

After The Fact

A publication of the Institute for Science and Interdisciplinary Studies

Summer 1997

Military Nuclear and Toxic Waste Project Hosts July 1997 Northeast Federal Facilities Cleanup Workshop

Project Coordinator Jeff Green has been busily organizing the final details for our upcoming "Northeast Federal Facilities Cleanup Workshop," July 18-20 at Amherst College. ISIS was selected to convene this conference (one of four being held nationwide) by Career/Pro California Economic Recovery and Environmental Restoration Project), a program of the San Francisco Urban Institute at San Francisco State University. These national workshops are

being funded by the U.S. Environmental Protection Agency.

The ISIS workshop will bring together an exciting mix of individuals from a broad range of community organizations, state and federal government agencies, and military bases. Among the speakers and panelists are Tad McCall, Deputy Assistant Secretary of the U.S. Air Force for Environmental Safety and Occupational Health; Haywood Turrentine, of the Laborers' District

Council Education and Training Foundation and member of the National Environmental Justice Advisory Committee; Susan Falkoff of Watertown Citizens for Environmental Safety; Lenny Siegel and Aimée Houghton, Director and Communications Coordinator for Career/Pro; and many representatives of state and federal regulatory agencies.

The two-day workshop will feature discussions of the most recent

Continued on page 9

Testing the Waters in Ecuador

This spring ISIS's Secoya Survival Project fulfilled its promise to bring a technical assistance team to Ecuador to begin a new phase in our work with the Secoya, indigenous people of the rainforest. Thanks to grants from the Public Welfare and Agape Foundations



Gathering sand for a demo water filter



A Secoya woman learns to perform a coliform water test

and some generous private donations, we have begun on-site work to help the Secoya obtain healthy drinking water and develop other responses to oil pollution, destructive agro-industry, and unrestrained colonization of the region. Now a \$12,000 *Food For All* grant for our Indigenous Aquaculture Initiative will broaden our work with the Secoya as the project moves ahead this summer. Turn the page for a report, with more photos, by project coordinator Jim Oldham.

SECOYA SURVIVAL PROJECT

TESTING THE WATERS IN ECUADOR



Project consultants Ron Lavigne, Lori Barg, and Stephen Greene with their Secoya hosts during the April 1997 visit

Photos and article by Jim Oldham

PARTICIPATORY MEETINGS HIGHLIGHT UNITY

This spring the Secoya Survival Project (SSP) organized two trips to the rainforest of northeast Ecuador to continue our work with the Secoya people. In March, I traveled to Ecuador with anthropologist Bill Vickers of Florida International University, who has worked with the Secoya for over 20 years. We met with the leaders of the *Organización Indígena Secoya del Ecuador* (Indigenous Organization of Secoya of Ecuador, OISE), our project partners, and introduced ISIS to the wider Secoya community.

I returned to Ecuador in April with Ron Lavigne, professor of Plant and Soil Sciences at the University of Massachusetts and specialist in constructed wetlands for waste-water treatment; Lori Barg, trainer in watershed management; and Stephen Greene, student of environmental education at Antioch New England Graduate School. We were there to

help the Secoya evaluate impacts of pollution, learn their priorities for the project, and identify areas where we can provide technical assistance.

Meetings in the three villages represented by OISE confirmed water quality, pollution, and health, as well as the development of aquaculture, as primary concerns of the Secoya. Structured like traditional *mingas* (work parties), with the project hosting a mid-day communal meal, meetings included a tour of the village and each participant speaking about the needs and goals of the community. To prioritize needs and goals, we invited participants to “vote” for objectives they had identified such as clean drinking water or training for a community health worker, asked

them to discuss the results, and then held additional rounds of “votes.” This participatory group process illuminated links between different objectives (a health worker will need medical supplies) and brought out occasional differences in perspective of men and women or children and adults.

Although the primary objective of the trips was to prioritize needs and define the goals of the SSP, we also began looking at water quality concerns. Secoya preferences and the dispersed geography of their homes led us to work mostly at the household

level. We are helping evaluate sources, delivery, and storage of drinking water and we began training



Veronica Lansa Cruces symbolically ranks her priorities for her village: water, medicine, etc.

Summer 1997

in improved water handling and doing simple tests for biological contamination. We also organized a *minga* to build a demonstration sand filter to remove biological contaminants from drinking water, and provided materials for each Secoya household to build one. When we return, we will continue this work and begin to help the Secoya look for ways to protect themselves from oil pollution.

FOOD FOR ALL SUPPORTS INDIGENOUS AQUACULTURE

In May, the Food for All Foundation granted \$12,000 to our Indigenous Aquaculture Initiative to help the Secoya develop a sustainable, community-controlled food source by combining indigenous knowledge with modern science. I look forward to sharing this news with Maruja Payaguaje and her husband Renaldo Lusitande, whose aquaculture pond was the site for our discussions of pond design and construction. Renaldo wants to collect brood-stock from lagoons in the nearby Cuyabeno Biological Reserve this summer, and now we hope to support a more ambitious trip that will provide fish for a number of ponds.

The Secoya enthusiasm for aquaculture, reported in *After the Fact* a year ago, was confirmed beyond a doubt this spring. In the past six months close to a dozen families have built or begun work on aquaculture ponds and others are hoping to start. Mutual aid groups have organized *mingas* to build ponds while other families are working on their own. The Secoya are experimenting with at least four



ABOVE: *Minga workers Elias Piyahuaje and Renaldo Lusitande help build a water filter;*
BELOW: *Maruja Payaguaje*



different native species, some purchased from hatcheries, others captured from the wild.

These are exciting events, but the Secoya need help to continue to move forward. Their efforts, based on trial and error, can lead to costly set-backs. They report a number of washed-out dams, and other attempts at pond construction have been abandoned due to improper siting. Their choices of stocking densities, species mix, and foods, based on a combination of observation and guess-work, could be significantly strengthened. The Secoya themselves cite lack of technical as-

sistance and materials as the limiting factors in their efforts to develop aquaculture.

During our trips, discussions of aquaculture and visits to artificial ponds have provided opportunities both for the ISIS team to offer suggestions on pond design and for the Secoya to share their knowledge with one another. Once adopted, some of our ideas for spillways and ways to prevent pipes clogging should reduce the likelihood of dams washing out.

Even at this early stage, the potential benefits of the project's emphasis on local knowledge are apparent. Our March visit led to an exciting exchange between one of the Secoya whose aquaculture efforts are among the most successful and an elder who would like to get started

Continued on page 4

For information on how to support the work of the Secoya Survival Project, please see page 11.

Secoya from p. 3

but is unsure how. As it turned out, the elder was actually able to help answer a number of the younger man's important technical questions and both men saw the value of traditional knowledge to this innovative endeavor.



A hands-on lesson in water testing and treatment draws several eager onlookers

UPSTREAM: SITE VISITS REVEAL ENVIRONMENTAL DAMAGE, OPPORTUNITIES TO INTERVENE

In the oil town of Shushufindi (15 miles upriver from Secoya territory as the parrot flies, 20 to 30 by canoe), we visited oil wells and pumping stations, legacies of Texaco. Here, the jungle has been converted to large, noisy industrial sites where flamed natural gas produces great orange flames and black smoke, where bare red clay soil is stained black with oil, and where unlined pits

filled with poisonous production waters are allowed to spill out to streams feeding the rivers where the Secoya live.

We also visited the plantation of the palm oil company Palmeras de Ecuador, located directly across the Shushufindi River from Secoya territory. Crossing a piece of the almost 40 square miles of clear-cut rainforest with its monocrop of African Palm, we saw clearly how agro-industry has destroyed natural resources and impacted Secoya hunting. Another probable impact, which we hope to study further, is an annual fish kill that the Secoya and local environmentalists attribute to pesticides or processing wastes from the plantation.

Later we returned to Shushufindi with a Secoya commission concerned about another pollution source: a sewage system that will flow into the Shushufindi River. Construction is under way even though neither fund-

ing nor a design for a treatment system is in place. Ironically, money for the sewage system itself comes from payments Texaco made for earlier environmental damages. We met with the mayor and the



Ron Lavigne checks out an oil well in a clear-cut field in the Amazon rainforest

project engineer, and toured the construction with local activists. When we learned that responsibility for designing sewage treatment systems for Shushufindi and other oil boom towns of the *Oriente* is in the hands of the Ministry of the Environment in Quito, team members Ron Lavigne and Stephen Greene traveled there to meet the people in charge. They were very interested in learning more about low tech systems for water treatment, and have invited us to lead a workshop on the topic for the Ministry this summer. This is the first step in a process which we hope will allow OISE and ISIS to influence plans for, if not actually participate in the design of, an appropriate sewage treatment system for Shushufindi.



A mural by school children in Lago Agrio shows their concerns about oil industry pollution

HOW LIFE HAS CHANGED: THOUGHTS FROM TWO SECOYA ELDER

Matilde Payaguaje



Since western culture came, much has changed. Everything is new for me. I don't understand why the companies come to the rainforest. Before we had animals, now we have cities in the forest. Food from the forest is ending. It's new for me to see the young people building fish ponds. If colonization had been controlled things might have been different. They throw poison in the river, kill the fish. Before the rain water was good, now the color has changed. Oil spills in the Aguarico River have killed fish. I have chickens to eat and sell. I do artwork to sell to tourists. I am living in a new way, with money, buying at the store.

Esteban Lusitande

When I was young, there was nothing wrong with the river water. We didn't need to buy anything. We had everything—fish, meat—we were owners of everything. The company came, founded [the town of] Lago Agrio. I remember when all this was virgin forest. When they found oil everything changed with smoke and pollution. I've seen lots of oil flowing down the river. We've had to push it away with our hands to bathe in the river... We saw the rivers were dirty so we looked for drinking water in small streams and from the rain. Later we noticed that the rain fell black. I think this has really damaged our health.



MCS Gains Visibility, Credibility, Momentum

On April 10, ISIS's Multiple Chemical Sensitivities (MCS) project achieved a new level of public visibility and involvement at our collaborative *Improving Indoor Air Quality in Schools* conference in Northampton, Massachusetts. Developed with our grassroots collaborator, the Environmental Health Coalition of Western Massachusetts (EHCWM), the conference involved approximately 200 teachers, administrators, maintenance personnel, doctors, nurses, health officials, and MCS authorities and sufferers in addressing the poor air quality in local schools. By incorporating asthma, allergies, and other established ailments, the conference was able to position MCS as a comparable condition and increase prospects for preventive action. In addition, the mailing for the conference reached thousands, greatly increasing the visibility of the MCS as a problem related to poor indoor air quality.

Rhona Julien, the Program Officer for our environmental justice grant from the Environmental Protection Agency (EPA), attended the conference with her assistant, Lugardi Raymond. Both were very impressed with the event, and Julien expressed great enthusiasm about the progress of the project the next day at the mid-project review. She asked for MCS-related reference materials to add to the EPA library--a noteworthy step toward recognition and acceptance of MCS as a real social, scientific, and human problem. She also invited ISIS to present a training on MCS to her Agency colleagues at one of their brown-bag luncheon seminars. MCS Project staffer Karen Sutherland has written a companion to the EPA's Tools for Schools handbook to incorporate MCS needs, and the EPA is considering its use as well.

Another piece of solid support

for the project came from the American Lung Association of Western Mass. (ALAWM), the Western Massachusetts Coalition for Occupational Safety & Health, and the Franklin County Solid Waste Management District, which co-sponsored the conference. Affiliation with the ALAWM and other mainstream organizations helps to position MCS as an important problem less subject to political abuse or neglect. Since the conference, the MCS project has continued to develop these collaborations: Sutherland included a pamphlet advertising the ALAWM's "walk for asthma" in a recent MCS mailing, and she is working to involve ALAWM in efforts to establish MCS-accessible hospitals.

Other exciting meetings and conferences are imminent. On June 9, ISIS and EHCWM will hold a meeting/training session on developing "safe" housing to prevent MCS and to be accessible for people with MCS. At this writing, we expect heavy attendance: the topic is critical to the MCS community, and the project has laid significant groundwork in raising MCS stakeholder consciousness and interest in MCS issues. Three hundred sixty people have been invited to participate, about half of whom were MCS-related and half housing professionals and regulators. The mailing itself served as a valuable educational tool. The program features internationally known nontoxic housing consultant Tad Taylor and local "safe" housing builder Van Stoddard.

Also in June, Sutherland will make a presentation to the Hampshire County Partnership for Health, a network of agencies dedicated to improving community health status within the county. Members include boards of health, nursing homes, hospitals, health centers and HMO's,

human service agencies for children, the elderly, the disabled, etc., universities and colleges, ambulance services, nursing associations, and many more. The presentation will thus reach most of the agencies involved in Hampshire County health concerns, giving MCS issues yet another boost in local credibility and visibility.

Beyond the Air Quality in Schools conference, a number of local schools are getting involved in MCS issues. The Amherst school system has changed over to non-toxic cleaning products, thanks in part to the influence of the MCS project. The Fort River school in Amherst is one of a number of schools with which ISIS personnel have been working.

At Smith College, anthropology professor Frédérique Apffel-Marglin and her class were stirred by a report made by one of the students who has been interning with Sutherland on the project. As a result, ISIS is working now with Professor Marglin to organize a panel discussion on epidemiology and MCS this fall. ISIS is also investigating the potential for developing accessible space at Smith to house the MCS Center for Outreach, Research, and Education (CORE).

Even without a permanent site, the CORE has been doing a great deal of work. It continues to collect and organize information, and fields an average of five to ten calls a week from people interested in MCS or in need of information and assistance. We have now identified 172 people in the tri-county project area. Most of these people are isolated, impoverished, and unable to access needed health and other services. ISIS has helped them greatly both by serving as a direct resource and by educating agency personnel, doctors, health professionals, and other stakeholders.

Continued on page 8

Arthur Galston's Ethical Dilemmas

On April 25, ISIS was honored to sponsor a lecture by Dr. Arthur Galston, biology professor from Yale University, as part of our Seminars on Science and Responsibility. Dr. Galston's talk, "Ethical Dilemmas Arising From Scientific Research: A Personal History," was attended by over 100 people, including many students and faculty from the Five Colleges and other members of the community. They came to hear Dr. Galston's account of how his own scientific research became entangled with the development of herbicides like Agent Orange, and his subsequent involvement in banning the use of Agent Orange in Vietnam, and in Vietnam veterans' litigation over their exposure to these herbicides. Here are some excerpts from his talk:

I want to begin by thanking somebody I don't usually thank: the Senate of the United States of America, for yesterday — very appropriately to this talk — by a smashing vote of 74-26, affirming the intention of the United States of America to join in the Chemical Warfare Convention. Give 'em a hand, folks... Fifty-seven years ago, I began graduate study at the University of Illinois in the department of botany. Botany: the last of the scientific innocents. Nobody ever expected anything world-shaking or important or politically explosive to come out of any botany department, but you'll see how wrong they were...

...I looked at this process [of flowering] carefully, and I decided that one thing was always true in my soybeans: every time it got prepared to flower, vegetative growth slowed down dramatically. Vegetation stops in preparation for flowering. So I thought, aha!: this is the lead I need. If I could find something that would slow down vegetative growth, then I

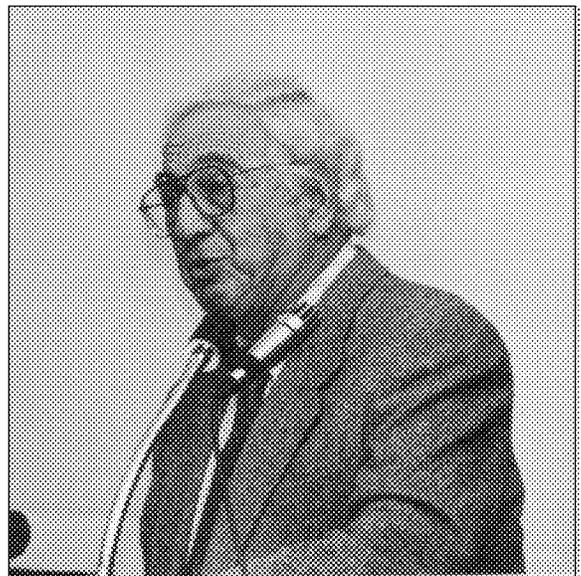
might produce the same effect and induce the plants to flower.

So I read the literature, and I got a hold of a compound that I thought would be effective — a simple benzoic acid derivative called TIBA, triiodobenzoic acid. I sprayed it on my soybeans, and lo and behold, it had some rather amazing effects. If I sprayed it on plants that had just been induced to flower a little bit, it caused a ten-fold increase. It did not do what I wanted it to do — take a vegetative plant and convert it to a flowering plant — so my story did not hold. But at least it was good enough to get me a Ph.D. thesis. So I defended my thesis in 1943, went off to do some war work, and later went into service for a couple of years. And when I came out of service, I discovered there were two unexpected consequences of this thesis that I had written.

One was, a colleague at Iowa State University named Ivan Anderson read my thesis, repeated it, found that it worked just as I said it did, and adapted it to practical use.... He thus patented this discovery. Now, I don't know how I felt about this: this was my discovery, he was confirming it, I was off defending my country, and he got the patent.... That was the first occasion of having my nose rubbed in a bioethical problem. But the second unexpected consequence was much more important. When I had returned from service, I was working at the California Institute of Technology, and in the early 1950s I got a visit from two gentlemen from a place called Fort Dietrick in Frederick, Maryland, which had been the home of the Chemical Warfare Service.

They were interested in defoliants.

And they said, we saw your thesis in *Thesis Abstracts* and we got it out and read it, and on page so-and-so toward the end, you say that you've got to use this compound at the right concentration, and if you go much higher than that it starts to have deleterious effects on the plant. And one of the deleterious effects is that it causes the leaves to fall off the plant. And he said, we are very interested in that problem, so we followed up your



work, and we synthesized all 27 isomers of the compound you described, and yours was the best, and we are using it as a model compound for further exploration on defoliating agents...

Between 1962 and 1970, about six million acres in Vietnam were sprayed with defoliants. I'm informed that that's about 2/3 the size of the state of Massachusetts.... The spraying of these herbicides on the densely forested landscape would cause the leaves to drop off, expose the Ho Chi Minh Trail, and permit interdiction of the movement of munitions, food, and other items. As a military operation, it can be presumed to have been at least partly success-

Continued on page 8

Continued from page 7

ful. In all, about 100 million pounds of herbicide were used. This is the largest chemical experiment performed in history, to my knowledge.... In December 1965, I read an article in the *New York Times* which acquainted me with what was going on. I had not heard of it before, and knowing something about plant physiology, and a little bit about the chemical that were being used, I knew that phenoxy acids [the basis of Agent Orange] had a tendency to produce free radicals [and] I could foresee that they might cause some distress to animal life, including human life.

I was appalled by the ecological havoc that might be caused by the spraying, and so at a meeting of the American Society of Plant Physiologists in 1966, I proposed a resolution which the Executive Committee of the Society did not choose to support. Very conservative organization. I found out later that the then-President of the Society had himself a contract to work on defoliants, financed by Ft. Dietrick. So it's no surprise that this wasn't considered favorably...

...Matt Meselson at Harvard had

a friend in Washington, a member of "Nader's Raiders," who got access to a file that had not been available to public scrutiny, and there were some rather damning data on the teratogenic effects [of Agent Orange]. So due to the magic of primitive Xerox of the day, this one copy replicated into many copies, and through the magic of the United States mail, people all around the country got copies of this...This looked like the smoking gun that one needed to intervene in the process.

There's an old saying that you can't fight city hall. Well, you can fight city hall, but you need some luck. And the luck we had was the following: I had been on the faculty at Cal Tech, and Matt Meselson had been a graduate student of Linus Pauling's at the same time. Cal Tech is a rather small, chummy place, and everybody knows everybody, and the president at the time was a distinguished physicist named Lee DuBridge. So we knew Lee pretty well. After he left Cal Tech, he was appointed by President Nixon as Chief Science Advisor. So we got on the phone to Lee DuBridge, and we

told him what we thought we had, and he said, hmmm, that sounds interesting, maybe we better have a look at the data... [Afterwards,] DuBridge recommended to President Nixon that the spraying of Agent Orange be stopped. And so it was ordained. We beat city hall...

An audiotape recording of Dr. Galston's complete talk is available from ISIS for \$5.00 (reproduction and postage). This ISIS Seminar was made possible with support from the Departments of Biology and Chemistry at Amherst College; the Biology, Chemistry, and Environmental Studies Department at Mount Holyoke College; the Biology Department at Smith College; the Departments of Chemistry and Biochemistry and Molecular Biology at the University of Massachusetts; the Social Thought & Political Economy Committee (STPEC) at UMass; and the 5 College Lecture Fund.



After the Fact is published semi-annually by the Institute for Science and Interdisciplinary Studies (ISIS) in Amherst, MA. We invite you to submit your comments, writing, or art to *After the Fact*. Contributions may be made on paper or on disk (preferably MS Word formatted) and addressed to the attention of the editors at:

ISIS
Prescott House D-1
893 West Street
Amherst, MA 01002
or via email at isis@hampshire.edu
or by fax at (413) 582-5448

We reserve the right to edit contributions for clarity and/or space considerations or to decline to print them altogether. Copy and disks will not be returned to the contributor unless sent with a self-addressed, stamped envelope.

Managing Editor:
.....Michael Fortun
Production Editor:
.....Scott Tundermann
This issue's contributors:
.....Jeffrey Green
.....Jim Oldham
.....Karen Sutherland

MCS Work Picks Up Speed

From page 6

What the CORE needs most urgently is to develop an accessible home to allow it to function as a self-help facility, to recruit and train other staff members to help service the growing number of requests, and to develop standardized information packets for general needs.

In fact, the project is straining our staff resources in other areas as well. Study/action groups on diagnosis and treatment of MCS and on prevention of MCS in schools are both gaining momentum, and need more facilitation and coordination to work as effectively as they can. Opportunities nationally (with the National

Coalition for the Chemically Injured) and internationally are coming together. And local developments involving buildings, health groups, and education spring up all the time. ISIS's MCS project has created so much interest and so many opportunities it can no longer keep up with all of them without expanding its staff, both paid and volunteer.

With so many rewarding activities underway and all the areas for further development and action, the MCS project is going strong and ready to get stronger. For more information on how to contribute to the project (and the incentives for doing so), please refer to page 11.



Cleanup Workshop & Other RAB News

From page 1

policy and legislative developments, linkages between environmental and economic issues, the use of human health and ecological risk assessments in cleanup operations, and the growing participation of citizens and communities in military cleanup. Smaller, breakout sessions will cover the changing roles of science, technology, and expertise; strategies and suggestions for community organizing and networking; how community groups can obtain technical assistance; comparative issues between active, closing, and "mixed case" military installations; and tools (such as Geographic Information Systems) for stakeholder collaborations.

An important feature of the workshop will be the "Case Studies" from Restoration Advisory Boards (RABs) throughout the New England region. Citizens who have been actively involved in the cleanup process at the Otis Air National Guard Base/Massachusetts Military Reservation, the Watertown Arsenal, and the Brunswick Air Naval Station will share their lessons and perspectives on how community involvement is vital to open, effective restoration plans. The estimated 30 community activists and RAB members attending

lective experience, share the good ideas and democratic strategies developed through years of hard work, and establish new working relationships. ISIS extends its deepest appreciation to those generous individuals including ISIS Treasurer David Gruber, Daniel Greenspun, and Michael Mann, collaborators such as Physicians for Social Responsibility, and foundations (Blue Mountain Center) whose contributions have made the Citizens Caucus possible.

For ISIS, the workshop is an important opportunity to learn more about the technical, social, and political issues citizens around other bases are facing, and how we can best position ourselves to be most helpful and productive to these communities in our immediate region. The next *After the Fact* will contain an extensive report on the workshop. Contact Jeff Green at ISIS for more information.

Meanwhile, our local work at Westover Air Reserve Base progresses visibly. At the May RAB meeting, we discussed the Massachusetts Department of Environmental Protection (DEP) recent rejection of "Comprehensive Site Assessment" reports for two Westover sites. The reports address a landmark under Massachusetts hazardous waste law, where DEP approval of the investigative stage is required before a responsible party can proceed to the selection and design of a cleanup strategy. With the DEP decision, Westover must now expand and more thoroughly document its investigative work at the Current Fire Training Area and the Christmas Tree Fire Training Area.

In the meeting, an energetic discussion ensued, with several RAB

members questioning the adequacy of the contracted site work. The board also became interested in the issue of whether the "fix" would require further expense to taxpayers. Westover agreed to carefully examine whether the environmental consultant had met all contract requirements. David

The unanticipated development illustrated the real need for RABs in an advisory role throughout the difficult cleanup process.

Keith, RAB Community Co-Chair and Coordinator of Valley Citizens for a Safe Environment (VCSE), diplomatically took the criticism as an indictment of the Board as a whole, including his own role. In David's opinion, the unanticipated development, which represents a good deal of lost time and money, illustrated the real need for RABs in an advisory role throughout the difficult cleanup process. The RAB's mission is to help avoid precisely this kind of problem, he said, and by carefully monitoring all aspects of the restoration process, the Board would become a source of ideas and strategic suggestions — an "organized diversity" that could help flag faults in projected work.

The discussion ultimately led to an important agreement to develop the RAB's advisory role. Our next meeting will be dedicated to an in-depth review of a Draft Work Plan for the Jet Test Stand Area, with the environmental consultant on hand to explain the document. The meeting will bring concerned citizens squarely into the advisory process — by opening the planning document for all levels of question and comment while it is still in its early stages. The Draft

People from the Northeast will pool their experience, share good ideas and democratic strategies, and establish new working relationships.

the workshop will also benefit from an additional "Citizens Caucus" which will occur just preceding the workshop. This will be a unique opportunity for these people from all over the Northeast to pool their col-

You Can Support these Project Activities:

Individual donors are an important and substantial part of ISIS's funding resource. In addition to general support of the Institute and its "core" operations, donors have often been instrumental in specific project activities. If you'd like to make a donation to a certain project, your support would contribute to the following goals for that project:

Secoya Survival Project

Donations earmarked for the Secoya Survival Project will support the two initiatives prioritized by the Secoya people in April: safe drinking water and food production through aquaculture. We are seeking funds needed for work in Secoya territory this summer. The Safe Water Project requires additional water quality tests and materials to build improved water delivery systems and household storage tanks. The Indigenous Aquaculture Initiative needs pipes and other materials for fish pond construction and equipment for monitoring water quality and fish health.

We would like to thank you for

your donations with Secoya crafts: Donors of \$35 or more will receive a traditional Secoya bracelet, donors of over \$100 will receive a necklace; both are made from natural rainforest products grown and collected by the Secoya. For \$250 you will be given a Secoya shoulder bag made from hand spun palm fibers and donors of \$1000 or more will receive a hand woven, cotton, Secoya hammock. (Shoulder bags & hammocks will be commissioned as donations come in, so there may be a delay of several months before we can get them to you).

Multiple Chemical Sensitivities Project

Donations for the MCS Initiative will work to continue and expand outreach and professional and public education to prevent and treat MCS (for example, our effort to obtain a local hospital which would be accessible to people with MCS). One of the greatest needs is to **develop an accessible site to house the Center for Outreach, Research and Education (CORE)** so that it may function as a

self-help facility and resource for our study/action groups working on issues of prevention of MCS in schools, diagnosis and treatment of MCS, and "safe" housing. At present, CORE operates through volunteer and grant-paid services, but the demand for services has grown far beyond what present resources permit.

Donations would also help cover **communications costs** (phone, postage, computer and Internet connection expenses) and the **purchase and development of resource materials**. Also needed for CORE is a **specially ventilated copying machine** that would allow chemically sensitive people to make their own copies of resource materials.

Contributors of \$35 or more will receive a complimentary audio tape of either the training on *Diagnosis and Treatment of MCS* or the *Conference on Improving IAQ in Schools*. Donors of \$70 or more will receive both audio tapes or a video copy of the IAQ Conference. Those who give \$100 or more will receive both audio tapes AND the video.

Program in Science and Culture

Contributions to the Program in Science and Culture support the ISIS Seminars on Science and Responsibility, internships in science and technology studies, and the ongoing research and writing that ISIS undertakes in its project focus areas, as well as on the interactions of the sciences, politics, and culture more generally.

Your donations help create public forums for discussion of a wide range of social and ethical issues in the sciences. The excerpt from Dr. Arthur Galston's seminar included in this issue is just one example of the kind of event you'll be supporting. That seminar and all the others this

Cleanup, RABs, and ISIS

From page 9

Work Plan will eventually become the basis for contracts to investigate this recently discovered site.

Finally, two communications notes. We've made major changes to the part of our web site dealing with the military waste project. Our goal was to have those pages stand on their own as a front-end for people to discover when looking for groups combining citizen involvement, technical assistance, and military toxics work. The site is now registered with the more popular Internet search engines. Pam Davis, an anthropologist from Frédérique Marglin's "Political Ecol-

ogy" class at Smith College and ISIS intern, created a great links section, containing several pages of annotated links relevant to military cleanup. Check it all out at <http://hamp.hampshire.edu/~isisGU/mil>

And ISIS would like a new name to replace the somewhat cumbersome and poorly acronymed Military Nuclear and Toxic Waste Project (MNTWP). The leading candidates are the Environment and Military Project (EMP) or Coalitions for Military Cleanup (CMC). Anyone who has thoughts or strong feelings on the matter is democratically urged to contact Jeff Green: (413)582-5582. 

past year were expertly organized by Lily Louie, whose internship at ISIS was part of her work toward a Master's Degree in Science and Technology Studies at Rensselaer Polytechnic Institute. Sustaining this part of ISIS's mission brings the best academics on science and technology from the university to work with projects "on the ground," while adding practical, working perspectives to the intellectual work of a new generation of scholars.

If you donate \$35, you'll receive one free seminar tape, or one ISIS "Working Paper" (a list of available tapes and papers will be sent on request). A donation of \$100 will bring you any three seminar tapes or Working Papers, or combination of these. And for a donation of \$500 or more, you can commission historian of science and ISIS Executive Director Dr. Michael Fortun to write an original ISIS Working Paper on the topic of your choice! Be as imaginative and/or challenging as you can!



ISIS would like to thank our donors who have given generously during the past year (donors of \$100 or more are in bold):

(Anonymous) Linda Anderson William Arnold Linda Baines Dorothy Baker Harry Bernstein Annie Chappell Ellen Cohen Bonnie Crispell Jeffrey Dean Edward Dees Michael Dolan Michelle Duval Arlene & Howard Eisenberg Barry Elson Thomas Ewing Mary Grace Maggie Grais Jean Gran Ruth Griffith Daniel Greenspun	David Gruber Jock Herron Frank Holmquist Esther & Mark Horowitz Leonta Horrigan Soren Hvalkof Manuel Jimenez Kathryn Korostoff A. R. LaPalme George & Ann Levinger Tom Lindblom Mazyar Lotfalian Michael Mann Russell Mawby Robert McCarthy Barbara McQueen Victor Motyka David Oppenheimer William Orem Douglas Plotkin Bernard Rosenberg	Ilene Rudman Harry Saal Carol Salzman Sylvan S. Schweber Michael Shandler Mary Skinner Linda Slakey Irena Smoluchowski Lincoln Stoller David Sunshine Paul Turcotte Joseph Turner Michael Ubell & Paula Hawthorn David Upin Ernst von Glasersfeld Eleanor Warnock Nick Warren Shirley Warren Margaret Wertheim David Wiener Carol Wilder
--	--	--

Please use this form to make a contribution to ISIS. Your donation is very gratefully appreciated!

Yes, I support ISIS! Here's my tax-deductible contribution.

Name Phone

Address

City State Zip E-mail

I want to be a(n)

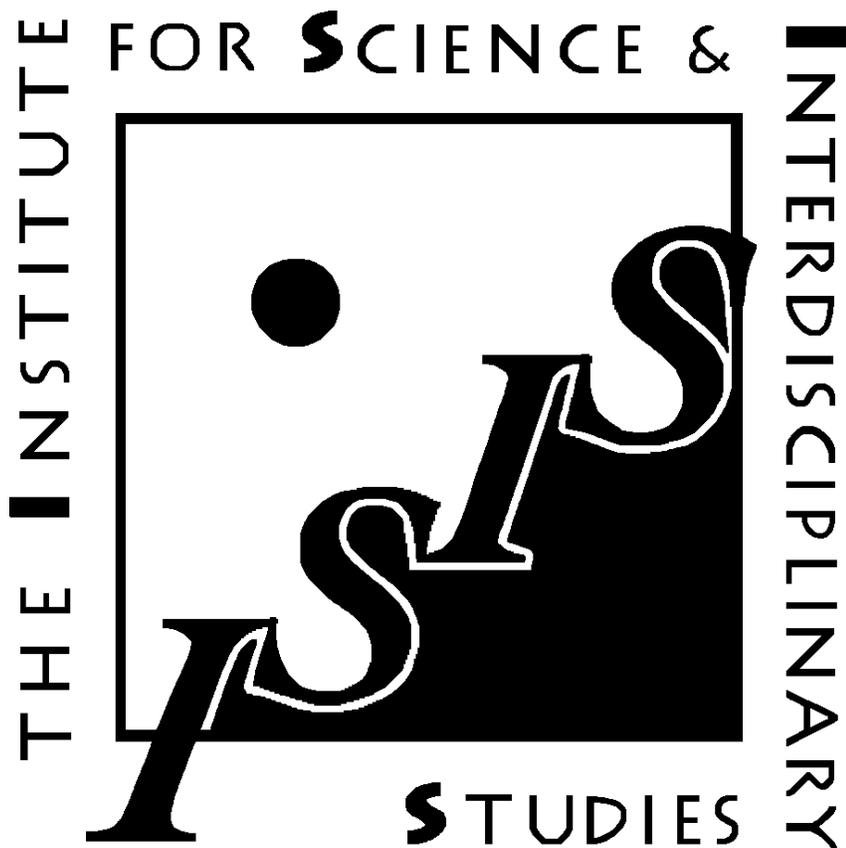
- Sustainer (over \$1000)
 Supporter (\$500 to \$1000)
 Associate (\$250 to \$500)
 Friend (\$100 to \$250)
 Member (\$35 to \$100)
 Student/low-income member (\$10 to \$35)

Please use my contribution for:

- Multiple Chemical Sensitivities
 Secoya Survival Project
 Program in Science and Culture
 Military Nuclear & Toxic Waste
 Other _____

Please make your check payable to ISIS. Thank you very much for your support.

- I'd like to volunteer with ISIS. Please contact me.
 Sorry, I can't contribute at this time. Please keep me informed.



Inside this Issue:

**Military Waste Project gets ready
for Cleanup Workshop.....**

**Secoya Survival Project: photos,
news, and quotes from Ecuador.....**

**Multiple Chemical Sensitivities
Project keeping real busy....Page 6**

**Dr. Arthur Galston speaks on the
ethics of science (excerpt)....Page 7**

**A few ways for you to support ISIS
projects and activities.....Page 10**

**A quick thanks to our fabulous
donors.....Page 11**