THE STONY BROOK PRESS

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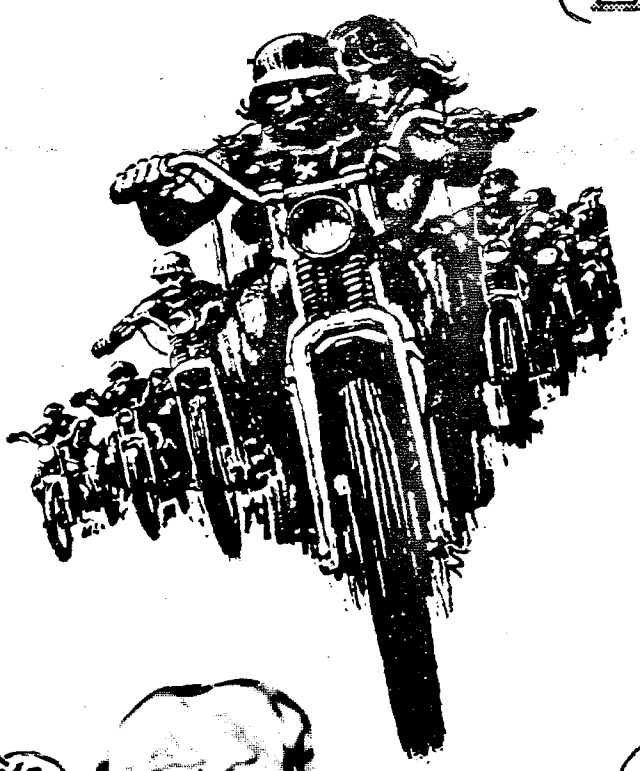
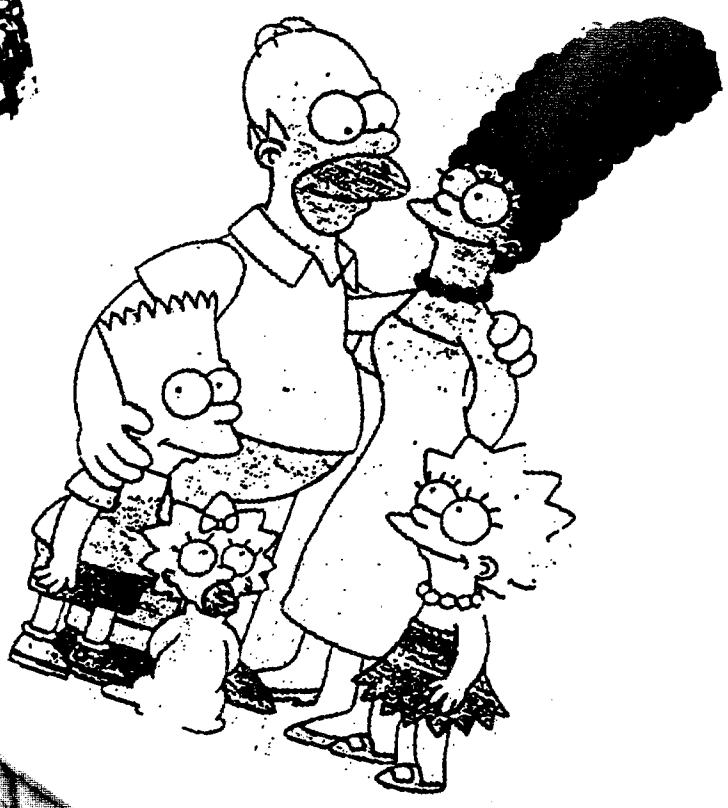
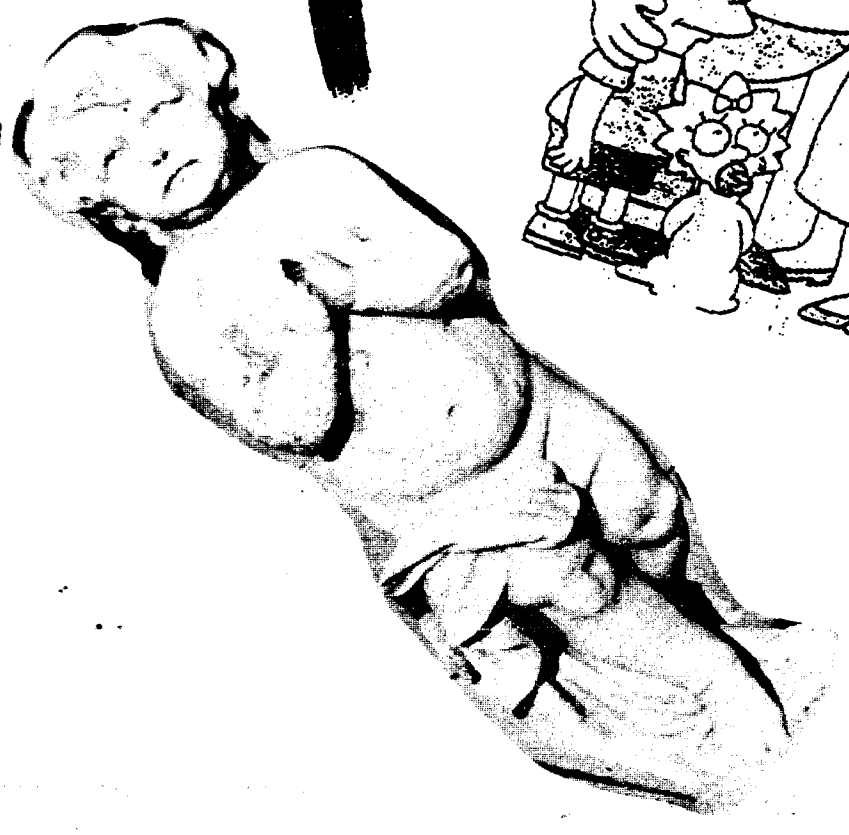
isn't LIFE GRAND!







Good For the Environment?

By Steven J. Forster

As I sat on the train and then bus back from Penn Station on April 22nd, I pondered what was said at the Earth Day '90 rally and concert. The reason for the pondering was, because I wondered how many people really learned something, and of those who learned something, how many of them would be more environmentally concious the next day and the rest of their lives?

How many people would call the govenor, their senators, their assembly persons, and local legislators the next day and voice their opinions on the environment? How many people went to see a free concert? How many people are willing to fight for a cleaner environment for our children and children yet to come, and how many people just went for the music of the B-52's?

I guess the answers remain to be seen tomorrow, and tomorrow, and tomorrow.

The gathering of over one million people on the Great Lawn of Central Park was surely a sight to see. I'm sure the sanitation workers thought so afterwards. The stars and speakers were in multitudes. people such as Govenor Cuomo, Mayor Dinkins, Carly Simon and others who turned out for the celebration and reunion with our planet earth.

The first thing you noticed is how Christmasized Earth Day has become; with people selling tee-shirts (Bart Simpson) and asking, "Hey! Where's the concert dude?" I'm sure profits were made. Maybe some of the money went to the cause, but I can bet most of the money went to the profits of seperate dealers.

The bands were great, but we must remember the reason for this event. The reason why these bands came out to Central Park to perform. The reason, I hope to think, people all over New York State and beyond came to a beautiful park in a monolithic city which produces tons of garbage a day. THAT REASON: To educate ourselves and our world's leaders on problems with our environment, and what we need to do to save it.

The end of the eighties and the beginning of the nineties shall bring forth great changes. The people shall rise again. That was one of the messages that I got at the rally. What I saw and felt, however, was how fadish it is for people to advocate for the environment, and that as soon as a new fad/trend comes along, The environment will no longer be a topic on people's minds. A young lady in the audience said to me, "What I see is people getting together to have a good time, see the B-52's and drink some beer in the park, in the sun. I don't think that's what it's all about. I think they're thinking about having a good time... I thought I should have gone out and printed up some tee-shirts." I thought the same.

One thing we should have gotten out of the rally is that we're not going to stand for pollution, incineration and nuclear waste anymore.

Earth Day '70 brought forth the beginnings of the E.P.A., the environmental bond act, and a seed for the next generation. The problem with the '70's generation was they died bringing forth the seed of apathy for twenty years. We can't let the environmental problems go for another twenty years, if so, there is no turning back.

This was surely not another Live-Aid, where many bands played, and very few speakers spoke on Ethiopia. Ethiopia is

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R.O.A.R. REAFFIRMS COKE REFERENDUM

R.O.A.R. is an organization whose main purpose is the realization of one person/one vote, anywhere real democracy does not exist. This is the way in which we act upon our belief in human equality. This is our *moral cornerstone.*

R.O.A.R. is concerned with keeping U.S. corporations responsible for their actions. We boycott because we believe Coca Cola is helping to oppress the men and women of South Africa. R.O.A.R. is not a group of Left-wing radicals.

Regardless of how much the "college republicans" and other on campus conservatives try to twist and distort our image, R.O.A.R. supports democracy, one person/one vote, in a multi-party system, and corporate responsibility. R.O.A.R.'s inspiration for activism is a belief in human dignity, as opposed to support of any economic system. Basically R.O.A.R. does not decide its course of ACTION using either communist or capitalist motives. We care about the needs of people, in regard to both inidvidual rights, and the necessities of society as a whole.

The Coke Boycott referendum came about because R.O.A.R. beleived that although the elected members of Polity should make most of the decisions regarding the student body, some of these choices must be decided by the students as a whole, so that the voice of the people can be heard.

The Coke Boycott referendum was passed by a majority on March 20th. It is now time for the FSA and SCOOP to react to the will of the students of Stony Brook and remove Coca Cola products from our campus.

There are many U.S. corporations in South Africa, all of these companies are paying huge taxes to the all-white government. The tax money given by these corporations funds the South African military and police forces. The soldiers in turn oppress the people. When the media tells Americans that the police and army are working to stop the "unrest" they are usually talking about REVOLUTIONARY acts. This revolution is supported by the majority of the people to free all the people of South Africa.

Coke is one of the largest U.S. corporations in South Africa and is probably the most visible U.S. company there (its billboards are everywhere!). While getting Coke out of South Africa would not end Apartheid, it would help to support the South African people. If Coca Cola leaves South Africa there will be one less source of foreign capital to use against the people. Even if Coke does not automatically leave South Africa, the elimination of Coca Cola from Stony Brook by the students will be a statement to Coke and the rest of America that WE THE STUDENTS OF STONY BROOK REFUSE TO SUPPORT APARTHEID IN SOUTH AFRICA. The students here have already voted to get Coca Cola off our campus, FSA and SCOOP should now be watched to make sure they do not "drop the ball."

As long as Coke is sold in South Africa, thereby supporting the Apartheid Government, the red color of its products also represents the blood of the South African people, which is on Coca Cola's hands.

Walter F. Schneider
member of R.O.A.R.

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Earth Day '90

By Aluc Ard

Earth Day '90 was the biggest event to happen around the world since Live-Aid, but bigger. Every county, every state all over this country, and one hundred-forty countries in all, celebrated a reunion with our mother earth.

Central Park, the center for New York City's celebration, was filled with almost one million people. They gathered to let themselves be educated and entertained. More than ten bands and more than twenty speakers came out to perform and inform.

Tee-shirts were being sold by many vendors and marijuana smoking was in full force. People were there to say something about the environment.

The thought in many people's heads were, will the same feelings be activated tomorrow and in the days to come, or will it become a memory for the next twenty years. Pop singer Carly Simon, said, "If you're like me, you go to rallies and you get enthusiastic and you become motivated and committed, but sometimes you go home, back to your lives and you forget the passion. I'm asking you to not forget the promises you make to yourselves today. Each one of you has something that you can contrbute to make the world a much, much better place. Take the energy that you feel here today, and take it out with you into the rest of your lives, and everytime you feel wonderful in the sun, as you do today. Thank God for it, and don't take it for granted.

The other thoughts were about global warming, incineration, nuclear waste and disaster and pollution. New York State Attorney General Robert Abrams said, "Today, we must begin a new phase in the environmental movement- the prevention phase"

The author of the recently published book Dead Heat a Race Against the Greenhouse Effect, Micheal Offenheimer spoke on the use of federal funds, "They (the federal government) use the money for political chaos." Govenor Cuomo later stated," We have a federal government that will spend 300 billion dollars on instruments of mass anihilation and then tell you that there is not enough money to deal with the environment."

The governor also stated, "We're not going to wait for the federal government, because the threat is too great and too urgent." He spoke of a proposal to be voted on by the people, hopefully in November, "The 21st Century Environmental Bond Issue" which would be a near "2 billion dollar investment." He urged all the voters to be at the polls in November and cast their vote for the environment.

Later in an interview with Govenor Cuomo, the question of his sincerity was asked, "Govenor Cuomo, how much of that speech was a vote for yourself?" noting the fact that he is up for reelection this year. He replied," None of it, it's all the Environmental Bond Issue."

David Dinkins, New York City Mayor, had slightly different problems with the reporters. Upon leaving the Central Park stage, he was bombarded with questions about the cab driver murders. He surely did not wish to answer these questions on the day in which he was to speak on environmental problems.

Danny Aiello, an actor from the movie *Moonstruck*, seemed rather concerned about what's going on in our environment, "I've never been involved in Earth Day before. I'm acknowledging, simply by my presence here, that I want to somehow get involved, and I'll do whatever I can to make certain the environment is clean.

Other stars involved in Earth Day '90 New York City included Christofer Reeves, Ron Silver, Phil Donahue and wife Marlo

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Wall Street Action

by Robert V. Gilheany

The coperate buy-out of Earth Day 1990 allowed corperate polluters to slap the environmental badge on themselves as sponsors of Earth Day '90 for public relations purposes. This prospect gave radical environmentalists an oppurtunity to organize a counter event on Wall Street. The Earth Day Wall Street Action brought between 1,000 and 1,500 environmental protestors to the source.

Fundraisers were organized for the action, and one right here on campus. On April 18th there was the Earth Day Wall Street Action Coffee House that took place at the Fannie Brice Theater. The Coffee House featured a few speakers, poetry, songs, and ended with a jam session. Billy Cappozi performed and was a smash. Dave Long did a Kinks song that went over very well, and the jam session rapped up the night.

On April 21st, there was a hard core punk rock show featuring the False Prophets. I got to be the bartender. The music was fast, people danced and slammed. The event raised over 400 dollars.

On Sunday people went to the official Earth Day event and handed out over 15,000 leaflets announcing the Monday Wall Street Action. I managed to get past the NYPIRG marshalls and onto the Great Lawn. I gave handfuls of leaflets to people who passed them on. The leaflets went faster than they did on Sixth Ave, and we got to bop to the B-52's and catch some rays.

We left Central Park for the pre-action meeting in Thompkins Square Park. This meeting was to prepare people in dealing with the cops, running the scenario and for people to get their affinty groups together. My role in the affinity group (The Roving Stony Brookers) was as a support person for the people who got arrested.

We all met at the Brass Bull, near Bolling Green Park, a block away from the exchange. Our Vermont group didn't meet us there like they were supposed to, so we had options. There was a lot of activity at Wall Street, a lot of noise cops and protestors. A runner from an affinity group led us down Exchange Street. At this site people were blockading traffic and brokers from getting to their jobs.

There were many arrests (204 arrests, 8 Stony Brookers), 5 people from my group were arrested.

A march and rally ensued in the financial district. 1,000 people marched through those narrow streets in a loud spirited fashion. The march ended at the George Washington statue in front of the exchange. Mitch Cohen, of the Red Ballon, and Liz Higdelman, from Boston, M.C.ed the rally. Mitch Cohen opened up by talking about the protest casualties. He said,"One woman suffered a broken arm, and 4 others needed stitches"The statement brought on a loud and angry response from the crowd.

He went on to talk about the connections between cooperate capitalist companies, the environment, imperialism and the struggle in South Africa. He talked about an American company, American Cyanamide (a chemical company) that dumps mercury into the water supplies of Black South Africans. He said, "The workers in South Africa are on strike to stop the poisoning of their communities."

Howard Hawkins, of the Vermont Left Green Network, blasted the coperate sponsored commercialized official Earth Day. He said "That the major offenders in environmental polution are using Earth Day for P.R. purposes. In the last ten years the situation on this planet has deteriorated. Forest species disappearing and a hole in the ozone layer appearing, and the coperate Earth Day is telling us we are all to blame." He pointed out that the decisions that are made to destroy the environment are made in coperate headquarters. He went on to explain the capitolist system is run on a growth for growth's sake and it is destroy the planets resources and exploiting it's labor. "It's like a cancer spreading around the world."

He spoke of the deforestation of the Amazon rainforest, which is being done for cattle ranching expantion. This process is forcing people out of their homes, off their farms and forcing people into exploitative waged labor. This process is backed up with force and support from Uncle Sam.

Kathy Hines and John O'Connor from the Love Canal Home Owners Association, and the National Toxics Campaign, respectively spoke of tragedies at home brought about by toxic poisoning of their communities. Ms. Hines spoke of cancers striking people, who she was closed to, that was bruoght about by coperate toxic dumping. O'Connor spoke of the same thing and proclaims "We have to break the strangle hold the coperations on our democracy and economy.

A women from ACT-UP(AIDS Coalition to Unleash Power talk about the environment and our health. How they are directly related and that we need better health care. She said,"People in minority neighborhoods don't

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Blood Donors a Dying Breed

The picketing of the campus blood drive on April 2nd by the Haitian Student Organization was one of the more reactionary protests that have occurred on the Stony Brook campus. What could be more radical, than protesting something as recognizably altruistic as a blood drive for being racist. This coupled with the obvious effect of the protest (donations were 488, from a projected 800 pints of blood) warranted a further look into the matter.

Long Island Blood Services, which ran the blood drive, was contacted to find out exactly what their policy was towards African and Haitian donors.A person from the nursing department read a section from the Blood Services policy concerned with who should not give blood.

What it stated was, under no circumstances should blood be donated by anyone who was born in or immigrated from *Haiti or Africa. She then listed nations in* Africa from which immigrant donations would be accepted. These consisted of the nations north and west of the Sahara, or rather those nations commonly considered Mediterranean or Arab, rather then truly "African."

The reason given for these restrictions was the from F.D.A. guidelines and was bound to follow them.

Herman Ganiger, a Consumer Affairs Officer for the Food and Drug Administration, explained that the guidelines were established to prevent the transmission of the AIDS virus through blood transfusion. The guidelines had been most recently revised on February 5, 1990. It was these revisions which had prompted the H.S.O. to protest the blood drive.

Originally donations from Africans hadn't been restricted, only donations from Haitians. The African donors hadn't been considered a threat to the United States, because a different strain of AIDS exists there, Hiv II which poses no threat to the U.S. In the United States the dominant form of AIDS is Hiv I. Sub-Sahara Africans were excluded from giving blood finally because the F.D.A. chose to combine Hiv I statistics with those of Hiv II. Thus creating a reason to restrict transfusions from increased incidence of AIDS in these countries. When I questioned her further she just stated that Long Island Blood Services, which is part of the Greater New York Blood Program, adopted its policy Africa. While this was restrictive, the story only gets worse.

Prior to the February 5, 1990 revision, donating was only restricted if you arrived from these countries after 1977. If you were in this country before that, you still could donate. However, the February 5 ruling, excluded anyone no matter how long ago they were in these countries. In addition, the February 5 ruled excluded anyone who had been in these countries, not just immigrants. The reason given for this was that due to the rising incidence of AIDS stronger controls must be exercised. Haiti was restricted because of the high numbers of homosexuals and I.V. drug users, while Sub-Sahara Africa was restricted because of the high rate of heterosexual transmission of AIDS.

At any rate, the F.D.A. is greatly resticting blood donations from a large section of the population. It can be argued that the criterion for there restictions is along racial lines. With areas of U.S. cities showing higher rates of AIDS then the Sub-Sahara countries the policy is questionable. While Long Island Blood Services could in theory go against the F.D.A. guidelines, they cannot take the chance. Any blood recipiant that became infected with the AIDS virus could file a lawsuit against the organization.

The F.D.A. planned a conference for April 20,1990 to once again review the situation. However there revisions if any won't become apparent for some time. At the present, the situation remains dire. Millions are being blindly excluded from donating blood because of their heritage, while our blood banks remain dangerously low. It may take a disaster as well as a large scale blood shortage before the policies can be changed.

Con't From Pg 3 Earth Day

Thomas, and Lisa Bonet to name several. Lisa Bonet in an interview was asked, "Is there a message for the readers of the Stony Brook Press?" She stated, "I don't know, Jesus loves us."

Earth Day was celebrated not only in Central Park, which seemed to clear up quite considerably when the B-52's finished performing, but also in Times Square and on Sixth Ave from 42nd street to 59th street. During the day no cars were permitted to drive in this area in honor of Earth Day.

Many people handed out leaflets and cards on unrecycled paper, and glossies. The park was trashed and trash cans had garbage lying outside of them on the ground.

Did Earth Day '90 have the effects it should have had?

Alex Fear, the campus coordinator for NYPIRG, stated, "I think the majority of the people went home with the sense of the power which the environmental movement can have, but I don't think they went home with the realization that we're very near a crisis situation as far as the environment is concerned."

The stress of Earth Day being an environmental day was definitely apparent. Barbara Buffone, one of the environmental project leaders for the NYPIRG campus office said, "People said they weren't driving their cars in honor of Earth Day, and I said people shouldn't do it in honor of Earth Day, they should do it in honor of the Earth." A statement which surely means "Earth Day, Every Day."

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still there, and people are still starving. Comic Relief, a benefit in which comics raise money to help the homeless, had plenty of speakers, and plenty of performers share the stage, but once it was over, we are still faced with the problem of many homeless people. Jerry Lewis' Labor Day Telethon happens once a year, but there are still people with muscular dystrophy. We can't forget. We must not let things such as these events be fadish, and happen once a year.

Our lives are subject to whims. If we allow ourselves to be sympathetic one day, and apathetic the next, we are giving our world's leaders the go ahead to forget these problems just as well. If you don't know a lot, and want to learn more, get involved. The more involved, the more informed, the less ignorant, the less fadish. Earth Day, Every Day. We have no choice.

Con't From Pg 3 Wall Street

get any treatment for AIDS until they are practically dead."

An activist from Harlem spoke of Columbia University. The university moves to tear down the Autobahn Ballroom to put up a bio-tech lab for genetic engineering. He stated, The Autobahn Ballroom should be a shrine for Malcom X, and an all purpose youth center."

The Bread and Puppet Theater performed and played a jazzy version of "Ain't Going to Study War No More"and did a very funny visual and vocal harmoniuos song. They were a hit. People from the Wall Street office buildings were checking it out.

The rally ended with a woman from the East German Women's Associattion and spoke of how the left in East Germany sparked a revolution against a Stalinist state and people have the power to do the same here. After her the people took for the streets.

The same day 49 people were arrested at the Pacific Stock Exchange in Santa Cruz and a group called "The Earth Night Action Group" claimed responsibility for vandalism that caused power outages.

In the last issue of The Press, a layout mistake was made in the editorial. This mistake said Alison was charged with Glenn Magpantay for distributing slanderous flyers. The section should have read: charged Glenn Magpantay, currently a SASU Rep., and campaign manager for Alyson Gill, candidate for Senior Rep., with distributing the negative posters. The judiciary lasted

We're sorry for the mistake.

Monkey Business

by Erika Sobanski

The **muriqui Brachyteles arachnoides**, also known as wooly spider monkeys, live in the forests of the South East Coast of Brazil. They spend their time on the canopy levels, in the crowns of the tallest trees. These monkeys, greybrown in color, sometimes tinged with reddish brown, are large in size, about 30 inches, with a slightly longer tail. The wooly spider monkey feeds on a diet of vegetable matter, including leaves, fruit, seeds and nectar.

The most striking characteristic of the wooly spider monkeys is that they essentially have a "fifth limb," a prehensile tail used as a hand. Their locomotion is quadrupedal, and they make downleaps of up to ten meters, landing on foliage with outstretched arms. Much use is made of their powerful tail in suspensory activities during travel and especially during feeding. These new world monkeys live in large multi-male, multi-female groups that are split into smaller foraging units, during the day. Each female may mate with all the adult males in the group. Infants clings closely to the mother for the first few months of it's life.

Living in the same territory as the wooly spider monkey, is the Leontopithecus rosalia, known as the Golden Lion Tamarin. They're also found in the lowland rain forest of South East Brazil. All of them are found in the in the main canopy levels. These tiny monkeys, usually 10 inches long with a tail of 13 inches, use holes in trees for sleeping.

The lion tamarins are beautiful and striking. Their manes are of long, swept back golden hair, hence their name. They have narrow elongated hands with long webbed digits. The black and gold, coloration of their silky fur is remarkably beautiful.

Not only do the golden lion tamarins feed on a wise range of invertebates and small vertebrates, but they also feed on fruit. They use their small fingers to extract insects from small crevices and holes beneath tree bark. Socially, these monkeys form moderate size family groups. The father has the major role in caring for the young, which are almost always twins.

These two primate species, the muriqui and the golden lion tamarin, share something else besides their habitat. Another thing they have in common is that they are the most critically endangered New World monkeys. The Atlantic rainforest that once stretched 2000 miles along the coast of Brazil has been virtually destroyed since the turn of the century. The muriqui is the only member of its genus and is the largest South American primate. Remaining populations may total as little as three-to-four hundred individuals!! Like the muriqui, the lion tamarin is one of the most endangered primate species, in part due to its beautiful coat which makes it desirable as a pet, but mostly due to the destruction of its rain forest habitat. This destruction is the direct cause of these two species being on the verge of extinction.

Destruction of the tropical rain forests, not only in Brazil but all over the world, does not only affect these two primate species I have mentioned. It affects millions of different species of plants and animals, and it affects OUR lives in a very real way. Destruction of the rain forests is altering weather patterns WORLDWIDE and the changes in rainfall and wind currents that result will trememdously damage agriculture in Europe and North America. It is the developed countries, like The United States that have benefitted the most from medical research advances and increases in crop production derived from the germ plasm of plants found in the tropics. So, if not for the muriqui and the lion tamarin from Brazil, or the equally endangered magestic Gorilla from Africa, or the Aye-aye from Maadagascar, or the Golden Monkey from China, people have to be aware of the problems of forest destruction and primate extinction in how it affects humans, also.

Some conservationists feel that because of forest destruction we will inevitably lose some primates due to extinction, and our goal should be to limit that loss as much as possible. I feel that that is a defeatist attitude right from the beginning. We should instead realize that it is not hopeless, if people act now we CAN prevent ALL primate extinctions. There are solutions to this problem and if enough people work together it will be solved.

The first thing necessary is to create public awareness of the need for primate conservation (and conservation in general). Next, we must protect areas with endangered species, create parks and reserves and maintain those already in existence. Ways must be determined in which people and other primates can coexist. In addition to protecting habitat, we also can establish captive breeding programs for very endangered species and end the illegal trade of primates.

So please, realize we are not without hope, but everyone MUST be a part of the solution or the problem will not end. There are many groups to get involved with that are working hard to limit forest destruction and keep primate species from going extinct, most notably the World Wild Foundation (W.W.F.) which started a primate program in 1979.

I have presented the problem but, unlike many other articles which cry about problems of the world and do not have any answers, I have also included the solution. The rest is up to you. For more information, come to the Anthropolgy Club, which meets Monday nights at 6:00 P.M., 5th floor of the Social and Behavioral Sciences Building, in the Student Lounge.

To contact The World Wildlife Fund, write 1250 24th st., NW Washington D.C., 20037 ,or call (202) 293-4800, The Evironmental Defense Fund; 257 Park Avenue South, N.Y., N.Y. 10010; The Rain Forest Action Network, 301 Broadway Suite A, San Francisco, CA., 94133; Wildlife Conservation International, N.Y. Zoological Society, Bronx, N.Y. 10460, (212) 220-5155; and the Nature Conservancy, 1815 N. Lynn St., Arlington, VA. 22209, (703) 841-5300.

A Tragedy on Second Ave.

By Steven Forster

I found a pack of cigs. today.
Just lying there unopened.
I said,"Those are mine."

I picked them up,
Walked away and smoked one.

I am embarassed to be anywhere.
You see I've got no place to go,
Ain't got no home.
I'm just roaming around.

I have a wife and kids.
They live in a box on 2nd Ave.
They're tired and hungry;
I'm tired, too.

God help me.
If you really have a heart,
Take them in your arms and
Love them forever.

As I sit waiting for sentence,
I think of my family who died
Peacefully in my arms.
Thank you, God

I found a pack of cigs today,
In the prison courtyard.
Just lying there unopened.
I said," Those are mine."

△Aids=Death▼

Jean Rousseau

No. There is no treatment that cures AIDS.

No. There is no efficient vaccine to protect you from AIDS.

There is no way out. Once infected by the human immunodeficiency virus (HIV), you will develop within two to ten years the acquired immune deficiency syndrome (AIDS), which leaves your body helpless when it faces any infections. Unless you take a drug that slows the course of AIDS, you will die!

HIV is not easily spread. The virus can be found in the semen or vaginal fluid and in the bloodstream of an exposed individual. The transmission of HIV occurs through sexual intercourse or the sharing of intravenous needles with an infected person. The injection of contaminated blood products is another potential source. A woman infected with HIV who becomes pregnant or breastfeeds can pass the virus to her baby. Marc Collins, co-chair of the Gay, Lesbian and Bisexual association at Stony Brook affirms that "it has to be realized that AIDS is related to a risk-behavior, not a risk-group". Initially portrayed as a gay and Haitian disease, because the first cases reported were from those groups, AIDS can strike anyone, irrespective of their sexual orientation or social status.

Public health officials estimate that in the United States, 1 to 1.5 million people are infected with HIV, and 60% of them are unaware of the fact. In colleges and universities, there are about two AIDS cases per thousand students, on a national average. Dr. Rachel Bergeson, director of USB's Student Health Service knows of one specific case at Stony Brook, but there could be 35 students carrying the virus according to statistics. Even though that does not seem like a significant number it represents a crisis for Dr. Bergeson. She adds: "The college students form a vital group in our society and they are not protecting themselves when they have sexual relations. We see an increase of venereal diseases such as chlamydia and venereal warts that can lead to cervical cancer in women... Alcohol is a big problem. On Thursday nights, students party, get drunk and then act irresponsibly; they drive, they have sex without protection..."

One of your friends may carry the AIDS virus, and who knows, maybe you. Tests to detect the presence of HIV are free. They should be performed in such a way that it preserves the anonymity of the tested individuals. The USB's Student Health Service does not offer testing services, so if you desire to be tested, and everyone should be, you may call the regional hot line HIV antibody testing at (516) 348-2999. For more information about AIDS, you can also call the Long Island Association for AIDS care (516) 385-AIDS, the gay man health crisis hot line (212) 807-6655 or the New York Health Center hot line (718) 485-8111. The main political advocacy group for AIDS victims is named ACT UP and the New York local chapter can be reached at (212) 989-1114.

War against AIDS

A medical solution to AIDS constitutes an emergency need; greater efforts should be devoted to achieve this goal. Many agrees with this. We expect from science, technological and medical feats. We have sent men to the moon, so it should be possible to find a cure for AIDS. If it is only a question of money, let's pour it on and these scientists will complete the job. The problem is that science is not a panacea. Even if a treatment was found, AIDS will not disappear. Solutions to the AIDS crisis involve social and political issues that necessitate an understanding of the spreading of AIDS and of the cause of AIDS, the human immunodeficiency virus. The knowledge gained about the complex behavior of HIV and its propensity to mutate shows the limits of science, i.e., what is medically possible. Nevertheless, understanding the HIV life cycle provides an opportunity to assess the gravity of the AIDS crisis. Knowing this fact, we must debate if politics and our acts are consequent.

Scientists describe the fight against HIV in a language reminiscent of a warfare. How could it be otherwise? HIV is a formidable enemy, the perfect biological weapon as described by some biochemists. The development of weaponry (drugs, vaccines), that will kill the invaders (HIVs) or inhibit their multiplication in the territory constituted by a type of cells, rely on strategies that interfere with the HIV infection and replication cycle. New drugs or vaccines must be very specific to HIV so they do not damage any other cells and do not create serious side effects.

You have probably heard that the drug AZT can delay the appearance of AIDS, but you may not know how it inhibits HIV replication. In the rest of this article, I will discuss the mechanisms behind the action of AZT, other drugs that have been marketed or are being developed, and a vaccine that is being tested. To do so, we will have to go through some concepts that relate to the biology and genetics of HIV. It will allow me to show you what are the strategies presently being explored by scientists to make new drugs. This way, you will get a feeling for the important role that the immune system plays, see how HIVs hamper the immune system cells, and find out how opportunistic diseases may take over a helpless humane body. I will conclude this overview with considerations about the war against AIDS.

The life cycle of a virus

A virus is nothing other than a protein shell containing some genetic material, namely desoxyribonucleic acid (DNA) or ribonucleic acid (RNA). Halfway between living and inert matter, a virus particle cannot reproduce itself alone. It has to infect a living cell and "hijack" the cell's genetic machinery to insure the generation of new viruses, which can lead to irreparable damage and the death of the host cell.

In a cell, the genetic material is DNA, a double helix that resembles a twisted ladder where each step is formed from a pair of nucleotide molecules. Some sequences of these nucleotides correspond to encoded information called genes, which can be translated into a precise amino acid sequence. Amino acids are bricks that are connected together to form a polypeptide chain, and one or more such chains compose a protein molecule. Each protein plays a specific role and assembles with other proteins into progressively larger entities: organelles, cells, tissues, organs and finally ourselves. The DNA is located in the nucleus of the cell. When genes are expressed, i.e., the information contained in a gene is retrieved, the DNA is transcribed into messenger RNA (mRNA), which then serves as a code for the production of a polypeptide.

For the human immunodeficiency virus, RNA constitutes the genetic material and contains all the information necessary to the replication of HIV. The problem is that the genes of HIV cannot be expressed directly from the viral RNA. Only after the RNA is converted into DNA, will the genetic information be usable. To facilitate this conversion, HIV provides an enzyme named reverse transcriptase that catalyzes this specific biochemical reaction. (Enzymes are a type of protein that act as catalysts.) The newly produced sequence of viral DNA becomes incorporated into the DNA of the host cell. Later, the viral DNA is duplicated along with the cell DNA every time the cell divides. At this point the infection is permanent and the viral DNA may just hide there for years. At some point, for reasons that are still unclear, the viral DNA is expressed. New viruses are generated and at the same time the host cell is generally killed. These viruses will start their new life cycle which consists of the infection of a host, a latency period where they do not manifest themselves, then replication and the killing yet again of another host cell.

The immune system

"The human body is parasitized by a large number of viruses" asserts Dr. Francis Johnson, professor at the Chemistry department at USB whose present research aims at the development of enzyme inhibitors that could be used to prevent HIV replication. To riposte to this invasion, the human body mobilizes its immune system. The cells' "team", forming the immune system, are composed of macrophages, B cells, T4 and T8 cells. The T4 cells play the role of "quarterbacks" due to their leading role in launching an attack against intruders.

At first, a macrophage moving in the blood detects the presence of a foreign body, a virus for example, ingests and breaks it into pieces. Subsequently, the macrophage displays on its surface the viral components. At this point T4 cells, through their surface receptor also called CD4, come in contact with the viral components or antigens exhibited by the macrophage, and determine if these antigens are part of a parasite. If they are, T4 cells multiply and send chemical signals that regulate B and T8 cells. These signals induce a proliferation of B cells, which then secrete antibodies. These antibodies circulate in the blood and bind to the antigens of the viruses, which neutralize them. In the case of a virus contained in a cell, the same antigens detected on the macrophage are also exposed on the infected cell surface. Triggered by the T4 signal, "killer" T8 cells mature, wander in the blood and destroy the infected cells.

When HIV enters the bloodstream of a person, it does not ambush its main victim, the T4 cells. It bumps accidentally into it. More specifically, the viral envelope protein gp120 interacts with the CD4 surface receptor of T4 cells. gp120 is attached to the outside of the virus

membrane by a "hook" protein identified as gp41. When they come in contact, CD4 and gp120 bind strongly to each other to such an extent that gp120 is freed from gp41. For Prof. Johnson "we are in presence of a loaded gun. CD4 is the finger that pulls gp120, the trigger, which fires gp41". The liberated "hook" gp41 embeds itself in the cell membrane, leading to the progressive fusion of the viral membrane and the cell membrane. When the fusion is complete, HIV injects its core protein, its RNA, and the enzyme reverse transcriptase inside the cell.

As mentioned previously, reverse transcriptase participates in the making of viral DNA from the RNA. The newly produced sequence of viral DNA migrates to the cell nucleus and is introduced into the DNA of the host cell. At this stage, the virus is no more than a program coded in the double-strand of DNA. In this form, the virus can remain dormant for years until a chemical signal, still unknown, induces the replication process of HIV. The production of new virus starts when a particular sequence of nucleotides of the viral DNA directs enzymes belonging to the host cell to copy the viral DNA into RNA. Some of the RNA provides the new viral RNA while some serves as mRNA that directs the cell to produce the proteins necessary for the virus.

All the material necessary for the assembly of new viral particles comes from two newly produced proteins or precursors. After being formed, the two precursors migrate to the periphery of the cell, and attach by one end to the inside of the cell membrane. As they aggregate, they bind to one another and form a spherical structure that sticks out from the cell membrane. Two strands of viral RNA are brought into this evolving structure. In one of the precursors, a section of protein cuts itself out and becomes an enzyme called a protease (HIV protease). Its role is to cleave the polyprotein precursors at specific points to liberate other viral enzymes, as well as other proteins. Scientists still debate how HIV viruses are assembled. In one scenario, some of the protein segments collapse to form the core of one virus that surrounds the RNA. Other segments stay attached to the inside of the cell membrane, while few pierce through the membrane to form gp41 and gp120. The assembly of the new viruses ends when the viruses enclose themselves with a patch of host-cell membrane as they bud from the cell. The cell will not be affected if only few viruses are produced, but the liberation of many viruses, that can be as high as 100, will rupture and kill the T4 cells.

Killing of immune system cells

HIV replication is one cause of cell destruction, but it was noticed that both replication and death of T4 cells increase when the cells are activated to mount an immune response against HIV or other viruses. The very process which should eliminate HIV is now responsible for its proliferation. Infected T4 cells can also be killed through the natural immune response of the killer T8 cells. However, these different processes do not explain the dramatic decrease of T4 cells that accounts for the severe immune deficiency seen in AIDS. T4 cells are also destroyed through the formation of a cluster of merged cells called syncytia which literally sweeps away healthy cells. Syncytia form because infected cells manufacture on their surface the infamous gp120 and its support gp41 for the potential new viruses. This is the same process which accounts for the infection of healthy cells by HIV. The binding-fusion process now occurs between an infected and a healthy cell. The product of the two cells, a syncytium, can still bind to other healthy cells and eventually bring together as many as 50 cells. Soon after their formation, the syncytia die. The depletion of T4 cells makes the system an easy target for any pathogenic infection. A common viral infection associated with AIDS is due to cytomegalovirus which is a cause of pneumonia, encephalitis and blindness.

As if that were not enough, HIV can infect cells other than T4. For example, any cells that bear CD4 receptors can be parasitized. In the human body these cells can be found in bone marrow, lymph nodes, lung tissues, etc... HIV infection of these different types of cells does not kill them, but their functioning is disturbed and a sickness is induced that cannot be fought by the weakened immune system.

It is not certain that all strains of the AIDS virus present in an infected person can ever be suppressed; but if drugs contain the proliferation of the virus, this postpones and may even abolish the specter of AIDS.

HIVs also have the capacity to hide in the cell cytoplasm of macrophages, without betraying their presence through viral proteins on the cell surface. The macrophage may then act as a shuttle for the virus and carry it around the body. Macrophages also help HIV to cross the blood-brain barrier, which protects the brain from fluctuating levels of chemicals in the blood. HIV is able to penetrate the barrier when its macrophage "shuttle" fuses with the wall of one of the blood capillaries surrounding the brain and releases the virus into the brain tissue. Once there, the virus can infect brain cells and become invulnerable to immune attack and to substances such as AZT, since they cannot pass the blood-brain barrier. Brain damage associated with HIV infection can be caused by diseases such as syphilis or by reproduction of HIV in brain cells. Terminal AIDS patients may suffer from AIDS dementia complex, a syndrome characterized by a gradual loss of precision in both thought and motion.

Vaccines to prevent AIDS

The best way to combat any disease is to prevent it. Abstinence from sexual relations, even though it is unrealistic, or use of a condom when you have sexual intercourse are the best means of protection. Nevertheless, AIDS is spreading. Along with education measures, a vaccine would be the simplest, and most effective form of disease prevention. The inoculation of any vaccine obligates the immune system to respond. Some sickness may occur but generally it is mild. The immune system is caught off guard by this first encounter with a new antigen or viral component, but it then develops a memory of the antigen for the lifetime of an individual. A subsequent infection due to the same invader generates a faster and more potent response. A vaccine against AIDS would employ the same principle. It would expose the immune system to some harmless antigens of the virus or inactivated viruses, i.e., viruses whose genetic material have been removed. The immune system could then fight the foreign bodies without risk of contracting the disease.

Ideally, an AIDS vaccine would have to prevent the virus from infecting the T4 cells and macrophages otherwise the vicious cycle of the immune system destroying itself would not be avoided. The vaccine should also stop the infection of brain cells because the damage is irreparable. Lately, a vaccine developed by Jonas Salk, the polio vaccine pioneer, received a lot of attention. His vaccine is made from inactivated HIV which has been stripped of their surface glycoproteins and of their genetic material. Some researchers caution that some of the viruses may still be viable and infective. Nonetheless, the Food and Drug Administration agreed to the testing of this experimental vaccine. A number of people ($\approx$ 60) already infected by HIV, with no symptoms of illness, will be tested. There will be also 10 non-infected people selected among priests and nuns who will volunteer while knowing the underlying risks. Other vaccines are currently being tested on HIV-infected persons, but many researchers say that a vaccine to prevent AIDS will not be on the market for at least 10 years.

Drugs to fight AIDS

The immune system responds strongly to the initial invasion of HIV and is able to control the proliferation of the virus for a number of years. During a recent symposium of the American Association for the Advancement of Science annual meeting in New Orleans, William A. Haseltine of the Dana-Farber Cancer Institute in Boston declared that "the immune system effectively controls the virus for quite a long time and effort to treat HIV disease must focus on preventing the virus from escaping that control" (Chemical & Engineering News, March 12, 1990). In that context, an intervention against HIV must at least maintain the number of viral particles below a level so that it cannot deplete the T4 population. An effective drug will impede the replication of HIV to allow the immune system to keep on fighting. It is not certain that all strains of the AIDS virus present in an infected person can ever be suppressed; but if drugs contain the proliferation of the virus, this postpones and may even abolish the specter of AIDS.

Researchers currently explore many strategies to fight HIV. When the presence of HIV is detected, following the infection of a cell, one can potentially intervene both at the stages of infection and during the replication cycle of the virus. For example, it should be possible to block the binding of gp120 to CD4, inhibit the action of the enzyme reverse transcriptase, interrupt the translation of the viral DNA into RNA, inhibit the action of the enzyme that cuts the protein precursors needed for the assembly of new virus, or inhibit the assembly and budding. All of these stages are under scrutiny by people who are trying to develop an effective drug.

The strong binding affinity of gp120 for CD4 is a fatal attraction, so why not confuse gp120 by introducing it to a copy of freely circulating CD4 receptor protein? By flooding the blood stream with such a decoy, the gp120 interaction with cellular protein would be delayed. Soluble CD4 molecules have already shown to be safe for humans. Researchers did not see any consistent change in immune function nor any significant increase in the number of T4 cells. The results are considered significant and more testing is under way. The main drawback of the present soluble CD4 molecule is that they are easily swept away from the body. This implies that a person may have to take this drug many times a day, which is a disadvantage and can be too costly. The development of some vaccines is inspired by a similar approach. One injects some surface virus protein gp120, which induces the creation of antibody that should interfere in the binding of gp120 to CD4.

The fusion of the virus and the cell results in the mixing of their respective contents. The control exerted on cell metabolism by the virus cannot be distinguished because it is very similar to the normal action of the cell, and this complicates any approach against HIV. Drugs have to be targeted to components of the virus or chemical reactions that are specific to the virus. Reverse transcriptase

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AIDS = DEATH cont'd

is unique to HIV. There is no other enzyme like it. A chemical compound, phosphono formate, can bind to the diphosphate binding site of the reverse transcriptase and thus prevents the replication. Research into the inhibition of other viral enzymes is being investigated. An enzyme of the protease class processes the protein precursors into active proteins. It can be compared to a pair of scissors that will cut the long precursor piece into smaller pieces. To block the action of protease, small stretches of modified man-made proteins, that cannot be cut, can be introduced into the cell. These new compounds are still at the exploratory level.

The approach that has received the most attention is the transcription of viral RNA into DNA by reverse transcriptase. During this step, nucleotides are assembled to form a DNA chain, the viral RNA acting as a template. Nucleotide analogues that resemble regular nucleotides can be used and interfere with the transcription process. The only drug approved so far for therapy, zidovudine (AZT), utilizes this approach. Other potential chemicals such as dideoxycytidine (DDC) and dideoxyinosine (DDI) are undergoing clinical testing. Their mode of action is similar to AZT and employs the same tactic. These drugs are nucleotide analogues that lack an attachment site for the next nucleotide in the chain. They terminate chain extension and hence prevent the virus from replicating.

AZT has helped many AIDS patients to live longer than they would have without the drug. The drug is most effective when given at an early stage after infection, thus demonstrating the importance of being tested for HIV. One harmful side effect of high dose AZT treatment is the development of bone marrow suppression. DDC and DDI do not have AZT toxicity, even though high doses of DDC can cause peripherical neuropathy (usually experienced as painful feet), and DDI can induce limb pain and pancreatic swelling. The combined action of some of these compounds is also under study and seems promising.

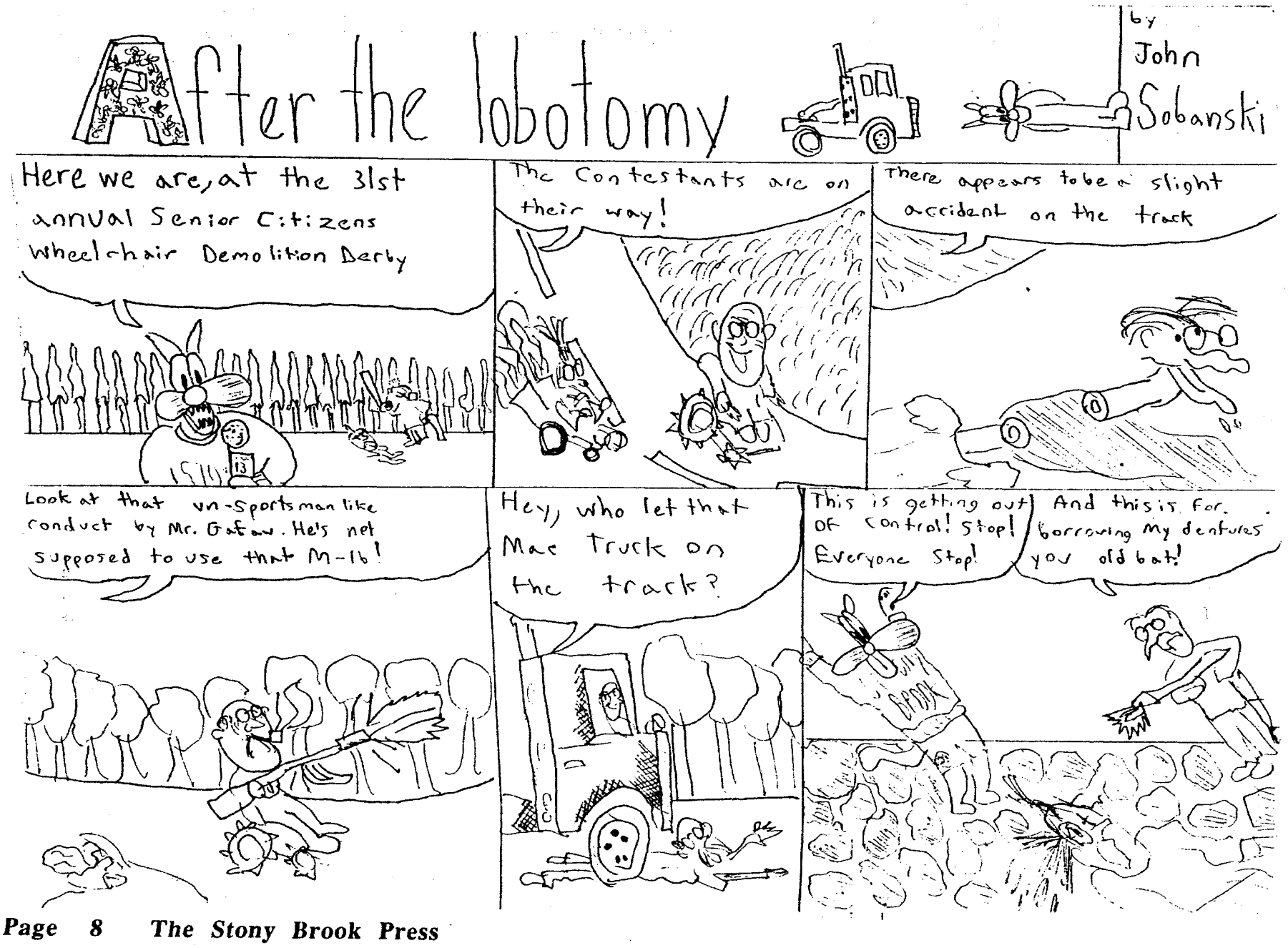
Perhaps the most infamous characteristic of HIV is its propensity to mutate, which makes it an even more elusive target. All these mutations do not confer automatically an advantage to virus but some HIVs have already developed a resistance to AZT. The genetic drift or propensity to mutate is particularly pronounced in the gene that codes for its envelope protein gp120 and complicates the development of CD4-like decoys. High genetic drift also characterizes the cold virus. These mutations transform HIV and the cold virus into moving targets. For the cold virus, scientists have tried to find a medication and a vaccine for more than 100 hundred years. Without success. We have only developed prophylactic measures to fight the cold viruses. HIV's mutations worry many scientists, to the extent that they cannot foresee when an effective cure will become available.

This is not a love song

Since the discovery of HIV in 1983, an incredible amount of knowledge about AIDS has been gathered. Still HIV baffles us and a vaccine is not in sight. Should more money be poured into AIDS research? Maybe not. There exists a critical mass of good scientists beyond which money is just wasted. It could also be detrimental to lure scientists into AIDS research by diverting funding money. A focus narrowed to AIDS would deny the importance of other diseases, such as cancer, whose understanding could contribute indirectly to the advancement of AIDS treatment. Nevertheless, more money should be spent on the testing of new drugs, because what is available is insufficient. Even though progress on the scientific front is slow, it is significant.

The real challenge lies in the public and political domains, basically in our attitude towards AIDS, and in our sexual behavior. People are dying from AIDS and an annual AZT treatment costs between $3200 and $8000. Many cannot afford it, but don't they have the right to live? In the anti-drug paranoia era in which we are living, the transmission of AIDS with contaminated needles is seen by many as divine justice. "Don't do drugs and you won't get AIDS" say some self-righteous citizens. Simplistic rhetoric will not change the epidemic dimension of AIDS, and preaching abstinence or trying to scare will not modify attitudes. Like it or not, teenagers have a sexual life of their own and homosexuality is the choice of many. Sexual education through TV advertising is part of a solution, distributing intravenous needles is another. AIDS is a reality, but we don't have to die from it, and neither do the people around us.

Steven McGrath Graham, Ph.D student in Chemistry at Stony Brook, recently presented a seminar on some of the strategies involved in the development of new drugs. I am indebted to him for many explanations concerning the action of potential drugs.



Talking With Ed Talking With Ed

This is an interview with Ed Bridges who just recently had a photography exhibit in the Union Gallery. The interview was done by Steve Schmitz.

Steve: There seem to be two levels to your exhibition. The aesthetic level of the photographs themselves which does not have an intrinsic meaning and then your written statement which brings a social element.

Ed: Yes, on the one hand each of the pictures stand on their own as compositions, but I felt there should be something explicitly stating my position on development of unused land.

Steve: It seems as if people could bring what they want to the photograph and see it their own way. It just shows you what's out there. A developer could look at these photos and see what he wants to see in them.

Ed: I made a conscious effort not to take a strict hardline environmental approach. I did not want to be classified as an environmentalist through my work. I would rather have it so that, as you say, a developer could look at these things and there own point of view could come out in looking at it. I'm sure that development is a very crucial and important thing and we can not exist as a society without it. But I think that what you are saying is right, and that's why I decided to make a direct statement to be written on the wall. But I feel that these photographs do have a negative tone to them where there is this emptiness. And it is not simply that there is nothing there, but it is an aesthetic emptiness: there is a lack of vision towards the development. That it is relegated to individual, fragmented parts of land and how a person who owns his land chooses to develop his land. I think that there is something wrong with that.

Steve: It's good that you are not biased in the exhibit.

Ed: Well, there is some bias, because I'm presenting a particular point of view. But I think that it's not biased in that I am accepting a lot of things that maybe some environmentalists won't- that development is a fact. And it is going to be difficult to inflict upon people a particular solution to how development should be done. And I'm including a lot of elements in the work.

Steve: There is a general theme going throughout the photographs ("Suburban Landscapes"), but many of the photographs have a very different feel than others. The photo of the couch seems surrealistic while the one of the desert with a single tree seems barren and empty.

Ed: Each photograph has a point of interest in it where everything in the photograph works toward that specific point. And I built the composition around that point. When I made the photographs, I would just go around taking pictures of suburban areas. Mainly, because I've been living in this area and that's where it's been more successful for me to take pictures. When I went around taking pictures, I did not have any specific ideas about development in my mind. Developed areas seemed most pictorially interesting to me. And when I made a picture, I worked on that particular photograph individually. I would develop it from locating the initial site to the framing and the composition of the photograph. If there was some element that I felt the photograph needed, I would introduce it myself- like a shopping cart- to enhance the composition and make that particular photograph work better as an individual work. So, each photograph is distinct from the others and that could be why you are saying each one has its own flavor. And when I set out to do an exhibit, I felt that I needed more than just a series of interesting pictures. I needed something to link all the photographs together. So, what I did was group the photographs together in a particular way. For example, the three pictures of the puddle, APRIL's, and the CASH BUY SELL were grouped together because they all have the same flat architecture which is a very common style in the suburbs. When I took those three pictures, I didn't see this picture as being a type of architecture and I didn't go out and try to find three examples of this style of architecture. Rather, these are three pictures that I had taken that showed this architecture very clearly. And each one stood well as individual photographs.

That's what I was going after, making individual photographs that stood well on their own and linking them together in some way that reflected my concern for the lack of cohesiveness of developed suburban areas. I felt that there was nothing holding it together and making it a cohesive and distinct community. It is more a haphazard development for making money.

Steve: Your pictures are mainly of very familiar things, but when they are presented here at the exhibit, they seem new. We are no longer just driving down 347.

Ed: Well, in the pictures, I place a very strong emphasis on the framing of the composition. It is a composition that I saw and I arranged and I had an impact on making it that way. I used particular photographic techniques. It might be using the orange filters to make the sky become dark grey. Or it might be the overdevelopment of an image, like in the photo with the couch taken at night. These techniques, I felt, would have an impact on the composition in such a way as to highlight a certain area and to bring out something that wasn't noticeable or isn't noticeable when you just pass by it. In the photo of HEALTH AIDS, I arranged the shopping cart in the photo. I put that front and center to be noticed, to be seen, because it is something very easily missed when going through stores. It's just something we throw things in and push along. But its a necessary thing for consumers. I created this composition using artificial light with the flash of a camera and long exposures to juxtapose it[shopping cart] with HEALTH AIDS. And maybe make a comment on the health in this society and how we are not a very healthy society because of so much emphasis on materialism and the materialism of the land. The land is a material object divided up and made into a commodity.

So one of the reasons that the photographs look so removed from the scene where they are taken is that I had a lot to do with the pictures looking the way they do. I chose a very particular spot. It had a lot to do with my vision, how I saw that spot. Maybe lower angles or further away angles. Maybe a spot that most people haven't seen.

It helps to present it in a way which we do not ordinarily see. To present it in a startling new way and have people reappraise their surroundings to a new end. Maybe to an end where the space can be organized better. Maybe compositionally better as I have organized these photographs. Maybe if people were to see the space around them as I see them and maybe organize the space to make it more aesthetically pleasing for themselves as I tried to do in these photographs.

Steve: This question also concerns me, since I also do photography. I was thinking of the word development. Here is a photo exhibit about land developed and then you developed the photographs. My question is what is your concern about the pollution caused by photographic chemicals and materials. We're part of the problem and I was wondering is there anything we can do besides giving up photography.

Ed: Actually I was conscious of the word development being used both ways. I am aware of the chemical impact of photography. B&W photography is not one of the worst polluters. Color photography is probably worse. And on top of that, the volume of work I do is much less than a small professional studio. But I do contribute to the problem. Further more, the paper I sometimes use is resin coated paper which is plastic coated paper and a lot of that gets thrown away. The majority of the paper I buy goes into the garbage. But this is a way in which I can return something. Maybe my actions are not so conscious but I feel that I am returning something with my photographs, raising some issues about the environment.

Also, I do try to conserve chemicals. And in other areas of my life, I make a conscious effort to spend my money at places that are more environmentally aware. I try not to buy products wrapped in plastic.

Steve: What are the problems of B&W chemical pollution?

ED: B&W photography is acids and bases. Developer is base and stop bath and fixer are acidic. The worst potential pollutant is the acid. But this is not the biggest problem which is neutralizing the chemicals. When you're using equal amounts of each of them, it is not enough to neutralize the developer. But this is not as bad as being too acidic. If you were to drop stop bath down the drain, there could be some big problems because of the acid. It is acetyl acid, but I do not know what kind of effect that that will have. There is also hypoquamine which I think is a bad thing which can develop sulfites. There are a lot of bad things going on in the chemicals. The best thing for them is not to pour them down the drain, especially on Long Island where the water table is so fragile. And anything poured down the drain just comes back to us.

Steve: Maybe you should reemphasize a solution to the problem of bad development.

Ed: There is an issue involved with the question

Vivisect Not

by Chris Saporita

Flipping through the latest issue of "Currents" I came across an article by Jordan Cohen entitled "The Simple Truth: Animal Research Saves Lives." This is the latest attempt by the animal research industry to discredit the claims of the animal rights movement that research on animals is unethical. I was less than surprised to discover that this article like all previous articles of its type contained blatant lies, unfounded assertions and purposeful emission of key facts.

Although views differ regarding particulars, the basic premise of the animal rights movement is that non-human animals as well as human-animals are conscious subjects of a life, capable of pain and pleasure and therefore have a self-value which is independent of their value to others. To deny the interests of these individuals because they are members of a different species is as arbitrary and immoral as denying the interests of individuals who belong to a *different race or gender.*

The ignorance or purposeful avoidance of this first principle is not only a deficiency but is also a grave injustice perpetrated by proponents of animal experimentation. They argue that medical "advances" are dependent upon animal research. First of all this is an assertion that cannot be made. While it is true that advances have been made using non-human animals as research subjects it does not follow that these advances could not have been made if the resources devoted to animal research methods had been invested a non-animal methods of investigation. Another unfounded assertion made by the animal research industry is that 20.8 year increase in life expectancy for Americans since the turn of the century was the result of animal experimentation. In reality this increase can most likely be attributed to better sanitation, plumbing, transportation and knowledge of high risk behaviors learned through human population studies. Also, while the United States leads the world in quantity of animal research performed, it lingers at 17th in the world for average life expectancy.

These, however, are not the most disturbing facets of the arguments against the animal liberation movement. The greatest failure of this argument is that it does not attempt to refute the first principle of animal liberation. In fact, it *discloses an underlying moral* principle, the implications of which are frightening at best. This first principle, which is held by the animal research industry shows clearly that they believe that the ends justify the means. It is easy to see that a society holding this view is capable of justifying any actions, however horrific or morally repulsive, by simply pointing to a beneficial result. To illustrate why this rule is a dangerous one consider the "researchers" of Nazi Germany. These people performed crude and painful experiments on human beings in the pursuit of medical and psychological knowledge. Clearly, the Nazis saw no need to justify the use of humans (the means) because of the resulting knowledge (the end) was the only issue worthy of consideration. Therefore it is not enough just to say that animal research saves lives in order to justify it, because the same can be said of research using humans.

Animal researchers claim to be concerned with the welfare of non-human animals. If this was true however, these researchers would take every opportunity to implement non-animal research methods whenever possible. But researchers are not really concerned with the welfare of non-humans. In fact, they are not even truly concerned with human welfare. This is clearly illustrated by their refusal to share their ideas with other researchers and pool data to avoid duplications and wasted time. In their paranoid quest for grant money and ego gratification they hide their ideas from each other. All the while people who could have been saved by their collaboration are allowed to die.

The animal research industry is self-perpetrating conglomeration that needs to be monitored closely by those who fund it and whom it purports to serve.

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you're asking and I'm not the one to make an answer to the problem and there isn't going to be an easy answer. People could just follow my solution but that probably won't work very well either.

The Stony Brook area was developed in this manner, the manner of a one man vision, Ward Melville. Up until the past few years, he financed that. The problem is that money is starting to run out and now the three village area is starting to run into economic problems.

It's hard to put strict laws on development. The results could be very nice and pleasing to the aesthetic eye but it might not be very economical. It would be very good if that did happen but I do not see how it could happen.

Maybe what I'm trying to do is to develop an imaginary landscape in my mind that is aesthetically pleasing and maybe I can remember what I see in a better way than it really is and maybe make my life a bit better in that way. And in the process, maybe enrich other people's minds.

I don't want to take the position of trying to present an answer to the problem of suburban development. I would rather raise the issue for discussion. And maybe bring along some ideas about recycling of empty space.

I think that it is something that sends strong signals about the kind of people that live in suburbs. Its on four wheels like cars, an integral part of our society. And its a basket- an age old thing with its own history, linking us with other cultures if you want to stretch it. And maybe ironic because one of our best health aids is a shopping cart.

Why is this man smiling?

Space Case

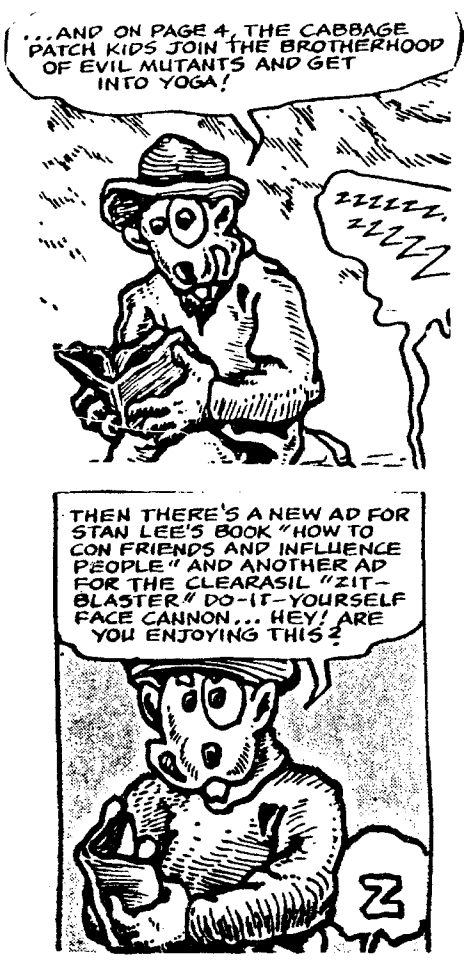
Astronomy Open Night will be held on May 4, 1990, 8 PM, room 001 of the ESS Building. Professor Peterson of the Earth and Space Science Department will describe the surprises found on the planet Neptune and its satellite system encountered by Voyager 2 last August before it left the plane of the solar system, heading for the Great Beyond. Following Professor Peterson's lecture, there will be a spying session on the stars with the University's small telescopes...if it doesn't rain. Join the Force. For more info contact Rohrbach at 632-8221.

Ombudsman Wanted

Secretary of State Gail S. Shaffer urges students to consider participating in the Department of State's ombudsman internship in the program's regional office in Hauppauge during the Summer. Interns can earn credits for helping Secretary Shaffer's regional representatives administer Governor Cuomo's ombudsman program across the state. The program helps citizens with questions or problems regarding the state government. For students who are interested call either the local office in Hauppauge at (516) 360-6579 or the toll-free ombudsman hotline at 1-800-828-2338.

Live Murder

The Actor's Workshop of Long Island Theatre Company will present "Murder On Center Stage," a mystery thriller in which the cast is trapped in the theater during rehearsal and they must pit their wits against a demented mind. Performances are held at the Dowling College Performing Arts Center In Oakdale, April 26 thru May 26, Thur., Fri., and Sat. at 8 PM and Sun. at 3 PM. Tickets are $4-$10. For reservations call (516) 244-3399. Bring a coat for the chilling effects.



Move Over Turtles

It's The Adolescent Radioactive Black Belt Hamsters who are now taking over (the comic scene with over 500,000 copies sold worldwide). Created by California University Journalism student Don Chin and drawn by friend Patrick "Parsonivich" Parsons, the fighting rodents have gained a cult status and were even mentioned on Late Night With David Letterman...imagine that. Elected by the UN, sent by NASA, changed into radioactive rodents by a "radioactive cosmic jello," and raised and taught by Himalayan Monks the expertise of martial arts, what can go wrong? Published and created in 1986, Chuck, Clint, Bruce and Jackie are now back in the comic book spotlight this summer featuring the hamsters with super powers. The explanation for the powers? "They hit puberty," said Chin.

The Dead Rock Nassau

By Eric Penzer

In a recent issue of Rolling Stone Magazine, the Grateful Dead's Jerry Garcia was quoted as saying that because of past problems with unnecessary police arrests, The Dead would not be playing any more concerts at Long Island's Nassau Coliseum. However, only weeks after this interview ran, it was announced that there would indeed be three Grateful Dead concerts at this venue on March 28, 29, and 30. These would be the first Grateful Dead concerts on Long Island since March of 1985. Publicist Dennis McNally stated that in light of a relatively good scene at the Jerry Garcia Band's September 1989 concert at The Coliseum, the band would return for the concerts. The question was, were the problems that Deadheads faced in past years going to reoccur in 1990?

1989 proved to be a hard year for Deadheads. The first bad happening of the year came in April, when concerts in Pittsburgh resulted in numerous arrests, near riots, and making sure The Dead would not be playing Pittsburgh again in the near future. At the October 14 show at The Meadowlands Arena, a Connecticut college student, Adam Katz, was found mysteriuosly dead. Accusations state that security guards took out their frustrations on the student. A similar incident occurred at the New Year's Eve stand of shows in Oakland.

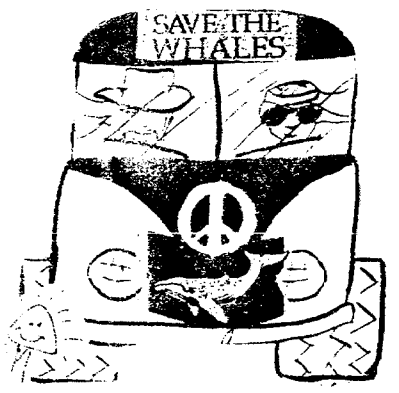
1989 also proved to be a very rewarding year for fans. The fall tour yeilded the return of songs that Deadheads felt they would probably never hear again. Such examples are the Deadhead favorites "Dark Star", "And We Bid You Goodnight", and "Attics Of My Life." All of these songs were re-debuted at two "surprise" shows in Hampton, Va. which billed the band as The Warlocks. The Dead continued reviving old favorites during the 1990 spring tour. Early on in the tour, fans heard such old favorites as "Black-Throated Wind," and "Loose Lucy." Because it has hosted many spectacular shows in the past, many waited with eager anticipation for The Dead's return to Nassau Coliseum. These people were not dissapointed. Rather, they were treated to three shows that made the Grateful Dead seem young again.

The first night at the Coliseum gave the fans a great version of the rarely played "High Time," from 1970's *Workingman's Dead*, along with "Loose Lucy" and The Band's "The Weight," which featured different bandmembers singing verses. The encore on the first night was a version of "Revolution." Although many were worried that the scene at the shows would be a replay of the Dead's 1985 Nassau stand, everything seemed to go smoothly. In fact there were only 35 arrests on March 28, none of them made inside the arena.

On March 29, The Dead were joined by Branford Marsalis for the end of the first set, and most of the second. His presence was most felt on the Deadhead favorite, "Dark Star," which gave him ample space to solo. Other than "Dark Star," the rest of the show was fairly standard and included "Jack Straw," "Bertha," and a great "Eyes Of The World" to open the second set.

The stand ended with a third show on Friday, March 30. Unlike the previous shows, tickets were nearly impossible to get for this show, and scalpers were asking an upwards of $60. After the past two shows, many thought that The Dead would be tired, but if they were, they did a good job of hiding it. The first set opened with "Help On The Way/Slipknot" into the favorite "Franklin's Tower." Later on in the set, audience chants of "We Want Phil" led bassist Phil Lesh to sing a version of Bob Dylan's "Just Like Tom Thumb's Blues." The second set, however, was clearly there for Garcia. After a standard "Aiko Aiko" opener, Weir's "Playing In The Band" led into "China Doll," "Uncle John's Band," and finally, the mammoth "Terrapin Station." The evening's encore was the recently resurrected "Attics Of My Life."

Many people said that they felt that the three nights on Long Island were the best on the Spring Tour, and I agree with them. Not only did the band play us some lost favorites, the shows were played and sung with energy. After being Dead for 25 years, the band is still showing us signs of life.



A Night at October

By Lee Gundel

There is only one word that adequately describes The Hunt for Red October, and that word is intense. Few movies ever generate the kind of impact that this film delivers in terms of plot, cinematography and pure feel--it is, in other words, an all around good movie. And that is a pretty rare commodity today by any standards.

Much of the credit for the film's success, of course, must go to Sean Connery's brilliant portrayal of Captain Marko Ramius, the morally driven skipper of the Soviet typhoon class submarine Red October. Ramius is justifiably upset at the Red October's ability to evade detection by sonar: an ability which makes it an almost failsafe tool for a Soviet first strike. Not wanting either he or his crew to be a party in the starting of WWIII, Ramius defies the Kremlin in order to surrender this deadly stealth technology to the U.S.

But, as it turns out, surrendering the Red October to the appropriate U.S. authorities is not as "easy" as it sounds--especially when Washingtion thinks that it and Ramius are coming to blow up bits and pieces of the Atlantic seaboard. Ramius, in fact, almost falls into the trap that Moscow is setting for him when he recieves help from an unexpected place: CIA intelligence analyst, Jack Ryan (Alec Baldwin).

It is Jack Ryan who is the film's other main protagonist, and who is, in many ways, just as resourseful a man as Ramius. It is he who pieces together the true purpose of the Red October's mission, and who convinces the U.S. military to encounter this ship on peaceful terms--"peaceful" here, of course, being a relative term. There is hardly a quiet moment in the movie, and only reason why Ramius has even half a chance of succeeding in his mission is because he is so good at second guessing the military. And the only reason why he actually succeeds is because Jack Ryan is so good at second guessing him.

There are several points in the movie, however, when the mission seems doomed to almost certain failure. It is only when things start coming together for Ryan that he can arrange for East to meet West without mutually assured destruction. And it is these moments of confrontation that really add to the movie's strength. It is in these strained moments that the "good guys" really prove themselves to be heroes in the true mold--people who do not let stereotypes get in the way of what really counts in life: trust in one another and our ideals despite differences in political ideology.

A pretty heavy handed message? Yes, but not so heavy handed as to bog down the movie in its own tracks. The Hunt For Red October remains a powerful movie even without such insights into human nature, and this is, of course, the way that any self respecting movie should be. It has something in store for everyone, and, for anyone who has not seen it yet, it should be seen immediately if not sooner.