



(photo by John Fleshin)

The Observer
special supplement
on the environment
see page 7.

Teach-In Schedule

The Environmental Teach-In entitled "Project: Survival" will begin this evening at Emerson Gymnasium. The aim of the teach-in is to educate everyone on the issue of the environment in preparation for April 22—Earth Day. The two-day conference will present outstanding speakers on this topic and there will be no admission charge. The schedule is as follows:

FRIDAY, APRIL 10, 7 p.m. —EMERSON GYM

Dr. Epstein-Chairman, Department of Environmental Toxicology and Carcinogenesis, Children's Cancer Foundation, Boston. Topic: "Biological Hazards due to Chemical Pollutants."

M. Bookchin—Author and Lecturer in Sociology, New York City. Topic: "Pollution and Political Action".

Dr. Radford—Professor, Environmental Health, Johns Hopkins University, Dr. Reitze—Professor of Law, CWRU. Topic: "Atomic Energy: Friend or Enemy?"

Dr. Davis—Professor, Department of Zoology, University of Kentucky. Topic: "Population. Pollution and Survival".

Dr. McGowen—Administrator, Center for Biology of Natural Systems, Washington University, St. Louis. Topic: "Citizen Action: Air and Water Pollution."

C. Bunche—Weeks—Women's Liberation Movement. Topic: "Consumerism: a New Movement."

SATURDAY, APRIL 11, —BAKER BUILDING

9:30—12:30—workshops headed by experts

1:30—4:30—workshops

5:30 (in Strosacker)—Results of workshops will be reported to prepare action for Crisis in the Environment Week (April 19-26).

The Observer

VOL. 1 NO. 45

The Student Newspaper of Case Western Reserve University

APRIL 10, 1970

Kinsella denies threat of bust

"A great deal of fairness was shown toward the three students (accused of drug abuse) who voluntarily withdrew," said Assistant Case Dean William Kinsella in reply to charges that he intimidated them.

The student movement, headed by Sheldon Laube, intent on forcing Kinsella to leave the university barred reporters from its second meeting Tuesday night. The meeting, originally scheduled for 7:30 in the union, was quietly moved up to 8:30 in the basement of Mather House.

"I'm not worried about the movement because my actions were fair," said Dean Kinsella. Dean Karl McEachron Kinsella's superior said, "I thought the case was properly handled." Both men were interviewed Monday.

Dean Kinsella stressed that he had told the three that either they voluntarily withdraw or he would refer his information to a "disciplinary hearing."

"This hearing would have been held by either the Judicial Council of The Extracurricular Affairs Committee of the Case

Assembly," said Dean McEachron.

Dean Kinsella denies allegations that he threatened the three with a "bust" by Federal authorities if they didn't withdraw. Dean McEachron admitted though that "if a disciplinary hearing was called federal authorities would probably hear of the case. The boys were certainly aware of this."

"I didn't think it wise not to withdraw because I didn't know what he had on me. I was gambling with a 40 year prison sentence. He asked to voluntarily withdraw with a knife in our backs," said one of the three.

When asked about a possible violation of due process, Dean Kinsella replied,

"We are interested only in the truth and once we find the truth we act on it. This isn't a court but an educational institution."

Confirming a statement by one of the three that he had forbidden them from returning to campus before the fall, Dean Kinsella said, "If they return to the scene of their activity, they

would be more likely to get involved again."

Though Dean Kinsella felt obligated to keep his information and the content of his meetings "private", he emphasized that "the degree of their activity was very important."

"These students manufactured drugs for profit and that is an important fact in this case," said Dean McEachron, though in an earlier interview one of the

withdrawn students had said that he was officially asked to withdraw because he had bought marijuana in the dorm.

As to the source of his information, Dean Kinsella said, "I acted on information from a student who was disturbed by the flagrant abuse of drugs by the three." The dean knew nothing of a charge made by one of the withdrawn students that his phone in Tippit House was tapped by Federal authorities.

"I handle each case

individually. After looking at the student's background, I decide what is going to help him most. For some students, the penalty can be a learning experience," Dean Kinsella said.

"I haven't gotten a single complaint from their parents," said Dean Kinsella. Dean McEachron added, "I haven't gotten a single complaint from a student about this whole business. The only complaints I've gotten is that we haven't gotten all the students."

Greenie accused of threatening violence

By WILLIAM JOSEPH

Adelbert student Tom Carlino was stopped and searched by UCDF police at 12:30 a.m. Saturday night. Patrolman Norman Dangelo reported seeing the student on the roof on Haydn Hall and radioed Officer Cash and other UCDF policemen to the building.

Carlino, interrogated by Cash, claimed that the officer threatened him, saying, "It would be a lot easier if you admit it," and then said that, if he did not cooperate, he (Cash) "would have to work him over at the station."

Carlino denied being up on the roof and said that he was merely

returning to his dorm with friends after seeing a movie at Schmitt Lecture Hall. Cash refuted Carlino's accusations concerning the verbal threats he allegedly made. The student was thoroughly searched and allowed to return to his dorm.

Carlino then called the UCDF police department, and, in describing the incident, further accused Officer Cash of having alcohol on his breath. Cash, as well as all the other officers and supervisors at the police station, denied these charges.

Chief Michalski, when later questioned about an informal agreement among policemen in general not to "squeal" on each other, did indicate that this could apply to the Haydn Hall incident. When asked whether Cash should not have been given an alcohol blood test that night as a matter of routine when such charges are made, the chief

(Continued on Page 23)

Jerry Rubin visits campus today

Jerry Rubin, author, Yippie, and Chicago 8 defendant, will speak at 8 p.m. tonight in Harkness Chapel. Doors open at 7 p.m.

Rubin will appear with his girl friend, Nancy Kershan, who spoke when the Chicago 8 attorney William Kunstler addressed overflow crowds here March 6.

The author of DO IT!, billed as "the most important political statement made by a white revolutionary in America today," Rubin lead the Festival

of Life demonstrations at the 1968 Democratic National Convention.

He was involved in the Berkeley Free Speech movement in 1964 and organized Vietnam war protests in California.

Rubin is scheduled to appear on the Alan Douglas television talk program Saturday night. Channel 61. He will tape the program today; also he will speak at Kent State University at noon.

His CWRU talk is sponsored by the Law Students Civil Rights Research Council.

The statement attributed to Mike Sheppa in Tuesday's Observer about Dean Kinsella was a statement attributed incorrectly. (See letter to editor).





ATTORNEY GENERAL PAUL BROWN (Photo by John Fleshin)

Report claims fair play in Moot Court program

By LILA SHAPERO

An ad hoc committee appointed by Dean Louis Toepfer of the Law School found that the Moot Court Board had conducted the Moot Court program fairly. The committee had been formed to investigate Walter Stone's allegations that the selection of Dunmore Round participants had been done unfairly by the board.

The committee report did mention that there were irregularities such as uneven attendance by board members at the hearings (Stone had charged this). They felt that the board had considered this during the selection process.

They felt that a lack of written information concerning the Dunmore Round and its administration had partially led to the confusion and should be corrected.

The board members select Dunmore participants on the basis of oral arguments, not on winning the case. The committee felt that the board should have made the participants aware of this. (Stone had alleged that certain people had been overlooked despite winning their rounds, while their opponents were advanced.)

Participants should also be told that the attorney-judges' opinions are not always considered during the selection process, according to the report.

The report added that five board members should be present at every hearing. This would make the cumulative voting more fair.

Board members only vote on people that they have heard argue, and they vote on a scale of 10 to 1. Having each contestant in the formal round viewed by five members would give some uniformity to the voting and alleviate the problem of having one contestant judged

by three members and another judged by ten.

Board members may also vote on the people that they saw in the informal or practice round, and the committee suggested weighting the different rounds.

Dean Toepfer felt satisfied with the committee's report and felt that the selection for the Dunmore Round had been conducted fairly.

He said that the committee was composed of two faculty members and three students. He had asked the Moot Court Board and Nathaniel Baccus, Stone's attorney, to suggest student members, and had taken one student from each list.

Dr. Joseph W. Cole will begin his duties as Vice Provost for Student Affairs on May 1st according to Vernon Michelson, executive Assistant to the President and Provost and V.P. of Finance.

When questioned about the March 10th article stating that Provost Herman Stein had ignored student opinion in choosing the Vice Provost, Michelson stated that there was confusion on who was being chosen for what post.

He stated that they were considering Don Cole for University Dean of Students and Joe Cole for the position of Vice Provost for Student Affairs. He suggested that the administration may have been in fault in not making this clear.

The position for University Dean of Students is still open although Michelson said that this may change due to two considerations. Dr. Cole may feel that he does not need an

assistant after becoming familiar with the job. Also, budgetary conditions may prevent the filling of this post. He stated that people like Ernie Green, assistant Vice Provost of Student Affairs, could fill a supporting role.

Michelson stated that the two jobs encompass two different points of view. The Vice Provost for Student Affairs deals with the deans on non-academic matters, the Counseling Service, Student Union, Health Service, and athletics. He deals primarily with administrative responsibilities and their point of view.

The University Dean of Students would be connected with student groups in order to help them with their problems. He would represent the student's point of view when dealing with the rest of the administration according to Michelson.

Michelson stated that the administration had conducted a

Brown voices concern over drugs, crime rate

By LINDA SCHWARTZ and JOHN FLESHIN

Attorney General Paul Brown, Republican candidate for Governor, emphasized his concern over problems of drug abuse and rising crime rates in the state while speaking Wednesday afternoon in the 1914 Lounge.

Brown indicated that he felt marijuana is a dangerous drug and those who use it will sooner or later fall victim to it. "When I speak to students," explained Brown, "I'm told that young people have lost faith in my generation because it has failed to deal effectively with problems of poverty and air and water pollution."

"I agree," continued Brown, "that we should have done more and that we must do more, however, your generation has the responsibility of dealing with the problem of the illegal use of drugs. If the problem isn't dealt with immediately, you'll have to pay with a large increase in the number of people in mental hospitals. The time has come for cleaning up drug abuse."

Brown added that most of the state's 20,000 heroin addicts are of the younger generation.

As Attorney General, Brown has tackled the drug problem by sponsoring drug seminars for Ohio police and educators and creating Ohio's first drug investigation on a state wide level. Brown also hired a former FBI drug man, Albert Cook, who firmly believes that the use of marijuana leads to heroin addiction, to head the Narcotics Bureau for the State. Cook trained eight men to infiltrate the "drug culture" throughout Ohio and found that drugs are prevalent on college campuses and in the large cities.

Since there is insufficient law enforcement and drugs are available at reasonable prices, Brown thinks that one answer to the "drug problem" is that students should report users of illicit drugs, or "the social patterns of the country will fall apart." "Instead of turning

people on, turn them off," suggested Brown.

When asked why marijuana isn't made legal while alcohol is sold in state stores, Brown commented, "We don't have to be consistent in everything we do. As some philosopher whose name I don't remember once said, 'Consistency is the product of small minds.'"

When asked if he would support legalization of marijuana if and when it might be found to be relatively harmless and the

majority of people in the state supported its legalization, Brown replied "No."

After serving as a judge for nine years in Youngstown, Brown turned to administration because he felt that many of the recent Supreme Court decisions have made the adversary system of justice ineffective by placing the blame for crime on society.

"Cases which should be short now take too long because of successive appeals. There's no way of terminating the trial," Brown added.

Changes proposed to Arts, Sciences faculty

The Arts and Sciences Curriculum Committee is proposing B.A. program changes to the faculty, which should be submitted to a faculty vote at the end of the month, according to Dr. Roger Salomon, committee chairman.

The changes center around the adopting of a course credit system and the redefining of the requirements for graduation and a major. A minor program is included in the proposal.

Dr. Salomon felt that this proposal would end "the cafeteria style" of education, or the dipping into a little of each field to fulfill distributional requirements, by dropping the present distributional requirements and implementing a minor program in their place. This would give the student an additional outlook while he is involved in an in-depth study within his major.

The provision allows for a departmental option in either retaining the present major and hour system or changing to a course credit system.

Departments that change to a course credit system would have flexibility in determining the structure of their courses, instead of adhering to the present system of having a three hour course meet three times a

week, or the equivalent of three hours.

Dr. Salomon stated that the course credit system works well with the idea of four course load in that it involves a more in-depth study of fewer courses. He felt that a variable system with some departments changing would allow the student flexibility in his scheduling a light or heavy load from semester to semester.

Hopefully, the change would propel departments to create more and better courses and to dispose of the survey courses in some areas, according to Dr. Salomon.

To graduate, a student would have to complete no fewer than 32 courses (4 a semester) and no fewer than 120 credit hours. Each student could take 12 to 18 credit hours per semester.

In order to major in a certain department, a student must take 8-16 courses within that department or fulfill existing requirements in the departments that do not change to course credit. He must also take a minor program of 4-6 courses.

The proposal contains an option for students to create their own major or minor program.

Dr. Salomon stated that the proposal may disappoint people who want the entire university to change to a course credit system now and that others may feel that the proposal is too complicated.

He felt that a few departments could change to a course credit system by next fall.

Health services to be merged

Negotiations for the merger of the Case and Western Reserve health services are underway. The negotiations will try to establish a common viewpoint for treating students. Once these differences are ironed out, a complete physical merger will become a greater possibility.

Dr. Kelly, director of the Case health service, stated that the coalition would "combine the best of both systems, making them similar, but not identical." What both health services want said Dr. Kelly, "is a rational delivery for medical care."

Dr. Newberry, director of the Reserve health service, said that the process will be a very slow one, but "it has been decided that it will be done." The finances and other mechanics still have to be worked out.

Cole becomes Vice Provost despite student protest

Dr. Joseph W. Cole will begin his duties as Vice Provost for Student Affairs on May 1st according to Vernon Michelson, executive Assistant to the President and Provost and V.P. of Finance.

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assistant after becoming familiar with the job. Also, budgetary conditions may prevent the filling of this post. He stated that people like Ernie Green, assistant Vice Provost of Student Affairs, could fill a supporting role.

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DISCUSSING THE FUTURE OF EDUCATION in the areas of public education, universities and graduate schools are Dr. Bertram Masia of the education department, Samuel Gorovitz, Dean of Adelbert, Ivan Miller, Adelbert alumnus and Professor Levenson, former Cleveland school superintendent. (Photo by Rick Weitzer)

Panel: federal spending

By LESLIE KAISER
AND RON WEINSTOCK

The pressures of Federal spending on education was an important problem discussed by members of a panel on the future of education in the 70's, Tuesday, April 8, at Schmitt Lecture Hall.

The panel members were Professor Levenson, former superintendent of Cleveland schools, Dean Samuel Gorovitz of Adelbert College, and Professor Bertram Masia, chairman of the education faculty. Ivan L. Miller, Adelbert College alumnus, was the moderator.

Each member spoke individually on his own topic and then discussed some questions together. Professor Levenson talked about the future of the public school system. He predicted that grants from the federal government will double and that there will be greater pressure for a voucher plan where students will be able to "buy" their education from whatever school they choose. He said "private schools will proliferate," and there will be more teacher militancy, with a rise in salaries and criticism of tenure policies.

Dr. Gorovitz was less willing to make predictions. He did note four main areas of pressures facing private universities. Agreeing with Dr. Levenson on the important role external forces will play in shaping the university, he recognized the importance students have as a force within the university.

Dr. Gorovitz saw the rise of state universities and public higher education as raising major problems to private undergraduate colleges. If tuition at a private school is in excess of \$2000, how does one compete with the lesser fees of public universities. On the economic base of private institutions, Dr. Gorovitz noted that many universities had become so dependent on federal money that a recent withdrawal of federal funds has been so rapid and total that many universities are threatened with extinction. The federal government is asking private universities to attract more inner-city youth, but is providing less money for the schools to implement these plans.

Also viewed as serious were a

partial diminution of public confidence in higher education and internal conflict within the university. Specifically referring to CWRU, Dr. Gorovitz noted the severity of the first two. As far as the public image of CWRU, he felt the university was in good shape and that the university was in a good position regarding its own shortcomings. He also felt that efforts were being made to improve things, citing the Commission on Education at Mather and Adelbert Colleges, which he was chairman of, as an example. For the future of CWRU, he was optimistic "if we don't go out of business."

Dr. Masia, after considering the ascendancy of the graduate school over the educational establishment, explained that he felt the nature of the graduate school was changing, as was the fact of its dominance. Graduate schools are reducing in school and scope, some are being eliminated, others will cut down to the masters level, and one can expect an end to the dominance of the departments. Graduate schools could survive as long as the need for doctorates seemed limitless. With the present unemployment of many physicists who have earned their PH.D.'s, this situation no longer holds.

Balanced budget, no deficit financial goals of University

By MARLENE MERRITT

A reduction of the university deficit and a balanced budget for 1971-72 are the announced financial goals of the university.

Hence, heads of the academic divisions have been asked to approve no new salary increases for present faculty nor to appoint additional faculty without specific approval from President Morse's office.

Such was the information received through a memorandum to faculty from President Morse.

He recounted the financial stringencies facing the university. University deficits, which have been running between \$3 million and \$4 million dollars annually, can no longer be offset by endowments.

Therefore, "By agreement with the Trustees, we have set ourselves the task of producing a \$1.8 million maximum deficit in 1970-71 and a balanced budget in 1971-72."

Citing the reason for this policy, President Morse stated, "It is imperative that we achieve the stability of a balanced budget so that we can channel our major energies to the improvement of the educational and research programs of the university."

"Department chairmen have already met with the Division of Social and Behavioral Sciences and the Division of the Arts and Humanities to inform them of the new financial situation.

Individual salary recommendations are initiated by chairmen.

"I have reported to you in previous years on the financial stringencies facing the university. I do so again.

"In brief, although operating income has increased in recent years, expenses have increased even more rapidly, despite the policy followed since federation of limiting or curtailing all expenses except those required to maintain or improve our competitive position in faculty salaries and benefits. The operating deficits produced by the discrepancy in rates of increase in income and expense have been met from funds functioning as endowment, but those funds are now virtually exhausted. Although we shall seek to increase income in every way possible, we have no choice at this time but to adjust operating expenses to realistically projected operating income.

"The university deficits recently have been \$3.0 million to \$4.0 million annually. By agreement with the trustees, we have set ourselves the task of producing a \$1.8 million maximum deficit in 1970-71 and a balanced budget in 1971-72. The achievement of these goals will not be easy, but it is imperative that we achieve the stability of a balanced budget so that we can channel our major energies to the improvement of the educational

UCPD: no control by "outsiders"

Members of the interim Police Control Board met Wednesday with UCPD Chief Craig Michalski to query him about the bases of past and on-going police surveillance.

He had earlier refused an open meeting with the group. "I do not want an inquisition," he explained.

BOARD: What do you think the effect a control board would have on the morale of the police?

MICHALSKI: Very bad. I shall not subject them to the control of outsiders.

BOARD: Students are not outsiders—many are full-time residents.

MICHALSKI: ... it is unwieldy for me to deal also with the whims of representatives of the 32 University Circle institutions... that is why I work with Morse and not a review board... Morse, not the Cleveland Safety Director Davis, nor the Director of UCDF, has final say over my actions on campus—as long as there is no illegality.

B: Are there student informers?

M: Yes. No. Some students call in voluntary complaints but refuse to give their names. No DIRECT legal action can happen because there thus is no "complainant." That's what the whole Kinsella thing is—we couldn't have a search

warrant. We keep a list for investigative purposes only.

... There are no paid informers and there is no pressure on students to "fink." ... there is no conflict

of interest with the administration on the Kinsella matter; a felony was committed, we see that, I have no complaint because the problem was cleared up.

... There are paid federal informers and yes, they are here.

B: What about the City of Cleveland cops at the Thwing Anti-Imperialist meeting.

M: Yes. I called the 5th District about that. They were getting coffee... They shouldn't have wandered upstairs... Only the University could officially request city police not to walk on campus.

B: If an incident occurs in which student police trust breaks down because a student is threatened, what can be done to encourage the student to take the grievance to you.

M: Why would he be afraid?

B: Because you have SOME responsibility in the appointment of those very officers.

M: Young lady, we recruit from the human race.

The Board suggested to Michalski there be student representation on the Morse-Ubbelohde-Haskell committee because they felt there would be the same kind of non-communication with them as far as the airing of grievances. "The students feel completely by-passed. The greater the gap of communication becomes, the more likely the university students and police are likely to create the problems of violence and crime we are both trying to prevent. This is the reason for the interim Police Control Board."

To this, Michalski suggested the group talk with President Morse.

The people who spoke with Michalski, most of whom were Control board members were, Dr. Ted Voneida, Father Jim Leehan, UUSG President Mark Rasenick, law student Chris Conybeare, and undergrad students Lee Berger, John Barbour, Lee Berger, and former student Marie Annen.

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The Observer



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Confusion

In an attempt to implement initiation of a four-course load, the Arts & Sciences Curriculum Committee has proposed that each department vote either to retain the present credit system or change to courses designed for a four-course load (course credit system).

Confusion will only result with the two systems operating simultaneously.

Major and graduation requirements will be defined by one's department. They will be measured in either hours or courses.

In addition, a maximum of 18 hours per semester is proposed. One can take a range from four to six courses depending on the type of courses.

Assuming, for clarity's sake, that all the departments choose the course credit system, no student could take more than four courses or the equivalent of 16 credit hours.

Not only will the transition period be extremely confusing, the end result of a four-course load will place a limit on the number of courses a student may take and will limit his educational opportunities.

Complaints of the quality of the education can not be combated by eliminating part of the present educational system, only by correcting and intensifying the present system.

Attend teach-in

A teach-in, entitled Project Survival, is being held on this campus tonight and all day tomorrow. It seems a bit ironic that a discussion of one of the more serious problems facing the world today should take place at a university which, along with some of its fellow institutions in University Circle, is a contributor to the problem of pollution of the environment.

It is hoped, however, that by initiating constructive, political action, rather than merely dealing in ecological rhetoric, this teach-in will result in effective pressure being brought to bear against the University and against all concerns who desecrate the environment.

The fouling of our air and water, the proliferation of wastes, noise, and, indeed, people, are problems which face every man, woman, and child on earth. It is for this reason that we urge all members of the University Circle community to participate, both in the teach-in itself, and in the action which must follow. Unlike Haley's Comet, we just can't sit and wait for decent environment to come around again.

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Due process

Dean Kinsella's frightening power over Case students must be disarmed. The case of the three Tippet House residents who Kinsella asked to voluntarily withdraw because of drug use is a clear example of his abuse of the position of dean.

The policies of this University prohibit what he did. The judicial council, approved by President Morse, "shall provide all students with reasonable rights of due process."

The three were threatened by Kinsella with undefined information and denied the right to consultation before making their decisions. One of the three said afterward that he wouldn't have withdrawn if Kinsella had allowed him to talk with someone first.

Dean Kinsella doesn't believe that due process applies to his dealings with students. "This is not a court of law but an educational institution," he said.

The policy was there but Dean Kinsella didn't believe he had to follow it.

Kinsella means well, but a student's right to due process cannot be ignored. He believes, for example, that drugs are a menace to a student's future and that he has the power to pluck those he considers flagrant abusers out of Case. Kinsella looks at the student's background and then passes judgement. "For some students, the penalty can be a learning experience," Kinsella believes.

According to President Morse's statement of policy of March 17, 1970 (a copy of which was distributed to students, faculty, and administrators the day before Kinsella acted):

"University disciplinary action is taken to serve the purpose peculiar to the University, which includes protection of the University community and preservation of University functions."

Discipline is not meant to perpetuate a dean's conception of an ideal student body.

Politics

Polluting Vietnam

By PAUL KERSON

Lake Erie reeks from the stench of garbage. When you open a window in University Circle and take a deep breath, a hearty cough is the usual reaction. This has been the case, more or less, for the last several years or so. Until recently, Muny Light, Republic Steel, and Ford polluted the Cleveland area with relatively little interference from anyone.

However, thousands of miles from Ohio, events very much related to the above statements are transpiring that no longer shock most of us here at CWRU. From April 1-5, for example, 92 Americans, 331 South Vietnamese, and 1026 North Vietnamese and Vietcong soldiers died. The Defense Department admits to the loss of 6603 aircraft in Vietnam and Laos over the last five years.

Last week, we dropped 1200 tons of bombs on North Vietnamese "troop concentrations, base camps, and supply depots." We have already dropped more tonnage on North Vietnam than we dropped on Nazi Germany in World War II. According to Felix Greene, producer of the film, "Inside North Vietnam," aired here in January, 1968, North Vietnam is completely destroyed, save for Hanoi and Haiphong. At that time, we were carrying out approximately 430 raids per day. It is no surprise that Mr. Greene claims that schools and hospitals have also been bombed by us. Since the roads are completely annihilated, the "enemy" supplies its troops using more than half a million bicycles, each of which can carry 400 pounds of supplies a day when wheeled by a pedestrian. This is equal to the transport capacity of about 20,000 trucks. All motor vehicles used by the "enemy" must use roads in Laos and Cambodia simply because there are no roads to speak of in North Vietnam. But the people of the North are a determined people, according to Mr. Greene and others. They have fought the Japanese, the Chinese, the French, and each other, and they will have no trouble fighting our nation, as we fortunately are bound by diplomacy (and by humanity, one hopes) not to release our full, war making potential.

The U.S. budget for fiscal 1970 is \$195.3 billion, which includes \$79 billion on total defense spending. The admitted cost of the war in Vietnam is \$25.4 billion. However, since the business of the Defense Department is to make war, and this is the largest war we are currently making, one can only guess at how much more of that \$79 billion actually goes to the war in Vietnam, which is currently engulfing all of Indochina. As of December 15, 1969, there were 472,000 U.S. troops in Vietnam. Totaling our war dead is too depressing to research especially when one

adds in the number of other human beings who have also died.

Yet, here at CWRU, our social and political concern has been turned to Project Survival, which will take place today and tomorrow in the Emerson Gym, the Baker Building, and Strosacker Auditorium. We're going to talk about atomic energy, the population explosion, air pollution, solid waste disposal, the cost of environmental deterioration, the politics of air pollution and consumption and the

(Continued on Page 5)

Crackers

By Lrpkr

What's your CWRU—IQ

If anything has been proven by the recent UUSG elections, it's that many students are sadly unaware as to what's coming off on this campus. In case any of you are silly enough to challenge this assertion, let me direct your attention to the CWRU-IQ test presented below. The test, comprised of nine multiple choice questions easily answered by the average primate, is designed to probe the depth of your knowledge of recent campus goings-on. Before you start, remember—you can't move your lips when reading the questions. Also, answer sheets are available at the L.B.I. office—we wouldn't want the right answers to become common knowledge. Finally, all names have not been changed to incriminate the guilty. Good luck!

1) The greatest danger to your physical and mental health here at CWRU is:

- (a) the food you eat
- (b) the air you breathe
- (c) the books you read
- (d) all of the above.

2) "Benign neglect" refer to:

- (a) your attitude toward homework
- (b) Saga quality-control practices
- (c) President Morse's supervision of UCPD activities
- (d) something you heard Walter Cronkite talking about

3) The friendliest place in University Circle is reputed to be:

- (a) Little Italy after dark
- (b) Mather House after hours
- (c) the UCPD station after a recording session
- (d) T&C's bordello after a raid

4) Tenure is not a dirty word in the:

- (a) Physics Dept.
- (b) Economics Dept.
- (c) Sociology Dept.
- (d) Maintenance Dept.

5) The widely-used term "struggle" is actually a basic concept of:

(Continued on Page 5)

Newsbriefs

By MIKE SIMONS

CARSWELL—The U.S. Senate Wednesday gave its advice but not its consent to President Nixon's latest nominee for the Supreme Court seat vacated by the resignation of Justice Abe Fortas over a year ago. By a 51-45 vote, the Senate rejected Federal Judge G. Harrold Carswell of Florida. Nixon thus became the first president since Grover Cleveland to have two successive nominees to the Court Rejected. The first nominee, Federal Judge Clement Haynesworth of South Carolina was voted down last year.

SUPREME COURT—The High Court has ruled that a judge has the right to gag or even remove from court a defendant who is unruly or disruptive during proceedings. The decision, which deals with a 1956 burglary case is significant in view of the recent trial of the Chicago 7 and the Black Panther trial in New York. In the majority opinion, Justice Hugo Black said that removing a defendant from court should be used only as a last resort, after sentencing for contempt.

KENNEDY—The investigation of the accident at Chappaquiddick Bridge in which Mary Jo Kopechne drowned in Senator Edward Kennedy's car appeared to be finally ended this week. The Dukes County (Mass.) grand jury adjourned its inquiry into the case after deliberating three hours. It returned no indictments and appeared to signify that no further criminal action would be taken against Kennedy. Previously the Senator had pleaded guilty to leaving the scene of an accident and is on one year probation. He said that he was very much relieved with the outcome and that he planned to run for another term this year. Asked about campaigning for the Presidency in 1972, he said that his earlier statement—that under no circumstances would he run—was irrevocable.

MUNITIONS SHIP—The Cambodian government has released the American munitions ship Columbia-Eagle which was hijacked in the Pacific Ocean on March 18. The two hijackers were granted asylum in Cambodia but the rest of the crew was allowed to sail from Sihanoukville with the ship. The U.S. government did not announce a destination but it was believed the bomb-laden vessel, originally headed for Vietnam, was now bound for the U.S. Navy base at Subic Bay, The Philippines.

ACADEMY AWARDS—The annual presentation of the Academy Awards, the highest awards for performance in the motion picture industry took place in Hollywood Tuesday night. The best actor was John Wayne, winning his first Oscar in over forty years in show business. The best actress was England's Maggie Smith, for her role as a spinster schoolteacher in "The Prime of Miss Jean Brodie". "Midnight Cowboy" got the most votes as best picture of the year and the best song was Burt Bacharach's "Raindrops Keep Falling on My Head".

Politics

(Continued from Page 4)

environment. We have invited (at cost) such distinguished speakers as Dr. Arnold Reitze, Dr. Wayne H. Davis, and Mr. Murray Bookchin. This is fine. This is excellent. It is a good issue and a very well put-together program.

But, while we must be concerned with our own polluted environment, we must realize that we are the primary polluters of Southeast Asia. While we pollute ourselves with

detergent, we pollute that part of the world with stacks of dead and decaying bodies. While we pump our industrial wastes into Lake Erie, we are pumping the ammunition made in those plants into the bodies and land of the "enemy." We must realize that we can never de-pollute ourselves as long as we continue to spend \$25.4 billion or more polluting Asia. As Max Frankel remarked, "That war just will not go away."

More of Uncle Lepke

(Continued from Page 4)

- pacifism
 - Fabian Socialism
 - pan-nepotism
 - Professional Wrestling
- 6) Secret research conducted at CWRU has focused on:
- tularemia
 - "doomsday" weapons
 - atmospheric syphilis
 - no-stick Saran Wrap
- 7) When told that well-informed sources had placed marijuana usage at 10% on the CWRU campus, you would:
- knowingly reject the estimate as being too low
 - angrily reject the estimate as being too high
 - try to keep from laughing hysterically
- 8) The man who has done the most to win support for the "Movement" on this campus has been:
- Sid Peck
 - William Kunstler
 - Spiro Agnew
 - Detective Alberty
- 9) Recently, a Mather student discovered that her dorm rules were permissive when compared with:
- Leavenworth's
 - the Bastille's
 - your grandmother's
 - a convent's

Forum

Strike for peace in Asia

By CATHY PERKUS, for the SMC

The American government's recent disclosures finally revealing its extension of the Vietnam War into Laos and Thailand make the anti-war movement's work—that of building a mass movement that can end the war in Southeast Asia—more urgent than ever. A majority of Americans oppose the war and want the GIs brought home immediately; everyday increasing numbers of them become willing to demonstrate their opposition. April 15 must provide the means to involve that majority in the most massive and powerful display of anti-war sentiment yet. Student strikes and peaceful mass demonstrations are those means.

WHY STRIKE?

Students have always been the vanguard of the anti-war movement. CWRU students and faculty have a long history of antiwar leadership; among the earliest teach-ins were held here, our campus SMC is among the oldest and strongest in the country and several historic New Mobe and SMC national conferences have been held at Reserve.

The social influence of thousands, even millions, of high school and college students striking all over the country will be tremendous. By such a massive and militant show of our strength, we will set an example for the rest of the population of how the war machine can be taken on and eventually beaten.

We can't, as students, end the war by ourselves. But consider what would happen if a majority of the GIs refused to fight in Vietnam; consider what would happen if a majority of workers organized a national strike. Those are momentous events—they would end the war immediately. We, as students, can't organize them. But our actions are part of the process and are instrumental in building a movement of the majority of Americans—and that can end the war. By turning high schools and universities into anti-war organizing centers on April 15 and then participating in citywide leafletting and mass marches, students will contribute vital manpower to the antiwar movement.

WHY MASS, PEACEFUL MARCHES?

Mass peaceful demonstrations are the antiwar movement's most visible show of strength and power. Periodically, they are necessary in building the anti-war movement: they keep up the pressure on the government (no major government figure can speak anywhere—in this country or in the rest of the world without being faced with anti-war demonstrators) and they provide increasing numbers of Americans, who haven't previously been involved in action, with a means, within the tradition of American political action, of expressing their opposition to the war. Many Americans who weren't ready to march on November 15, 1969

are now eager to go out into the streets to demand that the government bring all the troops home now. One thing that periodic mass demonstrations have shown is that peaceful and legal actions are the best way of involving masses of Americans. The government would like nothing better than to isolate us from the majority of Americans because we are a powerful independent mass movement—and the administration knows it and is afraid of it. The government will try to use every opportunity to attack us—only if our demonstrations are organized in a peaceful and legal way will the blame for a police attack, if it occurs, fall squarely and clearly on the government. (Massive, legal demonstrations are, by the way, the best prevention against such police attack). The government cannot, in any way, justify an attack on American citizens demonstrating their views legally and peacefully. We cannot provide the government with any "excuses"—we have the majority of the American people on our side and we have to be sure our tactics will involve them.

The April 15 Student Strike and the Mass Demonstrations at AT&T and Lakeside Mall (permits for both have been obtained) will be the most effective actions for all those at CWRU who oppose the war to demand an immediate end to the war, an immediate withdrawal of all U.S. troops from Southeast Asia.

Observer Letters

UUSG votes "yes"

Editor, the Observer:

On April 15, 1970, a referendum concerning the immediate withdrawal of troops from Vietnam is to be presented to the students for vote upon campuses all over the country. On this campus, the referendum is being sponsored by several organizations, including the UUSG. As students of CWRU and individual members of UUSG, we feel that an overwhelmingly positive response from as many students as possible is essential in order that the national referendum be effective. We strongly urge you, as students and as human beings, to vote "YES" on April 15.

Barry Barker
Carol Ward
Pam Conford
Thomas Trout
David Heald
Renee Kane
Rachelle Levitt
Clifton Sweeney
Joyce Canaan
David Johnson
Mark Rasenick
Wayne Gottlieb
Paul Kerson

Misquoted

Editor, the Observer:

I would like to correct several statements made in the article concerning Dean Kinsella which appeared on the front page of the April 7 issue.

It was stated in that article that I attended a meeting "to gather evidence that would force Kinsella to resign." Such was not my purpose. Rather, only having heard through hearsay of the alleged threats made by Kinsella, I attended the meeting for my personal information; I unfortunately did not know enough

concerning Dean Kinsella's activities to offer any constructive comments.

Secondly, I was quoted as saying: "I'm optimistic of our chances [of removing Kinsella]. Kinsella has been hostile toward athletic merger, fraternity merger and coed housing." This statement is untrue. I did not make any comment expressing my opinion of what occurred at the meeting or Kinsella's attitude toward University programs.

Considering that this article received front page coverage and obviously top priority, it is unfortunate that it lacked accurate reporting.

Michael Sheppa

Petition

Editor, the Observer:

We would like to call your attention to a petition now circulating in reference to making Claude Foster Hall a co-ed dorm now existing and available to sophomores, as well as juniors and seniors, an exclusively junior and senior dorm would provide the opportunity for those who have been at CWRU for two years or more to be better able to secure the type of housing they desire for their remaining years here.

Eileen Kroll
Harriet Perlmutter

Co-ed Claud?

Editor, the Observer:

Two weeks ago the residents of Claud Foster were informed, that without their consultation, their dorm had been chosen to serve as a coed dorm for next September. We have only been guaranteed a dorm room in one of the dorms, but not necessarily in the dorm that we have already lived in for a year.

Last week the Coed Housing

Committee, a committee that we were not represented on, announced that a quota system has been set up. This quota will be by class as well as by sex, and this quota system means that we may not even have the right to any room in Claud Foster.

As it stands now, three of the four Upper Class Girls dorms will be coed next year. None of the eight girls dorms in the old and new complexes are being touched. Strangely enough it seems that the majority of girls that desire coed living are sophomores and freshmen, and not the residents of the upper class dorms.

It is also a much discussed fact, that the Coed Housing Committee did not even wish to take over Claud Foster. In fact, they preferred to have Guilford House.

As Juniors and Seniors, and as residents of Claud Foster, we feel that we have earned some SENIORITY rights. We also feel that since we have lived in this dorm we should have the right to remain in it, and to have some preference in choosing our rooms. The Dean's office should be willing to honor our individual priorities.

We do not wish to belittle the coed effort, but we do wish to keep this dorm the way we are accustomed to living in it: an all girl's dorm.

We would also like to point out what we feel is a practical solution to the problem. Pardee hall is empty. It is a dormitory that is approximately the same size and style as Claud Foster. Why can't we utilize an empty building for coed housing and leave everyone satisfied. If this is not possible why not make one of the girl's dorms in the old or new complex coed. We represent many of the girls who presently live in Claud Foster, as well as many girls who would like to live here next year, in

(Continued on Page 6)

Observer Letters

(Continued from Page 5)
wishing to keep our dorm an all girl, upper class dorm.

Right now we need support. If you feel that our requests are logical, just and sensible, we need your support and would really appreciate it if you would fill out the SUPPORT COUPON that is printed on P. 23 and return it to: Foster Underground Committee to Keep Our Foster Female c/o Claud Foster Hall.

Sincerely,
Evelyn Fine
Nancy J. Deutsch
Carol Rumsey

Vote for peace

Editor, the Observer:

In addition to the nationwide strike and mass demonstrations on April 15th, college students across the country are being given the opportunity to formally express their opposition to the war by voting Yes in the referendum on April 13th and 14th. The referendum has been organized by the Student Mobilization Committee who urges all students opposed to the war—for whatever reason—to vote for immediate withdrawal of all U.S. troops from Vietnam. We believe the American people should have the right to vote on all important issues affecting their lives, especially the Vietnam war.

Why immediate withdrawal? Because no other alternative can bring an end to the immoral and illegal war in S.E. Asia. All other avenues of approach have proved futile. It's been two years since we

stopped the bombing of North Vietnam and the Paris peace talks began, but the senseless slaughter of U.S. soldiers and the Vietnamese people goes on. Nixon's scheme of phased withdrawal and Vietnamization has not only produced no prospects for peace, but since its initiation we've witnessed two of the most alarming aspects of the war: (1) Song My; not an isolated atrocity but the logical consequence of an insane war. The army is trying to rectify this national scandal by convicting individuals directly related to the massacre, whereas the real blame lies with the army itself which created the war and dehumanizes soldiers into irrational killers. (2) Laos, Thailand, and Cambodia. According to LE MONDE, Oct. 1, 1969, "North Vietnam was more heavily bombed than Korea; Laos is now being bombed even more than North Vietnam, and this battering has been going on for five years. The U.S. Air Force carries out more than 12,500 raids a month." Documents reprinted in The Student Mobilizer show that the U.S. government has been making elaborate preparations for expanded U.S. involvements in S.E. Asia, including agreements for the use of massive numbers of U.S. combat troops in Thailand, should that be necessary to maintain a Thai regime compliant with U.S. interests. These recent disclosures prove that Nixon's phased withdrawal is only a prank to pacify the American people; the government has no serious intention of de-escalating the war.

The American government claims that we are fighting this war to assure

the South Vietnamese people's right to self-determination. But it is clear

that as long as U.S. troops remain in S.E. Asia, the Vietnamese will be denied their freedom. Self-determination means immediate withdrawal of ALL U.S. forces from S.E. Asia. Vote Yes—April 13th & 14th.

Voting Stations will be set up in all CWRU cafeterias during dinner and in the Student Union—all day on the 13th and 14th.

To bring all the troops home now.

CWRU SMC

Workers

Editor, the Observer:

I write concerning the emerging, student- and faculty-led Campus Workers' Movement, which in the

true Marxist tradition of rallying to the side of the oppressed, cites low wages and poor working conditions as its grievances.

I submit that the foremost grievance of the workers is the student body.

The students at this university have no respect for common property, such as the Union cafeteria. They conceive as their right such acts as setting fires in the ashtrays or on the tables, spilling all manner of debris on the tables, chairs, and floor, and engaging in rude and exploitative behavior against the workers without regard to their humanity.

When queried about the propriety of their actions, the guilty students reply, "The workers are paid to clean up our messes," and "Saga is a corporation—they expect a certain amount of this sort of thing."

They don't understand that their

vulgarity is an affront to all persons, and especially to the underpaid souls who must cope with the debris. Their cleverness in theft further hurts the workers, who can be unjustly accused and fired when the losses are discovered.

In earlier days, an alert community was always ready to pistol-whip, tar-and-feather, or rail and lynch a disrespectful and deleterious member of a university student body. Nowadays, the atomization of urban life has left us to police ourselves.

A true student-organized workers' movement would start by guaranteeing a pleasant work environment for the workers, by treating them as human beings rather than as serfs and peons. I suggest Dr. Cherry and his crew begin their task by converting their friends to this cause. A true Marxist community begins at home.

Dale Hunscher
Adelbert '69

Students in business

By BARBARA HUNT

A most unique and much needed service will soon be available to faculty and graduate students involved in research. The service, Consultants in Computer Technology, is thought to be the only one of its kind—anywhere.

The purpose of Consultants in Computer Technology is two-fold: first, to provide competent programming assistance to those people in research; and, second, to serve as a training program and learning experience for undergraduates employed as programmers. Presently a person in research in need of a programmer will try to seek out a programmer, somewhere, with little assurance that the job will ever be completed. Or the faculty member may decide to write his own program, which more than likely would be disastrous.

The originator of this brainstorm, undergraduate scholar and UUSG President Sheldon Laube, began work on his idea last summer when he consulted with Dr. Edward Glaser, Director of the Jennings Computer Center and Chairman of Computing and Information Sciences, and later with Peter Musselman, Vice President for the Administration. Since then, the idea has progressed into a workable form: a corporation, as of this week.

Due to real estate tax laws, a corporation cannot be controlled by a University. As a result, Consultants in Computing Technology is independent of this university, although CWRU will have stock in the company as will all students who are employed as programmers. However, since the University will not be able to share in any profits, the profits will be divided among the student participants.

Students will be responsible for the success of the corporation. In order to receive dividends, students must initially put up money to buy the stocks. The opportunities for undergraduates involved are innumerable. The program will

allow students to see what industry is about, to gain practical experience in "computer software" (computer programming) and to participate creatively in a (hopefully) profit-making project. The corporation will also provide real initiative for students in that they will be employed in their own company; if they fail, the company might fail.

Employment in this corporation is open to all undergraduates in good standing who can meet the stringent requirements of programming. Membership in Consultants in Computer Technology terminates upon graduation, at which time students will redeem their shares at a somewhat higher price than what they originally paid for them.

There are two classes of stocks: Class A Stocks, or those owned by the university; and Class B Stocks, or those owned by participating undergraduate students.

A Board of Directors will be elected whose function will be to warn the students of any imminent danger within their corporation, to serve as a voice for the participating students, and to work as a link between faculty and students. The Board of Directors will consist of three administrative or faculty members and four students.

The Consultants in Computing Technology will be open to the University Circle community but will not program for commercial customers. Net cost to a faculty member will be decided at the onset of the programming of his particular research problem. All programming will be done through the Jennings Computing Center on the Univac 1108 from the Chi Corporation.

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Art student Leana Leach of Long Beach sketches ruins of once-buried city during World Campus Afloat visit to Pompeii.



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The Observer

Special Supplement on the Environment

Editorial

Forward to oblivion?

"The colossal inertia and rigidity—if not indifference—of social and academic institutions makes it unlikely that they will develop effective programs of action and research focused on environmental problems. Two kinds of events, however, may catalyze and accelerate the process. One is some ecological catastrophe that will alarm the public and thus bring pressure on the social, economic, and academic establishments. Another more attractive possibility is the emergence of a grassroots movement, powered by romantic emotion as much as by factual knowledge, that will give form and strength to the latent public concern with environmental quality. Because students are vigorous, informed, and still uncommitted to vested interests, they constitute one of the few groups in our society that can act as spearheads of this grassroots movement. I wish I were young enough to be a really effective participant in the Environmental Teach-In and to proclaim in action rather than in words my faith that GNP and technological efficiency are far less important than the quality of the organic world and the suitability of the environment for a truly human life."

from Rene Dubos

Black or white, establishment or revolutionary, worker, student or industrialist, there is one factor underlying and uniting all of our futures—the environment. No one can escape the effect of the environmental crisis, nor can the concern for the quality of the environment lie with a few selected intellectuals or a group of "radicals"—it is everyone's problem. When the issue is the future of mankind, then the exploitation of the environment will ultimately profit no one.

All of us know, to a lesser or greater extent, what the problems are, for we have already wasted precious years intellectualizing at conferences and around coffee tables. The need is for immediate action on both a mass and an individual basis.

We see the Environmental Teach-In being held on this campus this weekend as an end to non-directed discussion and as the beginning

of goal-directed action. There is no room for those people who consider the environmental crisis as a temporary fad or for those who are satisfied that discussion itself will bring an equitable solution.

Air and water pollution, noise, pesticides, etc., are forms of violence perpetrated on the American people. We must bring an end to the discussion and a beginning to united action. There can be no copping out, no relaxation of the work. The crisis point is rapidly approaching and there will be no turning back.

The purpose of this supplementary issue is to encourage your participation in the Environmental Teach-In. The articles are intended to highlight some of the workshops which will be held and to point out some of the major issues of the crisis. Come and learn what issues are involved and what you must do to make sure that mankind has a future, and that it is a liveable future.



Photo by Chuck Kraus

Environmental Teach-in Schedule

Friday, April 10

7 p.m.—Emerson Gym, Case Campus.

Introduction—Eugene V. Perrin, M.D., Associate Professor of Pathology, Pediatrics, Reproductive Biology, Coordinator—"Needed a Radical Ecology".

Power Production, Pollution and Dangerous Alternatives—Edward Radford, M.D. (Professor of Environmental Health, Johns Hopkins).

Air Pollution, Atomic Reactors, Radioactivity and Public Safety—Arnold Reitze, Professor of Law, Case Western Reserve University.

Population, Pollution and You—Wayne Davis, Department of Zoology, University of Kentucky.

Biological Hazards of Chemical Pollutants—Samuel Epstein, Children's Cancer Research Foundation, Boston.

Air Pollution and the Young Citizen—Alan McGowan, Administrator, Center for the Study of Natural Systems, Washington University, St. Louis.

Consumerism—Womans' Role—C. MacEldowney, C. Bunch-Weeks, Boston.

Environmental Problems and Political Action—Murray Bookchin, Sociologist, Author of "Our Synthetic Environment" and "Crisis in our Cities".

(In between speakers will be action theater, refreshments, etc.; with a major break after the 1st four speakers.)

Saturday, April 11

Workshops, all staffed by coordinators and "Experts":

9:30—12:00 a.m. Baker Bldg., CWRU

1:30—4:30 p.m.

Workshops on the following subjects: Conservation; Nuclear Radiation; Methods of Population Control; Surplus People and Instant War; Environmental and Cultural Limits of Population; Industrial and Municipal Pollution of the Cuyahoga River and Lake Erie; Life or death for Lake Erie; Politics of Air Pollution; Pesticides; International Standards of Pollution—Comparative Environmental Control; Herbicides and Defoliants; Chemical and Biological Warfare; Industry's View of the Pollution Problem; Labor and the Environment; Alternative Life Styles; Environmental Movement and the Black Community; Consumption and the Housewife; Solid Waste Disposal; Noise Pollution; Urban Planning and the Environment; Radical Politics of Pollution; Legal Aspects of Pollution; International Pollution across International Boundaries; Transportation and Pollution; Welfare Rights and the Environment of Poverty.

5:30—7 to 8 p.m., Strosacker Auditorium, a report from the workshops that have survived, and planning of directions for political action for citizens. At this time, perhaps, we can discuss the role of the University in Environmental studies and change in national (international!) directions.

Water Pollution

By W. B. CLAPHAM, JR.
Dept. of Geology

Water pollution is an extremely difficult subject to deal with in a brief article. On one level, it can be defined simply as the breakdown in the natural balances between different phases of a natural body of water. At another level, it necessitates a discussion of the myriad types of balances involved in the many different

types of natural water bodies. If we confine ourselves to the simplest cases, it becomes apparent that the key to what we generally call "water pollution" is the interaction between the nonliving and living sectors of the system. For example, we would not worry much if dumping pollutants into, say, Lake Erie, did nothing more than cover thousands of square miles of lake bottom with

cardboard cartons, beer cans, excess automobile bodies, and sunken ships—that is, we might object, but we would not speak of the "environmental crisis" if pollution were nothing more than littering on a grand scale. But because the aqueous environment is a rather complex one, it is impossible to "simply" litter.

In order to understand how the nonliving and living parts of

the system mesh, it is necessary to examine some of the simpler types of interaction, such as energy and typical inorganic nutrients. The energy that powers the system is solar energy incorporated into the living system by photosynthetic plants. These plants are eaten by carnivores, and so forth. Thus, the solar energy originally bound into living tissue by green plants is passed from organism to organism, much as water might be passed through a bucket brigade. This progression, or "food chain," emphasizes the linkages between successive stages of consumption. Obviously, energy is not the only thing passed through the food chain. Essential mineral nutrients, such as phosphorous, nitrogen, iron, sulfur, etc., are, too. They are taken out of the water by plants and are incorporated into plant tissue; as plants are eaten by animals, the mineral nutrients are incorporated into the animal tissue, and so forth through the food chain. A basic aspect of living systems, however, is death. When an animal or plant dies, bacteria attack it, breaking down the complex body constituents into simple molecules. It is significant, however, that these simple molecules are precisely the form in which mineral nutrients can be reincorporated into living tissue. Thus, the food chain may be a fair description for energy transfer in organisms, but it is only a part of a larger cycle when other essentials are involved. In fact, the paths of mineral nutrients can be traced through discrete cycles, sometimes involving only a few steps in addition to the food chain, sometimes involving many more. In all of these cycles, however, it is significant that the nutrient is passed from the living part of the system into the nonliving part and then back. For example, a nitrogen atom may constitute part of a fish, then upon its death be released into the sediment as partially broken-down organic matter, then reincorporated into a series of bacteria which release it as soluble nonliving nitrate, then taken up by an alga then transferred to another fish that eats the alga. In most natural

systems, the complement of organisms allows a buffered system—that is, given the normal fluctuations of the environment, the food chain and the nutrient cycles can operate continuously.

But when Man pours his wastes into a lake or stream, it may far exceed the capacity of the system to complete the necessary cycles, thus causing massive disruptions in the potential of the lake or stream to maintain its normal community of organisms. For instance, a common municipal waste product (especially in a culture which uses tons of detergents) is Phosphate. There is evidence that when great amounts of phosphate are dumped into Lake Erie (or any other body of water), the effect is similar to that of fertilizing a lawn—it stimulates a great increase in the growth of algae. If nothing else were to change, it would be reasonable to expect great changes in the other life in the lake due simply to the increased plant population. But commonly, one of the results of an algal bloom is a rapid die-off of algae, generally when they run out of phosphate (or whatever it was that allowed the "bloom" in the first place). Under normal conditions, the dead algae would simply be passed along the bacterial chain and broken down into constituents which could be reused by other plants and animals. However, die-offs are often as precipitous as the blooms, and are an order of magnitude greater than what would normally be the case in the lake. Thus, the bacterial portions of the cycle are simply inadequate to handle the dead and dying algae. Generally, the specific problem is that many of the bacteria need oxygen to perform their roles in the cycle, and there is insufficient oxygen dissolved in the lake. When the bacteria have taken as much oxygen out of the water as they can, the cycle slows down greatly, thus causing a buildup of partially broken-down organic matter (this is what gives Lake Erie its distinctive bouquet on a summer day). Once again, if nothing else were to change, the simple effects of the algal die-off

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SNOW CANNOT cover up the effects of water pollution

(Photo by John Fleshin)



THE SIGN should read "No swimming, polluted beach."

(Photo by John Fleshin)

Noise

By MARK GLICKMAN

Noise is a term used to describe sounds which are unwanted, loud and objectionable. Many problems arise from noise: annoyance, interference with conversation, leisure or the efficiency of work; and potentially harmful effects, particularly on hearing. It has been propositioned that noise can increase the probability of the appearance of symptoms of any nervous condition.

The natural sounds of wind and water tend to give way in the civilized environment to the sounds made by man, especially in urban communities. Among the greatest sources of noise noticeable out of doors today is the automobile (trucks, cars, etc.) and air traffic. There also may be disturbances to communities from industrial noise, for in their immediate proximity many types of machinery produce very loud sounds.

Any of the moving parts of the hearing mechanisms can be damaged or even destroyed by intense sound. In the kind of hearing defect produced by prolonged exposure to intense sound, it is the hair cells of the inner ear which appear to be critically affected.

Dr. Chauncey Leake of the University of California Medical Center at San Francisco has stated that "Noise is a stress, an environmental pollutant, an insult. It affects the nervous, endocrine and reproductive systems. It may damage unborn children."

There are four types of noise that appear to be particularly harmful to man. Among these types are impulse noise, especially due to gunfire and small arms fire; the possible effects of extremely high intensity noise on the body as a whole; the phenomenon now known as the sonic boom, associated with the disturbances caused by bodies traveling through the air at speeds greater than the local speed of sound; and the effects of vibration.

Impulse noise has two general sources. One is in the industrial

(Continued on Page 10)



THE CAMERA could not capture the noise pollution produced by this factory.

(Photo by Chuck Kraus)

The Problem of Solid Waste

By A. REITZE AND
E.V. PERRIN, M.D.

Members of few communities would tolerate an open dump if they had to live near it. But most U.S. dumps are in the least-populated sections of urban counties, or in some other political jurisdiction. A problem is that rural areas close to populated areas are becoming less common, and those who live there don't like being dumped on.

We are threatened by the shadow of mountains of our own droppings: rubbish, commercial refuse, and garbage—collectively called solid waste.

Every day local governments must deal with an estimated 5.3 pounds of solid waste for each person in the nation. That is more than a billion pounds per day.

The problem continues to get worse. Population keeps increasing. The weight of waste per person continues to rise. By 1980 it is expected to be 8 pounds per person each day. And the volume of wastes increases more rapidly than the weight. This fact increases collection and disposal costs.

Recently, a two day conference was held on solid waste disposal, sponsored by the Bureau of Solid Wastes Management of the U.S. Public Health Service and co-sponsored by representatives of the leading contributors to solid wastes, the packaging industry. Serious discussion was held on how much of what was wasted and how much could be salvaged. The seriousness and commitment of the participants is not to be doubted, but the intensity of focus peculiar to the past 2-3 years of growing national and international awareness of pollution problems leaves one wondering why it has taken us so long to get going, and if it is not late in the game to begin.

A theology of garbage has been suggested by some clergymen. The city dump is suggested by the descriptions of Gehenna. The valley of slaughter (Jer. 19:6) became a receptacle for bones, bodies of criminals and garbage; and Isaiah (66:24) spoke of a place "where worm shall not die, nor shall fire be quenched". The pantheon of this theology, the theoreticians suggest, begin with the consumer, trapped by his habits, his compulsive buying and his relative affluence. Americans and the rest of the affluent Western World, with about 15-17% of the population consume about 75% of the world's good, after all. The sanitation engineer (by this is meant the garbage man) is commissioned by Heaven to "Keep Paradise Beautiful". One

author wondered what had been done with the core of the infamous Apple.

What can we do about solving the problem? In the long-run, we must reclaim these wastes and recycle them to produce new products. In one year Americans junk most of 48 billion cans, 26 billion jars and bottles, and 65 billion metal and plastic container caps. By 1975 the amount collected annually will be 225 million tons and by 1980 it will reach 340 million tons.

Manufacturers are not much better than consumers at reusing production. Only about 10 percent of the 8 billion pounds of plastic, and about 15 percent of the 3.5 billion pounds of rubber products are reclaimed.

About 65% of the solid waste is paper, about 15% plastic and tin cans and 10% is glass, the rest being miscellaneous. Recycling requires collection, shipping, processing and is a distinct inconvenience, as compared with the easy disposable can, bottle, wrapper. A change in life style or at least an alteration in attitude (attitude pollution) is going to be vital. Environmental action groups such as those depicted in the New York Times Magazine section on Sunday, March 29, 1970 are composed of young, idealistic, often single or childless activists. Most of us are set in our wasteful ways by our teens, and activism often depends upon convenience. These folks intend to recycle all conceivable waste paper, bottles, cans, cartons; to boycott non-returnables, to avoid over-expenditure, to live simply, to garden organically, to have as few children as possible, to live the Green Revolution as many of us would live it. Floreat in pace, but they are so few.

What must we not do? We must not burn wastes, waste garbage as potential fertilizer, fuel or building material, scatter wastes, fill the ocean, river or lake bottoms with them. We must not throw up our hands in helpless dismay.

What must we do?

1. Recycling. While recycling is a necessary national solution, it will take at least 15-20 years to develop any sort of adequate program. The Doomsday spokesmen don't give us that long.
2. Get rid of it solutions. Dump, landfill, use as fuel, use as building blocks, use as a base for new ski resorts.
3. The ultimate get-rid-of-it solution. Shoot into space in the general direction of the sun, sending our radioactive wastes, which are also non-disposable anywhere, along with it. Disposable ship, undisposable wastes, stupendous cost.

What must local governments do with solid wastes?

The choice is rather simple.



They can dump their wastes, burn it in an incinerator, or bury it in a sanitary landfill.

The first choice is totally unacceptable. But, unfortunately, an open dump nevertheless is the choice of most communities. Many such dumps masquerade officially as "landfills." But federal officials say 94 percent of all so-called landfills are simply dumps, and that such dumps receive 90 percent of all U.S. raw solid waste.

Dumps encourage propagation of rodents and insects which carry diseases, and they present safety problems. One hundred and fifty persons burned to death last year at dumps; many of these were children. Dumps are aesthetic nuisances and present odor problems. They burn frequently and are sources of air pollution.

Incinerators can be a partial answer, and some ideas now under study are particularly attractive. But with present practices, a dump or a landfill is still needed to take care of non-burnable refuse and incinerator residue, which currently is 20 to 25 percent by weight of the waste placed within for burning.

Most incinerators are nuisances. They burn incompletely and distribute the community's wastes as air

pollution. Water used to quench the ashes becomes a water pollution problem.

An incinerator theoretically can be designed so as not to be an air and water pollution problem, but the number in this country that are not nuisances could be counted on your fingers.

General Electric Co., with a \$50,000 grant from the U.S. Department of Health, Education and Welfare, is studying possible construction of an incinerator at Lynn, Mass., that would use garbage to generate electricity for the huge GE plant there.

Normal municipal solid waste has a rather high energy value, producing as much heat when burned as low-grade coal. It is estimated that burning municipal wastes could provide 10 percent of a community's electric power needs.

Solid wastes remaining after burning could be used for building materials. This aspect of waste reuse is further advanced in an incinerator type proposed by the Illinois Institute of Technology Research Institute. Using an especially high temperature—2,800 degrees Fahrenheit in place of the usual incinerator's 2,000 degrees—glass and metal would be separated for use in a variety of products. The use of incinerator heat to produce steam for electricity has been in effect in some European countries for years. The Issy-les Moulineaux project near Paris is an example of this, and the electricity produced is fed into a national grid. The Combustion Power Company of Palo Alto is designing a fluidized bed incinerator that burns solid wastes at high pressure to produce hot gases to power a turbine.

But for most communities, a true sanitary landfill is the only immediate answer. Sanitary landfills can vary in design, but their essential characteristics are simple. A pit, natural or excavated, is required. Waste is dumped and then compacted

with tractors designed for this work.

Each day a layer of earth covers the accumulation. Eventually the trench or pit is filled with many cells and layers of waste, each covered with earth. A final layer of earth is applied, and the landfill is ready to be used as a park or parking lot or for some other use which does not require heavy foundation support.

A location chosen properly from a geological point of view, plus proper design for drainage, prevents most water pollution. Daily covering eliminates rodent and insect problems. Fire and the consequential air pollution is minimized.

Sanitary landfills won't solve all waste disposal problems, but it is a reasonably good system, and can be constructed by any sized town or city. If we wait for the atom disintegration machine, we might wind up buried in garbage.

Other disposal techniques are being studied; some eventually may work well. The technique that has received the most publicity is the Trzuka-Kosan Press. This device bales wastes under pressure exceeding 5,000 pounds per square inch. The bales can then be covered with asphalt or cement. Eventually this approach may be used by large cities. Yet for most communities now, a sanitary landfill would be cheaper.

Obviously, the solutions are just beginning. Richard D. Vaughan of Health Education and Welfare's Bureau of Solid Waste Management has said "we're very early in the development of technology that would improve the state of the art. The real black eye is how well we're doing—the state of practice. We're doing a poor job in this country."

The riches of the earth, its seas, skies and soil, are not limitless as we have long believed. We are ironically stalled by problems in how to permanently dispose of some of the products of our abundance.



Photos by Chuck Kraus

Women's Liberation and Birth Control

Concern about the "population explosion" has resulted in considerable public discussion of birth control, and increasing pressures on women around the world to use unproven and potentially dangerous oral contraceptives as a means of limiting population growth. These discussions have generally regarded population control as primarily a technical problem—to be solved by more efficient technology, ie, contraceptives. Standing in the way of a technical solution to birth control, are insufficient or suppressed research on other, more desirable methods than the pill, and a lack of safe and inexpensive abortions on demand.

While the development of technically more effective contraceptives is desirable, the questions of population control are primarily socio-political, not technological. The solution to problems of over population and hunger lie not so much in effective technology as in the liberation of women and the redistribution of resources.

The popular media's portrayal of the liberation of women places great importance of her so-called sexual revolution. This "sexual" revolution is presented

as a direct result of "improved methods of contraception"—notably the pill. The pill is said to give women the same sexual freedom that men have, as well as the same careers and opportunities.

But this portrayal is very misleading as it does not deal with the total oppression of women and the reasons why women want and have many children.

Alternatives to motherhood do not exist at present. Job situations discriminate against women. Our educational system tracks women into home economics and men into science. Woman's primary role in life is still that of wife and mother. Some are isolated in suburbia, and others are trapped in crowded working class homes. Most live vicariously through their children.

As long as women are defined as bodies to produce children; as long as a woman's goal in life is to "meet a man" and have a child, we are going to have kids—no matter how safe and effective the contraceptive devices. There is no other source of identity given women other than child-rearing and family life.

Judith Blake, a chairwoman

of the Department of Demography of the University of California at Berkeley, examined the American population policy in Science, May 2, 1969. She questioned those institutional policies which are pronatalist—that is, which encourage reproduction. These policies are most obvious in the family, where both male and female sexual roles are standardized in terms of reproductive functions, and in occupational roles which are defined for women in terms of child-bearing, child-raising and complementary activities.

She wrote: "The notion that most women will 'see the error of their ways' and decide to have two-child families is naive since few healthy and energetic women will be so misguided as to deprive themselves of most of the rewards society has to offer them and choose a situation that

allows them neither a life's work outside the home nor one within it."

When women are allowed greater diversity and freedom to pursue their own lives, then they will not feel it essential to have many children and a more humane system of population control can develop.

Population control is a socio-political issue involving the redistribution of world resources. The white middle-class male-dominated West has again tended to view population control as providing technical means to control the population growth of others, ie, Third World or Black. A more realistic solution is the redistribution of the 70% of the world's resources now controlled by 7% of the world's population (the U.S.) but this would mean extensive land reform and possible revolutions in nations

where land and wealth are owned by only a few or by U.S. corporations.

Such a redistribution of resources would not only help feed overpopulated areas but also create conditions in which people could choose to limit their population growth, if this were seen as advantageous to human interests. In some nations, especially socialist ones, human beings are an asset and not a deficit.

There are only two choices. One is to take a technical approach which adopts a solution that must be forced on people regardless of their choices, thereby creating an inhumane though controlled society. The other is to work now to change socio-political conditions—to work toward the liberation of women and the redistribution of world resources.

Environment; Global Issue

By DENNIS LIVINGSTON

While prominent attention in efforts to deal with environmental problems is usually paid to local or regional aspects of deterioration in the environment, there can be no escape from the fact that, ultimately, man's effect on the biosphere is a global issue: no one state can even maintain the status quo, much less improve the quality of its territorial environment if its neighbors continue to engage in harmful activities; while many environmental problems are themselves inherently international, beyond the capacity of individual states to handle. Four particular concerns are open to international cooperative action.

(1) Environmental pollution. International attention in the pollution field has focused on those activities occurring in internationalized areas or transcending state borders, particularly oil pollution on the high seas, water pollution in international rivers (those flowing between states), and air pollution (including radioactive fallout). The typical response of the international community has been to negotiate treaties and settle disputes among states regarding the liability incurred on a state or its citizens by engaging in polluting activities; thus, the company that chartered the Torrey Canyon settled with Britain and France

out of court last year for \$7.2 million resulting from damages caused by the accidental break-up of that oil tanker off Britain.

(2) Wildlife conservation. The most extensive work internationally has been in the field of fish conservation, with the goal of enabling fishermen to catch the maximum amount of any one species available without destroying the ability of that species to reproduce itself beyond the point at which dwindling numbers would occur. Over a dozen international fishery commissions exist for the purpose of setting catch limits, establishing seasons and gear rules, and conducting the appropriate research; in a very few instances, inspection of vessels of member states is even allowed. Recent attention has been paid to the problem of vanishing animal species; the International Union for the Conservation of Nature and Natural Resources maintains a list of endangered species and is attempting to get states to limit their trade and hunting of such animals.

(3) Large-scale technological projects. There is no body of doctrine, and little experience, internationally with this field, but it is one of growing concern.

States are now able to carry out projects of such magnitude—building dams, pipelines, airports, and the like—that serious implications for regional ecologies arise. This has been the case with the Aswan Dam and will be so with the Trans-Alaska Pipeline System the U.S. is constructing. International law will have to work out very carefully the obligations that ensue upon a state contemplating such projects—at the least, consultation with concerned parties and strict attention to minimizing ecological damage.

(4) Population growth. International action in this crucial area has so far been limited to U.N. aid in helping states plan contraceptive programs and in promoting the idea that family planning is a basic human right.

Regional and global agencies are necessary for the rational, global management of earth's resources and for dealing as a whole with environmental problems that result from the use of these resources. At the same time, the principle of international responsibility by states for the maintenance of their environments, held in trust for all mankind, must become an accepted norm.

Water Pollution

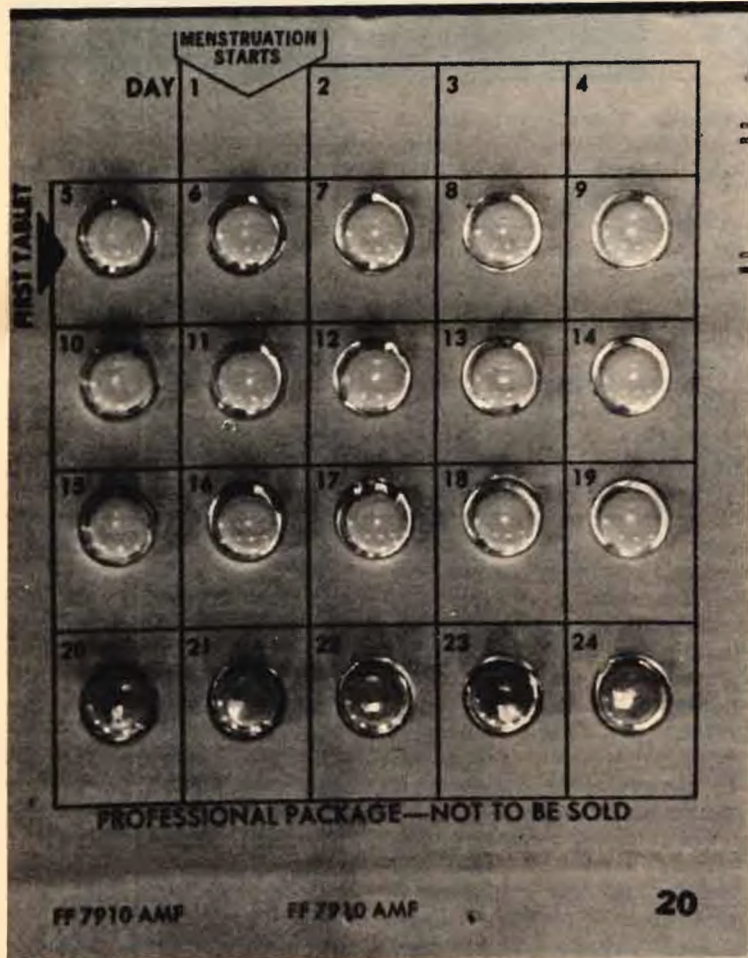
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would cause profound changes in our perception and enjoyment of a lake. But in fact, when the dissolved oxygen falls below its normal levels, it often becomes too low for many of the animals normally found, such that these too die, increasing the bacterial requirements for oxygen, or "oxygen demand."

If algal blooms and die-offs happened only once, and if there were no other sources of oxygen demand, the original balances might be reattained. But in many lakes (including Lake Erie), the influx of nutrients is such as to cause algal blooms to be a common occurrence, and municipal and industrial wastes include massive quantities of other types of oxygen demand. As a result, the total dissolved oxygen in the lake is significantly reduced (sometimes falling to zero in large portions of Lake Erie during the

summer), and the types of organisms that can live in the lake are greatly changed.

Thus, pollution of water is a rather complex subject, involving interactions between the nonliving and living phases of the total system, as well as the repercussions of changes throughout the system. In trying to alleviate the problems of water pollution, the main obstacle is probably philosophical rather than technological: We tend not to look at total systems as units, preferring to look at more accessible parts. But in dealing with the causes and effects of water pollution, it is incumbent upon us to consider the potential effect on the entire system of any change we might want to make, as the kinds of changes we will effect involve (unfortunately) the entire system, whether we like it or not.



(Photo by John Fleshin)

Noise

(Continued from Page 8)

context; noise from hammering, riveting, chipping, etc. and the other is from explosions or fireworks such as gunfire noise. Since World War II numerous reports of hearing damage due to gunfire have been accumulated. The Veterans Administration records that many of the eligible veterans of war have service-connected hearing loss due to the noise of gunfire. Coles and Knight (1965) found that the effect on man of various degrees of exposure to noise of rifle fire results in both temporary and permanent hearing damage.

Several scientists have discovered some aspects of high noise and vibration and their effects on the body. High noise fields can set up resonances in the body. Thus, in very intense

noise the body is shaken so that sensory receptors for touch, pressure and joint movement may be stimulated. There are persistent statements of excessive fatigue, nausea and disorientation in the highest noise fields.

The sonic boom will become one of the major "noise pollutants" of the 1970's with the installation of the supersonic transport (SST). One of the difficulties of the SST is that it will not only cause a sonic boom disturbance in the vicinity of the airport but also along the entire supersonic flight path due to the nature of the shock waves of the sonic boom. This will result in very large numbers of people being exposed to sonic booms. Although no biological effects of the sonic boom have been determined, due to the fact that

the SST isn't flying yet, great interference of our normal lives will definitely occur such as shaking houses, interrupting sleep, etc. However, possible physiological effects of the sonic boom have been hypothesized.

With rapidly expanding technologies, new noise sources will tend to appear. In many situations, noise has been allowed to persist or actually to increase to unnecessary extent, so that now it is yet another by-product of technical advance which has not been adequately controlled. Noise is invading our lives. Much can be done to decrease considerably the noise level of "noise polluters". Laws and legislations can be passed to control "noise polluters". Other actions that can be taken will be further discussed in the noise pollution workshop.

Pesticides

By E. V. PERRIN, M. D.

Airplanes entering the U.S. are sprayed with DDT by order of the Public Health Service. DDT is a chlorinated hydrocarbon insecticide, acting slowly upon insects and leaving possibly toxic residual products in body fat or other storage areas after being metabolized by man, animals, plants or after exposure outside living organisms. On the spray cans being wielded by the stewardesses is the legend "Avoid inhalation of aerosol mist". The mist is inevitably inhaled by passengers and the chemicals (containing 3% DDT) contaminate beverages, passenger's clothes and hair. When one scientist irritably complained about this in a letter to Science (organ of the American Association for the Advancement of Science), he was told in print by a colleague "I prefer DDT to yellow fever". The facts may be that other, less toxic, non-residual pesticides would have done a better job and would have been less potentially dangerous. This, in a sense, is the problem of pesticides in parvo.

In 1964, a committee testified before Congress that "no significant human health hazard exists today" and suggested that additional research be performed, etc. There are grave doubts that all is well in the field of pesticide control at present.

Currently, pesticide research has left the area of broad spectrum activity and more and more specific biological activities are being sought. Typically, after the initial effective contact in which only a minute quantity of pesticide is employed to create a chemical barrier in the metabolism of the plant or insect, the great bulk of the compound becomes useless for its purpose and contaminates soil, and air, if the particles are small enough. Soil microorganisms detoxify pesticides in many ways and in varying degrees of effectiveness. The detoxified products are themselves toxic in some biological systems. In water, great dilutions of such compounds were found until recently, requiring highly sophisticated techniques and measuring devices such as gas/liquid chromatography, detecting one part in a trillion. By 1962, traces of DDT and extremely toxic dieldrin were found in all major rivers. In 1964, dieldrin, Endrin, DDT and DDE were found in all river basins tested, but the levels of these substances, known as chlorinated hydrocarbon pesticides did not seem to present any acute toxicity hazards to man. Little information is available on the effects of air polluted with pesticides.

The most toxic of the pesticides, all available at garden stores, some at super markets, are Parathion, Arsenic trioxide, sodium arsenite, methyl parathion and Endrin. Dieldrin, Toxaphene, DDT, Paraquat and acid 2, 4 C are only slightly less toxic. Parathion, itself a poor inhibitor of an enzyme known as cholinesterase, a vital substance in nerve transmission, is metabolized in the human liver to a very effective enzyme inhibitor. These substances (Parathion and Tetraethyl pyrophosphate) are related to "Nerve Gases", and are absorbed through intact skin and may produce fatalities in man as well

as animals downwind of the spray.

DDT has been blamed for failures in bird, fish and game populations, total and possibly irreversible alterations of the ecosystem (e.g. the chain of air-water-plant-insect-bird-animal not man-man), alteration in chromosomes, an increased mutation rate, and the production of monsters in experimental animals. At one time, DDT was blamed for poliomyelitis and leukemia. It is not clear that any of these effects save that of profound alteration of the balance of nature is the fault of pesticides.

How do we stand in our knowledge of pesticides? A great deal of righteous condemnation of Insecticides, and demand for their immediate withdrawal from use has been expressed. Many pesticides are being withdrawn, many toxic pesticides will be banned by 1972 and countries such as Sweden have already banned organic phosphorus and chlorinated hydrocarbon pesticides in large part. It must not be forgotten that these substances prevented disease, helped eliminate typhus and malaria-ridden areas of disease, and greatly improved crop yields preventing famine shortly after the ravages of World War II. There are doubts about the safety of organic pesticides, but a great deal of investigation is needed before total withdrawal of all pesticides from general use. This does not excuse any manufacturer from performing exhaustive research on the effects of such substances upon closed ecosystems, in experimental animals and tissue culture before introducing the material into our air and water. The burden of proof of innocence of a substance is upon the polluter, not upon regulatory agencies or the polluted-upon. On more than one occasion, the plea of research has been the refuge of scoundrels.

It is not clear that the burden of the effect of organic pesticides already in the environment can be significantly altered, save by time, and the balances of nature appear already shifted. Prevention of additional damage is the key to environmental and biological control, and the least toxic and most specific pesticides must be sought. The most efficient non-toxic pesticide is winged and often colorful.

There are literally hundreds of potentially toxic pesticides on the market. The reader is referred to the recent pesticide symposium in the Annals of the New York Academy of Sciences "Principles of Plant and Animal Pest Control", in 6 volumes. The pollution of air and water from these sources is subtle and their ultimate effect is not known. Of the approximately 126,000 tons of chlorinated hydrocarbon pesticides sold annually more than half enter the atmosphere each year. Of this amount, by complex not always predictable and imperfectly understood meteorological accidents, probably several thousand tons are deposited in the ocean each year. The DDT and metabolites, as well as far more toxic and related substances such as Lindane have been found in the creatures at the bottom of the ocean food chain, the plankton—knowledge of the movement of DDT, etc., has been extended by samplings of

remote waters and animals from as far away as the Antarctic, and occasionally DDT has been found in concentrations above those suggested as tolerable by the U.S. Food and Drug Administration. Insecticides of the persistent variety, such as DDT, BHC (Lindane), chlordane, dieldrin, aldrin (which converts to the more toxic dieldrin in soil) and heptachlor accumulate in treated soil and disappear at varying rates over several years. The breakdown products of these substances, some more toxic than the original, disappear at varying rates as well. What happens to soil residues and their effect upon bacteria, plants and those ingesting the treated plants is not clear. Pesticides in

0.5 pounds per acre have been known to be toxic to fish for the past 9-10 years. Striking decreases of up to 70% in salmon populations have been noted and angling successes have been greatly reduced among sports fishermen. In some Lake Michigan samplings, DDT appears to concentrate as it is passed up the food chain to even larger animals, progressing from minute concentrations of 3 parts per trillion in open water to 25 million parts per trillion in some game fish. The Food and Drug Administration seized some 34,000 pounds of frozen Lake Michigan Coho salmon in 1969, as the fish had residues in fat ranging from 13.6 to 19.5 parts per million (FDA limit in fish flesh fit for human consumption

manufacturers have been critical of what they term is the superficial and preliminary nature of the work. The chemical 2,4,5-T is widely used as a defoliant with prolonged effects on plants in Vietnam.

Similar studies have been and are being performed on such compounds as captan and folpet, organic fungicides related to thalidomide, an insufficiently tested drug well-known to have accidentally produced numbers of serious malformations of the limbs, heart and other structures in man (teratogenic activity). Captan and folpet, presumably compounds of low toxicity, produced severe defects in chickens when injected into eggs at given stages. It is impossible



Photo by Chuck Kraus

certain high concentrations are known to affect wildlife.

BIRDS

Adult birds in any ecological site will die of DDT poisoning at 5 or more pounds per acre; DDT will kill some adult birds at 2-3 pounds/acre and it will eliminate the insect food of insectivores. The usual rate for mosquito control is 0.5 pounds per acre, but residual effects over long periods are unclear. In some species, there appears to develop a defect in egg formation, and several ecologists have indicted chlorinated hydrocarbons as the cause of near-extinction of the osprey, some eagles and perhaps other birds of prey.

FISH & REPTILES

The fire ant control campaign in the Southern U.S. resulted in devastation of the amphibian and reptile population. These animals may not attract you, but they are a source of food for birds, some animals and are part of the natural insect control system.

The estimated effect of DDT, usually applied aerially at about

is 5 parts per million. The permissible levels are somewhat arbitrary. Massive fish kills are usually due to petroleum, other chemical leakage or massive untreated sewage spillage. The sewage competes for and lowers the oxygen content, thus suffocating the fish. Finally, there is some evidence that DDT inhibits reproduction in some fish. The aesthetic, commercial and social implications are obvious. Pesticide damage, like that of radiation, is far more insidious.

TERATOGENICITY

(Production of Birth Defects)

Use of the herbicide 2,4,5-T was recently restricted by the U.S. Departments of Agriculture and Defense following preliminary studies on the production of birth abnormalities in experimental animals. An increased incidence of defects over untreated or Sham-treated controls were found in the offspring of animals treated at a critical period in their pregnancy. The work is preliminary and the herbicide

to draw conclusions on the teratogenic effects in man from such experiments, but the doubts are well established. The effect of DDT on carnivorous birds, as manifested by the abnormally formed, thin-shelled eggs, suggests an effect in the reproductive tract of birds, but only preliminary investigation has been conducted on malformations. In some strains of cultured mammalian cells, certain pesticides produced an increased mutation rate and chromosome breaks. A positive sign is the production of responsible research in environmental teratogens, some of which are to be presented at the annual meeting of the Teratology Society in Annapolis, Md. during May.

Pesticides can be poisonous if misused. This has been known since the introduction of DDT in 1942. The list of pesticides known to have caused poisoning in man is impressive, almost 80 substances, organic and inorganic having been

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Mankinds Inalienable Rights

By DR. PAUL R. EHRLICH

1. The right to eat well.
2. The right to drink pure water.
3. The right to breathe clean air.
4. The right to decent, uncrowded shelter.
5. The right to enjoy natural beauty.
6. The right to avoid regimentation.
7. The right to avoid pesticide poisoning.
8. The right to freedom from thermonuclear war.
9. The right to limit families.
10. The right to educate our children.
11. The right to have grandchildren.

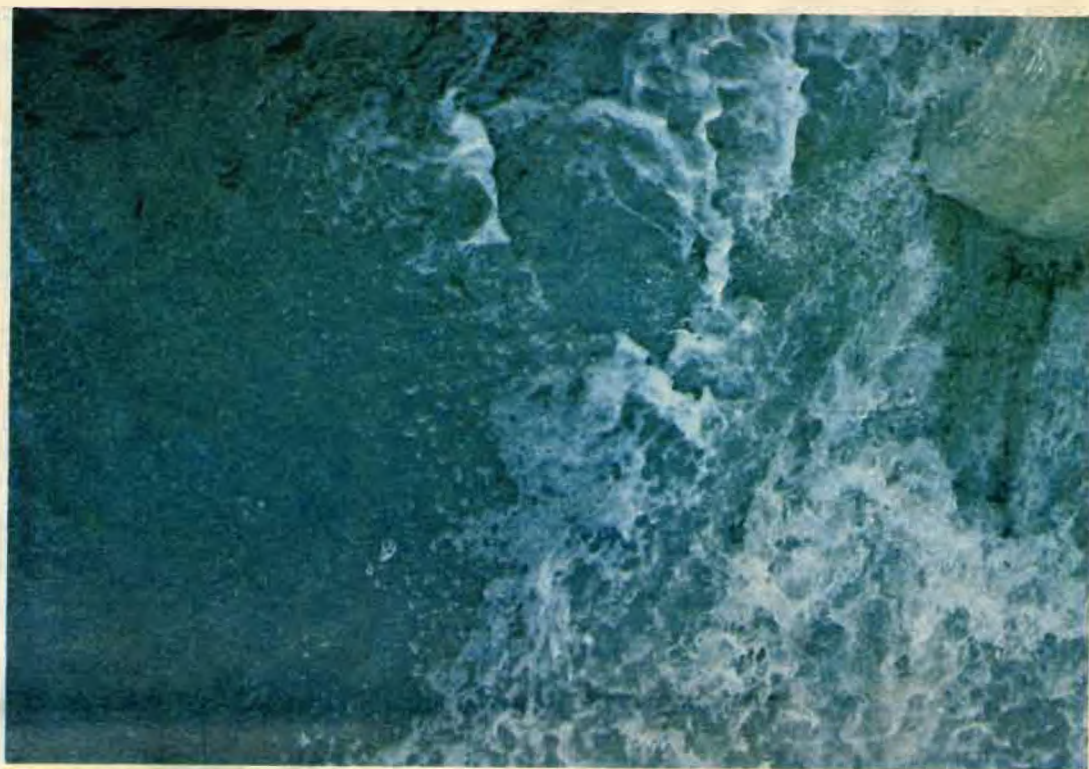


Photo by John Fleshin



"But when Man pours his wastes into a lake or stream, it may far exceed the capacity of the system to complete the necessary cycles, thus causing massive disruptions in the potential of the lake or stream to maintain its normal community of organisms."

Photo by Chuck Kraus



Photo by John Fleshin

"...one issue of the Sunday Times uses the equivalent of 160 acres of trees"

"The local symbol of this offense (industrial pollution of air) is the classical and depressing photograph of the "Flats," with the red, gray and black steel mill smoke enwreathing its grimy buildings and the great outpourings of dense gray and white smoke from the large automobile manufacturing complex off I-71. The visible pollutants are not the worst or most potentially dangerous."



Photo by Chuck Kraus



Photo by Martin Senour

"Devices for decreasing the amount of emittants from automobiles and factory smoke stacks have been known for the past 40-60 years, but they have not been efficient. The automobile industry had been resistant to any safety or pollution control innovations until it became fashionable and potentially profitable to do so. Heavy industry, for a variety of reasons, including those of impracticality, great expense, and perhaps those of greed, callousness or short-sightedness have not chosen, until recently, to emphasize air or water pollution control. This neglect is one of the most depressing examples of the failures of our system of free enterprise and voluntary controls."

Air Pollution

increase the CO₂ concentration to 10 times its current level. About half the CO₂ remains in the atmosphere, the rest forming limestone, dissolving in bodies of water or incorporating in certain aquatic plants. The issue is not the toxicity of CO₂, but the "greenhouse effect". Carbon dioxide absorbs infra-red rays more strongly than visible or ultraviolet rays of the sun. Apparently, some escaping heat energy is trapped in the atmosphere by CO₂ and there is concern among scientists that the earth's average temperature will increase and that the melting of polar icecaps will produce a 200 foot rise in the sea, with flooding and obliteration of coastal cities. Other biogeographers suggest that a new ice age may arrive, as the result of either some escape of our atmosphere or because of greater evaporation of the newly opened polar waters, resulting in catastrophic increases in snowfall.

Oxygen

Oxygen is present in limited quantities and is used by all living beings, by burning and by decay, which is slow burning, if you will. (See: Implications of Rising Carbon Dioxide Content of the Atmosphere—Conservation Foundation, 1963). Plants do not produce excess oxygen, but only enough for their own use and for their own decay. An increase in plant life would not clearly produce additional oxygen, whatever the sound-reducing, aesthetic, environmental control value of green life may be.

Most oxygen on the earth, some 70%, is currently produced by plankton (the great aggregate of small plant and animal organisms floating and drifting in water) and plankton is the base of the great ocean food chain, not a passive source of atmospheric oxygen. Thus, the air pollution problem devolves, not upon plants and the preservation of green spaces, as important as they are, but upon the replacement of the inefficient, wasteful, unrealistic, gaudy but exciting, potentially murderous automobile with a conventional internal combustion engine, by slower, currently impractical electric, steam or fuel cell powered cars. Mass transportation must again become practical and easily available.

Devices for decreasing the amount of emittants from

automobiles and factory smoke stacks have been known for the past 40-60 years, but they have not been efficient. The automobile industry had been resistant to any safety or pollution control innovations until it became fashionable and potentially profitable to do so. Heavy industry, for a variety of reasons, including those of impracticality, great expense, and perhaps those of greed, callousness or short-sightedness have not chosen, until recently, to emphasize air or water pollution control. This neglect is one of the most depressing examples of the failures of our system of free enterprise and voluntary controls. One large North American paper mill owner stated flatly that he would not comply with current air and water pollution legislation until forced to do so by law enforcement agencies. Note here the absurd contrast between punishment for violence done by one person upon another's person or property and by impersonal industry directly or indirectly upon many persons and their property.

Resource management must require conservation of human and natural riches preventing both from being irrecoverably flushed up the stack or out the drain.

This requires a kind of honest balance in which the costs of development or progress are knowledgeably weighed against the risks and damages. Curbing the growth of power production is not impossible, and may be necessary as long as fossil fuels are used in an inefficient and polluting manner. The problems of atomic reactor power plants, their potential dangers (inherent risks make these plants at present uninsurable save by the government), the reluctance of the atomic energy commission to admit and cope with the imperfections of atomic reactors, breeder reactors and the like, even the foot-dragging on installation of cooling devices to prevent heating of bodies of water by flushing of cooling waters from the plant back into the lake, make the problem of potential sources of power

supply a very real one. Thermal pollution, as noted above, endangers the eco-system of the body of water involved.

What ill does air pollution do?

Collections of industrial and automobile emissions at high concentrations in the presence of certain meteorological occurrences, known as "inversions", have resulted in life threatening and fatal accidents.

An inversion, in which warm air above overlies cold air below, tends to confine the polluted ground air to the layers into which it was originally introduced. Ordinarily, warm air rises, pollutants mix with the cold air from above and in the presence of a breeze, are liberally spread about. In time, pollutants from River Rouge can be found in Australia, Antarctica and Tannu Tuva. There is no escape.

Such inversions occur in Los Angeles, and smog follows when there are large daily ranges of temperature, high maximums and low humidity except near the shore. The particles of water and adherent pollutants are small and penetrating. In London, U.K., high accumulations of pollutants and fogs are attendant upon continuous damp chill and fog. The lack of air movement further confines pollutants. In great industrial areas, several catastrophic inversions and smogs have occurred, notably in the Meuse valley of Belgium (1930), in Donora, Pennsylvania (1948), in London (1962), at the same time a major air pollution conference was being held in the U. S., and in New York City three times in the past two decades. In Donora, a heavily industrialized area in the Monongahela valley, a low-level temperature inversion occurred, with resultant fog and an atmosphere particularly rich in sulfur oxides, a product of burning sulfur-rich fossil fuels. An estimated half of the population developed acute

Part of our pattern of waste and overconsumption is the burning of millions of tons of coal and gallons of oil and gasoline. These fossil fuels, upon which we have come to depend are competitive with man for life. Automobile exhausts are the worst offenders in production of identifiable pollutants of the air, together with particulate and vaporized material from brake linings and rubber tires. A close second is industrial pollution of the air. The local symbol of this offense is the classical and depressing photograph of the "Flats", with red, gray and black steel mill smoke enwreathing its grimy buildings and the great outpourings of dense gray and white smoke from the large automobile manufacturing complex off I-71. The visible pollutants are not the worst or most potentially dangerous:

The tiny quantity of radioactive pollutants from nuclear testing, reactor accidents and atomic power plant function, largely in soil and water accumulate in body tissue and decay at variable rates, producing little short term damage but an unknown degree of long-term effects. There is a debate raging between Ernest Sternglass of the University of Pittsburgh and his critics in the scientific and lay press. Dr. Sternglass, a radiation biologist and physicist, has tried to prove that there has been a rise in fetal and infant mortality in parts of our country as a result of radioactive fallout from early nuclear testing. Some of his colleagues (viz. 1969—Bulletin of the Atomic Scientists) find his data marginal in significance.

The Greenhouse Effect

One of the most serious consequences of burning fossil fuels in the production of carbon dioxide (CO₂) at the expense of oxygen. The reduction of oxygen (about 20% in the atmosphere) by 1% would



EVERY TEN SECONDS
Every ten seconds there are 22 more people on earth than

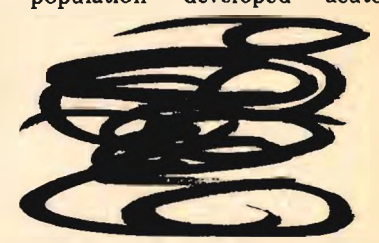


there were before. At least two billion are already hungry. What does population growth mean for a hungry planet?
The United States has less



than one-fifteenth of the world's population, but more than half of all the resources consumed on earth each year are consumed in the United States. What does population growth mean for an overdeveloped country?

"You must strive to multiply bread so that it suffices for the tables of mankind, and not, rather,



favor an artificial control of birth, which would be irrational, in order to diminish the number of guests at the banquet of life."
—Pope Paul VI, 1965.

THE BANQUET OF LIFE
The brain grows to 80% of its adult size in the first three years of a child's life. If proteins are not available to the child during this critical period, the brain stops growing. This lack of development can never be overcome.

"Many millions of people in the poor countries are going to starve to death before our eyes... upon our

1800

1820

1840

1860

1880

respiratory illness, the condition of those with chronic heart and lung disease worsened and 17 persons died.

What are the emissions?

(1) Primary Pollutants

These arise as the direct result of industrial, commercial, transportation and agricultural activities and are in the form of dust, smoke, fumes and aerosol-like dispersates. They are ugly, they corrode brick, stone and metal, eat away at house and automobile paint, dirty clothes, spoil plant life, make man's eyes water and may have a serious detrimental effect on his lungs: primary emittants include irritants such as sulfur dioxide and relatives, nitrous oxides, carbon dioxide, carbon monoxide, hydrochloric and hydrofluoric acids, organic solvents, ozone and between 400-700 other identified substances. Not all polluting devices produce the same number of compounds, but over 3/5 are produced by the automobile. For each 1000 gallons of gasoline, the ordinary automobile produces, for examples, over 3000 pounds of carbon monoxide, 200-400 pounds of complex organic materials, 17 pounds of sulfur oxides, 20-70 pounds of nitrous oxides, among other substances. Soft coal pollutants have decreased somewhat in the last decade, but the newer fuels have replaced them.

What do these substances do?

We have avoided until recently, serious study on these

matters, so that an enormous research task awaits us. Rhetoric is useless, serious study leading to action is vital. Who will pay for the research? Will it be the burden of the polluted upon, the tax payer or of the polluter, supporting research not by apologists, but by competent and reasonable objective scientists?

Cancer

In measurement of micrograms per thousand cubic meters of air, "average" urban air contains the following substances, (Partial list): Carbon dioxide 6.3x10.8 Carbon Monoxide 8x10.6 Methane 1x10.6 Ethylene 1x10.5 Airborne particles 1x10.5 Sulfur dioxide 8x10.4 Nitrogen dioxide 6x10.4 Oxidants (ozone) 2x10.4 Hundreds of other substances

11 heavy metals, many complex compounds, and at least 4 compounds known to be

cancer-causing in experimental animals, such as 3,4-benzpyrene. Whether, in fact, such compounds cause lung cancer, for instance, in man, is unknown. (Archives of Environmental Health, Vol. 14, January 1967—Air Pollution Symposium)

Irritants

To date, striking alterations in lung function such as resistance in the airway and stiffness of the breathing apparatus have not been found in man after (Continued on Page 17)

and mass transportation has yet to be demonstrated as a working alternative.

Part of this can be laid to obsolete systems, but much of the blame lies on the fact that a transportation system designed for a city of 4 million cannot be adequate for 8 million (using NYC as an example).

The medical facilities are already inadequate. To properly handle the medical needs by the year 2000 facilities and manpower will need to be at least doubled.

A similar situation exists in education, and for the first time taxpayer revolts are blocking the existence of planned schools.

It is clear that not only population is involved in this. Present misallocation of resources, if corrected, could be of great help in solving these problems.

But the population growth underlies them all, and any solution ignoring it will be part of the problem 20 years later.

THE VANISHING WILDERNESS

The challenge to preserve the quality of our environment is another problem arising from population explosion. The quality of our lives necessarily includes the purity of our surroundings, an opportunity to stretch, and a chance for solitude and quiet reflection.

Why are we turning our inheritance into an earth-wide slum?

Those people who know the beauties and the mysteries of the earth are never alone or weary of life. What greater source of inspiration is there than the presence of undisturbed nature?

As we continue filling up space with more and more people, the little wilderness

facing everyone: people expect an increase in productivity and services without any detrimental change in the quality of the environment.

Dr. Luna Leopold, senior research hydrologist for the U.S. Geological Survey stated, "The idea that all countries can have continued population growth is ecological disaster."

THE STRAIN ON FACILITIES

Sometime in the vicinity of the year 2000 the population of the United States will exceed 300 million.

All of these people will want reasonable living conditions, adequate medical care, and a reasonable life expectancy. Most of them will consider it natural that standards of living should continually improve.

In housing, this means half again as many housing units as are now available, (or actually more, as much current housing cannot be classified as reasonable). Since buildings have a limited life span, this could easily mean that in the next 30 years as much housing as is currently available will have to be built. This must take place at a time when the advisability of industrial expansion is questionable for pollution-control purposes.

These same people will want decent transportation. But the private automobile causes many severe problems,

that remains will not survive. Says Dr. Paul Ehrlich, "... nothing 'underdeveloped' can stand long in the face of overpopulation."

CROWDINGCROWDING CROWDING

Dr. Jerome Frank, professor of psychiatry at Johns Hopkins University, once made this comment: "Human beings may be in the same plight as a frog placed in a pan of cold water which is very slowly heated. If the rise in temperature is gradual enough, he will be boiled without ever knowing what happened."

Throughout the world, the temperature is rising. With a growth rate of 1 per cent a year in the United States, our population will double in 70 years.

We are destroying usable land at the rate of 1 million acres per year. Whereas we now have 2.6 acres per capita in the United States, by 1975 the ratio will decline to 2.2 acres, and by 2000 to 1.2 acres.

In fifteen years 71 per cent of all Americans will live in metropolitan areas.

What will be the result of all this crowding?

Take a look at the Bedford-Stuyvesant area of New York with its 450,000 people (equal to the population of Cincinnati and greater than the state of Vermont). In that tiny area is located one high school at which 80 per cent of its students never finish. Its infant mortality rate is twice the national average and its crime rate is comparable. Eight hundred of its buildings have no other occupants than rats, but the streets serve dually as playgrounds.

WHAT'S TO BE DONE?

The growth of population is enlarging each of these problems, as well as others. Stabilization of population size is not the only change that is needed to solve the problems—it gives the other needed changes a chance to succeed.

"Unlike plagues of the dark ages or contemporary diseases we do not yet understand, the modern plague of overpopulation is soluble by means we have discovered and with the resources we possess. What is lacking is not sufficient knowledge of the solution but universal consciousness of the gravity of the problem and education of the billions who are its victims."

—Martin Luther King, 1966.

UNITED STATES POPULATION (MILLIONS)



television sets... To avoid the catastrophe... is going to mean sacrifices such as the rich countries have never contemplated, except in major war... It is the duty of all the rest of us to keep before the world its long term fate. Peace. Food. No more people than the earth can take." —C. P. Snow, 1968

OVERPOPULATION AND LAKE ERIE

Experts attending an all-day meeting at John Carroll University on the "Environmental Problems of the Lake Erie Basin" generally agreed on the basic environmental problem facing Lake Erie and it is no surprise: overpopulation.

"The lake can only take a certain amount of wastes from a certain number of people," stated Dr. Herbert Allen, chemist from the Limnological Research Laboratory, Ann Arbor, Michigan.

The problem, Allen continued, is the same on

1900

1920

1940

1960

The Economic Cost of Pollution

The costs of pollution must include those not easily visible to the consumption community of the pleasant suburbs or the neat consumption-oriented neighborhoods of the factory worker. We have become, in our prosperous land, a society of conspicuous waste. With a little more than 7% of the world's population, we consume 67-75% of the world's resources, estimated at 1/4 of all steel, 62% of the world's automobiles, 35% of the world's paved roads, over one-third of all electric power. This we have and thus we do in spite of inequalities of income, justice and hope in our own land, as well as more than 2.5 billion of the world's people who lack the basic necessities of life.

The greatest economic costs to man are those that cannot be given a price tag despite the verbal pollution about the environment that has become so popular.

a) The loss to the public of great recreational and agricultural areas by misuse of land for freeways, strip mines, unplanned cities without green areas; improper land use. The destruction of waterfront and hundreds of miles of beaches by oil spills (there were over 2000 oil spills in U.S. waters in 1966, of which 40% came from land based facilities).

b) The all but irreplaceable loss of natural resources, minerals and trees from the misuse and development of non-returnable and all but indestructible cartons, wrappers, cans, bottles; the neglect of reuse of newspaper (one issue of the Sunday Times uses the equivalent of 160 acres of trees); over-complicated, rapidly obsolescent, difficult-to-salvage automobiles.

c) Medical costs. The extent of the contribution of automobiles and industrial air pollution to chronic pulmonary disease is unknown, but is thought to be considerable. About 60,000 persons per year die in the U.S. of emphysema, "chronic bronchitis" and asthma. The number is increasing yearly. The effect of air and water pollution upon the development of cancer anywhere is unknown. The cost of time

lost in work even if respiratory disease is only exaggerated by air pollutants is staggering. The enormous cost of automobile accidents to life, limb and vehicle adds to the cost of pollution to the nation.

d) Who can place a price on the thousands of seabirds destroyed by oil; the oyster beds and fish made useless by oil, sewage, industrial effluent and pesticide contamination? Who knows the cost of an unlittered park or of a bird's song?

e) In 1965, Lyndon Johnson placed the purely economic costs of air pollution alone at 11 billion dollars a year outside of medical costs. This includes the destruction of exterior paint, the corrosion of metals and other building materials, the cost of cleaning (a favorite figure is the estimate of 20 tons a year of particulate matter falling per square mile per month in downtown Cleveland), loss of recreational areas and other costs, such as accelerated automobile senescence.

The cost of air pollution to truck farmers in California has been estimated in some years to exceed 100 million dollars a year, largely as a result of the effects of sulfur and nitrous oxides on leafy crops.

f) The loss to power supplies of partially burned fossil fuels (coal, gasoline, oil) from inefficient, over-powered, "individual polluters" such as the large American (or European) automobiles; the misuse of solid wastes by burning the burnable (much is unburnable), thus simultaneously destroying fuel and polluting air and water.

g) The loss of organic fertilizer from poorly handled sewage, into which we place human and animal excreta, animal cadavers, vegetable matter and industrial waste, rather than returning fertilizer to the soil after treating sewage so as to minimize bacterial competition with man for oxygen.

h) That which is lacking most is honesty in the environmental revolution. Giant industry, co-opted government and a brain-washed citizenry are

treating the environmental issues with lip service.

What can be done:

(1) No progress is possible without correcting gross injustices and gross inequalities between wasteful overprivilege and hopeless underprivilege.

(2) Life style change. No more non-returnables. Reuse paper (67% of solid waste), cans (16% of solid waste), bottles (10% of solid waste), bags, wrappers. Recycle water. Stop senseless over-consumption, prestige buying, greedy over-use, over-sell.

(3) Enforcement of, strengthening of existing air and water pollution codes. Codes must be nationwide and uniform. Realistic punitive action with public exposure of profitable pollution. Vigorous prosecution of privilege, e.g. off-shore oil drilling, outsize tankers, etc.

(4) Environmental study and research in:

a) The effect of air pollution upon chronic pulmonary disease, etc.

b) Applications of our astounding technological knowledge to problems of solid waste disposal, re-cycling, air and water pollution control, disposal of industrial waste, radioactive waste, development of substitutes for the internal combustion engine, development of safe substitutes for fossil fuels in power resources.

(5) Realistic commitment to and expenditures for environmental study, enforcement, some patching of the existing mess (e.g. "cleaning up Lake Erie" will cost at least 10 billion dollars, the current suggested expenditure by the administration over 1-5 years)

which will cost between 275 and 325 billion dollars by 1999. This is not so unbelievable when one is reminded that this is the equivalent of our defense spending for the next 5 or 6 years. Will the cost be reflected in higher taxes, higher prices or in less defense expenditure, less pork barrelling and lower profits?

(6) The development of international accords in pollution control. If our neighbors do not control air and water pollution, oil leaks, pesticide misuse, our efforts are in vain.

(7) Progress has a price, but progress in terms of insatiable demands for electrical power, glittering goods, more of everything and lip service to man and his precious environment is trivial, anti-people and intolerable.



PEOPLE POLLUTION

Pesticides

(Continued from Page 11)

implicated. The effects have been appropriate to the action of the drug, however. The effect of long term absorption of traces of one or more of the synthetic, organic pesticides is unknown. Whether a long delay or lag period will be followed by the development of neurological illness, cancer or other serious illness is not clear. There is no frank evidence that any pesticide causes cancer in man, but high concentrations of related substances may produce malignant disease in experimental animals.

Finally, there is a distinctly disturbing recent finding, i.e., the presence of trace quantities of chlorinated hydrocarbons, presumably of pesticide origin, in the fat of newborn babies, including infants born in Cleveland. Milk from human mothers also contains appreciable quantities of pesticide residues.

WHAT CAN WE CONCLUDE?

(1) The polluter must

adequately justify his pollution. This implies withdrawal of substances about which there is any doubt and an active search for substances of low toxicity and high specificity.

(2) The herbicides, insecticides and other pesticides have stemmed the tide of certain diseases, such as typhus and malaria and have greatly increased crop yield in the entire world.

(3) The cost of these unquestionable economic benefits to the balance of nature may be intolerable and irreversible, but action now may prevent additional damage.

(4) Considerable additional research and serious re-evaluation of the directions of man's search for survival and plenty for all is needed.

(5) Some pesticides, especially of the organophosphorus "nerve gas" variety and perhaps of the dieldrin, DDT variety, may be too dangerous to use.

Air Pollution

(Continued from Page 15)

inhalation of single irritants at a concentration found in the usual polluted air. It is likely, however, that mixtures of irritants, such as sulfur dioxide and ozone or mixtures of sulfur and nitrous oxides, dusts and ozone, can produce functional and anatomical changes in the lung. These factors depend upon particle size, concentration, weather and the combinations of chemicals involved.

Persons with chronic lung disease may have a profound response to levels of pollution well tolerated by those with younger and healthier bodies. During periods of severe pollution, as during the 1952 London smogs, sulfur dioxide levels were 1.34 parts per million, and over twice this level has been recorded in the industrial sections of Chicago, Pittsburgh and Cleveland. The industrial and municipal power plant emissions of blue-white fumes are probably the result of sulfur trioxide reacting with water vapor to become an irritant mist. The affinity of trioxide for water vapor may produce the haze of industrial areas and under certain conditions of exposure to bright sunlight, this pollutant mixture changes to produce the second form of common air nuisance.

Photochemical pollutants

This combination of affected ingredients further adversely affects our 250 mile thick envelope of air. We have a non-renewable, possibly leaking layer of air of which the first 2000 feet provides most of the air we breathe. Only the bottom 12 miles of the 250 are dense enough to breathe. We have about 6,000,000,000,000,000 (6 quadrillion) tons of air and in the last 30 years we have brought in more air contaminants than all previous factors combined.

In the late years of World War II, Los Angeles air pollution developed new features producing eye irritation, visible haze, cracking of rubber products and plant damage. The annoying components in this pollution were products formed with the aid of sunlight upon nitrogen oxides (produced during high temperature combustion of fuels in autos and power plants) and numbers of organic compounds. Hydrocarbons, aromatics and aldehydes are complicit in this reaction and photochemical activation can oxidize sulfur dioxide to trioxide as noted above. The automobile plays a major role in producing all the components of photochemical haze, misnamed SMOG (smoke and fog); but hydrocarbon and other organic emissions also arise from power plants, industrial driers and ovens, and furnaces used in baking paints, enamels and printing ink. Even after rigid control of stationary sources of emission in Los Angeles, huge quantities of organics continue to spew forth from automobiles (1600 tons), petroleum industry (250 tons) and from users of organic solvents (300 tons).

A survey taken in 1956 showed that only 20% of the residents of Los Angeles county were NOT "bothered" by smog. Similar figures for the San Francisco Bay area were 71% and for the rest of the state 73%. Lately, 14 years later, smog, in its ropy, mustard-hued presence, is a problem in the Bay area and

in the fabled smog-escape resorts in the far South of the state.

The extent of respiratory damage or worsening of existing respiratory damage has not been completely studied. Subtler tests of long term effects of pollutants, such as the effect of sulfur and nitrous oxides on the production of the protecting lining of moving mucus in the air tubes of the lung have shown interruption of mucus production and abnormalities of ciliary beat. The cilia are the tiny hairs that carry and move the mucus by beating in a synchronized manner. The levels of pollutants required to obtain these results experimentally are higher than those currently in polluted air, but the effect of long-term exposure to combination of these agents remains under investigation.

Particulate density (dusts, soot) appears to be related to cough but not to clinical permanent lung damage. On the other hand, changes in the lining of the air tubes of the lung and substances lining the tiny air sacs may be seen in preparations from lungs of patients from highly polluted areas or who have worked in pollution-rich air. Whether air pollution damage itself is permanent and contributes to certain forms of emphysema is not clear, as other factors, i.e., age occupation, smoking habits and chronic illness due to infection, are complicating. Some authors have demonstrated a statistical correlation between the incidence of respiratory infection of viral and bacterial variety and the degree of ambient pollution by known irritants.

Despite the lack of complete information on precise correlations of health and air pollution, the burden of proof that sulfur and nitrous oxides, ozone, photochemical pollution products such as olefins, hydrocarbon-nitrous oxide mixtures, formaldehyde are harmless remains on the industrial polluter or upon open dump operators and on the manufacturer of motor vehicles, home heating devices and incinerators.

There is an apparent increase in the incidence of chronic bronchitis and some forms of emphysema (over-inflated) lung disease in polluted urban areas compared with rural areas. The obvious sampling problems do not explain all of this, nor is the yearly increase of all chronic lung disease in the general population. We do not know the relative importance of air pollution or cigarette smoking in chronic bronchitis. Certainly, chronic heart and lung disease is made worse by episodes of increase in pollutants, such as occur during "smogs".

The adverse effects of air pollution are by no means purely upon pulmonary tissues. The depressing ugliness and offensiveness of increasing pollution of the air, not to mention other forms of these menaces of stupidity and neglect, is not a trivial problem.

The effects of heavy metals such as lead from gasoline and the traces of many metals present in particulate matter, have not been discussed but have been under investigation since the early years of popularity of the automobile. Suffice it to say that radical changes in both fuels and engines are required.

What must we do? A number

of these points are covered in the notes on the economic effects of pollution.

(1) Realistic expenditures for control, enforcement and expansion of existing pollution control laws. Forty-six states have air pollution control laws, but pollution control boards, appeal boards and enforcement agencies are often co-opted by the polluters and politicians, weakened by flimsy or unenforceable laws, and understaffed. Vigorous prosecution and heavy fining of offenders must be made possible.

We spend about 1/7 as much on air pollution control as we do on tobacco products in 1 year.

The cost of the current SST subsidy is more than 1/2 of that which the administration plans to spend on their "share" of pollution control in the next few years.

(2) Regional control must supplant local control; state control should be followed by

national control and international standards are needed. This frees pollution control from a great deal of political maneuvering.

(3) Assessment of the health as well as the nuisance value of air pollution. In general, air pollution rules are not based on health considerations. This means developing a new breed of engineer, biologist, environmental health specialist with research and practical concerns.

(4) Attitude change, life style change and reevaluation of our socioeconomic system of waste, false progress and antihuman neglect in the name of expediency and increase in the gross national product. This means re-education and redirection of priorities in the early years of life.

(5) Applications of our technology to revolutionize vehicular manufacture, power production, home heating devices and incinerators. This

involves problems of water pollution and solid waste disposal.

Despite the requirement and potential effectiveness of "closed" crank-case control methods, the cost, the difficulties of maintenance, regulation of owner tampering and the obsolescence of vehicles makes it necessary to abandon or radically change the internal combustion engine. Unrepairable "blowers" and "clunkers", not a significant cause of pollution in themselves, but a driving hazard and aesthetically highly offensive, must be removed. USED as well as new cars must come under the laws requiring exhaust controls and enforcement must be made effective.

(6) Citizens action, consumer pressure and socioeconomic change seem to be the best way of stopping air pollution without creating new repressions and complications. Action now!

Every challenge must be met.

A good cry cleanses the soul



After all is shed and done, your soul may be saved... but your contacts need help. They need Lense. Lense is the one contact lens solution for complete contact care... preparing, cleansing, and soaking.

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not your contacts

Conservation: A must for survival

By Donald L. Gibbon
Conservation Chairman
Northeastern Ohio Group of
the Sierra Club

Sorry, folks. We've got a big letdown for you . . . All this talk about conservation, pollution, environmental quality . . . This isn't new, this isn't swingin' stuff. They are no cheap thrills here. This stuff is really old fashioned, really square. Just about as bad as, say, the Peace Corps, or loving your neighbor as much as you love yourself. People who go for this sort of thing probably even go around picking up litter! Imagine that! Someone who would expose himself to ridicule by actually leaning over in public and picking up the garbage some thoughtless slob threw on the lawn. You certainly wouldn't want to associate with kooks like that!

Yes, conservationists might even be called "conservative". Not in the ultra-right political sense, but meaning someone who thinks progress for its own sake just might not be worth it. It might even mean a guy who has thought about his own value system enough to think that technological change may not necessarily be change for the better. It might mean a person who believes that a sphere 8,000 miles in diameter can't afford an infinite amount of punishment handed out by an infinite number of people . . . And, sorry again to those of you who still think you might like to be conservationists . . . it certainly means someone who's willing to work for his convictions!

I guess that cuts out all the weak sisters, all those who think the old virtues are really nowhere, don't apply to our modern society, those who don't care if they never see another piece of land that hasn't been landscaped, those whose idea of winter sports is hopping on their snowmobile and whizzing around the city park. It eliminates the week-end nature lover who goes to the local green-belt and picks a nice

bouquet of wild flowers to take home, it eliminates the guys who go to the woods for a beer party, throw their beer cans around, then paint their fraternity emblems on a few cliff faces on the way home. It leaves out the executive who pays his dues to the National Wildlife Federation, but has no pangs of conscience as he drives through the cloud of smoke coming out of his company's stack, or as his company lays down another grove of redwoods.

Who's left now? I guess you might say that the remaining few are those who have the good fortune to have realized the value of beauty to their own wellbeing, those whose consciousness has been awakened to the amazing therapeutic effect of natural grandeur on the spirit, and those who have decided that these things make it worth dedicating at least a part of their lives to seeing that those who follow them on earth have a chance to experience these "super-natural" emotional lifts. These are thinking people, people who care, for themselves and for their fellow man.

"What can I do?" you say. "There's nothing left worth saving around Cleveland. Anyway, I'm just one person, and my voice doesn't mean a thing."

Wrong, on all counts. There's plenty left to save, close by, and even more to restore. And you can help. But it will take work, dedication, study, time, and all for no pay . . . except for the satisfaction that comes with the scattered victories, knowing you have contributed to something useful (relevant? Is relevance what you're searching for?) for posterity. Stick with me and I'll detail some case histories of patients that have been saved, and make a prescription for your own case. But may I warn you, the medicine may be a little bitter and the cure a little slow . . .

How do you "become" a conservationist? There's no easy road to salvation, brother, for you, for the cities, for the

country. The first thing that's required is a change in attitude. You've got to start caring, caring all day, about everything around you. You've got to develop an attitude toward your surroundings that makes your eye constantly seek out beauty as good, and recognize destruction and ugliness as bad. And when your eye gets practiced, (most people just ignore both beauty and ugliness) you've got to start looking for ways to increase the good at the expense of the bad. Don't try to do it on your own, because there are lots of others who have already developed the knack, and they are willing to help you. Hundreds of people have already gotten fed up to the teeth with the constant downward trend of our culture's attitudes, and can provide you with companionship in your search for beauty.

A good first place to start is to visit the Natural Science Museum. This museum is an incredibly active, relatively small museum that is fully conscious of its obligation to educate the taste of the public. As a student of science or of the humanities, as a novice or an expert, you will find, if you take a little time, that the museum has exhibits and activities which will launch you into the field of conservation. If you are already knowledgeable, you may be able to contribute right away; you will certainly be able to find out what is going on right now in northeastern Ohio, and contact the people who are active in these various projects. If you are a beginner, you will have to take the time to educate yourself in the issues, and the museum will help you begin. The sad fact is that without knowledge of the facts, the theories, the history of the issues, you cannot make an effective scientific contribution. However, though you cannot jump in to instant stardom, I assure you that even your untutored help is needed in many organizational ways.

I am going to give you some specifics about the organization I am particularly associated

with, not in an attempt to proselytize, but because I know it best. I will also give general information on some other groups I know about, again not meaning to exclude anyone, but simply because I don't know every group in the area.

The Sierra Club is developing into a very active group in northeastern Ohio. With a total of some 2,000 members in the entire state and over 400 in the northern part, their interests span the whole range of conservation efforts, locally and nationally. On the local scale, the Sierra Club has contributed to the efforts to implement strict air quality standards in the Cleveland region; one of the members, Dr. Arnold Reitze of the CWRU Law School, has been a leader in this work since long before the Sierra Club itself was formally organized here. The Club has also worked to prevent destruction of the parks and lakes which were in the path of the proposed Interstate-290. Nationally, the Club has been asked to flood senators and representatives with mail speaking against the National Timber Supply Act; this measure, which would have made timber-cutting the prime use of hundreds of thousands of acres of National Forest and prevented designation of any more wilderness area in this country, has been soundly defeated. Other mid-western efforts in which the Ohio Chapter has been involved have been prevention of construction of a dam in the Red River Gorge in Kentucky and the establishment of Sleeping Bear Sand Dunes as a National Lakeshore.

There are several local projects in the conservation field which need all the help they can get. One of these is the effort being made to have a large part of the Grand River, only 30 to 40 miles east of Cleveland, declared a scenic river, thereby giving it state-level protection from destruction as a recreational resource. After this hurdle is passed, we hope to get Federal protection for it under the Wild and Scenic Rivers Act of 1968. For those of you who haven't canoed down this river, I feel quite certain that you would be amazed by its unspoiled beauty, and this within 45 minutes of the Case Western Reserve campus. A second project is only in the most primitive planning stages. This is one to clean up the Shaker Lakes, so that they will once again be inviting and suitable for general recreation. This project, which could go all the way from simple water treatment to full-scale formal development of the area as a planned park, needs every type of help imaginable. It will entail endless discussions and planning sessions, sales talks, funding investigations, work with all the local governments, and so forth.

Another project the Club is anxious to contribute to is the establishment of a Cuyahoga River Valley Park, joining Akron and Cleveland with a broad-scale recreational area. This subject has been discussed for several years by the Park Systems of the two cities, but we would like to assist in providing as much political pressure as possible.

You may recognize that there are two main ingredients to conservation work: education and politics. First you have to educate yourself and your fellow conservationists about the problem at hand; then you have to educate the politicians and the public; then you have to use political means to legislate the protection or laws you feel are necessary. Speaking of education, Dr. Eugene Perrin, who organized the teach-in at CWRU, is a Sierra Club member, as are many other faculty members at Case.

So, if you are willing to work for what you say you believe in, join us! Or join the Isaac Walton League. They are presently suing to prevent destruction of the Boundary Waters Canoe Area in Northern Minnesota; it seems that private interests still hold the mineral rights, and they intend to begin mining in the area. The strip they hold would cut the area in half.

Or join the Citizens for Clean Air and Water. This local organization is conducting a massive, across-the-board effort to have effective laws enacted for the control of air and water pollution, as is the Air Conservation Committee, of which Dr. Reitze is the chairman. The Audubon Society is less and less a group of fuddy-duddy bird watchers, and more and more a leader in all forms of conservation efforts; they have realized that environmental degradation will soon leave them with nothing to watch!

All of these groups need people who are willing to get to know the state and national legislative programs, willing to help define realistic conservation goals, to try to educate the politicians, to apply pressure on the politicians at the appropriate moments. They need letter writers, if they're like the Sierra Club, they could well use some willing clerical help . . . in every way imaginable, the conservation movement wants YOU! We'd like the best if you were an educated, influential, scientist and politician with a good legal background, but if you're just plain you, step right in!

Next Sierra Club Meeting: April 22, 7:30 PM, Natural Science Museum. Program: Two color movies on Sierra Club work in the West.

For membership information write: Arthur Tawell, 2296 Grandview, Apt 7, Cleve. Hts. 44106

After the Teach-In . . .

The following magazines and journals regularly contain articles on pollution, the fate of the cities, ecology, and the environment in general:

Audubon
1130 5th Ave.
NYC 10028

Biomedical News
5611 Columbia Pike
Falls Church, Va. 22041

Burning River Oracle
13037 Euclid Ave.
Cleveland, O. 44112

Environment
438 N. Skinner Blvd.
St. Louis, Mo. 63130

National Wildlife
534 N. Broadway
Milwaukee, Wisc. 53202

American Forests
919 17th St., N.W.
Washington, D.C. 20006

National Parks
1300 New Hampshire Ave. NW
Washington, D.C. 20036

National Review
150 E. 35th St.
NYC 10016

Ramparts
1606 Union St.
San Francisco, Calif 94123
Additionally there are many books available in the University Bookstore dealing with the environment—especially important is The Environmental Handbook (A Ballantine/Friends of the Earth Book) which has been prepared for the first National Environmental Teach-In.

Action Groups
Scientist's Institute for Public Information
30 E. 68th Street
New York, New York 10021

The Nature Conservancy
1522 K Street, NW
Washington, D.C. 20005

The National Wildlife Federation
1412 16th St., NW
Washington, D.C. 20036
National Audubon Society
1130 5th Ave.
New York, New York 10028

The Sierra Club
1050 Mills Tower
San Francisco, California 94104

The Conservation Foundation
1250 Connecticut Ave., NW
Washington, D.C. 20036

John Muir Institute for Environmental Studies
451 Pacific Ave.
San Francisco, California 94133
or, P.O. Box 11
Cedar Crest, New Mexico 87008

Friends of the Earth (FOE)
30 East 42nd St.
New York, New York 10017

Zero Population Growth (ZPG)
367 State Street
Los Altos, California 94022

Planned Parenthood World Population
515 Madison Ave.
New York, New York 10022

WIN
339 Lafayette St.
NYC 10012

Liberation
(Same as WIN)

Defenders of Wildlife
731 Dupont Circle Bldg.
Washington 20030

Sierra Club Bulletin
1050 Mills Tower
San Francisco 94104

The Living Wilderness
729 15th St., N.W.
Washington, D.C. 20005

STAFF BOX

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All editorial opinions are those of the Co-Editors of this special supplement.

ENTERTAINMENT

Pharaoh Sanders: an artist-in-residence playing music in own cosmic language

JOHN WHITFIELD

A well-known and self-taught black jazz musician who loves to rap about colors in his music hopes to bring the Creator closer to black students during his two and a half month stay at CWRU.

Pharaoh Sanders, the Afro-American Studies Planning Committee's Artist-in-Residence, will spend his hectic stay giving concerts, rapping and answering questions, especially about jazz music.

Mr. Sander, who sat holding his saxophone, said in an interview recently he tries to "convey through his music spiritual things. It's all about the Creator. I am trying to use colors to help myself get to the people. All I say when I play music is colors."

The artist-in-residence, described by some black students as very "heavy" or intellectual, speaks somewhat deliberately and sees music as a vehicle of expression transcending earthly things.

"Music is the best way I can express myself. All I know I try to put into music. Words are not enough for me. Words play out.

"My language is the cosmic language. We are dealing with things above the earth...I am just trying to talk about one Creator."

Although his music seeks to praise the Creator, he is no mystic shutting out the workaday world. Students, whom the saxophonist frequently admonishes "to meditate more, to know themselves, and to be themselves," find him easily accessible and understandable.

Although Mr. Sanders has cut several record albums, including "Karma," and "Tauhid," he resents the commercialism of some recording companies.

"I would rather play concerts at schools and colleges."

Sometimes Mr. Sander plays rhythm and blues. In the last four years he has played with B.B. King and Jerry Butler, both nationally known R&B singers.

In becoming a nationally known musician, the self-taught black musician from Little Rock, Arkansas, "broke all the rules in the book, the white man's book."

The saxophonist has had no

formal music training. "Everybody just inspired me. My mother's father was a musician and a mathematics teacher. My musical training I got somewhere around him."

Besides playing the saxophone, he plays drums, clarinet and the flute.

He has earned the plaudits of some musical critics and the wrath of others.

John McCluskey, coordinator of the Afro American Planning Committee, said Sanders, like other black artists, faces white critics with their already rigid and culturally deprived standards of excellence.

The artist-in-residence singles out a longlist of black musicians whom he likes. "I like John Coltrane, Sonny Robbins, Wayne Shorter, Leroy Brooks, Joe Henderson, Alvin Queen" an interruption stopped further enumeration of his favorites.

Of those musicians, he said, "They try to be men. They are trying to be black men. It's all about being sincere."

"When you are touched by music. You know that the person is sincere."



"THERE CAN BE NO DOUBT about anything in the Bible. You must accept Christ as the true son of God before you can believe anything else he said. Because if he was lying about being the son of God, he was a liar."

(Photo by John Fleshin)

Gospel according to Orris Price

By DAN COOK

"Get right with God! Jesus died for your sins, Rosemary, so get right with God. God loves

you." It is a sunny Sunday afternoon. Orris Price sits on a cement ledge in front of the lagoon playing his guitar and calling out to the crowd. "I'm glad somebody loves me!" yells a young freak, obviously amused by the robust, bearded Price. He is not the only preacher there, but there is something about him—perhaps his wonderful eyes—that makes him stand out. People know Orris Price and talk about him.

The scene shifts to Howard Johnson's. Over innumerable cups of coffee we discussed Price's religious philosophy, his method of spreading the word, young people, churches and the Bible.

"I've taken college religion courses. Those professors are teaching students to doubt the Bible. The Bible is the word of God. It cannot be questioned because it was divinely inspired and written through the prophets and disciples by God himself."

His gaze was piercing, almost pleading. "God loves you. If you can just accept his word, you will receive the eternal peace that he can give you."

"There can be no doubt about anything in the Bible. You must accept Christ as the true son of God before you can believe anything else he said. Because if he was lying about being God's son, he was a liar. Could you trust someone who would lie about a thing like that?"

"I used to live in sin, before I let God into my life. So I know what you college students are up against. But if you read the Bible, you will find out how to act in such situations."

Price poured himself another cup of coffee. "I know the peace and joy of God's love. Don't ask

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Book Review

By MARK CORSON

The bible for the National Environmental Teach-In movement is The Environmental Handbook. The Handbook, edited by Garrett DeBell, brings together students, scientists, writers, and conservationists with suggestions for an ecological platform and tactics for change that can be acted on at once by an individual on campus or in the community.

One sample of this action is our activities here this weekend at CWRU. Hopefully, by the time the meeting of the United Nations Conference on the Human Environment commences in 1972, the world will be sufficiently behind the delegates to make it a major step internationally. This goes for all the important conferences in the future.

The problem is to build-up broad-based support for significant action. We must propagandize. Start with your own head and get into it. Study the problem. Read The Handbook.

The Environmental Handbook is divided into three parts. The first section is a collection of short essays on "The Meaning of Ecology." In this first section there is, as an example, an essay entitled "Eco-Pornography or How to Spot an Ecological Phony" by Thomas Turner. Nowadays everyone from students to corporate officers

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HOTLIPS BEING HEADED in the right direction by one of the many unnormal surgeons operating in the movie M.A.S.H.

War flick makes laughs

By MARK CORSON

"M.A.S.H." is a smash of a gas. For \$2.50 at the Richmond Theater you can laugh at some of the funniest humor around. The whole movie is a series of wisecracks.

Donald Sutherland and Elliot Gould play roles as army surgeons during the Korean (substitute Viet Nam) War. "M.A.S.H." is a slick anti-war film. It is more like the ribald "Catch-22" than the British

understatement "O, What a Lovely War." Many of the scenes are like Broadway farces.

"M.A.S.H." probably will be popular with CWRU students. I myself enjoyed it and laughed my foolish head off; but I'll laugh at almost any movie. Some people may object to its offhand satirization of religion and death. Quite a few may object to the sight of the mangled bodies of our fighting men that the doctors try to patch-up. The American Medical Association

may not like the light it puts on doctors. Rumor has it that Women's Lib has objected to its treatment of the second sex.

This reviewer objects to "M.A.S.H." on the grounds that it is a poor movie. It has no plot. There is little character development. The beginning and end are only marked by the physical coming and going of the heroes to and from the hospital camp. The technically perfect

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Record Review



King Blues

By RONALD B. WEINSTOCK

Like so many another other bluesman, Freddie King has languished in obscurity for years. Despite several successful singles for the King label, Freddie has never received the general acclaim his talent deserves.

Of course King has received considerable acclaim within the black community and among the handful of enthusiasts who have managed to acquire his recordings. But, as is the case with many other black artists, white imitators have generally received the profit and fame.

Fortunately, more and more people are becoming aware of the origins of much popular music and beginning to appreciate the innovators instead of the imitators.

"My Feeling For the Blues" is Freddie King's second album for Cottillion. It is far superior to King's initial, poorly recorded, release. King's playing has the guts that were evident on his classic singles. Freddie plays a very aggressive blues guitar with considerable expertise. He sings rather well, his voice

high-pitched but never straining. The production is handled very competently; the programming couldn't be better, as King does personel renditions of a several blues classics.



Deja vu

By BARRY LYONS

Lights blink on in Toronto as shadows lengthen in the steel and concrete emptiness of life-starved dreams. Among the many cars leaving after a day's energy is spent, find one car, inhabited by one young driver. Find Toronto falling into the distance while a tape player is blaring out WHOLE LOTTA LOVE. Bags of groceries and other tools and utensils line the back seat, the product of a two week stay in the city. On the dashboard lie two carefully rolled joints.

Two hours later the car is alone. The joints are gone. Led Zeppelin has given way to Cream, and Ginger Baker has been pounding away on his drums for ten minutes or so. The glaring lights of the city are long gone, and the darkness is

enveloping. Only the soft light of a few stars pervades the blackness as Ginger crashes to a halt. But there is a restless feeling in the car, an unsettling feeling that something just isn't right. The same feeling that has been present several times since the car left for Toronto. He shoves a Steppenwolf tape in, but the feeling persists, they can't seem to get it on, something isn't right. The feeling grows, and the kid shuffles through the tapes looking for something. The MC5 bombs, sounding like a berserk metallic robot. Canned Heat goes in one ear and out the other. Finally, with Led Zeppelin again grating at his ears, he pulls off onto a lonely dirt road. A light flickers through the trees, and the car finally pulls to a stop in front of a small house. A door in the house quietly opens, and the strains of a song escape into the night:

Come to me now
And rest your head for just
five minutes
Everything is gone . . .
Our house is a very very very
fine house
With two cats in the yard
Life used to be so hard
Now everything is easy 'cause
of you . . .

Voices spill from the house as he steps out of the car, and the music and the voices reach him, and the restlessness is gone. He feels right again. The voices are his family. The music is from DEJA VU. The music becomes clear and pure and whole, and it fills him, reaching into every corner of his being. Songs become imbedded in his mind, pushing aside any thoughts of the lonely days in the city.

There is a town in north
Ontario
Extreme comfort memory to
spare
In my mind I still need a place
to go
All my changes were there
Blue blue windows behind the
stars
Yellow moon on the rise
Big birds fly across the sky
Throwing shadows on our eyes
All is well. He is home again.

More Deja vu

By TOM RINDA

Much has been written and said about Crosby, Stills, Nash and Young, America's own supergroup. The addition of Neil Young was almost a necessity to add to their melodic sound some rock influence, a necessary evil in pop music today. DeJa Vu is a very listenable album. The songs are much more individual than those of their first album, almost a collection of four cooperative styles. The lead guitar of Neil Young is a definite advantage, but more important, the combined musical talents of all four, both instrumental and vocal is overwhelming.

Crosby, Stills, Nash and Young have their own style of music and no real category can be applied to it. DeJa Vu can be seen as an experiment with many different forms of music and the result is a unique sound which has to be heard to be appreciated. One thing is certain the title of supergroup is well deserved.

Let me tell you where to go

FRIDAY, APRIL 10

10 a.m. to 9 p.m.—Newman Art Show
7 p.m. to 9 p.m. The Fox, Union Ballroom, \$.75
7 p.m. Services, Hillel
7 p.m. to 1 a.m. Alice in Wonderland (4 versions), CIA, \$.75
7:30 p.m. Film "Martin Luther," sponsored by the University Circle Christian Fellowship, 1914 Lounge in the Union, free.
7 p.m. to 1 a.m. Environmental Teach In, Project Survival, Emerson Gymnasium
7 & 10 p.m. Undergrounds, CIA, \$.75
8 p.m. Oneg Shabbat, Hillel
8:30 p.m. Cleveland Orchestra, Severance

SATURDAY, APRIL 11

10 a.m. to 9 p.m. Newman Art Show
9:30 Environmental Teach-In Workshops, Baker Building
8:30 p.m. Cleveland Orchestra, Severance

SUNDAY, APRIL 12

10 a.m. to 9 p.m. Newman Art Show
7 p.m. Meeting of Mather Gov. candidates for the executive offices, Wade Commons. The floor will be open to discussion and questions.
8 p.m. International Club, 1914 Lounge of Thwing
8:30 p.m. University Circle Singers, CIM, Beethoven Mass in C, free.
8:30 p.m. Cleveland Orchestra, Severance
9 p.m. Rap Cellar, free; Afro-American Cultural & Historical Society of Cleveland

MONDAY, APRIL 13

10 a.m. to 9 p.m. Newman Art Show
7 & 9:30 p.m. "Seventh Seal," CIA, \$.75
7:30 meeting for all those interested in working on /for next fall's First Annual Case Western Reserve University Homecoming, Room 206 of the student union.
7:30 p.m. Duplicate bridge, Thwing, \$.50
8 p.m. Anthropology Movies, Hatch Auditorium
9 p.m. & 10:30 p.m. "The Right of Privacy," movie at the Olive Tree

Orris Price

(Continued from Page 19)

me how God came to me. Such an experience is beyond words. All I know is that since I've accepted Christ as my savior, the world has changed for me. It is so wonderful now. I see things clearly. Yes, I see clearly. There are no more decisions for me. God has given me the answers. If I meet a pretty woman, I no longer have to think about whether or not I might want to go to a hotel room somewhere with her. I see God's great scheme and I know that such an action is wrong.

"I don't say I understand everything in the Bible. I gain more insight every time I read it. But I accept it all as the truth, whether I understand it clearly or not."

"Churches today are hypocritical. They preach love and yet they are segregated. To me this is wrong. In my personal missions in Ohio and Pennsylvania I've reached thousands of young people. They are the ones that can change the present situation. They see that things are wrong, so many have stopped going to church. If these people accept Christ, then perhaps God's will can be achieved. I don't agree with all that the revolutionaries are saying, but at least they see the need for a change."

We talked about the New Morality, which he roundly condemned. "Two people should not sleep together unless they are married." On homosexuality he also took a firm stand. "Man was meant to create new life through love with a woman. Homosexuals are living in sin." Drugs and drinking; "These are bad because they lead to sinful behavior. People should accept Christ if they want to find real peace and happiness. Why, every day more people are getting high on Christ."

We got up to leave, over an hour after we had sat down. Orris Price looked at us. Clear, calm eyes, tireless as the man

himself. He smiled. "God bless you. Remember, God does love you. Go and read the Bible, and think about it."

Whether or not one agrees with the man, it is impossible to leave him and not be impressed by his conviction and vitality.

"Hey there, Billy, and you too, Mary, Jesus died for your sins. Get right with God!"

Book Review

(Continued from Page 19)

talks for a better deal for Mother Earth. The biggest corporate polluters often run ads of a public service nature telling how they have saved a vast half-acre tract of forest or have stocked some aquarium with a male and female carp for future generations to enjoy.

The problem is to tell who are the good guys and who are the bad guys. Everybody wears white. Turner suggests getting straight answers to these questions. (1) Is the company advertising in this voice to solve a problem or to prolong it? (2) Does a press conference fog up the issue? (3) Does the ad carry an obscure legend? (4) Is the ad really suggesting more dangerous alternatives? And finally, "Should this problem really have been assigned to an adman, or should it have been sent to an engineer or an ecologist.. He ends with "CAVEAT EMPTOR."

In the second section "Eco-Tactics—Part I" editor Garret DeBell gets down to the immediate goal of all of us political action. These essays tell what the whole movement is about. In forty pages the means to get large scale results are outlined. Again you will more hear of this at the Teach-In's workshops.

The Environmental Handbook is damn good reading. The short, interesting articles get to the point without a large amount of verbal garbage. You are bound to find things of personal significance in the essays. The Handbook costs only 95 cents for its 368 pages at the bookstore. Buy it! Read it!

WRUW-FM 91.1

Friday

3:10—Scope of Human Potential—Perception and alerted states of consciousness
4:10—Music with Art Ellis
7:00—Special of the Week—Great Decisions—1970;
Georgetown/Special—Academic decision making
8:00—News
8:05—Music with Neal Goldsmith
11:00—News—Cleveland Data Feed
11:15—Music with Al Warner
2:00—6:00 a.m.—Music with Secunda, Levitan and Lamm

Saturday

3:10—The Drum—Special—Malcolm X
3:40—University Forum
4:10—Music with Lucy Robins
7:00—Goon Show —The Vanishing Room
A Federal Case—Mass media and violence for the commission
8:00—News
8:05—Music with Gene Randolph
11:00—News—Cleveland Data Feed
11:15—Music with John Gog
2:00—6:00 a.m.—Music with Bayles and Rubenstein

Sunday

3:10—Encounter 4:10—To be announced
7:00—BBC World Theatre—There are crimes and there are crimes
8:00—News
8:05—Music with Turk Tolek
11:00—Cleveland Data Feed
11:15—Music with Ron Roth

Monday

3:10—Music 213
4:10—Music with Judy Rose
7:00—Scope of Human Potential—methods of working with people—Wilson Van Dusen
8:00—News
8:05—Music with John Kaplan
11:00—Cleveland Data Feed
11:15—Music with Dave Morris



ANDREW PULLEY of Ft. Jackson Eight.(Photo by Rick Weitzer)

Importance of April demonstration stressed

By JEANNE BRAM

Andrew Pulley, one of the Jackson 8, and participant in the Anti-war movement, said that the April 15 demonstration will add significant pressure on President Nixon to end the war in Vietnam.

Two million people across the country are expected to march on April 15, showing "Nixon a nightmare he's never seen before."

Speaking at the Union ballroom, April 7, Pulley stated that "massive anti-war demonstrations have a tremendous effect on the power structure."

Nixon, claimed Pulley, fears the threat of the strength behind the peace demonstrations.

Concerned that most Americans, although opposed to the war, feel that demonstrations are ineffective, Pulley said that these people "need to see that they have power."

This student strike will be more militant in nature, claims Pulley. Defining militancy as "putting forth demands and standing firm to them," he stated that "massive militant

M.A.S.H.

(Continued from Page 19)

color photography suffers in closeup and long shot composition. All the lines which are longer than a wisecrack could be thrown out with no loss to the script. The acting is mediocre. The director failed to guide the movie to a convincing central idea. "M.A.S.H." is just a series of wartime situation comedies loosely strung together.

Now please do not dismiss this review for being hypocritical. It is an entertaining war flick. It is a B-grade movie. Do not take it too seriously.

We may be getting a lot more movies like "M.A.S.H." later on in the 70's so settle down in your seat and laughingly say "right on."

S.M.C. urges students to participate in the national student strike by joining Cleveland's April 15th demonstration. We urge professors to cancel class and that all university activity come to a halt on Wednesday, so that every faculty member, employee, student, and administrator can be a part of the most massive anti-war demonstration that Cleveland has ever seen.

Sanford Reichert

By LESLIE KAISER

"Teaching is the ultimate of all arts," says Dr. Sanford Reichert, newly appointed Professor of Education and Director of Teacher Education.

Teacher education includes the student teaching program and a program to be designed for sophomores. The latter plan would allow sophomores to observe and participate in teaching so they can determine if they want to major in education.

Dr. Reichert feels that anyone in education should have "the ability to live with ambiguity—conflicts, crises and uncertainty in the classroom" and he should have "expansiveness of character, the ability to cry, love, laugh, search and question."

In order to keep this kind of person in the program and weed out those students who would not make good teachers, Reichert will utilize personal interviews. He and other faculty members will interview the students at various times during their junior and senior years. He hopes to avoid superficial judgments and encourage "self-weeding". "We're in the business of education, not for ourselves but for the children."

Dr. Reichert's specialty is in the teaching of disadvantaged and disturbed children. When asked to define disadvantaged



DR. SANFORD REICHERT

(Photo by Leslie Kaiser)

and disturbed, he talked of the racial conflict in America and referred to his books "Change and the Teacher" and his forthcoming "Education of the Disadvantaged."

A teacher can recognize hostility, aggressiveness, and withdrawal in his students. Reichert hopes to train teachers; the clinical theories behind

emotional disturbances so they can help the child. He stressed that a teacher should refer the child to a qualified psychiatrist if the teacher does not have the background to handle the problem herself.

He ended by saying that it is always necessary to "adjust the program to the child and not the child to the program."

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We didn't make it for just anybody. We did make it for people who like sleek new shapes. Long hoods. And fast fastbacks.


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Camaro is made for people who like to choose their power. Four transmissions are available. And six engines, up to the Turbo-Jet 396 V8 with the SS version.

It's for people who aren't necessarily fond of large crowds. There are two buckets up front, two bucket cushions

in back. And longer doors that make them easier to get to.

We made the new Camaro for people who like the stopping power of front disc brakes. And protection of side-guard door beams. It takes a certain kind of person to drive a car like this. Because it says a lot about the way he thinks.

What do you think? 

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You could win a week-long trip for two to a famous sports event, anywhere in the world! Or a new Camaro or other Chevrolet sport model! 13,145 prizes in all. For full details and an entry form, visit your participating Chevrolet Dealer's Sports Department. Residents of New Jersey, Iowa, Florida, Ohio, Georgia and Missouri may request an entry form by sending a stamped, self-addressed envelope to their Chevrolet dealer. This offer void in the states of Washington and Wisconsin or wherever prohibited by law.

New image sought by Peace Corps

By LESLIE KAISER

The "mud hut" image of the Peace Corps is in need of a change, say the group's officials. Now changing is the stereotype of the Peace Corps volunteer as a newly graduated college student.

Dick Faris, a representative of the P.C. on campus last week, explained that volunteers should "come from a cross-section of the country" and that "older, experienced people" should be recruited. He has just written to the National Business Association explaining that people having business experience would be placed in similar positions as P.C. volunteers.

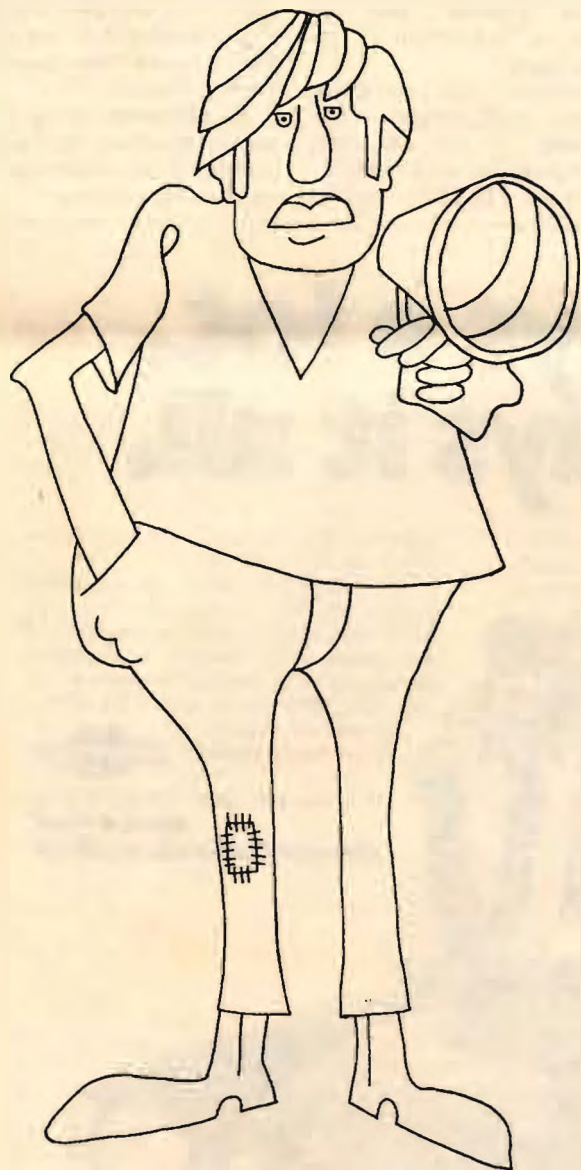
A Peace Corps applicant must be at least 18 years old and in

good physical and mental health. It is not necessary to be a college graduate. The preliminary test once required has been abolished.

People are needed in the fields of education and the mass sciences (physics, chemistry and biology). Married couples may apply and some families are being accepted.

The in-country training period lasts approximately three months. Applicants may voluntarily leave the program during this time. The training includes language and cultural studies and technical training. P.C. volunteers are committed to two years of service at a salary of \$75 a month with two days a month vacation.

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SOPH. and Jr. girls sign up for Claud Foster, upper class girl's dorm.

MEETING for interested students in an Undergraduate Program in Urban and Environmental Studies Wednesday, April 15, 4:00 p.m. Crawford Hall, Room 14.

THE UUSG Record Store is alive and well in the Union basement. A huge new shipment has arrived. And the records are still the cheapest in town. Our selection now has vastly improved.

MISSING brown and white 7 month old Siamese cat. \$5 reward. Call Jordan Delmonte 371-3695 after 6:30.

FREIBERGER Library News: Books may be borrowed for two weeks and they can be renewed either in person or by phone. This is possible only if there is no request for that book by another student. Reserve books which circulate for 3 days may be renewed by phone before 9:30 a.m. Call 368-3506.

THANKS to Shelly and the rest of the JB.

MORROW lives even during the week.

JOHN still loves Cathy.

HELLO Lisa, Janet, Joce, maid.

FURNISHED apt. to rent at 12570 Euclid. Includes janitorial duties. Modern, up-to-date one bedroom suite. Call 943-0171.

In connection with this weekend's Environmental Teach-In, dubbed "Project Survival," members of the publicity committee have been granted a parade permit for Public Square this afternoon. In addition to the distribution of pamphlets, a mobile unit will be located near the Marshall Drug Store on the square. Any person interested in helping out should go to the mobile unit between 11 and 5 today.

Alienation, Zionism, education discussed in Frankel's speech

By JOHN KOTLER

"One of the sores of my discontent", said speaker Robert Frankel, "is the number of young Jewish people who are alienated from their people." In a speech entitled "Confronting the Jewish Establishment" given at the Hillel House on Tuesday, Frankel raised the questions of alienation, Zionism, education and activism.

The alienation of young Jews from their religion he said, resulted because the negative feelings aroused by the superficiality in some of the American Jewish community, has over powered the sense of possibility in the humanist tradition of the Talmudic scholars and the simple communal life of modern Israel.

He traced the history of alienated Jewish youth

Sparky: Posh—Chekov.

DEAR Helen: Give Paul a kiss for me. Thanx.

LAW student beginning Sept. wishes to share double apt. or rent single apt. at reasonable rates. Contact Mark Binns 368-3240.

FOUND: 1 sleeping bag—in car going to Columbus weekend of March 13-15. Hitchhiker was going to Denison. Can pick up sleeping bag in Adelbert Dean's office upon proper identification of article.

ATTENTION Case Freshmen: Curricular meetings will be held on 4/14 11:00-12:00 for Engineering in Strosaker Aud., 4/15 4:30-5:30 for Management in Baker rm. 19, and 4/16 4:30-5:30 for Engineering majors in Strosaker Aud.

TO the world: remember last message, Speser.

TO Speser: Feh. Soft Boy.

APT. to sublet, 3 rooms, \$65/month. Call 795-4232 after 6:00.

THANKS Shelley for the you know what.

MORROW House did it again.

FOR Sale—1964 Renault R8. 36,000 mi. \$295 Contact Ralph 421-7513.

MIMI hope your eyes never reveal your feelings, what. W.

SUMMER apt. to rent. Excellent campus location. 3 bedroom. Call 421-6958.

Hi Lisa, Janet, Joce, Mimi.

WANT to sublet for summer. 3 bedroom apt. on Hessler. Call 795-1382.

FOR Sale: Honda 90 automatic. Needs approx. \$30 in repairs. Sell for under \$75. Call Barry at 229-5458 (leave name and number).

FIRST CWRU Symphonic Band Concert will be held on Thursday, April 16, at 8:30 in Kulas Hall at the Institute of Music.

FOR Sale: Stereo for \$20. Contact Julie Saltz, ext. 3050.

Claud, Storrs, Pierce to be coed next year

By GARY SHAPIRO

The University Housing Committee, working in conjunction with the Adelbert and Mather Deans, has established three new coed dormitories for next year. These dorms are Claud Foster, Storrs House, and Pierce House. All spaces will be specified by a lottery which will be held in Wade Commons on the night of April 22nd.

The Housing Committee and the deans established these dorms after receiving 535 positive responses to the Coed Living Questionnaire distributed before vacation.

The coed housing applications for the lottery will be distributed to Adelbert and Mather students early next week along with the usual room reservation forms. Because of difficulties with the Case deans' offices, Case students will not be considered for places in these three dormitories.

The deadline for lottery applications is 5 p.m., Friday, April 17th. All applications must be accompanied by a \$25 deposit. The applications will explain the procedures for the lottery, however, if you have any questions about coed living, please call Gary Shapiro (3120), Mark Pearl (3240), or Nancy Balick (3150).

beginning with the civil rights movement. He said that their situation was more complex than the early idealism had indicated. The concept of Black pride helped to kindle a parallel search for Jewish identity.

He also pointed to the importance of the Israeli-Arab war. Jews were confronted with possibility of annihilation of another entire population of Jewish people.

Frankel then talked about the movement in the U.S. which, though diversified and including both Zionists and non-Zionists, aimed at reviving a spirit of Jewish identity and making it relevant to the present.

In the discussion which followed, students and others talked about the problem of rekindling a sense of Jewish

consciousness in its people.

They focused specifically on the need to show that Judaism could serve as both a basis for a better way of life and a guiding force for social action in areas including war, racism and exploitation.

Speaking of education, many people felt that their experience in religious education had actually diminished their interest. One girl stated that she had left Judaism until she went to Israel and discovered a new sense of its relevance.

Some present who are, now teaching in Jewish schools, said that they still had trouble conveying this sense to their students.

"Perhaps a feeling cannot be conveyed through teaching," someone said.

"Maybe not with the traditional methods" another answered "but there are other ways."

There was consensus that ways must be found to convey this sense of identity to Jews in the U.S.

HAD A GOOD MEAL LATELY ?

We are opening our food plan to all CWRU students for next year.

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Drug report released to President Morse

A 16-page drug report was submitted to President Robert Morse March 30 by the Drug Commission he set up in September 1969.

Comprised of 17 faculty members and 4 students, the Commission was charged with investigating University police with regard to drug use on this campus.

Law Professor Lewis Katz, chairman of the Commission, said that areas investigated were those of educational programs, counseling services, health care, and disciplinary action related to the use of drugs.

The report, which consisted of a 12-page majority opinion and a 4 page minority opinion, is presently being reviewed by Morse before release to the public. Sources close to him indicated that no public announcement would be disclosed until after he had thoroughly reviewed the report and consulted with other people.

Associate Professor of Sociology, Jetse Sprey, a member of the Commission said,

"It is important that such a Commission was created. Now it is important that the results of the report be made public and open to discussion."

Commenting on the fact that both a majority and minority report were submitted for scrutiny, Sprey said that such action indicated "a difference of looking at the problem of drugs." He called it "an honest disagreement."

Rosters to be void of final exam schedules

It would be extremely difficult for final exam schedules to be included in the rosters and would definitely not be instituted for the fall term, 1970, commented Mr. Gordon McCarter, University Registrar.

Students have proposed that the schedule to be printed in the roster booklet be used as criteria for picking courses. In this way, students would have control over their final exam schedules.

McCarter stressed that there were many problems involved. "Changes are constantly made

throughout the semester concerning finals, so that it would make it quite impossible to issue any kind of reliable schedule," said McCarter.

The man responsible for the actual scheduling of rosters and finals, Mr. Frank Lever, stated that these changes were further compounded by staff, departments, and data processing.

"A big problem with initial rostering falls within the departmental lax on the preliminary roster," said Lever. "The departments don't know

There will be a teach-in on "AT&T and American Imperialism" on Tuesday, April 14, at 8 p.m., in Hatch Auditorium, sponsored by the CWRU New University Conference.

Dr. Sidney Peck, Dr. Robert Cherry, and others will lead discussion on such topics as "AT&T and Foreign Imperialism," "Domestic Imperialism and the Corporate Structure," "The Vietnam War and AT&T: Who Pays and Who Profits?," "The Corporations and U.S. Democracy."

The withdrawal date has been extended to next week for Adelbert students by the dean. Originally, the Curriculum Committee was going to decide this, but, due to the cancelled March meeting and the late April one, they have been unable to act.

A HELP Phone was proposed at the last meeting of the UUSG. Its purpose would be to advise students at any time of the day who had problems with bad trips, pregnancy, abortion, and venereal disease.

University support is needed before the plan can be implemented.

There will be a referendum conducted in CWRU cafeterias on April 13 and 14. One question put to the vote will be, "Are you for the immediate withdrawal of all U.S. troops from Vietnam?"

Elections for Adelbert class officers will be held April 14 and 21. Anyone who wants to be President or Vice President of next year's sophomore, junior or senior class, should submit his name to Dean Kitson's office, or to Elections Chairman Jules Marks, Box 504 Clarke Tower, by 5 p.m. today.

If there are more than 2 candidates for an office, there will be a primary, April 14; final election date is April 21.

Two to work to review UCPD

On April 3 President Morse announced appointment of Professors Ubbelohde and Haskell to work with him "in reviewing appropriateness of existing policies with regard to the UCPD."

Carl Ubbelohde was Chairman of the Study Commission of Rules and Regulations of the post-merger Executive Coordinating Commission. The latter consisted of four faculty, four deans, and six students.

"After Dr. Haskell and I accepted the Morse request, we three met. We are concerned with the civil liberties of students; grievance machinery seems presently invisible. Another issue is the structure of UCDF-university-UCPD legally and factually—we have homework there."

"We both have only a few hours a week for this project."

Thus far Ubbelohde has conferred with Peter Musselman, UCPD Chief Craig Michalski, and UCDF Executive Director Murray Davidson. "We are setting up appointments with the various undergraduate deans."

He expressed awareness of some interim Police Control Board activities, saying, "We would be glad to have any information they have, and to talk with them."

Paul Haskell, professor of law, was asked Wednesday if he could envision eventual administrative recognition of a "control board"

or permanent review board, in view of Morse's March statement that he would NOT support a review board. (This statement was prior to a group of university people declaring themselves as temporary control board.) "Ubbelohde and I are not charged with considering a review board, but with establishing a university channel for handling complaints against the UCPD. This is not a review board."

Greenies

(Continued from Page 1)
replied, "Yes, I suppose he should have."

Inasmuch as only Carlino was in hearing of Cash's threats about "working him over," it was difficult to determine whether these words were indeed actually said. As a result, both the officer and the student have volunteered to take lie detector tests this week. While helping to determine the question of verbal abuse, the test will also help to prove whether Carlino was atop Haydn Hall and whether Officer Cash was drinking that night.

Chief Michalski has promised Carlino a thorough investigation

into the incident. He has already talked to all the officers involved and plans to confer with the students who were with Carlino Saturday night. His main hope, however, is in the results of the lie detector test.

The UCDF police have been particularly alert to people being on top of buildings or in any other suspicious places, at night. Chief Michalski said that an alarming amount of office equipment has been taken from CWRU facilities this year. He also said that the possibility of a bomb being planted is an ever-present danger of which police must be especially watchful.

PD
IQ

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Judicial Council members elected

David A. Fink (junior), Robert P. Brenton (Sophomore), and John Barry Barker (freshman), were selected by the Case Selection Committee to be Case members of the Judicial Council.

Although they were selected as representatives March 30, they still must be officially approved by the Case Assembly.

The junior representative, David Fink, stated that "the idea is not to be a Case representative, but rather to give the entire student body of the university a fair deal."

Mr. Fink also stated that "the Judicial Council has the possibility of becoming one of the most effective bodies of CWRU."

"The effectiveness revolves around the support students give the council; students must bring problems to the council, or the council will never be of any help," commented Fink.

HELP!

Admittance Cards to AT&T Shareholders meeting needed. Please send along with name and address to PO Box 18138, Cleveland Heights, Ohio 44118

To: Foster Underground Committee to Keep Our Foster Female (% Foster Hall)

I support the views described in the Letter to the Editor of the Observer and I request that Claud Foster Hall remain an all girl upper class dorm.

I am interested in living in CF next year

name, class, and dorm

Sports Opinion

Merger: Then?

By TOM McCLAIN

Recently there have been a number of rumors floating around concerning the complete merger of all athletic teams at this university. Most stories imply that there will be a merger before classes begin in September.

Even the local newspapers have printed small articles within the past few weeks concerning the probability of merger which would combine Case and Reserve into one squad. The "Cleveland Plain Dealer" reported that there would most likely be only one team by next fall.

So the athletic situation seems to be looking up these days. The players on the recently formed CWRU football squad are quite excited as they envision a bright season next year. There seems to be a general feeling on campus that with a sports merger CWRU would be ready to move on to bigger and better things.

If and when the merger is complete people will want to know what type of program this school will offer athletically. Everyone will say "What now?" Therefore numerous questions would obviously arise. Would CWRU give any kind of athletic grants in the near future? What conference would the "Roughriding Red Cats" belong to? What type of facilities would be available to the students?

Probably the best thing the school could do would be to take a couple of years to "get on its feet" financially and to spend time trying to make the whole program respectable. This would mean either staying in the President's Athletic Conference for a few years or dropping out and playing basically the same schedule as an independent school.

If CWRU is looking for a stronger and more secure league to compete in then there certainly are a number of fine possibilities which the

administration could look into. First of all, it seems that the Ohio Athletic Conference might be very interested in having CWRU as a future member. The OAC is a small college league which gives partial athletic scholarships and takes very good care of its student-athletes.

The OAC consists of schools like Wittenberg, Kenyon, Oberlin, Denison, Baldwin-Wallace, Wooster and Ohio Wesleyan. All of these schools have sound athletic programs. Academically they are rather good institutions which don't give scholarships out like water. The conference certainly is not big-league but still is quite respectable in many areas.

There are other alternatives for this university when searching for a good conference to enter. One Red Cat coach stated that some other schools might be interested in forming a new league in the future. Rumor has it that such schools as Chicago, Carnegie-Mellon, Cal Poly, Rochester Tech, and Washington University of St. Louis are somewhat interested in starting a new league. CWRU has been mentioned along with these schools as a possible member in what could develop into an Ivy League type set-up.

As far as facilities are concerned what we have at the moment should be sufficient for several years. If CWRU is successful athletically in the coming years who knows what type of financial benefits could be reaped.

With a merger Case Western Reserve will climb out of the "bush league" that many observers feel that it belongs to. Once it escapes from the dreary past into a promising future it will be interesting to see just what caliber of athletics will appear on this campus. There is potential here and also a lot of pride. If the university can take the proper steps the potential will be fulfilled and pride greatened.

interest: the period and the eccentricity. Halley's Comet, due back around 1980, has a period of 76 years and an eccentricity of around .90. Comet Bennet has a period of a minimal value 2,300 years. Its eccentricity is 0.999+. It won't be near the sun again until the year 4200.

Ikeya-Seki put on a show for those who got up for it. It was a spectacular comet of the sun-grazing class. Its tail covered one quarter of the visible sky.

By MARTIN SENOUR

The 1960's saw many world records broken. Jim Ryan ran the mile in under 4 minutes, and Bob Seagren broke 17' in the pole vault and seemed well on his way to 18'. The record for the 100 yard was lowered 0.1 of a second. Pool records crumbled at the onslaught of Don Scholander. But have you noticed a trend lately?

It appears that in the sports involving human abilities only, the number of records being broken is going downhill. Car records, for instance, are still going down.

Jim Ryun hit 3:51.2 in the mile before Mexico City. Then in two successive meets (there and in New York) he never finished.

Bob Seagren reportedly broke 18' in a practice vault back in 1967. He has the record of 17'10". No fantastic pool

records have been marked up. It's as though something were slowing them down.

Jim Ryun's Kansas home town has no heavy industry. Ryun ran out into the country for his practice, not in toward town. In Mexico City he ran at a higher altitude than ever before, and he couldn't finish the race. It could be that there was insufficient oxygen to fuel his body. Keino found enough. In New York City he again dropped out. Could it have been the same thing? New York always has enough oxygen mixed in with its air, as well as variegated hydrocarbons, dust, and other compounds. The effect of these other compounds on the lungs is well known: they cause the body's efficiency to go down.

I am not saying that this is definitely what happened, just that it seems plausible. Jim Ryun may have dropped out of

the New York City race for the same reason as the Mexican race. He may simply have been oxygen-starved.

The same thing may be happening to Seagren and to all swimmers. It would not affect the sprinters for one simple reason: every human body has at least a ten second reserve of oxygen for full-out effort. That is about how long the sprint lasts. But all other events would be affected, as Ryun may have been.

This probability could be discounted if some research was performed on the varying abilities of athletes as they age, as they change habits, as the smog becomes thicker.

If anyone can think of a reason why the number of world records broken each year is going down again, please tell me. Because I am worried. I might be right.

Preview on WR Track

Red Cat Track
Team Ready for '70
By DAN COOK

"We haven't really lost anyone from last year, and we've added several fine boys. I thought we did a fair job in 1969, and I think we should keep on improving this year. Being realistic, since I only have about half as many on the team as a well-balanced team should, I'd say we can expect to win at least six out of ten."

Coach Jerry Harbach, although faced with the usual Reserve coach's problem of too few athletes, was optimistic because he has men who are willing to work for a victory. Most participate in two or three events at each meet.

Seniors include captain John Levant (javelin), sprinter Marc Trieft, Len Torok (discus), high-jumper-hurdler Rich Molnar, and pole vaulter Barry Lehto. The juniors form the bulk of the squad. Last year's high point man Del Cook, captain and long distance star Al Dolezel, and runners John Lubahn, Jerry Percio, and Ruvain Bension are back again

this year; and they should receive a lift from transfer student Larry Brewer. Bill Levy, Mike Sheppa, and Ed Mihalek round out the solid group of juniors.

The sophomores are involved in field events. Dave Rawthorn, who was injured last year, should take his share of points as Reserve's top pole vaulter. Jim Richman and Carl Hixon, both jumpers, and Steve Hoover, number one shot putter, are the other sophs.

The eight freshmen on the team make contributions in a

variety of events. They include runners Kurt Love, Jim Skala, Greg Baran, and Terry Godbolt; hurdlers Jerry Slaughter and Pete Lifson; shot-putter Pete Kulosyzk; and jumper-javelin thrower Max Hutton.

The Red Cats opened their season Thursday, and Saturday they go against W&J and WVW. "This team has been building up for the last three years, and the guys are ready now for a good season," Harbach continued. "In 1968 we were 3-6, and I think we can at least reverse that record this year."

Merger asked

Something besides Tennis took place at the Reserve Tennis match of April 4. Before the match started the team was presented with a petition. The team signed it unanimously and it now sits on the desk of Ernie Green.

This petition is to request merger of the Tennis teams for next year. The team coach Art Rosenbaum said that the move should help other teams decide to merge, whether they were weak or not. The Reserve tennis

team has 30 members trying for a place in the varsity. There is not enough court space.

Jokingly, Coach Rosenbaum said that in a scheduling mix up he had set his team for a meet on April 21 with Gannon. His team rebelled. It seems that Passover starts that day, and the majority of the team is Jewish.

The prospects for this season are very good for the Reserve team. The 30 members will keep the strength up next year.

5 A.M. New Comet -ary

By MARTIN SENOUR

In the early morning sky below Cygnus, there is the last of a group of four naked eye comets visible during this past year. The comet is Comet Bennet. It happens to be unusual in other ways than its being the last one. It has an unusual orbit.

Generally comets either take one swing past the sun and depart, or they take up residence in fairly standard orbits. These orbits have two general values of

Comet Bennet, while not as big, covers a distance about equivalent to one and one-half inches at arm's length.

At five in the morning it is about 60 degrees above the eastern horizon just below Cygnus. It fades rapidly until the 15th of April when it is no longer naked eye. It will be visible in binoculars for about two weeks after that, and a small telescope for another five.

If you have a camera you might try taking a picture. Use Tri-X film and set your lens wide open. Expose for 10 seconds by supporting it on some rigid surface, wavering as little as possible. 20 seconds would be even better. Have fun!



COMET BENNET in a photo taken on April 8. Tri-X film in an f/2 system for 15 seconds. (photo by Martin Senour)

TRIP to EUROPE

Undergrads, grad students, professors, secretaries, cafeteria workers, administrators, PR men of Case-WRU: You are all eligible for a \$277 (and maybe less) roundtrip to Europe this summer. Philadelphia to London and return. June 22/August 24. Sponsored for your benefit by the University Circle Development Foundation.

Applications accepted until April 15.
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*And any other students, faculty, and staff of Case-WRU not mentioned in particular

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Sports Schedule

CASE
Baseball: April 11, Malone College, Away.
April 14, Allegheny, Away
Tennis: April 11, Reserve, Away

RESERVE
Baseball: April 11, Youngstown, Home
April 14, Bethany, Home
Tennis: April 11, Case Tech, Home
Track & Field: April 11, W&J, W.V.W., Away