Expressway/I-95 North. Proceed into New Jersey. Take exit 4A (Route 31/Pennington Road). Off the exit ramp, you will be traveling south on Route 31.

### From I-95 South (Camden/Delaware/Phil. Int'l Airport):

Using I-95 North, continue into Pennsylvania, through Philadelphia. Continue on I-95 North into New Jersey. Take exit 4A (Route 31/Pennington Road). Off the exit ramp, you will be traveling south on Route 31.

**Once on Route 31 South:** At the second traffic light (about 1.5 miles), make a left into The College entrance. ❖

## Announcing SETICon03 Featured Speakers

**Little Ferry, NJ., January 2003** -- The grassroots SETI League, Inc., nonprofit leaders in the privatized Search for Extra-Terrestrial Intelligence (SETI), is pleased to announce the selection of two distinguished authors as its Keynote Speaker and Awards Banquet Speaker for the upcoming SETICon03 Technical Symposium to be held in April.

Opening the Symposium on Friday, 25 April 2003 will be British physicist and engineer Dr. Alex Ellery, with his talk titled "A Critique of SETI Science." Ellery's main field of specialization is space robotics, in which he earned his Ph.D. He is also a graduate of the International Space University summer program. His interests include artificial intelligence, astrobiology, evolution, SETI, and self-replicating probes. He is a senior lecturer in Astronautics and Space Engineering at Kingston University in London, UK. The main thrust of his research there is the development of rover/mole mission platforms for astrobiology research on Mars. His work combines his interests in space robotics and astrobiology. He is the author of An Introduction to Space Robotics, a textbook for graduate students. Now he is writing a book on von Neumann probes, called The Tenth Avatar.

Dr. David Darling will present "Astrobiology and SETI: A Promising New Partnership" at The SETI League's Third Annual Awards Banquet on Saturday night, 26 April 2003. Darling is a British freelance science writer with a Ph.D. in astronomy. His highly-acclaimed book Life Everywhere: The Maverick Science of Astrobiology was published in 2001 by Basic Books. This was preceded by his Extraterrestrial Encyclopedia, an A-Z on all aspects of the quest for life in the universe. He is also the author of Deep Time, Equations of Eternity (a New York Times Notable Book of the Year), Soul Search, Zen Physics, and numerous articles. His latest book, published by John Wiley & Sons in December 2002, is The Complete Book of Spaceflight. Since 1999 he has maintained the Astrobiology Central ([www.daviddarling.info](http://www.daviddarling.info)) website. Dr. Darling lives with his wife and family in rural Minnesota, somewhere near Lake Wobegon.

For the third year in a row, SETICon is being hosted by The College of New Jersey, Trenton NJ, and co-sponsored by the IEEE Student Chapter and the American Radio Relay League. ❖

Special SETICon Section



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**SETICon03 Pre-Registration**

Pre-registration for the SETICon03 Technical Symposium has been set at \$40 US for SETI League members, and \$90 US for non-members, if received by 31 March 2003. Registration fees will increase by \$10 after that date. One copy of the conference Proceedings, admission to the conference Hospitality Suites, and refreshments are included in the registration fee.

Advance registration and payment is required for the optional Friday morning Microwave Hardware Construction Workshop. The fee includes all necessary materials, and is non-refundable. Tickets for the Saturday night Awards Banquet must be ordered in advance at \$30 US each, and additional Proceedings copies may be purchased at the door for \$20 US. All SETI League members in good standing are welcome to attend Sunday's Annual Membership Meeting, whether registered for the Symposium or not.

Please use the forms on this page to register for SETICon03, order additional Proceedings, purchase Awards Banquet tickets, and remit payment by credit card.

<b>Please fill in the amounts below:</b>	
Total due for Symposium Registration (at \$40 US for SETI League members, \$90 for non-members):	_____ \$ US
Total due for Banquet Tickets (at \$30 US each):	_____ \$ US
Total due for Additional Proceedings (at \$20 US each):	_____ \$ US
Hardware Workshop Registrations (at \$150 US each):	_____ \$ US
Additional Contributions:	_____ \$ US
Total Payment Remitted:	_____ \$ US

**Deadline:** Pre-registration and payment are due by **31 March 2003**. After that date, attendees may register at the door for an additional fee of \$10 US per person.

**Lodging:** Hotel reservations must be made directly with the Conference Hotel, as indicated elsewhere in this issue. Please note that they require reservations by **23 March, 2003**.

**Please accept my registration for the 2003 SETI League Technical Symposium and Annual Membership Meeting, as follows:**

**(pre-registrations must be received by 31 March 2003)**

Members pre-registering for SETICon: \_\_\_\_\_ at \$40 US each  
 Non-Members pre-registering: \_\_\_\_\_ at \$90 US each  
 Total number of Banquet Tickets: \_\_\_\_\_ at \$30 US each  
 Additional Proceedings copies: \_\_\_\_\_ at \$20 US each  
 Hardware workshop registrations: \_\_\_\_\_ at \$150 US each

Your full name: \_\_\_\_\_

Additional persons attending: \_\_\_\_\_

\_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_

State or Province: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Country: \_\_\_\_\_

<b>Pleased to Accept Credit Cards</b>	
The SETI League invites you to pay your SETICon03 fees and additional contributions via Visa or MasterCard. Please fill out the form below and return it with any order. We thank you for your ongoing support.	
Circle One: Visa / MasterCard	Exp. _____ / _____
Card Number:	_____
Cardholder:	_____
Billing Address:	_____
	_____
	_____
Total Contribution (US Dollars):	_____
Signature:	_____
Today's date:	_____

## Event Horizon

SearchLites' readers are apprised of the following conferences and meetings at which SETI-related information will be presented. League members are invited to check our World Wide Web site ([www.setileague.org](http://www.setileague.org)) under *Event Horizon*, or email to us at [info@setileague.org](mailto:info@setileague.org), to obtain further details. Members are also encouraged to send in information about upcoming events of which we may be unaware.

All events listed below are subject to change by the event organizers. Please double-check The SETI League website for latest details.

**February 7 - 9, 2003:** Dr. SETI ® to keynote at *HamCation 2003*, Orlando FL.

**March 21 - 23, 2003:** *Lunacon 2003*, Rye Brook, NY.

**April 19, 2003:** *Fifth Annual SETI League Ham Radio QSO Party*; 14.204, 21.306, and 28.408 MHz.

**April 25 - 26, 2003:** *Southeastern VHF Conf.*, Huntsville AL.

**April 25 - 27, 2003:** *SETICon03 Technical Symposium and Annual Membership Meeting*, Ewing NJ.

**May 3 - 4, 2003:** *Trenton Computer Festival*, Edison NJ.

**May 16 - 18, 2003:** *Dayton Hamvention*, Dayton OH.

**May 17, 2003, 0700 hours:** *SETI Breakfast*, Marriott Hotel, Dayton OH.

**May 23 - 26, 2003:** *Balticon 37*, Baltimore MD.

**June 20 - 22, 2003:** *ARRL National Convention and HamCom 2003*, Arlington TX.

**July 13 - 16, 2003:** *SARA Conference*, NRAO Green Bank WV.

**July 24 - 27, 2003:** *Central States VHF Conference*, Tulsa OK.

**August 28 - September 1, 2003:** *Torcon 3 World Science Fiction Convention*, Toronto ON Canada.

**September 5 - 7, 2003:** *Third European Radio Astronomy Congress*, Heppenheim Germany.

**September, 2003 (dates TBA):** *UKW-Tagung 48th VHF Convention*, Weinheim Germany.

**September 25 - 28, 2003:** *Microwave Update*, Seattle WA.

**September 29 - October 3, 2003:** *54th International Astronautical Congress*, Bremen, Germany.

**October 9 - 12, 2003 (tentative):** *AMSAT Space Symposium*, Toronto Canada.

**December 12 - 14, 2003:** *Philcon '03*, Philadelphia PA.

**April 17, 2004:** *Sixth Annual SETI League Ham Radio QSO Party*; 14.204, 21.306, and 28.408 MHz.

**August 12 - 15, 2004 (tentative):** *SETICon 04 SETI League Technical Symposium and Annual Membership Meeting*, in conjunction with the *11th International Ham Radio Moonbounce Conference*, The College of New Jersey, Ewing (Trenton area) NJ.

**September 2 - 6, 2004:** *Noreascon Four World Science Fiction Convention*, Boston MA.

**October 4 - 8, 2004:** *55th International Astronautical Congress*, Vancouver BC Canada.

**August 4 - 8, 2005:** *Interaction World Science Fiction Convention*, Glasgow, Scotland UK. ❖

## Book Review:

### **Shockingly Close to the Truth! Confessions of a Grave-Robbing Ufologist** by James W. Moseley & Karl T. Pflock Prometheus Books, 2002, ISBN 1-57392-991-3

Beliefs about UFOs have changed over the years. Greys, Nords, Roswell, Alien Abductions, etc., they all make up the history of the subculture of UFO believers.

James Moseley and Karl Pflock are the editor and contributing editor of a UFO gossip sheet called SAUCER SMEAR. As such, they are in a unique position to give us a look behind the scenes of what has happened and is happening in ufology in this strongly autobiographical book.

Moseley and Pflock take us on an interesting tour of the social history of UFOlogy from the inside. We learn of the people, events, hoaxes, and scandals that have shaped the beliefs about UFOs over the past fifty years, and along the way we also learn quite a bit about the authors, especially Moseley.

Moseley tells us of how he first became interested in UFOs and began collecting information for a book on the subject. As he travels across country, interviewing believers, researchers, and contactees, he becomes fascinated with the people involved in the subculture. A careful observer of people, Moseley tells us his impressions of them. The descriptions are fair, but pull no punches, even when they apply to the authors themselves.

Along the way, we get the inside story on Moseley's involvement in several famous UFO hoaxes including a hilarious description of the faking of a UFO film for his lectures. We find out the real story of the Men In Black™ and how the story grew over time. We also see how no UFO case is ever closed as solved and there will always be "shocking new revelations!"

We also learn about grave-robbing in Peru, along with the other moneymaking endeavors that Moseley engaged in, most of which barely broke even.

All in all, this is a very entertaining book and gives a lot of insight into, and background information about, the UFO stories we've seen over the years. And it is shockingly close to the truth.

*Reviewed by Daniel B. Fox <foxd@indiana.edu>* ❖

## Roster Reminder

The 2003 edition of The SETI League Membership Roster is now available for download from the Members-Only section of our website, at <http://www.setileague.org/members>. All members in good standing are welcome to download the Roster using the User Name and Password you received when last you renewed your SETI League membership. If you have not received your Password, or require a printed copy of the Roster, please contact our Secretary at [heather@setileague.org](mailto:heather@setileague.org), or mail your request to SETI League headquarters along with a stamped, self-addressed envelope. ❖



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