

TABLE OF CONTENTS

Balaton 1992: Strategies and Tools for Education about Sustainability

Plenary Sessions

Reports from Working Groups

Topics for the Next Meeting

Balaton Business

"Europe Yes, Union No": the Story of Denmark's Rejection of the Maastricht Treaty -- by Niels Meyer

Global Learning for Sustainability, with Peoples' Wisdom -- by John and Katherine Peet

Expectations and Realities About the Sustainable Development of Central European Countries -- by Tamas Fleischer

Statement on Sustainable Development -- by the U.S. National Academy and the U.K. Royal Society

Announcements

Papers from Steve Viederman

Courses from Ocean Arks International

Activities of the Regional Center in Budapest

Notes from the Members

Quotes, Songs, Jokes

Balaton 1992 -- Strategies and Tools for Education about Sustainability

Transformation takes place only on the level of the individual and the community.

-- Aromar Revi

It was a hot, dry summer in Hungary. The fields were baked, the crops were poor. The Balaton Group did not experience what **Joe Alcamo** calls our "tradition of goulasch in the rain" -- we didn't see any rain. The tradition this year was frequent dips in the lake, workshops outdoors in the shade, wine-tasting up in the hills, and bursts of song late at night on the terrace, waiting for a cool breeze.

In spite of the heat, the energy level was the normal Balaton high. The theme was reaching out -- sharing and spreading the idea of sustainability beyond the academic level, beyond the policy level, to all the people, to everyone -- and recognizing how much wisdom about sustainable living already exists out there.

We continued and strengthened the Balaton practice of having "lubricators" with us, to bring out our talents of heart as well as mind, our expressiveness in images, gestures and songs as well as words and computer code. **Steve McFadden** taught us Native American rituals and a handshake, and brought us to see ourselves as Rainbow Warriors. **Alan Atkisson** sang about lichens, shopping, and the "dead planet blues" and gave us a marching song -- "And We Rise." (You'll find the complete text later in this Bulletin. Some little sketches from Alan's journal also grace these pages.) **Herbert Girardet** and his award-winning videotapes opened us to the power of images, and encouraged us to find partnerships with people who model the world through cameras. The conclusion of one of his films, with an Amazon shaman bewailing a scene of clearcut devastation, wondering how the children and grandchildren will live, was an unforgettable summary of the problem we face -- long-term human wisdom confronting the short-term logic of the bulldozer. How to give voice and power to the people with the long-term view?

According to our own rituals, we spent mornings in plenary sessions, afternoons in workshops, computer demonstrations, and games, and evenings singing or swimming or watching videotapes. One afternoon we took a boat over to the Tihany peninsula and climbed to the ancient cathedral and the tourist town. That evening we hiked up into the hills above Csopak to the home and vineyard of our resthouse receptionist, where we explored the technology of underground winecellars and discovered that Hungarian "home brew" is tasty stuff. Under its

inspiration another Balaton Group song was born, inspired by **Carlos Quesada** -- "We are united for the environment" -- with multilingual verses and a very loud English chorus.

Alan's sketch here

We had the rituals of the T-shirts and the Balaton ties and the potlatch (for you who are unfamiliar with Native American lore, that means widescale giftgiving). The award of Balaton Member of the Year went with acclamation and appreciation to **Jørgen Nørgard** of Denmark, for the completion of the Low Electricity Europe study, for his steady, quiet, support of the efforts of many Balaton members, and for his constant reminders that sustainability is ultimately about values and living for what is important, not for material accumulation.

In terms of the Real Meeting, which happens in conversations at meals and on quiet walks and on the boat and in the lake, this was an unusually productive Balaton session. Ideas flowed, projects were started, plans were made. New developments in our "resource toolbox" fired some imaginations, and we began to envision an educational tool-development and tool-sharing network (which is, in a sense, what we've always been, without much formalization). We began to see how to incorporate and use cultural tools, from songs to films to TV ads, more consistently and productively. As usual, some of the best plans were still emerging at the back of the bus on the return to Budapest.

We can't capture the fullness of any Balaton meeting on paper, but for those who couldn't join us (and we missed you), here's a summary of what went on.

Plenary Sessions

DAY ONE: THE PROCESS OF SOCIAL INNOVATION

<p><i>I wasted too much time talking to reactionaries.</i> -- Betty Miller, innovator</p>

As was appropriate to our topic, and to the traditional interest of the Balaton Group in educational gaming, **Alan AtKisson** got us off to a rousing start with

a game. Over just 20 minutes we portrayed the diffusion of a new idea through a society. Alan presented us with the "amoeba model" of innovation diffusion. An innovator sticks out a pseudopod, a feeler in a new direction. Change agents pick up the signals and begin to popularize the new idea. Most people are "mainstreamers," busily going about their daily work, hearing the idea only slowly, and adopting it only when they see that others are going in that direction. There are always reactionaries, resisting movement in any new direction, and an iconoclast who is more or less against everything and kicking the movement from behind.

[amoeba diagram here]

It's one thing to understand these categories intellectually and quite another to experience them in action -- that, of course, is the power of gaming. The innovator in our game was trying to move next year's Balaton meeting to New Hampshire. The iconoclast was trying to oppose the power of Americans in Balaton decision-making. The resulting process was loud and fun and educational.

Some observations afterward:

- The process was so decentralized and chaotic that no one could know everything that was happening. It was impossible for any participant even to describe all the simultaneous events that influenced peoples' opinions -- much less to control them.
- Most people felt unheard most of the time.
- Whatever role we were assigned to play, it was a familiar one. Balaton members tend to be change agents with regard to energy efficiency but reactionaries with regard to nuclear power. We innovate in educational techniques and are iconoclasts toward traditional economics. We can fit into all these roles.
- The process devolved into a struggle for attention. Loud voices were overwhelmed by still louder voices. When someone stood on a chair to command attention, others leaped onto chairs too, and even onto tables. There was no

orderly process to facilitate effective public conversation. (We were reminded of struggles for microphones, for broadcasting time, for print space, in the real society.)

- Those who played reactionaries were reminded of the discomfort they feel in the real world when they oppose an innovation (such as European Union) for progressive reasons and find themselves cast in common cause with social reactionaries. (**Niels Meyer** calls this the "Margaret Thatcher question" and addresses it in his paper on Maastricht later in this Bulletin.) The reactionaries in the real society may not be united in their reasons for opposition.
- The innovator was incapable of selling the new idea all alone. The change agent role is critical, the link from the innovation to the rest of society. It is a powerful intervention in the system to support not only innovators but change agents. Or, alternatively, if you want to oppose a change, weaken and discredit the change agents.
- Action spoke louder than words. Forward motion occurred only when change agents **Dennis Meadows** and **Drew Jones** got exasperated with all the talk and just strode over and signed up for the new idea.

The game gave us a model and a useful vocabulary for the week's discussion -- and a certain distance, an ability to see more systematically a process that we are usually too deeply involved within to use our analytical skills.

George Marx, a professor of physics in Hungary's Roland Eotvos University, treated us to a description of the evolution of education in Hungary and his use of the Balaton Group's STRATAGEM game to further that evolution. Schools exist mainly to prevent the spread of new ideas, he said. They teach children to follow the rules of the established game, not to adapt when the rules shift (much less to make them shift!). That prepares them poorly for a world in which rules shift all the time. The Pill shifted the rules of morality; AIDS shifted them back. A

superpower collapsed. The threat of climate change requires a worldwide change of rules. How do we train people for this shifting, changing world?

The rulers of Hungary in the 1950s pushed the country toward heavy industry and self-sufficiency, though the resource base of the country favored agricultural exports, and though the rest of the world was beginning to value not heavy industry but high technology. The people were promised that everyone would be equal and rich. The schools emphasized math and science, and ignored the humanities. Of course disillusionment came very fast.

In the 1970s and 80s Hungary gradually opened its economy, and its leaders became technocratic, aping Japan. At the same time the oil shock and the environmental movement shook up old assumptions about the availability of resources. It was a good time for learning, because the whole society was directed toward the future.

It was then that George Marx presented STRATAGEM as a tool for physics teachers (who were allowed to think freely, as opposed to history teachers, who were not). The game spread quickly through the schools. (For those of you who haven't played it, it presents a team with a low-tech, semi-developed, food-exporting nation and asks them to guide it through 50 years of simulated history, dealing with population growth, capital allocation, environmental protection, energy sufficiency, and international finance.) STRATAGEM made physics fun and relevant.

There were national and international competitions. The students quickly penetrated the computer code and began to make suggestions for reprogramming the game. They discovered that the international sector would pay positive interest on loans as well as charge negative interest on debt, and so they set themselves up as world lenders, living on their interest.

Most important, the kids learned to criticize their leaders for ignoring feedbacks.

Now in the 1990s the Hungarian state has withdrawn from the economy, individuals are focusing on getting rich in one year, young people want to hear not rhetoric,

but hard facts. Physics teachers are organizing students to measure the acidity of rain or the radioactive fallout after Chernobyl. Time horizons are shortening, and it is now necessary to use the game to teach the value of planning and looking ahead.

What we ought to do, said George, is secretly change all the parameters in STRATAGEM after about the 6th round, and see how fast the students notice and adapt their policies. That would be good training for the 21st Century!

History teachers in Hungary are worried, because the past is changing too fast.

-- George Marx

Chris Dwyer runs a private consulting company that serves the change agents in U.S. schools, and therefore fosters the process of innovation diffusion. Her network collects and evaluates new educational tools -- ranging from whole curricula to one-time activities such as the Balaton Group's FISHBANKS game (which is one tool in the collection). At any one time there may be 500 innovative tools chosen; each has an active lifetime of 8-10 years. The tools are taught to teachers through 60 "linkers," one for each U.S. state and territory. The linkers are paid by government funds. They train schools to use the new tools and projects. Together they reach about 20,000 schools each year.

The process by which an educational innovation is chosen and disseminated is deliberate and exacting. (We know, because FISHBANKS has just gone through it!) First, the innovation is tested on hundreds or thousands of students. It must be shown to produce a real outcome, in learning, behavior, concepts. It must also have institutional sustainability. Administrators must support it, parents must approve it, teachers must be helped to think about and implement necessary changes in classroom organization. Many innovative tools change the student-teacher relationship -- students become more active, less controlled by the teacher. Teachers have to be prepared for that.

The linkers -- the change agents -- are different kinds of people than the innovators. Innovators don't like to go out and sell, to do the same thing over and

over. They mostly want to go on and make another innovation. Linkers must be willing to do a lot of detail work, a lot of hand-holding; they need to be supported, just as the innovators do. Educational change is a big job; most teachers are maintainers and laggards. It cost about \$25,000 to develop FISHBANKS; it will cost about \$400,000 to disseminate it.

Parents are important to innovation in schools, and in society. If they can be involved in a new project, helping out in some way, they will help sustain its adoption in the school. And in the other direction, as students learn new things, they will educate their parents. If they measure radioactivity in the school basement, they will want to measure it at home. If they learn about the tragedy of the commons, they will discuss it at home. In this way innovation in the schools can lead to innovation in the society more quickly than the time it takes for schoolchildren to grow up.

Zoltan Lontay has personally lived through the social changes George Marx described, as his state-owned place of work, the Hungarian Institute for Energetics, suddenly became a for-profit company -- EGI Contracting and Engineering, 85% owned by a German manufacturer. As a consequence the 1000-person staff was whittled down to 500 (and income went up!). Now there are separate profit centers, each of which is free to decide what projects to take on, but each of which -- strangely enough in this new market economy -- has to meet planning goals.

EGI operates in a country where energy use is shamefully inefficient. Under central planning fixed low prices encouraged waste. The ensuing energy shortages were always perceived as a problem of getting more supply, not of increasing efficiency. Now energy prices are more realistic (having shot up by a factor of 2.6 almost overnight). But the government is broke; there is little finance available for new investments. The market can't improve energy efficiency by itself; information and infrastructure are needed. The industrial sector has some professionals who are beginning to understand that energy efficiency makes both environmental and economic sense. But communities and individuals still don't get it.

Price increases make people nervous, not motivated.

-- Zoltan Lontay

The obstacles are daunting. They involve both hardware and software -- physical structures, institutional arrangements, and habits of thought. Many flats don't even have their own thermostats; heat is controlled by groups or floors of flats. Fixed-price contracts for district heat are calculated by the volume of the flat, not its quality of insulation. Energy efficiency is considered an old-fashioned solution, and a belt-tightening one. It is equated with lower living standards. And people simply don't know how to conserve energy.

EGI is attacking this knot of problems in many ways. It is designing and promoting energy efficient devices. It is introducing new methods of pricing and financing: third-party financing, performance contracts, trying to find Western investors. It is lobbying against monopolies. As it performs energy audits for businesses, it educates equipment operators in more efficient practices.

These activities are not easy to do in a for-profit environment. EGI must find jobs that serve efficiency and are profitable, and it tries to use clients who can pay to provide services for clients who can't, such as municipalities. On the educational side, EGI is creating energy/environment cost models for decision-makers; conducting seminars for managers; setting up an energy efficiency showroom and a free efficiency hot-line for professionals; sending out volunteer lecturers to schools; acting as advisors to the government's energy efficiency campaign; and advising local governments.

IDEAS WANTED! says Zoltan. Also educational materials for our own staff, for children, and for ordinary citizens. Three-fourths of our new company actually serves the energy industry; we have a big internal struggle about that. Maybe it's time for the Balaton Group to do another presentation in Budapest -- especially emphasizing the market solutions to energy efficiency. (**Amory Lovins** has a whole list of new ideas in that direction.) Now that we have a market, HOW TO MAKE THE MARKET WORK FOR SOCIETY AND THE ENVIRONMENT???

Said **Adam Gula**, I could have just given your whole speech with regard to Poland without changing a word.

Said **Carlos Quesada**, in Costa Rica we use clever ads in which a cartoon light-bulb sings a catchy little song to children. It gets them to turn off unnecessary lights. We also give away a free lottery ticket to people whose electricity use declines on their monthly bill -- a very popular program. And we have progressive pricing, so your cost per kilowatt-hour rises if you use more kilowatt-hours per month.

The trouble is, said **Dennis Meadows**, education can do very little if the system structure still supports only the old behavior -- which, of course, it always does, because the structure evolved from and is consistent with the old ways of thinking. How do we communicate in a way that enhances structural change?

DAY TWO: USING THE MASS MEDIA

<p><i>Maybe we should listen more to the people.</i> -- Conclusion of EC prime ministers at the most recent summit</p>
--

Niels Meyer opened the morning with the inspiring story of how 5 million Danes in their recent referendum slowed down the momentum toward political and economic union of 340 million Europeans. In terms of our "amoeba model" it was a triumph for the progressive reactionaries. The Danes hope it will provide time and perspective for a more thoughtful and democratic form of union. The story is so important that we include it in full later in this Bulletin -- and we congratulate Niels and his compatriots in Denmark for a wonderful demonstration of the power of democracy.

Beverly James, a professor of communications at the University of New Hampshire, told us a story of how an environmental struggle gave birth to a newspaper that then became a weapon for future struggles.

The story begins in the 1950s in Alaska, with a suggestion that now sounds preposterous, although ideas of the same level of lunacy still get hatched today, and probably always will. The plan, promoted by Edward Teller, was to create a harbor in the Chukchi Sea by

detoning atomic bombs. It was called Project Chariot. It would use six bombs, with a total of 2.4 megatons of explosive power. There was coal in the area; Eskimos could be made into coal miners; the coal could be shipped from the new port (though it would be locked in ice 9 months of the years); the development potential was tremendous. "Reshape the earth to your pleasure," said Edward Teller. "This will be a fitting overture to the new era opening for our state!" said a city newspaper.

The area where Project Chariot was to take place was inhabited almost entirely by Eskimos and Indians -- a population of about 40,000, out of a total Alaska population of 625,000, most of whom were white and living in or near the cities. The native peoples were widely scattered, isolated and therefore easily manipulated. They communicated almost entirely through boats and dogsleds. They knew about Project Chariot only through hearsay. They were visited by the Atomic Energy Commission only to be studied and lied to.

The native peoples did not cooperate with the AEC and did not believe its claims (that radiation would not affect fish, for example). They wrote letters of concern about Project Chariot to the federal government and got no response. They also wrote to the Association of Native American Indian Affairs (ANAIA), a non-governmental group that helped natives in their struggles. The people also wrote to ANAIA about another matter: government interference with their traditional duck hunts. ANAIA responded by calling a conference that brought together representatives of the native peoples for the first time.

It must have been a bit like a Balaton meeting, where people who feel alone find that they have common values -- and find that they have all been told the same lies. An incipient organizational ability came out of that meeting. Another thing that came out was the Tundra Times.

The Tundra Times was founded by an educated Eskimo and a white reporter who had opposed Project Chariot. Its initial funding came from a few wealthy patrons who were found with the help of ANAIA. It took a network of bush planes to hold the paper together, both to bring in news from reporters in 200 villages, and to deliver the paper. At first the Tundra Times came out only every two

months. Later, as the paper began to support itself through advertisements and subscriptions, and as communication and transportation options in the far north improved, it became a weekly. Over the years the Tundra Times dealt not only with hunting issues and Project Chariot-type plans from the outer world, but with land use and oil issues -- all the problems the native people had to face as "development" moved into their lands.

Project Chariot eventually collapsed of its own absurdity. The Tundra Times continued until December 1991. It was co-opted eventually by commercial interests -- as were the natives -- and it couldn't compete with the TV news.

Because this is a real story, it's not purely good or bad, but a complex combination of the two. Beverly summed up with the elements that came together to make this grassroots newspaper work, while it worked: a clear need and an impending threat; a well-defined community of interest; one person willing to devote his life to the effort; another person with the necessary technical expertise; a sophisticated organization providing links to establishment resources; and benefactors willing to fund the operation with minimal strings attached.

Now the question is how to make those elements come together for ALL the grassroots communities who need their own means of communication!

Joan Davis, reading from her Powerbook, asked how do we stop pushing against walls when the door is open? How do we gather together the isolated frustration that already exists, and turn it to a positive direction?

cartoons here

She told us about, and then showed us, the TV spots she has been helping to develop for Swiss television. They are 1-2-minute cartoons, ("sight bites") shown at prime time, just before the news. The beauty for the Balaton Group is that they use NO WORDS, only sound effects and funny images, so they can be used immediately in any country.

Here's an example. A little man is happily fixing his breakfast, while his radio plays a tune in the

background. The radio stops playing. The man puts in a new battery; the radio plays again; the man tosses the old battery into the garbage can. We can see it pulse in there, and a little red devil pops out of it with an evil laugh. The man carries the (pulsing) garbage to the curb; a garbage truck picks it up (and starts pulsing); the truck delivers the garbage to an incinerator; we see the pulse go into the fire and up the chimney into the clouds. The clouds release a pulsing rain, which falls onto the little man's lettuce patch. The tiny red devil laughs now from the inside of the pulsing lettuce. The man cuts the lettuce, eats it for lunch, pulses, turns a distressing purple, and the little devil has his last laugh.

Joan brought 20 examples of these cartoons. If you're interested in them, please contact her directly.

The principles behind the design of these videos, said Joan, were to catch and maintain attention, to connect with common situations (so you can imagine yourself in the drama), to be funny (to create a bit of distance and to avoid moralizing), to make the problem clear without a blizzard of information, and to show what can be done to prevent the problem.

Nature is less a teacher to humanity than it used to be, said Joan, since humanity has in so many ways walled itself off from nature. The media are now our teachers - - and they can be used imaginatively. In fact the designers of advertisements are incredibly clever; their techniques could well be used for good as well as for ill. For example, Joan told us about a successful Swiss yogurt ad that got people to recycle yogurt jars with an 80% return rate, even though there was no deposit on the jars.

It's not that we don't have powerful communication mechanisms. It's that we use them for the wrong purposes!

Environmental writer and film maker **Herbert Girardet** seconded that motion. There have been nature films for many years, he said, mostly just celebrating the beauty of the natural world. Only in the last 25 years, since Rachel Carson and Stockholm, have there been films about

humanity and nature. They have gone through three phases:

1. Events. Effects. "Something terrible is happening." These are the films about Bhopal, Chernobyl, acid rain, overfishing. In reviewing 130 films for an environmental film festival in the U.K., Herbert found that 120 of them fell into this category. Films pointing out problems are important and necessary. But clearly they are only the first step.
2. Causes. Interactions. These films go to the human factors that underly dramatic events -- global finance, consumer behavior, markets, politics. Under every environmental problem, says Herbie, lies "amplified man" -- a person not just in his or her biological body, but one whose feet have wheels, whose muscles have motors, whose breath has fumes of pollution. There is great pressure from editors and producers, Herbie says, to stop the analysis at or before this point.
3. Solutions. These are films about efficiency, about alternative lifestyles, real democracy, producer and consumer responsibility, morality. They challenge the power structure. There are not very many of them.

Herbert Girardet himself came to filmmaking as an environmental campaigner, fighting the destruction of the Amazon rainforest in 1979. He personally had to confront the reality of what was happening while flying over a forest fire the size of Britain. Seized with an enormous wave of anger and frustration, he thought, "We have to use a camera to tell about this."

The film clips Herbert showed us ranged from the bewailing shaman at the scene of forest destruction, to a village of 120 families on an island off Belem who are establishing a sound economy on the sustainable yield from tropical tree crops. Interestingly, Herbie had to battle with his producer to retain positive stories in his film; the producer wanted only fires, destruction, suffering.

In his film "Jungle Pharmacy" Herbie cuts back and forth from a modern surgical team using curare as a muscle relaxant to indigenous people harvesting and preparing curare to tip their hunting arrows. The film emphasizes the wisdom of the people, who in every part of the world have learned to use clever combinations and controlled dosages of chemicals from nature for purposes that range from contraception to cancer prevention. Research shows that 80% of the medical claims made for indigenous remedies are based on fact. "There are no great monuments of stone or brick in the rainforests," said Herbie, "but there are monuments of knowledge, software, wisdom accumulated over ages." One of his films shows a woman coming to a special place in the forest to harvest medicines her grandmother planted. The ways of these people, said Herbie, are unappreciated but valuable treasures, completely relevant to modern life.

There followed an active discussion of the use of film toward environmental goals. Video technologies have become so accessible, said **Dennis Meadows**, that I can make a useful video for just a few thousand dollars. There are workshops to teach you to do it.

I have a problem with video, said **Aromar Revi**, unless it gets decentralized. How do we put the cameras in the hands of the people? How do we let them do the editing? What kind of films would result if they were filming us?

Carlos Quesada told the story of the Kuna Indians off the coast of Panama who managed to stop development on their lands. Their effective plea was: How would you like it if we came and destroyed your grocery stores and emptied your refrigerators and leveled your pharmacies? Well that's what the forest is to us -- the source and storage place for all our food and medicines. So leave it alone!

How do we show in cartoons like Joan's that evil doesn't always come back to those who generated it? asked **Hans-Peter Aubauer**. How do we show it going to others, and to the future?

DAY THREE: COMMUNITY OUTREACH

I just smiled. I listened and took notes. I let them all talk. Then I gave my answer.

-- Chirapol Sintunawa, upon being asked what he did when advertisers got angry at him for criticizing their advertisements.

Chirapol Sintunawa has carried his courageous series of environmental workshops in Thailand to a new set of audiences -- hotel owners, department store owners, manufacturers, and advertisers!

In previous years Chirapol had told us about his workshops on energy conservation -- 10 of them, lasting 5-6 days each, eventually reaching 800 journalists, teachers, and students. These workshops started with visits to an electric generating plant, an oil refinery, and a luxury hotel, to watch energy production and consumption at work. Then all sorts of energy efficient techniques were demonstrated -- with discussion of how many power plants each one could shut down. (Chirapol has since taken his hands-on exhibition of energy-efficient technologies on tour to Buddhist temples all over Thailand.) On the last day the participants were shut into a plastic greenhouse (temperature about 45 degrees C.) and had to answer correctly 10 questions about the greenhouse effect before they could come out!

The next workshops were on resource recycling -- eventually delivered to 350 journalists, teachers, and women's groups. Participants visited the Bangkok dump (85 meters high and still rising), measured the waste flows coming out of households and industrial sites, and rode around with scrap dealers for a day to see what actually was being recycled. What does not need to be consumed at all? they were asked. What can be reused, reduced, refilled, repaired, recycled? Again an exhibition was prepared.

Then Chirapol took 150 hotel owners and tour operators on a tour to places where overdevelopment of the tourist industry is causing problems. They interviewed the affected public. They carried out an analysis of the capacity of water, sewage, energy, and solid waste facilities to absorb the astounding growth in Thailand's tourist industry. Finally they calculated the

potential savings and benefits from "clean and green" tourist operations.

Next department store and supermarket owners and manufacturers were presented with the same basic formula -- direct experience of the problems they themselves are causing, and discussion of what do to about these problems -- their roles in public education and advertising, in the products they can offer for sale, in cleaning up the processes by which those products are made and brought to market. Unbleached, undyed towels, Chirapol recommends. Less packaging. Recyclable materials. Energy-efficient appliances.

Last, and to us who were listening to Chirapol's presentation most awe-inspiring, was a workshop for 180 people from advertising agencies. In preparation Chirapol taped television spots and used them as an introduction -- to show how powerful they are and how they can misguide the public. (For instance, says Chirapol, one ad showed people walking in a beautiful jungle, full of wonderful wildlife. Perfect! he said to the advertisers, except that at the end the people were drinking beer and didn't recycle the cans!) The workshop went on to present posters, made by Chirapol's students of how many resources were in a ton of paper, copper, iron, and so forth. Guidelines were developed for "green advertising." The workshops emphasized the advertisers' potential constructive role in the protection of environmental quality. (And, says Chirapol, after an initial confrontation, everyone ended up friends.)

All the workshops are based on the same principles:

- Careful preparation. Data collection; research, digestion, and simplification; knowledge of the backgrounds and businesses of the participants, their roles and contribution to problems.
- Minimization of classroom lecturing. Use of field visits, direct data-gathering, interaction and participation of everyone ("we learn a lot from them"), surprises (such as waking everyone up at 4 AM to go for a wildlife walk around a pond), and good speakers when speakers are necessary.
- Group activities, including gaming, singing, and role-playing.
- An exhibition that permits hands-on experience. By the end of the workshop the participants

- become the demonstrators at the exhibition, explaining the displays to the visiting public.
- Above all, emphasis on the participants' own possibilities for contribution. They make to-do lists, they prioritize those lists and pick out the most urgent and immediate items, they plan further collaboration and networking, and they take home gifts to reinforce the lessons, from efficient light-bulbs to undyed, unbleached towels.

"When these people go back they will be strangers to the family, to the office, to the society," says Chirapol. Listening, some of us wondered why we had never been brave enough to take on advertisers directly and constructively -- or whether only Chirapol could get away with it!

Milan Caha of the Regional Environmental Center for Central and Eastern Europe told us of youth environmental camps, which appeared in great numbers in Czechoslovakia in the mid-seventies. The camps were originally inspired by the "Brontosaurus Movement" -- an environmental movement that was tolerated by the Czech government because it was primarily educational. The camps were planned for only one year, but once they got going, they were impossible to stop. In 1989 there were at least 400 of them, involving about 8000 secondary and university students not only in vacation time but all year long. It's hard to know the exact numbers, because the camps' organizers are highly decentralized. This is a truly spontaneous peoples' movement.

The camps are as varied as their organizers, but they share some common characteristics. They always include some practical work for the environment. They educate participants not only in environmental issues but in social skills. And they are conducted in a spirit of friendship, cooperation, relaxation, and fun.

Beyond these commonalities, the camps are shaped to the environments where they take place, and to the imaginations and skills of their organizers. From the pictures Milan showed us, the adult leaders and their youth followers are wildly creative -- we saw everything from artistic weed arrangements to body painting to

roving theater troupes that go from town to town presenting plays they have written themselves.

Alan's sketch here

The camps are conducted as models of environmentally friendly living -- waste separation and recycling are practiced, and conservation of water and energy, and avoidance of harmful chemicals such as CFCs. There is direct contact with nature, camping outside, enjoying sunsets, forests, stars. Often the participants do some work for a national park, a reforestation project, or restoration of a historic monument. There are many trust-building activities, small rituals, group experiences, musical interludes, and resurrection of traditional cultural activities, from dances to cooky-baking. There are physical challenges -- races, rock-climbing, obstacle courses -- but most of the activities emphasize cooperation rather than competition.

The political and economic situation has changed since these camps started, but the camps have retained their popularity. That's not only because they're fun and a cheap vacation, says Milan, but because they provide a much-needed experience of a temporary utopia -- and because the participants can take home some real tools for everyday life.

They also give young people a model for things to do besides being consumers, **Jørgen Nørgard** pointed out.

"Myth, Meaning, and the Millenium" was the title of **Steve McFadden's** talk. He began by asking us to stand and take some deep breaths together, to wake us up and bring us together. Then he quoted Plotinus: "The soul is the beginning of all things; it is the soul that lends all things movement." How do we cultivate the soul? With poetry, art, music, architecture, contemplation, ritual, ceremony, and myth that touches deep truths.

What is required, let's face it, is not just environmental education, but a complete cultural shift. The idea of using atomic bombs to make a harbor is not really much more preposterous than the dams, highways, developments, and nuclear wastes that our society comes up with every day. That culture, like all others, has its rituals, from birthdays, weddings, and funerals to

Olympics, rock concerts, and wars. It has an enormous (and conflicting) number of operative myths, some of which we are more inclined to recognize as myths than others, including:

- Economic growth will save us. The market will solve all problems.
- Materialism makes happiness. Money is what's really important.
- UFOs will save/destroy us.
- Rational redemption. Science will set us straight. Technology is the answer.
- Satan/The Beast is at work in the world.
- The world is controlled by a cabal -- the Trilateral Commission, the Council on Foreign Relations, the CIA, etc.
- The Impending Return -- of Kali, Christ, Buddha, Mohammed, Quetzalcoatl, White Buffalo Calf Woman.
- The New Age -- of Aquarius, Rainbow Warriors, Enlightenment.
- Individual heroes -- Robin Hood, Superman, James Bond.
- A new world order.
- Free trade.
- Democracy.
- Limits to growth.
- Experts.
- (We found it easy to keep adding to this list.)

The function of myths, rituals, and ceremonies, hypothesized Steve, is to awaken in people a sense of awe and wonder and a feeling of participation in the unfolding of the world's destiny. The problem of the present is not only that so many of our myths are misleading, misused, and perverted by power-hungry people, but also that today's financial and economic networks make people feel small and isolated, separated from any awe-inspiring purpose.

The task of the future, then, is to transform our "head knowledge" into "heart knowledge," "soul knowledge" -- to round out the material teachings of science and draw closer to the soul around a new myth that is worthy of us and of our present opportunity. Steve suggests as a title for that new myth "a High Culture." He suggests

at least as a starting list of the characteristics of a High Culture the following:

- Environmentally sustainable.
- Supports the development of children to their full potential.
- Respects elders.
- Produces uplifting art, music, drama, architecture, etc.
- Practices responsible science.
- Unifies around a central principle.
(Sustainability is not that principle, says Steve. It doesn't have enough "sex appeal.")
- Can stand the test of time.

Paradigm flexibility should be added to that list, said **Dana Meadows**. And what's this about sustainability not having sex appeal? It's a concept that manages to keep our lives fully interesting and absorbing. How is it that we find it so important and fulfilling? How can we communicate that to others?

Ritual is the outward expression of the inner myth, said **Diana Wright**. The point is to choose the myth that produces the result that is needed in the world.

Said **Lawrence Tjamei**, I want to emphasize the importance of a myth standing the test of time. Traditional people have gathered knowledge over thousands of years; it is well tested in the laboratory of nature. Scientific tests are too short term.

Beverly James: Real myths are not individual, they are cultural. A person can't freely adopt a myth when it goes against the ideologies of the surrounding culture.

Niels Meyer: I think there's a problem in looking for unified "sex appeal." We are all too diverse; there are too many different groups and interests.

Alan AtKisson: Sustainability is sexy for us, because our love is concentrated there. It's not sex appeal we need, but love appeal. Everything on your list of a high culture is one aspect of love -- love for children, for family, for earth, for people, for God. We need a myth that supports the many faces of love!

Milan Caha: True myths depend upon group harmony, on shared vibrations, on spiritual conspiracy.

Steve McFadden: And that's where we began -- by breathing together -- which is the literal meaning of the word "conspiracy."

John and Katherine Peet prepared for us a paper on global learning for sustainability -- with peoples' wisdom -- so carefully, and on such a central theme that it is reproduced almost in full later in this Bulletin. The paper draws the important distinction between "top-down" or hegemonic education, by those in power, for the purpose of adapting the learners to the existing society, and "bottom up" or counter-hegemonic education that draws out the wisdom and power of the learners, in groups, for the purpose of social change. That distinction defines not only the central problem that brings the Balaton Group together -- too much "top down" education going on, by all sorts of means, furthering a basically unsustainable society -- but also our mission, never very well articulated, but clear in all our activities -- education toward transformation, toward a society that is sustainable, sufficient, and equitable.

We have to be careful, said **Jørgen Nørgard**, in response to John's presentation. If, as Ivan Illich says, true adult education is more dangerous than training guerillas, then we have a tremendous responsibility. The kind of knowledge we teach can be misused too, even by ourselves. We can ourselves get too "top-down," seeing ourselves as "experts," forgetting that our job is to acknowledge and draw out the wisdom of others. We shouldn't assume that we have all the truth!

Alan's sketch here

We make the road by walking.

-- Paulo Freire

*We in Poland now have Western bulldozers making the road
for us.*

-- Adam Gula

DAY FOUR: INTERACTIVE TECHNOLOGIES

This was a day of inspiring examples, of activities already underway by various members of the Balaton Group, who educate by participation and experience toward whole-system understanding, empowerment, and social change.

Bert de Vries told us about a new game he and **Jodi de Greef** are developing, called the Lakelands game. Our books, games, models do illustrate various aspects of the notion of sustainability, said Bert, but they are patchy. They are not very explicit about how nature works, what is unperturbed nature and how it is being disturbed. And they are not good at communicating a critical aspect of sustainability, namely **justice**. If there's any single word to describe the problems of the Amazon region, it's "injustice." A third concept that needs more emphasis is the dynamics of technology. How does it develop, what are the forces that control it, what are its effects?

Lakelands tries to bring together all three of these concepts -- nature, justice, technology. It also explores the important notion of paradigms and worldviews -- how it is that different people see the world so differently, and therefore act so differently.

Lakelands is a computer game, written at the moment for the Macintosh. It simulates a small nation that has a lake with fish, a factory, and a gold resource. The fish part of the model is a basic Lotka-Volterra limit cycle -- the fish eat daphnia in the lake's waters. There is a fish economy, with a market to establish price. Fishing boats can be bought by mining gold -- which is a resource that can be depleted, and whose extraction can pollute the lake. Lake pollution is modeled fairly realistically as an interaction with lake sediments; the pollution can affect both fish and daphnia. Fish catch can be made more efficient by importing technology, paid for by exporting fish, which means the people have less fish to eat themselves.

This complex little system is viewed by different players through different screens -- if you are a mine manager, you see money accounts; if you are an environmentalist, you see the states of the physical resources. The screens, of course, are themselves models, of different paradigms.

Playing the game allows people to experience unsustainability and its causes, including the important cause of screens that give one only partial information. It also allows people to develop sustainability -- it is possible in the Lakelands system to set up a renewable fishery that provides well for all the people.

Sustainability needs to be experienced and developed by everyone. If we fix the idea, we kill it.

-- Bert de Vries

(For more information on Lakelands, please contact Bert or Jodi.)

Anupam Saraph reported on a Balaton Group project that has been developing for some time -- the "resource management toolbox." We have always envisioned the toolbox as a portable, flexible, engaging, powerful set of games, books, films, stories, jokes, songs, which teachers and students of many sorts and at many levels could adapt to their own purposes. Some of us pictured it as a literal box, or suitcase, that could be carried to a schoolroom in Africa or a conference in Singapore or a lakeside in Hungary. Others had a foggy picture at best. But what we have all meant as we discussed a "toolbox" was some way of consolidating the rich mix of teaching tools that members of Balaton Group have collected and developed over the years.

The Center for Energy and Environmental Studies (IVEM) in the Netherlands has made it possible for Anupam to work full time on the toolbox, and, with the help of **Wouter Biesiot** and others, Anupam has come up with a creative new concept -- putting the whole thing on a computer disk!

What Anupam demonstrated for us is a framework (written for DOS machines using Microsoft Windows -- and easily adaptable to Macintosh) that will allow many educational tools to be packaged and easily accessed. It is essentially a Christmas tree, upon which the Balaton Group can hang its ornaments. The demonstration version uses the Kaibab plateau model, with which many of us are familiar (overshoot and collapse of a deer population when the predators are take away,) as an example of what is possible. It contains: a written history of the Kaibab deer population; a data base with actual numbers;

a poem; pictures of deer and lions and hunters, which can come up to illustrate the story or poem; causal diagrams of the predator-prey system; and a simulation model (which does not require DYNAMO or any additional software) to test the dynamic behavior of the system under different policies and circumstances -- or to run it as a game.

The genius of this framework is that it not only makes already-developed tools accessible, but that it makes it easy for users to design and add new tools, or to modify old ones. It encourages the addition of "soft" information like stories, jokes, riddles, and poems. If we can set up some kind of coordinating institution, it could be sent out to various Balaton centers (and other centers) without charge, with the understanding that users should send it back with their own tools added. That way many tools can be collected and disseminated.

Anupam's toolbox demonstration started an active discussion, which went on all week. What about teachers and students who don't have computers? Do we want to do this AND a physical toolbox that could be used where there is no electricity hookup? Who is the toolbox really for? For US, mainly? Or especially for the least privileged teachers and learners in the world? Is the very use of a computer hegemonic? Is it sufficiently participatory? Does the disk TELL you to go to the poem or the game, or do the learners make that decision?

All good questions, and there will be many different kinds of answers as the innovators, change agents, and transformers in the group go to work on this idea. The Balaton Group is, in effect, a creative machine that produces educational materials at a great pace. How do we connect this rich supply of creativity with the great unsatisfied demand in the world? How do we do it unhegemonically?

Aromar Revi reminded us that education is by its very nature a political process, and that nonformal systems produce great learning too. He often teaches sustainable resource management in formal settings, but he chose to speak to us about his recent experiences in the Himalayan foothills, in an area devastated by earthquake. Here he encountered a whole range of resources for problem-solving, including not only

physical and technical resources, but economic, social, psychological, cultural, and inner, moral resources.

The earthquake was 6.5 on the Richter scale. It killed 1000 people and left 30,000 houses damaged. In one village only 2 of 60 structures were left standing. "I have never before seen forces of such magnitude operate," said Aro. The buildings that survived tended to be old ones, which used considerable amounts of wood in their construction, or "well-designed modern structures where the contractors did not run away with the iron and concrete." The buildings that collapsed were new ones where people had used technologies they didn't understand.

The earthquakes left 50 villages in danger of landslides when the rains came. A relocation and reconstruction plan was urgently needed.

Aro and his co-workers spent two weeks in one village, bringing no relief, no medicine or food, just talking with the people about how to rebuild. They made a physical model of the village land, first with earth, later on paper. The villagers could understand the models, because they knew the landscape intimately. They easily learned to use chains and a water level to do a complete contour mapping and to work out the likely landslide zones.

They found several possible safe sites for rebuilding, and then came the difficult political discussion. The women, who were the packhorses of the society (and whose time spent on survival tasks doubled after the earthquake), wanted to move high up, near the wood and water sources. The men wanted to move down near the road, the buses, and the only flat place for a volleyball court (and into a flash flood zone). The old people wanted to move all the way to the top of the mountain, to remove themselves from the encroaching civilization that, they believed, had brought sinful behavior and therefore the punishing earthquake.

Finally an intermediate site was chosen, but it was on agricultural land -- the village had 250 hectares of cropland altogether, divided into 6000 individual holdings. The negotiation to exchange and consolidate landholdings took six days and six nights, and required a

precise definition of what a family is before it could be completed.

If it hadn't been for our presence, our technical ability to map resources, and our help with negotiation, said Aro, the men would have won the argument and the village would be in the flash flood zone. Technical knowledge helps, he said, but it matters less than what people feel, what they know from their experience, and what their mindsets are. What finally tilted the balance in the relocation argument was not a rational argument, but the willingness of one of the geologists to go into a village temple, simulate a trance, and tell the people which site was best!

(Is this hegemony? Is it a clever, or a manipulative use of culture?)

Now Aro's group is repeating this exercise over the whole district, training people through films and workshops in mapping, building methods, and negotiation methods.

How did you gain the trust of the villagers?
someone asked.

By what we did here at Balaton last night, said Aro -- we drank with them, sang with them. We had a language problem, and used local schoolteachers to help with the dialect. And we learned an important lesson -- when you talk with the women directly, you get different answers than when you talk with them through the men! The women had useful knowledge, a deep understanding of microclimates, sun exposures, slopes, and how close to a house a field must be so it won't be raided by monkeys and rats.

Notice how the combination of general technical knowledge from outside (plus the capacity to be neutral, uninvolved negotiators) with rich, specific, local knowledge was needed to solve this problem.

Carlos Quesada fascinated us with a description of an educational endeavor of a completely different sort -- how to convey to U.S. policymakers the importance of, and the dangers to, biodiversity in the tropical forests.

What you do, or at least what Carlos and his colleagues did, is you take them away from their desks in Washington, load them on a bus, and take them around Costa Rica. In the process you enlarge the discussion from biodiversity to the whole scope of biological interdependence, conservation, and sustainable development.

The bus tours, organized by the Organization for Tropical Studies, each involve about 25 Congresspersons and their staffs, and they last a week. They go to national parks, farms, beaches, volcanoes, dams, irrigation projects, sustainable and unsustainable forestry projects. The places and times for the tour are scheduled, the lectures and topics of discussion -- except for an introductory overview of Costa Rica -- are not. Resource people who know each area are present at each stop and also ride on the bus, ready to answer questions, but the questions arise from the participants, based on what they are experiencing.

Participants are organized into small "issues and answers groups," which meet when there is free time to discuss and question and come to their own conclusions -- they can make whatever use of the resource people they like. The tour concludes back in San Jose, with a formal reception and presentation of diplomas.

Once we brought five computers for the issues and answers group, said Carlos, so they could write up their conclusions. That killed the session; it put on pressure and isolated "conclusion writers" from the discussion. Now we have a no-computers-allowed law. On the first night we create some solidarity in the group by taking them to a fairly primitive forest research station, with bunk beds and scorpions. That allows them to see how researchers and the common people live, and it makes all the successive overnight stops seem luxurious. (Do you plant the scorpions? we asked. Is this why all Balaton meetings begin in the Budapest dormitory?)

We vary the schedule each year, said Carlos, for our sake, so we stay fresh and interested ourselves. Very influential people have passed through the course -- including staffers for Al Gore and many members of Congress -- and now we are including Costa Rican politicians too, and setting up similar courses for decisionmakers from all over Latin America. Informally

past participants are creating their own network, because they have been so moved by what they experienced.

Here is Carlos's summary of what he has learned from these educational bus trips:

- Be bold. Challenge the establishment.
- Be creative. Keep changing the course of your course. That keeps it interesting not only to your participants, but to you.
- Make coalitions to allow you to attain far-reaching goals.
- VIPs are not necessarily stuffy. They will participate.
- Involve the press.
- Set yourself high goals.

<p><i>Be careful what you dream. It may come true.</i> -- Carlos Quesada</p>
--

- Leadership is about opening new spaces, creating new niches.
- Let your people grow.
- The most important contribution you can make to a cause is that finally you are not important -- then it will be sustainable.

SUMMARY: EDUCATION AS ENCULTURATION

(Thoughts from the group at the end of the meeting, about what we've learned.)

Jodi de Greef: It makes me happy that models are not an end point, not a goal, but a means. I feel affirmed that it's possible to communicate with people without a computer!

Chris Dwyer: It takes work to find the right person to communicate to and the right way to do the communicating. The change agent, not the reactionary. The congressional staff, not the member of Congress. As Niels demonstrated, supporting Europe, not opposing union. It's important to aim high, but to aim appropriately.

Beverly James: It's very powerful to cross disciplines and recognize common patterns and problems.

Dennis Meadows: John's warnings about hegemony are well-taken, but it's important to see that the power structure is not uniform. There are eager receptors there; real change agents and transformers. We can have a major impact.

Dana Meadows: That use of the word "receptors" reminds me of a model that might be useful to us. It's the new realization in the medical field of neuroimmunology that the most important information system in the body is not the easily visible brain/nerve system, but a system of ephemeral, specific chemical messengers, which can be manufactured by all kinds of cells, and which fit onto extremely specific receptors on other cells. Through these neurotransmitters the liver literally knows that the brain is having a happy thought, and the heart knows how the liver is feeling. There are hundreds of these chemical messengers, but they come and go so fast, in such small quantities, that until about ten years ago, science didn't know they existed. They are weak, almost undetectable, very precise, very efficient, and they complete most of the major feedback loops that control the behavior of the body.

Now, is that a model for non-hegemonic education and communication?

Janos Hrabovzsky: I've been interested to see the general applicability of certain tools, while at the same time seeing the important variations in local culture. Even within the U.S. there are very different cultures, all the way from Alaskan natives to Congress. The toolbox has to have screwdrivers and saws, games and computers, maps and poems, songs and videos. And it has to respect not only Gaia, but the people. This has been the most people-oriented Balaton meeting I've attended. It has shown how we can operate gently, with love, really listening, really helping.

Alan AtKisson: I am struck by what has come out all week about the importance of fellow-feeling -- and about the strength of many weak ties. Water is held together by weak hydrogen bonds, which have a major effect on the macro-behavior of water. I'm also encouraged, as I always am, to have spent this week with scientists.

Science is the resource base upon which I draw; artistic people are fed by hard science.

I love, therefore I am.
-- Alan AtKisson

Kim DeRidder: I've gathered up all sorts of ideas this week -- and people -- as resources for my work. The margins of my notebook are spinning off into problem-solving, from starting an Asian regional program for environmental education to a cooling design for a house inspired by the Hungarian winecellar. This has been a rich, fertile environment for the subconscious, as well as for the conscious intellect. It's rare to find such a breadth of human experience, as well as science, and to see how it's all related -- and that, your process as well as your products -- is a key to effective education.

Carlos Quesada: The reason the "bus courses" work so well is that nature is the teacher -- nature and the human condition. All we do is create a rich experience, and an openness for questions -- for real questions, not the ones whose answers are at the back of the book.

Jodi: That's what the toolbox should do!

Janos: How do we get people to see more of nature, with open eyes and minds? How do we learn to see the indicators, of health and sickness, of sustainability and unsustainability? How do we learn to see through each others' eyes and visions?

Dennis: I'm interested in the concept of the receptor. "Who's the client?" is a question that has to precede "What's the tool?" -- which is why we're still unclear about the toolbox. Some receptors are there, ready and waiting, some can be induced and evolved. But we can't communicate where there's no receptor.

Diana Wright: I've come to see the teacher as a servant, not as an expert -- except, perhaps, as an expert learner.

Dana Meadows: (The following summary is written after a chance to reflect while doing the wonderful task of compiling this Bulletin.)

The week started for me with a discussion with **Joan Davis, John Peet,** and **Herbert Girardet** about what "culture" is. What we decided, or at least the way I'll use the word here, is that culture means the shared deep assumptions of a society (its paradigm) plus the way those assumptions physically become manifest, in language, in myths and traditions, in music and art and architecture, in science and technology and politics and economics. I was making the point in those discussions that the mass media, and particularly television, had become the dominant cultural instrument in the United States. Television both reflects and shapes the culture, bending it toward consumption, entertainment, and a suspension of critical thinking -- and I am worried about that.

Then I had a talk with **Genady Yagodin** about his problems in translating words like "overshoot" and "sustainability" into Russian. (They aren't commonly understood in English either.) Of course those words are hard, I thought. They aren't part of the culture. The Eskimos have hundreds of words for snow because their environment forces upon their culture a close study of snow, a strong awareness of snow, lots of thinking about snow. The industrial culture, in any language, finds words like "sink," "source," "throughput," "overshoot," and "sustainable" difficult, because the culture has been simply unaware of those concepts. The environment is only now forcing us to pay attention to them.

Let me give a small example of what I mean. There are now eight people living in Biosphere 2 -- a huge greenhouse in the Arizona desert, which contains a farm, a tropical forest, an ocean, a desert, a savannah -- all in miniature, of course. Their air, water, and food must all be constantly recycled, just as they recycle on Biosphere 1 -- the earth. For the first few months this little enclosed world wasn't in balance -- the Biospherians didn't have much to eat, and the carbon dioxide content of their atmosphere was rising alarmingly. They knew that only more photosynthesis would solve these problems. So their attention suddenly focused on a part of the environment they had never paid much attention to before. They invented a new concept and a new word -- "sunfall". They watched keenly every place where sunlight fell within their glass dome. If it didn't hit a leaf, they moved a plant to that spot. They

put plants on cliff faces and plants in the understory of the forest. Sunfall was their great resource; they couldn't tolerate "wasting sunfall." They began to speak of themselves as helpers of photosynthesis, gatherers of sunfall. Their new environment forced a change in mindset, language, culture, and behavior.

The most succinct model of social change I have ever heard was written by J. Mayone Stycos.

Phase One: No talk, no do.

Phase Two: Talk, no do.

Phase Three: Talk, do.

Phase Four: No talk, do.

Talking precedes doing. Language is at the base of culture, and new language, or changed language, can shift culture. We have to make up and repeat, over and over and over again, the new words of the sustainable culture. We have to use them, preferably, at the same time we give physical demonstrations of their meaning, until they become part of the culture. We don't have to define them. Very few people can define "democracy," or "justice," or "national security," or even "growth," but these words are enculturated. They are powerful stimulants of behavior.

So a critical part of our job is languaging. We have to say "sustainable" and all the words that go with it again and again. We have to challenge words of the old culture, like "growth," "progress," "making jobs." That's why Herman Daly's differentiation between "growth" (getting bigger) and "development" (getting better) is so powerful. It's the kind of basic distinction the Eskimos must have made when they first began to understand snow.

Some of us get very tired of doing this language work. But it's basic. It's essential. We should even do it, or maybe especially do it, on television.

Language isn't our only tool. As **Steve McFadden** said, what we need is a "complete cultural shift," and there are many tools of culture. Some of them are the data, computer models, games, and books we originally envisioned for our toolbox. Some are the poems and pictures **Anupam Saraph** has added. And the songs we sing. (I now understand why we've had a hard time finding traditional "sustainability songs." We don't come from

cultures that could write sustainability songs. It takes **Alan AtKisson**, and the rest of us, to do that!) And jokes, cartoons, handshakes, myths -- the full panoply of cultural expression. We need to encourage it all.

Finally, by the end of the week, I saw that the Balaton Group is doubly important in the work of developing a new sustainability culture. We not only try to think that culture through, analyze it, and teach it, but even more important, I think, we try to be it. We are ourselves a living, evolving example of the culture we want to create. In this group no one stops any more to define sustainability -- as **Bert de Vries** said long ago, sustainability is not to be defined, it's to be declared. And lived. We define sustainability when we bring energy-efficient bulbs for the resthouse. And when we recycle our plastic nametags (some of them must have seen service in 9 or 10 meetings by now). And when we work our way toward decision-making processes that are a strange combination of democracy and consensus. And especially when we automatically treat all members, old and new, with a special respect, which many of us would call love.

And just as a small example of "no talk, do" enculturation, I noticed at this meeting how many of us, without ever having discussed it, put quotation marks around the word "expert" whenever we wrote it on a slide or transparency.

There were plenty of expressions of frustration at the meeting, because we seem to accomplish so little with a two-minute TV spot, or an hour-long documentary, or a two-week workshop, or even a university course. What do you expect? I thought, early in the meeting. Teaching sustainability is like teaching chemistry -- you don't do it in a soundbite or a school term. Later in the week I realized it's like teaching chemistry, plus philosophy, economics, and ecology. Still later I realized it's like teaching someone to be a Dane or an American or a Thai or a Papua-New Guinean, and it's even more than that, because it's teaching not an existing culture, but one that is still coming into being.

It's an enormous job. But every soundbite and school term can establish a bit, a piece of the culture of sustainability -- or whatever sexy name we find for it. And so can every Balaton meeting.

Reports from Working Groups

After Rio -- The group decided to find out who is compiling the various materials from the Rio conference, some of which are excellent. If no one else is doing it, the group will take the best reports -- on energy, water, resources, etc. -- and condense the best recommendations for wider publicization.

The Toolbox -- The working group had a lively discussion on the objective, content, and process of the development of the Toolbox. The following conclusions were arrived at:

- The Toolbox has considerable potential and needs to be developed.
- **Anupam Saraph** and **Wouter Biesiot** will develop the specifications for the Toolbox.
- The development will occur in three phases: I. Competition of a beta-version by December, II. Dissemination of this version to Balaton members for testing and further development, III. Modification based on feedback, and expansion to integrate multimedia devices.

Team-Building Workshop -- There will be a first prototype workshop at the University of New Hampshire in October, and a second in Geneva in January or February. The goal is to have it up and running in New Hampshire, Moscow, Riga, the Regional Center in Budapest, and Schumacher College in England.

Asia Regional Group -- There will be a training workshop on resource systems in Thailand next July, for about 20 people, including existing Balaton members from Asia and the Pacific, and new ones.

Latin American Regional Group -- A proposal was completed for funding for a first meeting of a Latin American regional Balaton meeting, to be held in Costa Rica next July. The theme will be Sustainable Cities.

Energy Efficiency -- The group focused on efficiency education in Eastern Europe. They began planning a workshop or conference on the subject that will use local

expertise, and of course aim at multiplying that expertise.

Systems Zoo -- A group spent an afternoon going over the small systems teaching models developed by **Hartmut Bossel**, which he calls the "systems zoo." They played with some of the models translated into STELLA and talked about their use in the toolbox, and also in general teaching.

Social Change -- The group got into the question of models of social change, and of the role of models and the responsibilities of modelers. They planned a small conference or working group on the ethics of modeling, which would include actors who are trying to bring about social change.

Topics for the Next Meeting

We created either a great new step forward in the democracy of the Balaton Group or a lot of dissension (or both) by inviting working groups during the Annual Meeting to develop proposed themes and schedules for future meetings. Three groups came up with three possible topics: 1. sustainable settlements, 2. free trade, the environment, and equity, and 3. water resources.

All three proposals met with considerable enthusiasm from the members present; all three would make exciting meetings. Somehow the Steering Committee is going to have to make a choice in November -- at least about which of these topics to use next year.. You can help by sending reactions, comments, preferences, and ideas to Dennis, Dana, or any members of the Steering Committee (see below) before November 19. To help you envision the choices, here are the tentative schedules (all speakers purely theoretical at this point) worked out by the three groups.

Settlements in a Sustainable World

Start with a city tour in Budapest, showing some history (starting in the Roman ruins) and ecologically-relevant problems, innovations, and solutions in that city (organized by T. Fleischer and J. Szolecsky).

Where do cities really begin and end? Are cities cancers? Can they be made sustainable? Can their flowthrough metabolism become more circular and recycling? What do cities do to the psychology and sociology of people?

Day 1: Urban History, Trends, and Dynamics.

Possible speakers: J. Perlman - Mega-cities

C. Alexander - Pattern language

H. Girardet - Gaia, Eco-cities, and

History

J. Alcamo - City design and the global

environment

Day 2: Cities and Resources

Possible speakers: C. Quesada - Water resources

R. Wilkinson - Soft path possibilities

J. Todd - Wastewater systems

A. Lovins - Transportation alternatives

Day 3: Cities as Systems

Possible speakers: S. Bernstein - Chicago as a system

R. Register - The integrated urban area

Someone from MIT - Lessons from urban

dynamics

Demonstration of SimCity program

Day 4: Strategies for Sustainability

Possible speakers: G. Yagodin - Environmental education in cities

A. AtKisson - Sustainable Seattle

J. Ardoy -- Community Organizing

J. Lerner - Something about Brazilian

cities

Free Trade Versus Environment and Equity

With the many debates in the world, from North America to Europe to Asia, over opening national boundaries to trade, and with all the negotiations over fair trade policies for the developing world, this topic is one of the most urgent points of conflict between the economic and the ecological paradigms.

Day 1: Overview of Present Trade Agreements (GATT, NAFTA, EEC, ASEAN, etc.)

What are the general rules of the present "free trade"?

What are the arguments for the present agreements? What is the view of the developing countries? What are

present political obstacles to free trade? Possible speakers: Herman Daly, someone from GATT, a free trade game presented by Dennis Meadows.

Day 2: Pluses and Minuses of Free Trade

Traditional economic view (higher productivity, economic growth); environmental view (increased production and consumption, more difficult environmental controls, less pioneering in environmental protection); equity view (levels out wages, increases earnings and control of capital); democracy and national independence. Possible speakers: Teddy Goldsmith, Steen Hansen.

Day 3: Taxes and Tariffs for Justice and Sustainability
Source and sink taxes and regulatory principles (CFC-tax, oil tax, CO₂ tax, emission codes, efficiency codes, etc.); national environmental measures vs, free trade; case studies (re-use of bottles in Denmark, tuna and dolphins in Mexico). Possible speakers: von Weiszacker, David Phillip, Konrad von Moltke.

Day 4: Trade Agreements for Global Equity and Sustainability

Environmental agreements as minimum requirements only; national or regional rights to self-sufficiency in basic goods; trade preferences to developing countries. Possible speakers: Kevin Watkins, Martin Khor.

Water Resources; Water Systems

This discussion grew out of a BOB (back of bus) discussion on the way back from Balaton to Budapest. It is developed from the proposal prepared during the Balaton meeting by **Drew Jones, Joan Davis, Bert de Vries, Bob Wilkinson, Jodi de Greef, Lawrence Tjamei.**

Although water is inherently systemic in nature, our management of this resource reflects an approach marked by isolated tactics and an understanding only of linear dynamics. Looking at water and water management from a systems approach is a first step in changing policy in this field -- with consequences as well for other environmental policy areas.

Day 1: Global Water Systems (The Big Picture)
Possible speakers:

Balaton Bulletin Fall 1992

A "meta level" view of water systems, emphasizing global trends

Maren Falkenmark, Swedish Scientific Research Council
The interconnectedness of water

Joan Davis, Swiss Federal Water Research Institute
Overshoot and collapse in global water use

Bob Wilkinson, Central European University
Global climate change and water

Peter Gliock, Pacific Institute or Joe Alcamo, RIVM

Day 2: Past Policies and Conflict (Problems)

Possible speakers:

Water and war

Joyce Starr, Institute for Studies on International
Water Issues

The next U.S. civil war: cities vs. agriculture

Marc Riesner, author of *Cadillac Desert*

Water pricing policy: an invitation to waste

???

Big dams

Teddy Goldsmith, editor of *The Ecologist*

Day 3: Innovative Management Techniques (Solutions)

Possible speakers:

River policy reform

Bill Stapp, Global Rivers Environmental Education
Network

Water use in agriculture

???

End-use/least-cost water planning

Drew Jones, Rocky Mountain Institute Water Program

Developments in solar aquatics

John Todd, Center for the Restoration of Water

Day 4: Tales from the Trenches (Case Studies)

Possible speakers:

Cleaning up the Danube and the Black Sea

Jan Dogterom, International Center for Water Studies

Water efficiency workshops in Thailand

Chirapol Sintunawa, Mahidol University

Opposing the Three Gorges Dam in China

???

Steps to protecting water in Africa

???

Water in the Middle East

???

Other Water Ideas

Have a one-day presentation in Budapest on new technical/policy developments of special importance in Hungary.

Have a "water fair" for the public and local decision-makers in either Budapest or Balaton. Demonstrate new technologies, distribute information, show people how to test water quality -- and swim, windsurf, and have some kind of ritual to celebrate the beauty of the lake.

Other Balaton Business

The Balaton group elected to its six-member steering committee **Chirapol Sintunawa** and **Carlos Quesada** for terms that will expire in 1995, and **Zoltan Szirmai** to fill the remainder of the term of **Ginger Gyene**, who is somewhere deep in the middle of India and apparently not coming out for awhile. Other steering committee members and their terms of expiration are: **Joan Davis** and **Bert de Vries**, 1994; and **Aromar Revi**, 1993.

The Steering Committe will assemble the evening of November 19th at Joan Davis's house in Zurich, and meet through November 21st. All interested Balaton members, whether or not you are formal members of the Steering Committee, are invited. Please let Joan Davis know you are coming.

The Balaton Group's funding situation is as perilous as usual. With the help of many members who paid their own way to the Annual Meeting, including their expenses in Hungary, we were able to afford for that meeting, and we will be able to hold the Steering Committee meeting in November. Thanks to the Sant family, we have the base funds to keep operating next year, but further fundraising will be necessary. Any members who would like to help, or who have ideas for where proposals can be sent, please inform Dana Meadows.

"Europe Yes, Union No" -- the Story of Denmark's Rejection of the Maastricht Treaty -- by Niels Meyer

In June 1992 the 5 million people of Denmark voted "no" by 51% to the agreement that would have bound 340 million people together into a European political and

economic union. According to the Treaty of Maastricht, the refusal of any of the participating 12 nations is sufficient to inactivate the entire union. Therefore, legally, European unification is now stopped in its tracks.

Of course the tremendous momentum that is powering the drive for European union is by no means diffused. The story is far from over. In September the citizens of France will vote in their own referendum, with polls showing they may lean toward "no." "Now what?" is the big question before both the proponents and the opponents of the Maastricht Treaty.

The impertinent Danes, by creating this moment of confusion, have set up an obstacle to European unification, but they have also -- and this was their intent -- offered an opportunity. To understand that opportunity it is important to understand both the motives and the tactics of the citizens' movement in Denmark that engineered the historic "no" vote.

"Europe Yes, Union No" was their motto. They meant by that to favor breaking down the narrow nationalisms, the ethnic hostilities, and the clumsy restrictions that have divided Europe for centuries. But they also believe that the Maastricht Treaty doesn't accomplish that goal in the right way. They are not against European unification. They are saying, "Wait a minute. Let's think this whole thing through more carefully."

These are their objections to the Maastricht treaty:

- Lack of democracy. Future decisions in the proposed Union will be hammered out in Brussels behind closed doors by bureaucrats and politicians from just twelve countries -- by no means representing all the nations, peoples, values, interests, or viewpoints of Europe.
- Creation of a new superpower. The structure of a new Europe could be crafted in many ways, to serve many social goals. The primary goal of the makers of Maastricht was to make another superpower, an economic entity that could outcompete the U.S. and Japan. We need fewer superpowers in the world, thought the Danish

opponents, not more. What we really need is no superpowers.

- Increased militarization. The old NATO agreement does not allow European troops to be deployed outside NATO's borders. The Union created by Maastricht would allow Europe troops to patrol the world. We would rather work through the United Nations than be a world policeman, said the Danes.
- Wrong priorities. The number one purpose of the union is economic growth and promoting commercial interests. Other goals -- environmental protection, social welfare, equity, concern for the Third World, clearly rank as secondary priorities, afterthoughts, to be sacrificed, if necessary, for economic growth. We don't like that ranking of values, the Danish objectors said.

The naysayers believe that Maastricht is based on an obsolete model, inappropriate for the present and the future world. It moves Europe in the direction of centralized management, increased corporate power, reduced democracy, and environmental unsustainability. The formation of a new European cooperation is the chance of a lifetime, they say. Let's not waste the opportunity. Let's not put together another Europe that will only last a few decades before generating its own demise. EUROPE DESERVES SOMETHING BETTER their posters said.

They were, of course, up against a strong tide flowing the other direction. Nearly 80% of the members of the Danish Parliament had already declared their support for Maastricht. The prime minister pushed hard for it, as did industry, most labor unions, and all the large newspapers. Television and radio channels, under the influence of the government, gave far more voice to the "yes" spokespersons than to the "no." The "yes" forces had five times more money than the opponents had.

So how did "no" win? First with a strong grassroots base. Even before December 1991 when Maastricht was finalized, there was a movement in Denmark called the "Peoples' Movement Against the EC." But it had an image of negativism and somewhat of leftism. So something new

was created -- "Denmark '92," which attracted the entire range of "no" leaners, from the far left to the far right. "Denmark '92" quickly established more than 60 local groups, a central office with a paid staff of two, many volunteers, and two national spokespersons, an attractive woman political scientist in her forties and a physics professor in his 60s (Balaton members -- guess who?).

They knew they had to get out ahead of the wave of well-financed "yes" propaganda, so they did their homework fast. They saturated the nation with fair, sober, short, clear information before the newspaper ads and government spokespersons were ready. Brochures 4-8 pages long were prepared on all important aspects of the agreement -- how it would affect energy, employment, environment, security, democracy. Each brochure was printed in 100,000 copies, distributed by local groups, and placed in all libraries and schools. The "yes" proponents will threaten you, they said, with their usual arguments about how failure to join the union will destroy your job and the Danish economy. There is no basis to that argument. Here's the truth.

A stable of 100 speakers answered requests to attend meetings and debates. Thousands of discussions were organized all over the country. Citizens bombarded the newspapers with articles, opinion columns, and letters to the editor, so that, though the official statements and editorials of the papers favored the union, the total content of the papers was at least neutral, and maybe even was dominated by the reasoning behind voting "no."

One of the hardest questions the "no" contingent had to face in the progressive nation of Denmark -- and it was thrown at them constantly by the "yes" side -- was the famous "Margaret Thatcher" question. "How can you be on the same side as conservative Margaret Thatcher on the European union?" "Many of us strongly disagree with Margaret Thatcher on domestic social policies," was the response, "but this treaty is not about those policies. It is about basic principles. We want political freedom, both for her and for us, to fight for our social values. That freedom would not be possible under this proposed EC-Union."

The forces on the other side, as predicted, answered back late but powerfully. They did indeed forecast

economic collapse and drastic unemployment if "no" should prevail. Political and industrial leaders spoke out. Big advertisements were placed in all national newspapers in the two weeks before the vote. The government influenced the content of TV and radio discussion by staging "debates" that were dominated by "yes" forces. The government spent \$5.5 million on its information campaign, against a total budget of \$240,000 gathered together by "Denmark '92."

Perhaps the worst mistake the government made was to print 500,000 copies of the actual Maastricht treaty and make it available to everyone. It is a typically unreadable, long, diplomatic document, but the Danes, stirred up by the grassroots movement, actually read it -- and they found in it the clauses that traded away their rights of self-determination. Economic policy should aim at stabilized prices, not fighting unemployment. On environmental questions the union should speak with one voice -- the Danes were afraid their forward-looking environmental policies would be lost. The union was called upon to "harmonize" social policies -- the Danes saw the possibility that their principle of common welfare for all would be replaced by privatization of social services, covering only those in the labor market, not everybody.

The vote was close, but to the great surprise of the politicians, it was "no." That night there was a happy street party all over Copenhagen. Formally the Maastricht treaty is now dead. The leaders of the EC, including the Danish leaders, proceed, however, as if nothing had happened -- and this may trigger a constitutional crisis in Denmark. The "Denmark '92" movement has closed itself down, but a new "June Movement" has been created, which has three goals:

- to pressure the Danish leadership into implementing the "no" vote (and not whispering around in Brussels that it will soon be overturned);
- to create an international network that will translate the Danish grassroots materials into other European languages (before the French referendum);

- to prepare an alternative White Paper to lay out a positive vision, a new model for European cooperation, one based above all on democracy, and on real social and environmental welfare. That positive visions will include the union setting minimum environmental standards for all, not maximum -- so that any nation can set them higher. It will work to increase democracy and to include the voices of all people, not to set up a rich persons' club.

The small country of Denmark is not used to being visible on the world map. The "no" vote to European union, followed closely by a surprise championship in the soccer World Cup are making for a unaccustomed heady feeling on the part of Danes -- that small countries can have big impacts -- even that small groups of organized people within countries can have big impacts.

The successful participants in the EC-union referendum draw the following conclusions from their effort:

- Money and power can be defeated by a democratic campaign -- but it takes hard work!
- The campaign has to be effective at all levels, most importantly at the grassroots level,
- Competent and credible people are needed out front as spokespersons.

It is an old principle of political life that it's easier to stop something than to make something happen. The next challenge before the Danes -- and the world -- is to work out a model for international cooperation that supports all human values -- social welfare values, environmental values, democratic values, as well as economic values.

**Global Learning for Sustainability, with Peoples' Wisdom
-- by John and Katherine Peet**

The role of an education service as I see it is to reflect rather than to lead society, in that its major task is to prepare its citizens to take their

place in it. Thus an education service, if it is to avoid being disruptive, can only be innovatory in so far as it sensibly anticipates obvious and uncontroversial trends in social attitudes.

-- Margaret Thatcher

"Lifelong education" could result in the reinforcement of the established order, increased productivity, and subordination; but a different option could enable us to become more and more committed to the struggle against those who oppress [hu]mankind in work and in leisure, in social and emotional life.

-- Gelpi

These two quotes may be described as examples of the "consensus" paradigm and the "conflict" paradigm, respectively. They differ fundamentally in their views of the structure of society and in their notions of inequality.

To the consensus paradigm, social inequality is an unconsciously evolved device by which societies ensure that the most important positions are filled by the most qualified persons. According to its adherents, inequality is not only inevitable, but necessary and beneficial to us all.

The conflict paradigm sees inequality as a direct result of the struggle for power, privileges, and scarce goods and services. Conflict theorists emphasize competing interests, elements of domination, exploitation, and coercion. The dominant ideas in any society are those of the ruling class.

These two paradigms present obviously different views on the function of education. Going somewhat further, Antonio Gramsci suggests that the relationship between education and social change requires an understanding of **hegemony**.

According to Kjell Rubenson:

The notion of hegemony refers to the way one social class exercises political, cultural, or economic influence over other classes.... It is the establishment of a moral or cultural influence, rather than physical coercion or

political power, that is the basis of [the] concept of hegemony. Social control occurs through wide-ranging consent to and acquiescence in the culture and ideas of the dominant hegemony. Debate in the sociology of education around the notion of counter-hegemony is mainly concerned with how teachers within the formal educational system can create ... liberatory strategies.

In our opinion educators -- including virtually all of us in the Balaton Group -- have to make a choice right at the start of our work. Are we to be a force for maintaining present structures, or for changing them? There is no such thing as neutral provision of education -- all education is value-laden, even scientific information about the environment.

Our belief is that, whether in societies of the North or the South, of the Right or the Left, a climate for sustainable development is more likely to be successful via appropriate **counter-hegemonic** adult education. If we reinforce those processes already in place that are dedicated to maintaining the social, political, and economic status quo (as with Margaret Thatcher, above), we see a virtual guarantee of unsustainability for the foreseeable future.

George Bernard Shaw put the dilemma that faces us in these terms:

The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. All progress depends on the unreasonable man. [and woman of course!]

And Ivan Illich says "True adult education is more dangerous than training guerillas"

According to Francisco Vio Grossi, non-governmental organizations are a response to political-economic hegemony, especially in developing countries:

The State has abandoned its responsibility for and role in social development. It has maintained its function as guarantor of the social order through oppression, thus creating a climate in which hegemonic economic groups can maximize their profits. This policy has created a vacuum, and hence a space in which [NGOs] have been

created to support oppressed groups in their search for the fulfillment of their basic human needs.

Says Grossi, these NGOs, by the very nature of their counter-hegemonic purpose, must operate through participation and popular organization:

The imposition of ideas and paternalistic attitudes must be set aside. Decision making within the project, and, ultimately, its evaluation, must involve the active participation of all concerned.

That brings us back to the two models of education with which we started. The distinction between them goes back at least two thousand years. One is based on **learning as experience**. The other is **structured knowledge**, as transmitted by lectures and textbooks. Illich calls them **personal knowledge**, as opposed to **official knowledge**.

The Brazilian adult educator Paulo Freire distinguishes between the two models by using the image of the traditional "banking" approach to education -- in which participants are treated as empty vessels that must be filled with information. The underlying implication is that students are "uneducated" and in need of knowledge that can only come from teachers or experts. Also described as the "hole in the head" method (you open a hole in the learner's head and pour in the knowledge), this approach often results in creation of dependency and powerlessness on the part of the learner. As the quotation from Margaret Thatcher indicates, it is also the method generally encouraged by those in power.

Freire's method, in contrast, encourages participants to see themselves as founts of information and knowledge about the world. They can develop strategies together to change their immediate situations. This form of education can be seen as **education for change**, whereas the "banking approach" is **education for adaptation**. Rubenson points out:

Educational activities organized through a social movement are the most distinct examples of counterhegemonic activities that can be found.... Freire denies the possibility of individual self-empowerment. If the sense of freedom is not social, then the only

thing being exercised is an individualistic attitude toward empowerment or freedom. The emphasis on self-education in the American educational context is a reflection of the deep roots of individualism, the utopian devotion to "making it on your own."

In summary, when analyzing adult education and social change, it is important (1) to focus on the extent to which adult education is directed toward either the collective or the individual, (2) to realize that organized adult education, as well as self-education, can be of a collective or individual nature, and (3) to question the extent to which the educational activities are connected to a broader social and political struggle."

Because of the centrality of its social context, any adult education program has to be specific to time and place. There is no single model that is demonstrably valid outside a hegemonic context. Regrettably (with often the best of intentions) models coming from the industrialized North tend to be implicitly hegemonic, even if not explicitly so.

In the context of sustainable development, we see the most valid form of education about the environment to be that which comes from and is directed toward the grass-roots. We question the "expert-based" model, widely used in developed countries and often encouraged in developing countries, involving what Sissons and Law refer to as the "parachuted expert, dropping silently down upon an unsuspecting community." This is not in any way to suggest we do not value experts; we are experts ourselves! But we appeal to experts to see themselves as part of a process in which their expertise contributes to the strengthening of people's wisdom.

The adult educator Rajesh Tandon, in an examination of challenges for adult education in Asia and the South Pacific, comments that:

The global capitalist economic order and a welfarist and charitable response to the problems of poverty and the poor are resulting in individual and privatised perspectives of well-being, quality of life, standard of living, etc. The philosophical and political concept of ensuring "common good" has disappeared both from the

debates on social transformation and from the planning of strategies in national and multi-lateral decision making structures.

What, then, is the role of adult education in the face of such challenges? In my view the most important contribution of adult education ... is to continue to address the concerns and problems, and the hopes and aspirations of the poor themselves. Adult educators ... must ensure that our vision, our aspirations, our capacities, our institutions continue to remain responsive to and linked to the struggles of the poor and not get co-opted into a technical profession preparing white and blue collar workers of the future economic order.

The second role for adult education ... is to create a climate of tolerance and mutual appreciation. Respecting the differences in religion, caste, culture, language, perspectives, gender is perhaps a major requirement of individual and collective human functioning....

A third contribution of adult education ... is to strengthen the possibility of a sustainable life style. The problems of environment, degradation of natural resources, pollution, destruction of a natural, balanced, regenerative habitat are essentially problems of life style. Unless we -- as individuals, families, communities, and nations -- come to terms with the question of a sustainable life style consistent with our natural ecology, the problems of environment and pollution will not go away....

And finally adult education can help in regaining a sense of indigenous cultural identity.... The most devastating consequence of a uni-polar world is the homogenization of cultures. The socio-diversity inherent in the diverse and varied cultural mix of our region is being slowly but surely eroded and destroyed.... Our own people, children and youth, poor and rich, rural and urban, are beginning to discard our cultural heritage in the race to become "modern,"

The challenge for us adult educators ... is to shape our practice to become relevant to our people.

Many people already know the essential needs of sustainability. Here is an example of what the indigenous peoples of Aotearoa-New Zealand produced as a contribution to the New Zealand government's UNCED process in 1991:

As the collective voice of the Maori tribes of New Zealand and respecting the separate sovereignty of each, we in Congress and in the international community of indigenous people affirm:

- 1. That environmental management shall be based on respect for the spiritual integrity of the environment as the literal embodiment of our ancestral beginnings and our eventual rest.*
- 2. That we treat the environment as a living system of which we are part and which we must respect as we would the personality of another.*
- 3. That we have an inter-generational responsibility for the environment that we hold in trust. It came to us from our ancestors and we must pass it on to our children at least in no worse condition from that in which we received it, and we must do everything that we can to improve the quality of their heritage.*
- 4. That under the principle of personal sufficiency each of us is entitled to take what we need of the resources that our world provides, but to care for their sustainability and for the needs of others.*
- 5. That the principle of collective ownership also allocates resource use, but controls it through central leadership responsible to the people.*
- 6. That there is a principle of equitable use under which there may well be inequalities of resource allocation, just as the individual pursuit of personal excellence recognizes inequality within a framework of social equity.*
- 7. That the intrinsic value of traditional knowledge derives from the scientific tradition of our ancestors, who through observation and use over centuries developed our tribal wisdom, which is the most pragmatic and practical.*

8. That our future will depend upon the quality of partnership which we will be able to achieve as we draw into our traditional cultural framework all the wealth of knowledge from every source that we can tap.

9. That we are patient people, but we become impatient when problems that confront us cannot be dealt with immediately. Our ancestors taught us not to tolerate the intolerable. Therefore our style of conflict resolution is cultural and combines confrontation, negotiation, and reconciliation as elements of action. These same principles apply to remedies for current environmental ills. We want direct action.

10. That in being good survivors, we have learned to apply anti-waste ethics to all things -- to our own energies, to energy itself, to the talents of our people, to the resources of the world around us. Even that which others call waste cannot be wasted.

11. That there is an ecological principle of holism, which was not invented by human thought or discovered by science. It was there from the beginning in our legends of the origins of all things, including the ethics of relationship between people, their gods, and their world.

This statement, and related ones from other countries, shows that indigenous peoples have ideals that are entirely consistent with modern scientific understanding. At present the Maori have no political power to put their ideals into action. To us, then, the big questions must be: How do we remove the roadblocks that the developed nations have put in place to ensure that they remain in control of the world's resources?

Sissons and Law point out that:

In the prevailing social atmosphere, even debating a meaningful social change strategy must involve risk. Rejecting the adaptive framework and applying these principles is even more dangerous. It means changing sides.

We Balaton people are already swimming against a powerful tide of hegemony. We are part of the worldwide counter-hegemonic struggle. Perhaps we need to be clearer about some of the key tasks we are involved in,

so we do not dilute our efforts by addressing issues of lesser importance.

Are there some clues for us in the Maori list of affirmations about the hegemonic processes at work in the world? What does this list mean for a program of action? What does it say about the key elements of an adult education program that could achieve these ideals not only for the Maori, but for us as well?

Expectations and Realities About the Sustainable Development of Central European Countries -- by Tamas Fleischer

1. Expectation: Since in Central Europe under the old regimes many people engaged themselves in the defense of the environment, there was a belief that in these countries many people think in a modern, environmentally conscious way.

Reality: The environmental movement was so important in Central Europe only because it was the only quasi-legitimate way for people to express their dissent toward the system. The moment a real opportunity arose for official political parties to develop, the people who had united around environmental protest dispersed into different parties.

2. Expectation: Former activists of environmental movements who now have important roles in the new parties can make these parties "green" -- and thus make government policy "green."

Reality: The new parties need their own profiles; therefore they search for goals and characteristics that will differentiate them from the others. Environmental protection is inappropriate for this purpose, since at the level of slogans everyone is for it. Political interest focuses on questions leading to confrontation; therefore environmental discussions remain marginal.

3. Expectation: Many international environmental problems of formerly socialist countries were totally suppressed; they were politically taboo. These include international waterways, air contamination, nuclear power plants located near borders, and contamination at sites of

former Soviet barracks. There was an assumption that mass publicity about such affairs would finally enhance thinking about their solutions.

Reality: As the countries of the former Soviet bloc and the nationalities within those countries work out their new relationships, different kinds of nationalism have been reinforced. Environmental issues that cross borders are now acquiring greater or smaller weight depending on how they can be used as arguments in new cross-national and ethnic disputes.

4. Expectation: There was a belief that, after the Western pattern, the desire for a better quality of life would push public attention to the environment.

Reality: This tendency has been overwhelmed by the opposite tendency, to focus entirely on material improvements. For the poor the difficulties in everyday life do not let their demands for quality of life unfold. For the rich the new entrepreneurship requires all their attention for financial maneuvering.

5. Expectation: Greater freedom of information gave rise to the hope that by learning the real situation, people would demand greater care toward the environment.

Reality: Just because of the greater information flow, loud political and commercial information floods out facts about the environment. To hear environmental information one needs a previous consciousness toward the environment.

6. Expectation: A leftist hope was that the lack of market experience in the Central European countries would steer them to avoid the disadvantages and traps of capitalism. It was believed that there was a chance to create a workshop for new solutions of the common economic problems of industrial society.

Reality: In the Eastern bloc people have lived through 40-70 years of an experimental society. It is not popular to suggest another experiment, especially now that Central Europeans can compare their domestic level of material living with those of developed countries. The argument is understandable: first we would like to achieve the level of the developed West and then begin with new experiments.

7. Expectation: Logically we can see that the whole world (India, China, etc.) cannot follow the Western consumption model. But there is an illusion that at least the *European* countries, or at least the "*three*" (Poland, Czechoslovakia, Hungary), or at least we *alone* can jump into the club of the high-consumption countries. The only things that have kept us from already doing so were the presence of the Soviet army, the one-party system, and the planned economy.

Reality: As these three conditions have collapsed one by one, we have had to realize that their absence is not enough to ensure Western development. A structurally embedded way of thinking, not to mention outmoded structures of physical capital, remains. There has been an even bigger surprise: there appeared suddenly patterns, visions, and habits of a more remote feudal past, which threatens to bring us even farther from what we call Europe, not closer.

Statement on Sustainable Development by the National Academy and the Royal Society

(The following is the complete text of a statement issued just before UNCED by the Royal Society of London and the U.S. National Academy of Sciences. Its title is "Population Growth, Resource Consumption, and a Sustainable World." The emphases are ours, but the words come from the most senior and respected scientists of the U.S. and U.K. This is good material to quote when it is said that the ideas of environmental threat or sustainable development are "unscientific" or "unsubstantiated.")

World Population. In its 1991 report on world population, the United Nations Population Fund (UNFPA) states that *population growth is even faster than forecast* in its report of 1984. Assuming nevertheless that there will in the future be substantial and sustained falls in fertility rates, the global population is expected in the UN's mid-range projection to rise from 5.4 billion in 1991 to 10 billion in 2050. This rapid rise may be unavoidable; considerably larger rises must be expected if fertility rates do not stabilize at the replacement level of about 2.1 children per woman. At present, about 95 percent of this growth is in the less

developed countries (LDCs); the percentage of global population that live in the LDCs is projected to increase from 77 percent in 1990 to 84 percent in 2020.

The Environment. Although there is a relationship between population, economic activity and the environment, it is not simple. Most of the environmental changes during the twentieth century have been a product of the efforts of human to secure improved standards of food, clothing, shelter, comfort, and recreation. *Both developed and developing countries have contributed to environmental degradation.* Developed countries, with 85 percent of the world's gross national product and 23 percent of its population, account for the majority of mineral and fossil-fuel consumption. One issue alone, the increases in atmospheric carbon dioxide, has the potential for altering global climate with significant consequences for all countries. The prosperity and technology of the developed countries, however, give them the greater possibilities and the greater responsibility for addressing environmental problems.

In the developing countries the resource consumption per capita is lower, but the rapidly growing population and the pressure to develop their economies are leading to substantial and increasing damage to the local environment. This damage comes by direct pollution from energy use and other industrial activities, as well as by activities such as clearing forests and inappropriate agricultural practices.

The Reality of the Problem. Scientific and technological innovations, such as in agriculture, have been able to overcome many pessimistic predictions about resource constraints affecting human welfare. Nevertheless, the present patterns of human activity accentuated by population growth should make even those most optimistic about future scientific progress pause and reconsider the wisdom of ignoring these threats to our planet. *Unrestrained resource consumption for energy production and other uses, especially if the developing world strives to achieve living standards based on the same levels of consumption as the developed world, could lead to catastrophic outcomes for the global environment.*

Some of the environmental changes may produce irreversible damage to the earth's capacity to sustain life. Many species have already disappeared, and many

more are destined to do so. Man's own prospects for achieving satisfactory living standards are threatened by environmental deterioration, especially in the poorest countries where economic activities are most heavily dependent upon the quality of natural resources.

If they are forced to deal with their environmental and resource problems alone, the LDCs face overwhelming challenges. They generate only 15 percent of the world's GNP, and have a net cash outflow of tens of billions of dollars per year. Over 1 billion people live in absolute poverty, and 600 million on the margin of starvation. And the LDCs have only 6-7 percent of the world's active scientists and engineers, a situation that makes it very difficult for them to participate fully in global or regional schemes to manage their own environment.

In places where resources are administered effectively, population growth does not inevitably imply deterioration in the quality of the environment. Nevertheless, *each additional human being requires natural resources for sustenance, each produces by-products that become part of the ecosystem, and each pursues economic and other activities that affect the natural world.* While the impact of population growth varies from place to place and from one environmental domain to another, the overall pace of environmental changes has unquestionably been accelerated by the recent expansion of the human population.

International Action. *There is an urgent need to address economic activity, population growth, and environmental protection as interrelated issues.* The forthcoming UN Conference on Environment and Development, to be held in Brazil, should consider human activities and population growth, in both the developing and developed worlds, as crucial components, affecting the sustainability of human society. Effective family planning, combined with continued economic and social development in the LDCs, will help stabilize fertility rates at lower levels and reduce stresses to the global environment. At the same time, greater attention in the developed countries to conservation, recycling, substitution, and efficient use of energy, and a concerted program to start mitigating further buildup of greenhouse gases will help to ease the threat to the global environment.

Unlike many other steps that could be taken to reduce the rate of environmental changes, reductions in rates of population growth can be accomplished through voluntary measures. Surveys in the developing world repeatedly reveal large amounts of unwanted childbearing. By providing people with the means to control their own fertility, family planning programs have major possibilities to reduce rates of population growth and hence to arrest environmental degradation. Also, *unlike many other potential interventions that are typically specific to a particular problem, a reduction in the rate of population growth would affect many dimensions of environmental changes. Its importance is easily underestimated if attention is focused on one problem at a time.*

The Contribution of Science. What are the relevant topics to which scientific research can make mitigating contributions? These include: development of new generations of safe, easy to use, and effective contraceptive agents and devices; development of environmentally benign alternative energy sources; improvements in agricultural production and food processing; further research in plant and animal genetic varieties; further research in biotechnology relating to plants, animals, and preservation of the environment; improvements in public health, especially through development of effective drugs and vaccines for malaria, hepatitis, AIDS, and other infectious diseases causing immense human burdens. Also needed is research on topics such as: improved land-use practices to prevent ecological degradation, loss of topsoil, and desertification of grasslands, better institutional measures to protect watersheds and groundwater; new technologies for waste disposal, environmental remediation, and pollution control, new materials that reduce pollution and the use of hazardous substances during their life cycle; and more effective regulatory tools that use market forces to protect the environment.

Greater attention also needs to be given to understanding the nature and dimension of the world's biodiversity. Although we depend directly on biodiversity for sustainable productivity, we cannot even estimate the numbers of species of organisms -- plants, animals, fungi, and microorganisms -- to an order of magnitude. We do know, however, that the current rate of

reduction in biodiversity is unparalleled over the past 65 million years. *The loss of biodiversity is one of the fastest moving aspects of global change, is irreversible, and has serious consequences for the human prospect in the future.*

What are the limits of scientific contributions to the solution of resource and environmental problems? Scientific research and technological innovation can undoubtedly mitigate these stresses and facilitate a less destructive adaptation of a growing population to its environment. *Yet, it is not prudent to rely on science and technology alone to solve problems created by rapid population growth, wasteful resource consumption, and harmful human practices.*

Conclusions. The application of science and technology to global problems is a key component of providing a decent standard of living for a majority of the human race. Science and technology have an especially important role to play in developing countries in helping them to manage their resources effectively and to participate fully in world wide initiatives for common benefit. Capabilities in science and technology must be strengthened in LDCs as a matter of urgency through joint initiatives from the developed and developing world. But science and technology alone are not enough. Global policies are urgently needed to promote more rapid economic development throughout the world, more environmentally benign patterns of human activity, and a more rapid stabilization of world population.

The future of our planet is in the balance. Sustainable development can be achieved, but only if irreversible degradation of the environment can be halted in time. The next 30 years may be crucial.

Announcements

Papers from Steve Viederman

Steve Viederman has written several papers recently on sustainable development. He would love to have comments from Balaton members, but is a little too shy and reluctant to waste paper to mail them out to everybody. So, if you would like copies of any of the

following papers, please let Steve know and he will send them to you. (Steve Viederman, Jessie Smith Noyes Foundation, 16 E. 34th Street, New York NY 10016. Telephone 212-684-6577)

"A Sustainable Society: What Is It? How Do We Get There?"

"Public Policy: Challenge to Ecological Economics"

"What is Sustainable? What is Development?"

"It's Broke: A Commentary on Neo-Classical Economics

* * *

Courses from Ocean Arks International

The Center for the Restoration of Waters and Ocean Arks International announce two intensive courses of interest to Balaton members. Further information for both is available from Ocean Arks International, 1 Locust Street, Falmouth MA 02540. Telephone 508-540-6801.

Ecological Aquaculture November 12-16 At the Center's office in Falmouth, Massachusetts. Cost \$695.

Faculty includes John Todd, William McLarney, Ron Zweig, Paul Mankiewicz.

The course will emphasize low-cost, small-scale, ecological, hands-on approaches to the culture of aquatic foods. Attendees will visit a small commercial aquafarm, a household-scale facility, and a small research facility, all based on solar and ecological engineering. Topics include fish culture, hydroponic vegetable production, solar greenhouses, the culture of exotics, the role of bacteria, and integrated schemes for aquaculture, agriculture, and animal husbandry.

Ecological Design Arts January 5-22 At Mt. Lake resort, Mt, Lake, Virginia. Cost \$795, which includes room and board.

Faculty includes John Todd, David Orr, Paul and Julie Mankiewicz, J. Baldwin.

Topics include: living machines to treat wastes, grow food, produce fuels, and regulate climates, lake

restoration, retrofitting a mountain resort for sustainability, integrated pest management, bacterial remediation, an overview of the ecology and economics of southwest Virginia.

* * *

Activities of the Regional Environmental Center in Budapest

(Forwarded to us by Milan Caha, the Center's Associate Program Manager for Education and Training.)

The Regional Environmental Center (REC) for Central and Eastern Europe is an independent, non-governmental, not-for-profit organization established in 1990. Its target region is defined as Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and former Yugoslavia. We also partially cooperate with the Baltic states and Albania.

The Center's mission is to promote sustainable development and increase environmental awareness in the region. Primarily we support the activity of regional grassroots non-government organizations. Our priorities are: environmental health, pollution prevention, energy efficiency, environmental education and training.

The REC serves its constituents in the following areas:

- grants, usually for NGOs from the region; this is the most important part of our operation,
- information resources,
- institutional development of NGOs
- clearinghouse,
- education and training.

REC has recently opened small outreach offices in Warsaw, Bratislava, Bucharest, and Sofia. These one-person offices should improve dialogs with NGOs, help with proposal development, and operate as a base for clearinghouse and information services.

The general strategy of REC's education programs is to promote diversity in educational methods and approaches, and to communicate and cooperate in the field of environmental education. REC believes that

information flow and sharing of experience on all educational levels is a basic condition of improvement. We encourage cooperation among teachers, NGOs, and local authorities as a step to self-sustaining development of environmental education.

We have given grants, for example, for seminars on environmental education, for Reptile and Amphibian Days in Hungary, for teacher training, for the development of simulation games, for extending Global Releaf into Eastern Europe, for a Polish environmental video library, and for a Hungarian exhibit on the urban environment. We have a limited collection of educational materials, which we offer to our constituency. It includes not only publications, but videocassettes and educational software. We are actively searching for projects we can support and disseminate for in-school and out-of-school education, especially projects that use holistic approaches, activity orientation, the use of arts and drama, and other innovative approaches.

News from the Members

Home from his first Balaton meeting, **Alan AtKisson** writes: It was a tremendously nurturing and affirming and even transformative experience to be with the group, and the ripple effects from being there, from having so many conversations with so many wonderful people with the same passion and commitment, have already affected me in countless ways. Are my batteries recharged? Well, just don't plug me into the power grid, because I'd probably overload the circuitry!

Prague and the speech to the Institute for Cultural Affairs conference also went extremely well. If there's one message that seemed to come through loud and clear at both locales, it was MUSIC! So I'm pressing ahead quickly with making a tape. I'm also working on another new song, inspired by **Joan Davis** and **Drew Jones** and the the "water" gang. It will be about water, arranged purposely for translation into other languages.

What I feel most excited about is our "back of the bus" conversation. **Aro** asked me if I was "damn serious" about developing a "sustainability and culture/media" project, and the short answer is *absolutely yes*. I'm also damn serious about getting my music out there. For

a whole host of reasons, and from feedback, both inner and outer, that combination of things feels like the right direction -- bringing together my intellectual, activist, and artistic sides into a more integrated whole, with a clear focus on sustainability and transformational change.

I've just decided to accept a part-time job working for the state of Washington as a trainer in cultural diversity issues (as part of a traveling four-person multi-cultural team), through at least June '93. It will get me out and working with many kinds of people, learning new things, as opposed to sitting behind a computer all day. I see it as a transitional step that will support my other activities until they support themselves.

* * *

Gerardo Budowski writes of his experience of Rio: More than 400,000 participants from over 11,000 institutions from 172 countries converged on the various fora (not to mention the official government UNCED, which I attended.) It was exciting, but also frustrating, tiring, and often moving at a very slow pace. The speeches in the Plenary were often outstanding, but the negotiations were at a very low level. These were the same people who go from one meeting to another, and their instructions and interventions made it clear that they did not care too much as to the fate of Planet Earth -- rather, "what can I pull out for the benefit of my country." I will write more about it later. Meanwhile, we are busy here installing the Planet Earth Council, of which I will also write in the future.

* * *

Ulrich Loening sent a FAX to the Balaton meeting, as follows:

After looking forward to coming, both to the Balaton Group and to the Central European University conference, I had to take the difficult decision to cancel. The reason is the usual one that we all suffer from -- TOO MUCH HAPPENING AT ONCE. Having to visit Sweden just now finally stopped me coming to Balaton.

This is what we have been up to:

- We have been developing an international PhD in Ecological Economics, initiated in Chile by the Centre for Development Alternatives (Manfred Max-Neef), and with the Universities of Concepcion, Brasilia, Göteborg, Sevilla, and us in Edinburgh.
- After one year of our MSc course partnered with an existing MSc on Resource Management, we now run our own MSc. Applications are coming in from all over, and this year's course is virtually full.
- The European Summit takes place in Edinburgh on December 11th. Of course we are co-organizing The Other European Summit (TOES) with the New Economics Foundation in London. DO COME for a week of seminars and workshops. Send to me for details.
- This year we complete 20 years of our series of public lectures on ecology and the state of the planet.

After UNCED there is an ever greater need for clarity of understanding. Have you ever noticed that the degree of "development" of industrial civilization is inversely related to the quality of the strawberry jam? With so much happening in public and university education, we here all look forward to hearing about your discussions. ALL BEST WISHES.

* * *

Beyond the Limits by **Dana and Dennis Meadows** and **Jørgen Randers** has now been, or is about to be, translated into the following languages: English, German, Dutch, Norwegian, Danish, Finnish, Italian, Spanish, Portuguese, Russian, Latvian, Japanese, Korean, Chinese. **Aromar Revi** is thinking of getting it translated (perhaps in slightly altered form) into Hindi and other Indian languages. If you'd like information about the publishers in these languages, or about helping with translations into other languages, please contact Dennis.

Dana Meadows will be spending the period from mid-October to late December working with **Hartmut Bossel** at the University of Kassel in Germany. She will be helping

Hartmut translate his new book on modeling, which contains his "systems zoo," into English and working on a short book introducing systems thinking to the general public.

* * *

From the European Bank for Reconstruction and Development in London came a FAX from **Miklos Persanyi**: I have tried to move all stones in order to participate at the Annual Meeting, but I could not succeed. I am working heavily on a very interesting project on public participation in investment decision-making related to the environment in Central and Eastern Europe. Just the week of the Balaton meeting we will be in a crucial stage in which I am needed in London. I'll try to visit the conference on environmental education the following week, and I hope I can meet some members of the group there.

* * *

Malcolm Slessor wrote last June: It has been a busy year for Jane and me since we returned from the last Balaton meeting. Along with Ulrich, who is giving lectures on the moral aspects of human ecology, Jane and I gave a nine-week course on management of sustainable development to a new Masters course that has been started in Edinburgh.

During the year we have completed the world model study for the Cite de la Science a l'Industrie in Paris, which is a sort of space-age museum. This model, now on show, allows the visitor to the museum to explore his or her predilections about the future and see what they come to. Anyone, when in Paris, might find it interesting to go there. It is part of the exhibit called "Ecology, Climatology, and Environment."

Jane and I are just back from a wonderful experience of three weeks ski touring in northeast Greenland at latitude 72. With four other companions we made a journey into the Staunings Alps region just south of Kingoskas Fiord, where we camped and climbed among the mountains. Far from suffering from cold, one of our biggest problems was heat, because though the temperature was about minus 15 centigrade, the air is so dry and there is so little wind that you feel perfectly warm without a jersey on and without gloves. It was a

delightful experience and we saw our fair share of wildlife in the form of arctic fox, musquats, arctic hares, snow buntings, pink-feet, and geese, not to mention the wonderful, still solitude of the arctic. We even managed to climb a virgin peak.

* * *

Bob Wilkinson reports on the conference on environmental education, organized by the Central European University. It was held just after the Balaton meeting (on the other side of Lake Balaton) and attended by several of our members:

We had between 90 and 100 participants, ranging from senior professors and members of parliaments and ministries to graduate students. Twenty-two countries were represented.

Jim Hornig's keynote speech was outstanding. His experience and seasoned enthusiasm were precisely the right chemistry to get things organized. The event provided those of us from the West with an interesting mirror to reflect on the evolution of environmental studies programs in the US and the similarities and differences in Central Europe.

We managed to formally create a new organization -- the Association for University Environmental Education in Central and Eastern Europe (a bit long, but the genuine product of the group). Lots of ambitious plans and ideas were floated. Having organized the meeting, I was pushed rather hard to chair the new organization. I declined, noting it needed to be a Central European. After some serious haggling, I agreed to assist in the first year as co-chair if the other party were Central European and a woman. We then reached agreement and a wonderful professor from Poland, Anna Kalinowska, agreed to co-chair the organization. The next annual meeting will be held in Latvia in May -- moving to a spring cycle of meetings.

We brought along the CEU environmental studies library (a collection of the best textbooks and sourcebooks on the environment) and set it up for the duration along with a copying machine. The response was incredible. We are now planning to seek funding for 18 copies of this mini-library of focused resources on

environment and sustainability for each country of Central Europe.

Also featured were FISHBANKS and STRATAGEM, run by **Valdis Bisters**. No surprise, they were big hits and everyone wants copies.

It is really amazing what can happen when a few good resources (like Jim, the books, and games) are made available to the right people. I am quite optimistic that this group, along with others who were unable to attend this first meeting, can fundamentally influence the course of higher education in Central Europe at this critical time.

The group headed off today with lots of enthusiasm and energy, even after a rousing evening of native song-singing, dancing traditional dances, and (I'm told) swimming in the lake until 4 AM. I missed the latter.

Quotes, Songs, Jokes

The Wall Street Journal on Free Trade

It is crucial that the world's leaders get the trade issue right at this point in the world's economic history.... Once again we're offered a false choice between hygienic poverty and toxic growth, unless free trade is made less free with all manner of environmental regulations, [but] it's precisely economic freedom, including the freedom to trade and invest across borders, that makes people rich enough to pay for clean air and water.

-- Wall Street Journal, July 29, 1992

Huxley on Political Unity

Since power is of its very essence indefinitely expansive, it cannot be checked except by colliding with another power. Hence, any society that values liberty, in the sense of government by law rather than by class interest or personal decrees, must see to it that the power of its rulers is divided. National unity

means national servitude to a single man and his supporting oligarchy. Organized and balanced disunity is the necessary condition of liberty.

-- Aldous Huxley, in The Perennial Philosophy, New York, Harper & Row, 1944, p. 122.

Orwell on Our Present Direction

The practical men have led us to the edge of an abyss, and the intellectuals in whom acceptance of political power has killed first the moral sense, and then the sense of reality, are urging us to march rapidly forward without changing direction.

-- George Orwell, in "Catastrophic Gradualism"

Lopez on North America Since Columbus

When an industry asks to police itself, we must have the courage to note that there is no precedent, that the entrenched precedent, from the time of the Spanish, is lawlessness in the quest for wealth, with the extension of enough local generosity to keep from being run out of town, enough respect for institutions to keep from being hauled before the bar, and enough patriotism to be given the benefit of the doubt by society.

We have made so extreme an investment in mining the continent, created such an infrastructure of nearly endless jobs predicated on the removal and distribution of trees, water, minerals, fish, plants, soil, and oil, that we cannot imagine stopping.

We need to discover the difference between the kind of independence that is a desire to be responsible to no one but the self -- the independence of the adolescent -- and the independence that means the assumption of responsibility in society, the independence of people who no longer need to be supervised. We need to be more discerning about the sources of wealth. And we need to find within ourselves,

Balaton Bulletin Fall 1992

and nature, a profound courtesy, an unalloyed honesty.

-- Barry Lopez, The Rediscovery of North America, University Press of Kentucky, 1991.

Girardet on Living Sustainably

Rather than waiting for governments and international bodies to decide to initiate sustainable development, we urgently need to develop the skills of actually living sustainably. There is nothing like people taking action themselves; when the people take the lead, governments are forced to follow. International committees, however well qualified, cannot decide for us how to lead our lives, and imposed legislation is not sufficient for influencing individual behavior.... In the end, we the people must decide for ourselves how to live; nobody can do this for us.

-- Herbert Girardet, Earthrise, London, Paladin, 1992.

The Sustainability Marching Song

Alan AtKisson, who joined our group this year, is an inspired writer of songs about -- mostly -- sustainability and unsustainability. Meditating on the challenge to produce an "anthem" or uniting song for workers toward sustainability, he came up with a wonderfully energizing march. Here are the words, You will hear the tune at future Balaton meeting and, we hope, on Alan's forthcoming tape.

And We Rise

(Music and lyrics © 1992 by Alan AtKisson)

In a time when the whole world trembles and moans
In a time when we face a dark unknown
In a time of confusion
When so many seem hypnotized
By a restless illusion
The truth has been disguised
By walls of delusion,
But it's breaking out ...

CHORUS

Balaton Bulletin Fall 1992

And we rise
In the sight of our children's eyes
To preserve each sacred place
To sustain the human race
As the shadows start to fall
And we hear the planet's call
We will stand and bear the light
We will shine with all our might.
Oh! We pledge our lives.

As the walls of the old world crumble down
We are called to turn our very lives around
A complete transformation
A kind of total rebirth
And the full restoration
Of the damage done to the Earth
The whole of Creation
Is crying out ...

CHORUS: And we rise ...

At the dawn of a new and brighter day
We are drawn to the Truth that lights the way
And we don't have to fear it
It's the light of love that calls
It's the sign of the spirit
Of the life that moves in us all
And as we get near it
It's reaching out ...

CHORUS: And we rise....
Oh! We pledge our lives.

Sustainability is Sexy

The trouble with communicating sustainability to the general public, said some participants in this year's Balaton discussion, is that it's such an abstract, unemotional, hard-to-imagine concept. It doesn't easily engage one's interest. It's not "sexy."

But then how does it engage OUR interest? others replied. Sustainability seems pretty sexy to us.

Inspired by this profound observation, **Judit Szoleczky** of the Hungarian Oil and Gas Trust produced this song summing up her impression of her first Balaton

meeting. The tune is a traditional Hungarian one about Lake Balaton -- "Balatonna Sej Hay De Jo." Its original chorus is given after the first verse, and Judit's revision after the second. Judit apologizes for not making her English rhyme; we do not apologize for retaining her charming Hungarian-flavored English. We leave it to your imagination to picture us all singing this -- and also Alan's song above -- on our final evening together.

Models, games, and poems we play,
Multi-media we use,
Cultures, customs and gifts we gain,
Wisdom keeping is great.

CHORUS
Hollala Hollala
Tirala Hollala
Haho Haho Ho!

Ideas merging everywhere
Swimming at night is fun.
Every say is a diamond.
Sustaining is sexy.

CHORUS
Sustain A Bility
Sustain A Bility
Sexy Sexy Xy!

We have diffusion strategies.
Let's play with a rope!
We make a square from a circle,
Practice Green team-building.

CHORUS: Sustain A Bility

Every year we have a meeting.
Nice to see you again.
We have great chats and fantasy.
Let's meet again next year.

CHORUS: Sustain A Bility

Bless This House

You'd think that two new songs would be enough, but there was no containing the lyrical creativity of the

Balaton Bulletin Fall 1992

Balaton Group this year. As we load the bus to return to Budapest, we always say a final thank-you to the staff at the "Hotel Petrol," who welcome and nurture us so wonderfully. This year our thank-you took off from the song "Bless This House," with verses added by various Balaton Group members. OK, so it doesn't scan too well - it's the thoughts that count, and the thoughts are heartfelt.

Bless this house, oh lord, we pray
Keep it safe by night and day.

Bless these walls, so firm and stout,
Keeping want and trouble out.

Bless the roof and chimney tall,
May thy peace rest over all.

Bless the lake so big and sweet.
It keeps us cool in summer heat.

Bless the folks who work within.
May they prosper, and their kin.

Their lovely smiles make our days bright,
They clean up after us late at night.

Bless the coffee they prepare.
In the mornings it makes us aware.

Bless the cooks we never see,
We're never hungry in Hungary.

Bless the love that here we share.
May it flow from here to everywhere.