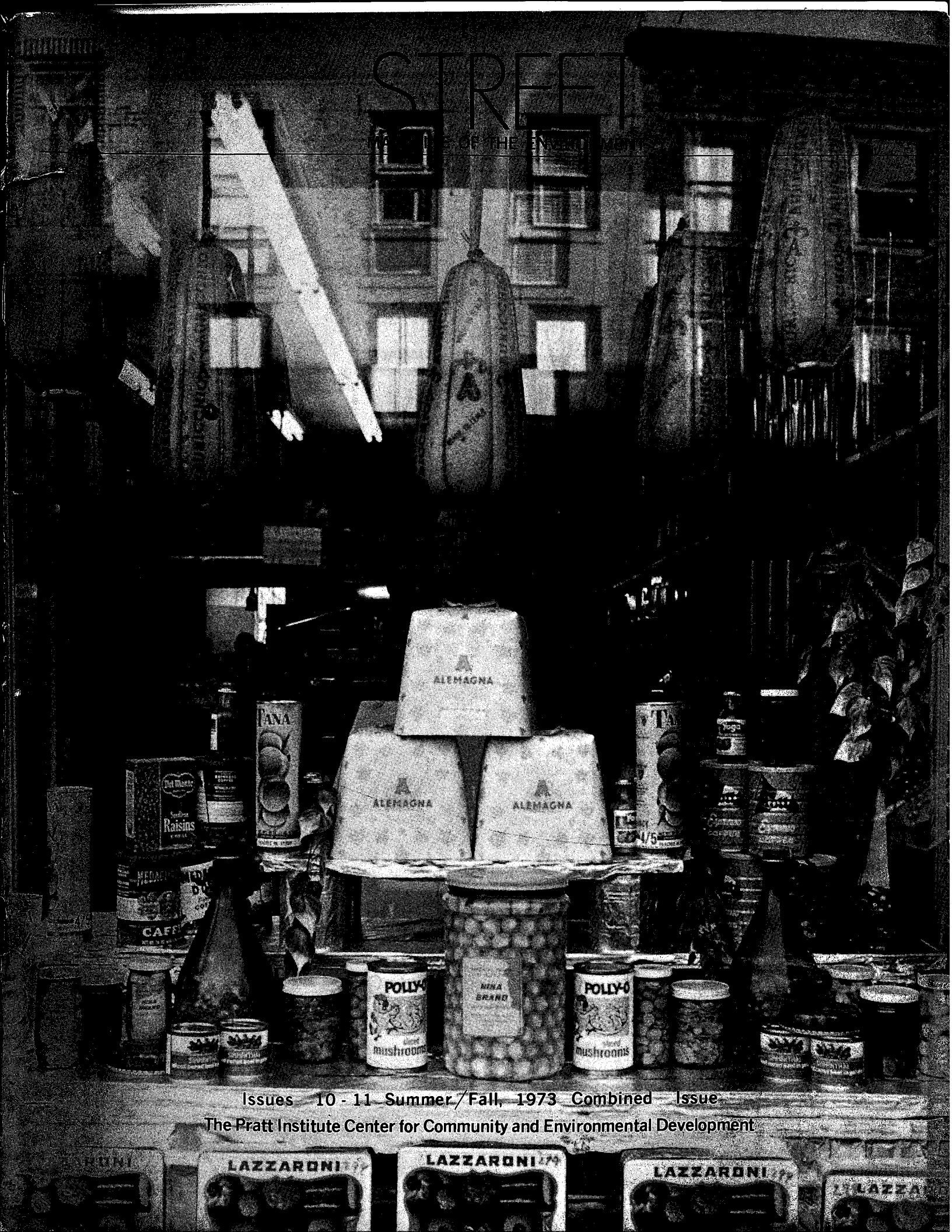
STREET



Issues 10 - 11 Summer/Fall, 1973 Combined Issue
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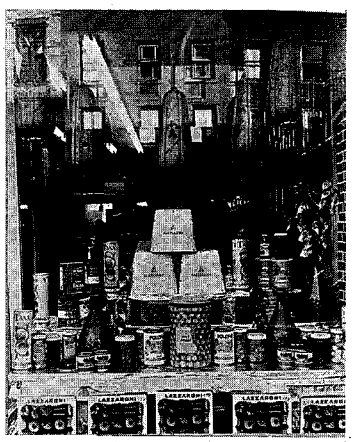


Hungry for Italian delicacies? These and more can be found at Latticini Barese, Inc. at 138 Union Street, Brooklyn. See story on the Columbia-Union Street community inside.

in this issue

A FIGHT FOR ETHNIC SURVIVAL

The Columbia Street Waterfront Community

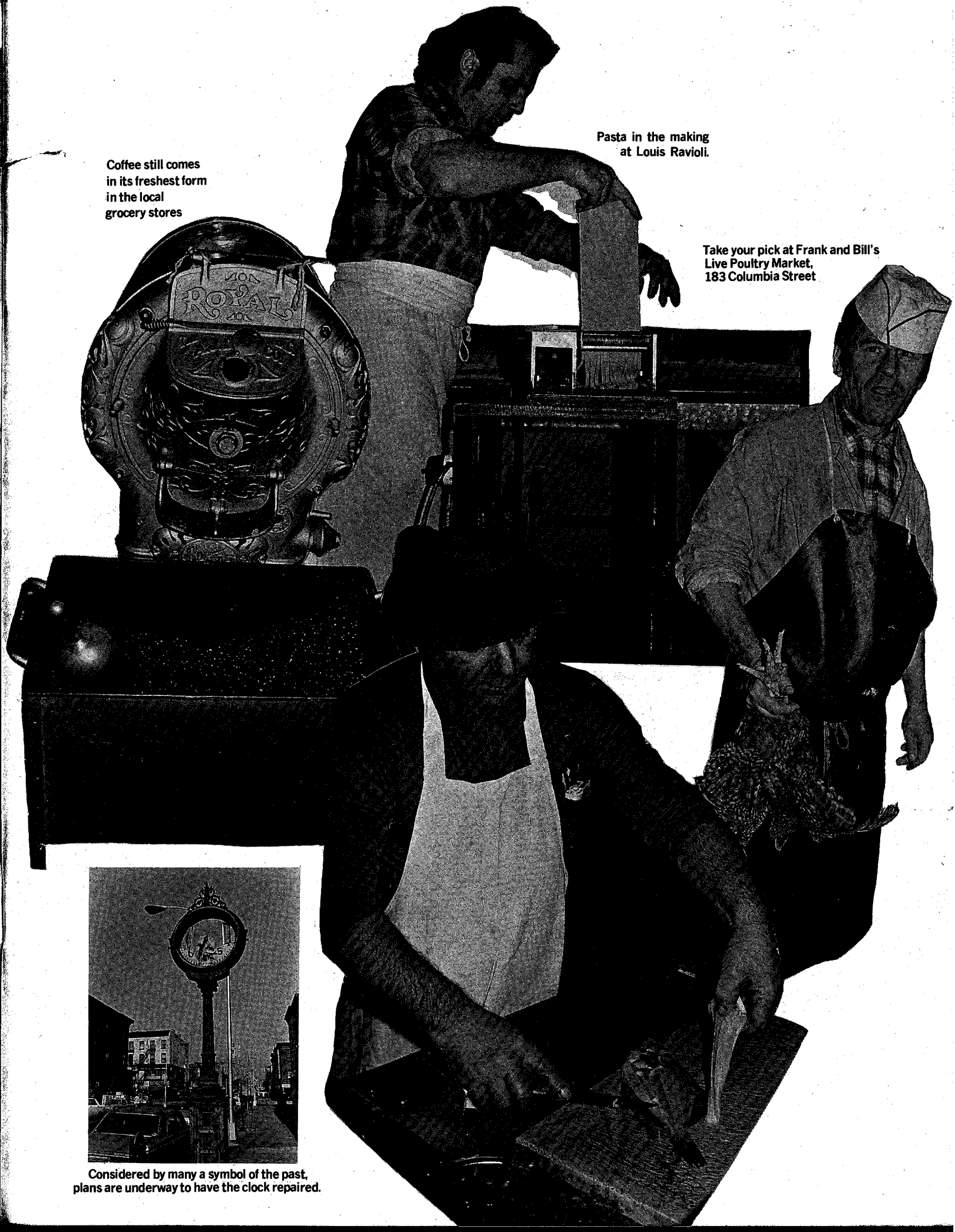
The Columbia-Union Street waterfront area is one of the oldest Puerto Rican and Italian neighborhoods in the city. Both groups live side by side with no major problems. The neighborhood is considered one of the safest in the city in spite of the usual crime-generating conditions endemic to an area suffering the uneasiness of urban renewal.

The present revitalization of the South Brooklyn Waterfront area is really the story of how a community has managed to survive an all too common urban malady, planning blight. This phenomenon, usually dealing a death-blow to neighborhoods, invariably occurs when the official decision-making process is not carried through and communication between the community and the city government is nil. Such was, at one time, the case with the South Brooklyn Columbia Street community, an area which was a bustling commercial center up until nine years ago.

It all started in 1964 when Mayor Wagner and Abe Stark, Brooklyn Borough President announced a preliminary action on a proposal for a $36-million industrial redevelopment project to be located on the South Brooklyn waterfront. The plan was formally submitted to the City Planning Commission calling for the construction of modern, single-level buildings with more than three-quarters million square feet of rentable floor space for medium and light manufacturing. The industrial complex was to be constructed on the area's western boundary of the Brooklyn-Queens Expressway. The plan, had it been implemented, would have obliterated the entire Columbia Street community.

However, the mere announcement of such a plan, set in motion subtle forces potentially far more destructive. The press release read as a *fait accompli*. There was no interaction between the city and the community—all they knew was that perhaps their homes and businesses were to be destroyed—but they didn't know for sure since they had received no official communication regarding the plan.

Two years later, in 1966, Mayor Lindsay announced the agreement between the city and the Port Authority for construction of the World Trade Center. One of the projects given significant momentum by this agreement was the South Brooklyn Urban Renewal project which was reevaluated. Under revaluation and in addition to the original two-fold plan, the project called for 1.6 million square feet of industrial space for upland back up for the Port Authority piers. One million square feet was to be used *Continued on page 44*



Coffee still comes in its freshest form in the local grocery stores

Pasta in the making at Louis Ravioli.

Take your pick at Frank and Bill's Live Poultry Market, 183 Columbia Street

Considered by many a symbol of the past, plans are underway to have the clock repaired.

SAVE THE NORTHSIDE

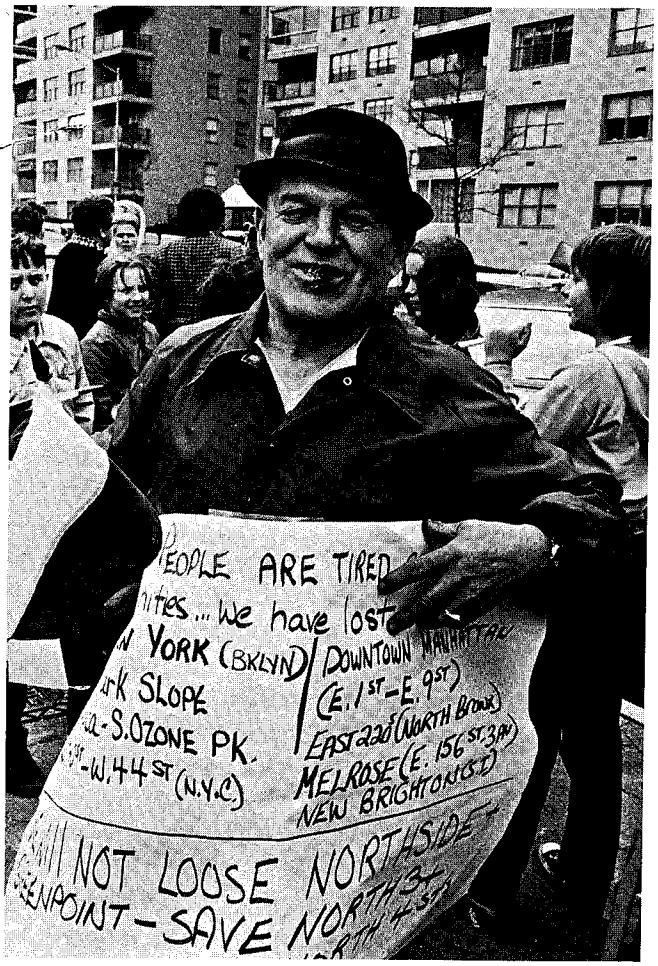
A FIGHT FOR ETHNIC SURVIVAL:

PHOTO ESSAY BY JANIE EISENBERG

For almost four years the people of the Northside, a neighborhood in the Williamsburg section of Brooklyn, have been fighting City Hall. The City says that their houses should be demolished to make way for industrial expansion, since they live in a primarily industrial area. The residents say that they live in an area of mixed use—residential and industrial. They cannot understand why the city does not see their community as they do — as a vibrant and safe neighborhood where traditional values are still important, where church and family ties are still strong, where families have lived and worked for generations, where people have lived for years side by side with industry. These photos describe the area in its most important perspective—as the people see, feel, and live in it. Whether it's industrial, residential, or mixed, the people of the Northside want to keep it that way. ■

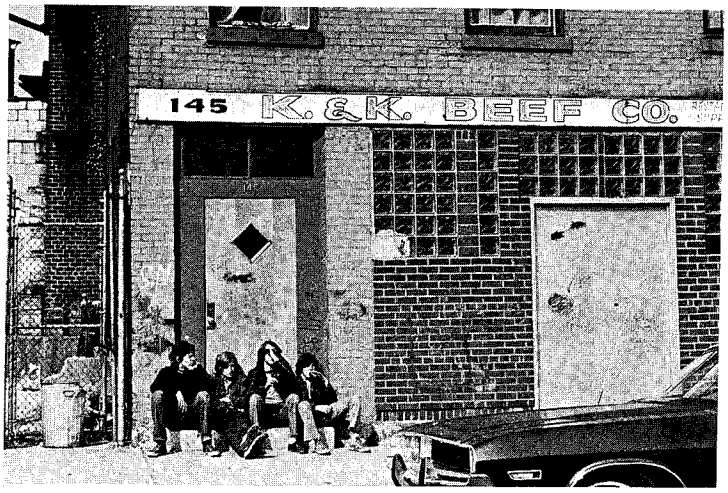
"Easter Sunday at St. Vincent De Paul in Northside is a major community event!"— Father Hunt

"This is my community. I don't want to live anywhere else." — John Ehresmann, North 4th Street.



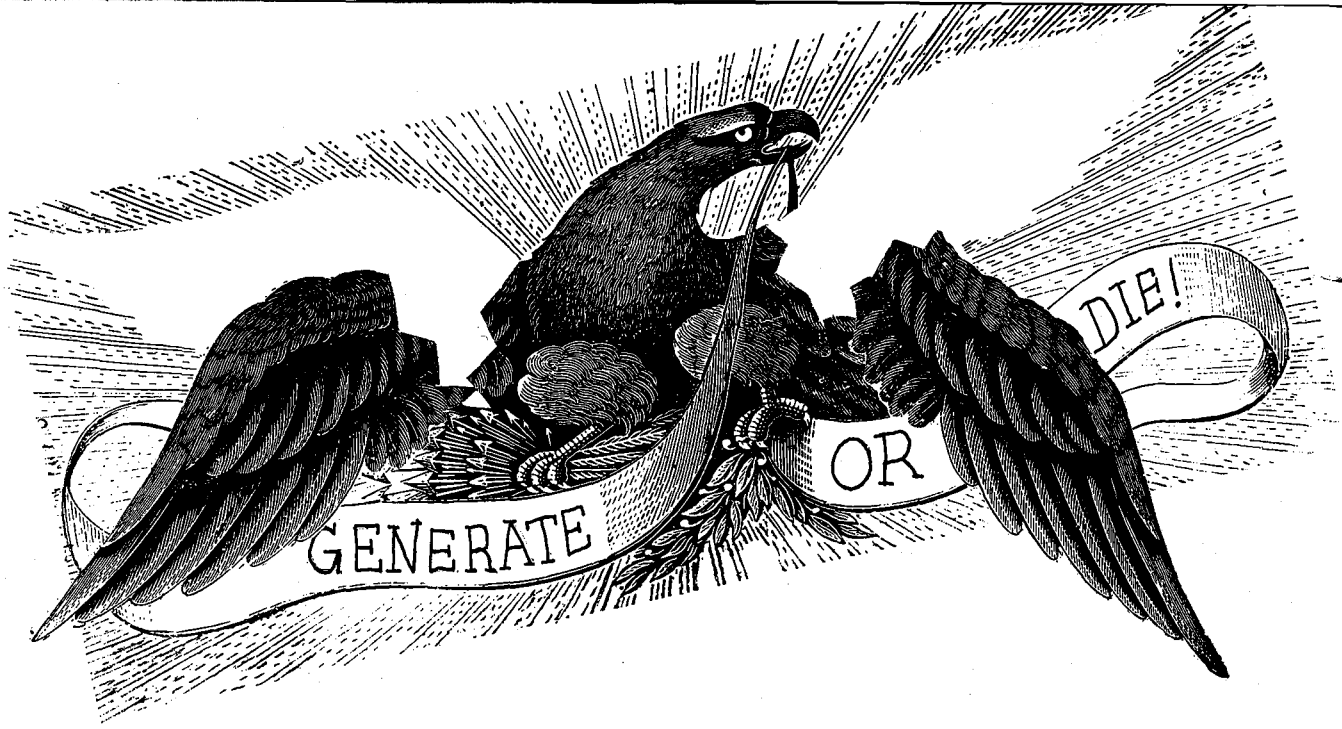
"I take good care of my bushes. And now the city wants to take them away."

"Being bored in Northside is like being bored anywhere else."



"I don't want to live in one of those new tall buildings. I feel at home here."— local resident

Janie Eisenberg has been very involved in trying to save the homes in the Northside.



UNITED STATES ENERGY OUTLOOK

AND ITS IMPLICATIONS FOR NATIONAL POLICY

The following article is a reprint of an address to the World Affairs Council, Pittsburgh, Pennsylvania, September 21, 1972, by Mr. John G. McLean, Chairman, Committee on U.S. Energy Outlook and Chairman and Chief Executive Officer, Continental Oil Company.

The United States Energy Outlook

LET ME begin with the facts. The United States energy problems lie primarily in the medium-term future. By medium-term, I mean through the mid-1980's. From a long-term standpoint, our basic energy position is reasonably sound. Our country is liberally endowed with energy materials. To meet our long-term energy requirements, we have large potential resources of crude oil, natural gas, coal, uranium, and shale oil. Based on recent estimates of the National Petroleum Council, we have:

- Potentially recoverable oil reserves sufficient to meet present demands for more than 65 years;
- Potentially recoverable gas reserves sufficient to meet present demands for more than 50 years;
- Measured and indicated coal reserves commercially accessible with current mining methods, equivalent to nearly 300 years' supply;
- Potential uranium resources sufficient to meet our present total electric power needs for 25 years;
- *And* recoverable shale oil reserves sufficient to meet our oil needs, at present demand levels, for about 35 years after our natural oil reserves are exhausted.

Taken in the aggregate, our basic potential energy resources have a BTU content sufficient to meet our needs for at least 200 years, at present consumption rates. Long before the end of that period, advances in technology should bring us new energy sources, such as nuclear fusion and solar power, which will greatly diminish the drain upon our natural energy materials. As time goes along, additional supplies of energy will be forthcoming only at significantly higher costs, but nonetheless we have the basic materials and technology to meet our long-term energy goals.

In the medium-term—through about 1985—our situation is quite different. In this time span, if as a nation we do not act wisely and promptly, we may be confronted with domestic energy shortages of

Reprinted with permission from Continental Oil Company, Stamford, Connecticut.

major proportions. Assuming we continue our present course, with no major changes in government policies or economic conditions in the energy industries, our indigenous resources will not be developed and brought to market fast enough to meet our growing energy requirements. Based on the studies of the National Petroleum Council, it appears that our requirements for energy will approximately double between now and 1985 and we shall face at least four major problems.

First, we shall have to adjust our economy to a growing scarcity of natural gas. The shortages already confronting us will unquestionably increase in severity. Under present conditions, domestic production is projected to decline by about one-third during the next 15 years. With the help of imports of natural and liquefied gas and synthetic gas from naphtha and coal, we may be able to hold gas availability at about its present level. This will, however, be sufficient to satisfy only about half of our estimated potential gas requirements by 1985.

Second, we shall need to import large volumes of foreign crude oil to meet our requirements. Under present conditions, domestic production of crude oil is projected to show little net change in the 15-year period. To meet rising demand, imports are projected to more than quadruple, reaching a level of about 15 million barrels a day in 1985—a quantity equal to the entire output of the Middle East at present rates of production.

Third, we shall have to launch a major new effort to expand our outputs of nuclear power and coal. We should seek to construct the equivalent of at least 280 nuclear energy plants of 1,000 megawatts each during the next 15 years. Today, we have the equivalent of only ten plants of such size in operation and only 46 actually under construction. Progress is being retarded by technical difficulties and environmental restraints on the selection of new plant sites.

Domestic production of coal—which quite remarkably is no greater today than it was 50 years ago—should be approximately doubled during the next 15 years. Limiting factors here, since we have adequate reserves, are primarily the availability of manpower, anti-pollution precautions, other environmental considerations, and the mine health and safety concerns.

To the extent that we fail to meet these goals with respect to nuclear power and domestic coal production, we shall accentuate our problems with respect to dependence upon oil imports, which I mentioned a moment ago.

Finally, we shall face growing problems in generating the enormous capital inputs necessary to provide for our energy requirements. Between now and 1985, the United States energy industries will have to invest between $400 billion and $500 billion in new productive and distribution facilities. This works out to an average of about $30 billion per annum, which may be compared to outlays of about $16 billion a year at the present time. The magnitude of the problem is further clarified when you consider that total capital investments by all U.S. manufacturing industries, plus those of public utilities for generating and transmitting equipment, are now at a level of only about $42 billion a year.

It is, of course, important to note that the projections of the National Petroleum Council for nuclear power, natural gas, coal, and oil are based on the assumption of no significant changes in our government policies with respect to the energy industries. Helpful changes in our government policies must certainly be forthcoming, such as speedier approvals of nuclear power plants, relaxation of controls on natural gas prices, opening up of the Outer Continental Shelf to exploratory activities, and improved tax and other economic incentives for natural resource development. It is also possible that we may experience better success ratios in oil and gas discovery efforts than past experience would indicate.

In its recent study, the NPC Committee on the U.S. Energy Outlook has examined a wide range of such possibilities and has prepared a myriad of computer studies to show the possible consequences of variations in the key parameters in the energy demand-supply equation. Although this work is not yet final, my own personal conclusion is that, while we may be able to ameliorate our near-term energy problems through appropriate government and industry action, there is no realistic probability of a complete escape from them. This is particularly true when you consider the long lead times—often five to eight years—required for the establishment of major new energy supply sources.

In sum, then, for the next ten or 15 years, I believe we must face up to the realities of a growing shortage of natural gas, increased imports of oil from abroad, an urgent need to expand nuclear power and coal production, and a massive problem of capital generation for the energy industries. The critical "balance wheel" in this whole situation will be the volume of foreign oil imports, because this will be the element which will adjust for our failures or successes in other energy areas. Taking all the probabilities and possibilities into account, I think this volume by 1985 will be in the neighborhood of ten million barrels a day, or greater—perhaps as great as the 15-million-barrel-a-day figure, which I cited earlier as simply being predicated on a continuation of present trends. *Continued*

Continued from page 9

Implications

Let us turn now to the implications of the circumstances I have just cited. I would like to suggest four points for your consideration:

First, as our imports of oil and gas grow, we shall become increasingly dependent upon foreign countries, primarily in the Eastern Hemisphere, for a vital portion of our energy supplies. At the present time, we are obtaining about 26 per cent of our crude oil and 12 per cent of our total energy requirements from foreign sources. By 1985, if we were to import ten to 15 million barrels a day, we would be drawing about 40 per cent to 55 per cent of our oil and 23 per cent to 32 per cent of our total energy from abroad.

This growing dependence upon foreign sources will not be geographically dispersed; it will be highly concentrated. Most of the oil will have to come from the 11 OPEC countries, predominantly Arab, which today have 85 per cent of the Free World crude oil reserves outside the United States and Canada and account for 90 per cent of the oil exports moving into world markets. Among these 11 countries, Saudi Arabia and Iran will be of paramount importance, because they have the reserve potentials necessary to support large increases in output. These two countries will be important not only as suppliers to us but also as suppliers to the countries of Western Europe and Japan. New discoveries may in time bring about a greater geographic dispersion of the major Free World oil resources, but the lead times for discovery and development are such that the basic pattern is not likely to be much altered before the middle 1980's.

Dependence upon a small number of distant foreign countries—each small in size relative to the United States—for a vital portion of our energy supplies will be a new fact of life in the economic and political history of this nation. It is a condition we have not faced before. It suggests that we will need to take a new look at all our foreign policies with respect to the Middle East and attach to them a much higher priority than they have thus far been accorded. We shall have to remember that our domestic economy will be vitally dependent upon peace in that troubled area and continuity in the flow of oil supplies. We shall have to remember that our friends in Western Europe and Japan will likewise be heavily dependent upon the Middle East for their oil requirements. And we shall have to remember that Russia will be the only major world power in the coming decade that will be self-sufficient in energy resources. The diplomatic and national security aspects of this whole situation demand a great deal more attention than they have yet been given. President Nixon's recent establishment of a special task force under the National Security Council to study these matters is a step in the right direction.

Second, our growing requirements for oil and gas imports will provide a large and growing deficit in the United States balance of trade in fuels. By the early 1980's, this deficit could be in the $20 billion to $30 billion range, as compared to a current deficit of less than $3 billion. The magnitude of this projection becomes clear when you consider that our total exports of goods and services are only about $66 billion. To pay for our imports of fuel, we will, of course, need to seek additional exports of other goods and services. But $20 billion to $30 billion of additional exports is a very large item. Consider, for example, the travail that lay behind President Nixon's recent negotiations to increase our exports to Japan by a mere $1 billion to $2 billion.

What will we sell and to whom? We cannot look to our usual trading partners, the industrialized countries of Western Europe and Japan, because most of them will be struggling to increase their own net exports to pay for growing fuel imports. Ultimately, the situation can come to equilibrium on a worldwide basis only when the oil exporting countries are able to absorb greatly increased imports from us and the other oil importing countries. But, as we have noted, the major oil exporting countries are few in number, and in the very early stages of industrial development. They do not have the populations, mass consuming markets, and economic infrastructures to permit the ready absorption of large imports from us. Much thought needs to be given to what they can reasonably buy from us and the time schedules on which they will be prepared to do it.

There is a slowly growing awareness in Washington today of these balance-of-trade aspects of our energy situation. It is hard to dispute the order of magnitude of the estimates I have just cited, but no one has yet come forward with a plausible solution to the problem. I table it with you as a critical national issue for the decade ahead.

Third, our growing purchases of crude oil and natural gas, coupled with those of the other Free World consuming countries, will create a major new center of financial power in the world money markets. By 1975, the 11 OPEC countries will be collecting oil revenues at the rate of about $25 billion per annum; by 1985, after allowing for volume and price increases, the tax revenues could amount to as much as $50 billion per annum. In the 15-year-period 1970-1985, the total funds flowing to

the OPEC countries could aggregate as much as half a trillion dollars—approximately nine times the amount they received in the prior 15-year period.

Most of the OPEC countries are not yet ready to absorb new funds of this magnitude within the framework of their own economies. A large portion of the oil tax revenues will thus move into the short- and long-term money markets of the Free World in ways, and with impacts, which are difficult to predict. One clear possibility is that the OPEC countries could become large equity holders in the financial institutions and industrial companies of the United States, Western Europe, and Japan. I do not view this prospect with alarm. On the contrary, I believe it could have salutary effects on the whole framework of economic and political relationships among the oil producing and consuming nations. Moreover, some financial investments by the OPEC nations in the major oil consuming countries will certainly be necessary to help the latter countries offset their balance-of-trade deficits in fuels.

Fourth, as we move from a long period of abundance to a time of growing scarcity in energy materials, our economy will certainly experience rising energy costs. We have already exhausted a large share of our cheapest and most easily accessible energy materials, and new indigenous supplies will necessarily come at higher prices. Coal mines will be farther underground; oil and gas wells will be drilled to greater depths and increasingly in deeper waters offshore; the development of oil shale and synthetics will require expensive new technology. All of these things mean higher costs. Higher prices will also be needed to invoke the large capital inputs to the energy industries that are required to meet our future needs. With regard to foreign sources, the OPEC countries are well aware of the power implicit in their near-monopoly positions, and they have already banded together in an effective manner to exact the maximum possible returns.

At the present time, the composite wholesale cost of energy consumed in the United States is about 35 cents per million BTU's. By 1985, it could easily be 50 per cent to 100 per cent higher.

These projected increases in energy costs are significant, but I believe they can be absorbed in our economy without serious disruptive effects—although the impact will certainly vary from industry to industry depending on the importance of energy as an element in the cost of manufacturing. For the past decade, the real cost of energy in the United States has been declining. Today, we spend only 2.8 per cent of our national income for fuels, which gives each man, woman, and child the equivalent of 1,350 full-time manual workers. We are in a favorable position vis-a-vis the other major world powers with respect to basic energy costs and will probably continue to be so even after the increase I have suggested. Our most urgent problem is one of adequacy and continuity of energy supplies—not one of energy costs.

Desirable Actions

I come now to the third and last part of my talk. If my assessment of the facts and their implications is correct, what should we do about it? It seems to me that the indicated, desirable courses of action fall into four broad categories.

First, we should take prompt action to establish a single, high-level agency in our government to develop a comprehensive national energy policy and to coordinate all our national efforts relating to energy matters. I do not mean to suggest that our federal government should play a larger role in the discovery and development of our natural resources. This task should be left to private enterprise. The chief mission of the central government agency should be to establish priorities and guidelines and to eliminate the delays, conflicts, and confusion that presently prevail among the many different agencies involved in energy affairs.

Second, we should take all possible action to stimulate and accelerate the development of our indigenous energy resources. We have an adequate resource base; our problem is to get new supplies into the market fast enough to meet our requirements in the years immediately ahead. To this end, several steps would be desirable.

We need some practical trade-offs in the ecological area. The facts are very simple. The production and consumption of energy inevitably involve some degree of ecological impairment. We cannot achieve our environmental goals overnight—desirable though that might be—and still give the U.S. economy all the energy it requires and the public demands. Some pragmatic, graduated approaches to our ecological goals are urgently needed. Here is an area where the federal government should cut through the maze of political bickering and bureaucratic confusion presently beclouding the issues and take decisive action—and very promptly.

We need to decontrol natural gas prices and to establish that the price of synthetic gas manufactured from coal and naphtha will not be subject to federal restraints. Our present preoccupations with imports of liquefied natural gas from Russia and Algeria—which will certainly cost more than $1.00 per mcf and occasion a burden on our balance of trade—are a *Continued on page 57*

STREET TIPS

DO SOMETHING WITH THAT VACANT LOT

A vacant lot on your block can become a park, a pleasant sitting area, a basketball court, or a playground. The Mayor's Playlots Project sponsored by the Office of Neighborhood Government and the Department of Highways helps community groups improve city-owned lots. For further information contact:
Playlots Project
51 Chambers Street
New York, New York 10007
556-1570 ■

GIVE A BLOCK PARTY

Block parties can be inexpensive, easy and fun to give. They provide an excellent vehicle for raising money for your block association. At the same time it will be a means of involving people in neighborhood improvement while getting to know each other better.

Anyone over twenty-one representing a legitimate organization may apply in person, two weeks in advance, to the Director of Street Fair Events, at the Economic Development Administration Office, 415 Madison Avenue, N.Y.C. Ruth Shulman, the director, will take applications for block parties, and handle a number of other permits as part of her department's "one stop" service. Only streets with bus routes, firehouses or hospitals are off-limits. Also call your local precinct for barricades and noise-permits and arrange for street cleaning with the Department of Sanitation.

If you need further assistance or advice for your block party, contact one of Bed-Stuy Restoration's Neighborhood Centers and they will be happy to assist you. There are Restoration Centers at the following locations: 144 Ralph Avenue (443-5800), 300 Albany Avenue (772-4700), 263 Nostrand Avenue (636-8700), and 1341 Fulton Street (636-8000). ■

Courtesy of **Restoration**, Vol. 2, No. 2, August, 1972, a publication of Bedford-Stuyvesant Restoration Corporation.

The Department of Recreation has begun scheduling its mobile recreation units in communities throughout the city. The program began its third season in April and will continue all summer.

In planning its mobile program, the Department of Recreation works with neighborhood groups within each of the City's 62 Community Planning Board Districts and with these groups arranges community group co-sponsorship and an equitable distribution of the units within a particular district.

If your group is interested in co-sponsoring one or more of these units in your neighborhood, write or call The Parks Council, 80 Central Park West, N.Y., N.Y. 10023, 799-6000 and ask for the booklet "About PRCA Mobile Recreation Programs" and the Mobile Recreation Units Request for Co-Sponsorship form. The pamphlet describes each of the mobile units (Arts and Crafts Mobile, Boxing Mobile, Cinemobile, Marionette Mobile, Playmobile, Puppetmobile, Show Wagon, Sportsmobile, Skatemobile, Zoomobile, Swimmobile, Tennis in the Streets, and Cavalcade of Fun), the scheduling process, site selection, and the involvement of the community in this program.

When you complete the request form, return it to The Parks Council. They will channel your request to the Department of Recreation. As soon as a meeting of your community board has been arranged for scheduling the units, you will be contacted by the Department of Recreation and invited to attend the meeting. ■

FORM A BLOCK ASSOCIATION

Do you want to see things happen on your block? A few individuals who care can make things change. The Mayor's Office of Neighborhood Government can help you organize a block association and initiate a wide variety of neighborhood improvement projects including: street clean-ups and street fairs, tree and flower plantings, installation of high intensity lighting, after-school recreation and tutoring programs, and recycling programs.

For further information contact:
Operation Better Block
Mayor's Office of Neighborhood Government
51 Chambers Street
New York, New York 10007
566-3600 ■

MOBILE RECREATION PROGRAM

[redacted]

STREET

20 February, 1973

Mr. Carlo Zaskorski
c/o Professor Lionni
New York City College
School of Architecture
Convent Avenue at 138th St.
New York, N.Y. 10031

Dear Mr. Zaskorski,

Enclosed is the essay by Joseph Amato (Southwest Minnesota State College) on Danilo Dolci. As I mentioned on the phone, the article needs some sort of introduction, for as it stands now, it would be a non sequitur--in the context of STREET.

I'm not quite sure how one would go about writing this introduction, but it needs to place Dolci in the urban context--perhaps some mention of his being a leader of direct action toward improvement of urban life through his creative use of architecture and planning designs in community development--something to draw a relationship between his work in Sicily and the possibility of the same type of thing being done here. In other words, why should we (STREET readers) be familar with Dolci--the name, the man, and the actions. How can knowing of him and his works (including books), be of "use" to poverty workers in N.Y.

I know this isn't too clear, but I hope you understand what I'm getting at. Incidentally, since many of our readers are rather sensitive, to say the least, about the word "mafia", perhaps a suitable euphemism could be found.

Thanks for your help.

Sincerely,

Bonnie

Bonnie Anderson
Editor

GET UP A COMMUNICATION WITH THE CENTER IN SICILY TO USE THEIR EXPERIENCE AS A RESOURCE?

WHY? THE PROBLEMS IN SICILY AND IN CENTRAL BROOKLYN ARE EXACTLY THE SAME HOUSING EDUCATION JOBS MEDICAL CARE LAW + ORDER RED TAPE RED TAPE

BONNIE: DANILO WOULD NOT WANT TO FAKE IT. IT'S OK. THE ARTICLE PUTS IT IN A PRECISE CONTEXT.

P.S. Could this be done in about 2 weeks?

BONNIE: YOUR LETTER IS A FINE INTRODUCTION. AND THE ESSAY IS VERY USEFUL, THERE IS A LOT OF GOOD STUFF IN IT. ALL IT NEEDS IS AN APPENDIX, WHICH WE WILL SEND YOU. MAYBE YOU CAN HAVE IT REDUCED TO ALL FIT ON ONE PAGE.

PRINT IT. IT IS A GOOD, HONEST ESSAY.

LOUIS

[redacted]

DANILO DOLCI

by Joseph Amato

The Dolci whom I first came to know a few years ago was the famous Dolci whom at least a part of American and European intellectual worlds had begun to refer to as the "Gandhi of Sicily;" the Dolci whom Huxley described as a "twentieth century Saint Francis with a degree;" the Dolci for whom the well-known British historian of Italy, Mack Smith, spared no praise when he wrote: "Just possibly at the age of forty four, Dolci has already done more for the cause of human happiness and dignity in Sicily than any single man has ever done before." This was the Dolci who had already won many of the world's most significant peace prizes (the Danish Sonning Prize, the Italian Prato Prize, the Lenin Peace Prize, the Swedish Socrates Prize, and his candidacy for the Nobel Peace Prize continues to be active); the Dolci who had inspired John F. Kennedy's conception of the Peace Corps; the Dolci who counted among the supporters of his American Committee alone such eminent American thinkers as Lewis Mumford, Erich Fromm, H. S. Hughes, Massimo Salvadori and Giorgio do Santillana. It is this Dolci whom I first came to know that I would like to describe briefly in this short introductory essay. [1]

A brief outline of Dolci's life provides in itself an adequate explanation for his world-wide fame, as well as the special attraction he holds for liberal and radical circles throughout the United States and Europe. Dolci, first, is not a Sicilian. He was born into a middle class family in Trieste in 1924. His first vocational goal, which grew out of an early life absorbed in study, poetry and music, was architecture. However, midway on the path to a most promising career in architecture, he became convinced that the only life worth living was one of conscience, and service to mankind. In 1949, he accordingly set aside his study of architecture and went to Nomadelphia, a communal village set up by the Catholic priest Don Zeno to care for abandoned children. There he learned two things which were so essential for all of Dolci's future work: from Don Zeno he discovered how much good can be accomplished by the faith and will of one man; from the children, he came to understand how much good can be realized when people work together.

In fact, it can be said that already at the young age of twenty five, Dolci's conscience was basically formed. He had resisted the Nazis, abandoned a successful career, and had chosen to dedicate himself to the betterment of his fellow man. In effect, Dolci already knew what he was against, and what he was for. Before him now was a life to shape to his conscience.

In 1952, at the age of twenty eight, Dolci made one of those crucial decisions that ultimately made him the Dolci whom we now know. Dolci decided to go to Western Sicily to aid the poor. Wishing to separate his social actions from the institutional Church, Dolci set out on his own. Desiring to serve the poorest of the poor, Dolci went to the small fishing village of Trappeto, for it was near here, where his father was once stationmaster, he had as a youth seen poverty at its worst. *Continued*——

[1] The following works of Dolci were used in preparing this study: *The Outlaws* (N.Y., 1961), *Report From Palermo* (N.Y., 1959), *Waste* (N.Y., 1964), *A New World in the Making* (N.Y., 1965), *The Man Who Plays Alone* (Garden City, N.Y., 1970), *Conversazioni* (Torino, 1962), *Inventare il futuro* (Bari, 1968), *Il Limone Lunare* (Bari, 1970), and *Non sentite l'odore del fumo* (Bari, 1971), and "What I Have Learned," *Saturday Review*, XV (July 29, 1967). In addition to using Jerre Mangione's indispensable *A Passion For Sicilians: The World Around Danilo Dolci* (N.Y., 1968), various other materials were used including those which are distributed by the Friends of Danilo Dolci, 100 Hemlock Road, Short Hills, New Jersey.

Carrying with him little more than his goodwill and vivid memories of miseries once witnessed, Dolci arrived in Trappeto. And in this small town Dolci started his education of what is and what could be. His first experiences were shocking. He found houses without beds and water, children without clothes and schools, men without work or means to find it, a land and a sea in service of only the rich and powerful.

One experience, however, proved more shocking, and more decisive, than any other. Dolci stood helplessly by as a child died from hunger in her mother's arms. Dolci responded with a do-or-die fast: either the Italian government would begin now to fulfill its human obligations to the people of this region or Dolci would starve himself to death. "Rather than see another child die," Dolci wrote to friends and officials, "I would prefer to die myself. . .If I cannot arouse people's love by living, I will arouse their remorse by dying." On the tenth day of his fast, having already suffered a stroke and not far from death, Dolci with the counsel of the people, accepted the authorities' offer to begin an ongoing program of public works.

Dolci had won his first battle. In some small way he had gained a beachhead against poverty in the region. And in some great way, he had consigned his heart and life to Sicily. If there were to be a new world for Dolci, it would begin in the vicinity of Trappeto, for it was here that he would use his reason and test his will. Dolci's own words best reveal the spirit in which he set to work in these first years: "If I reflect upon the present program of the *Centro Studi e Iniziative"* (the name of Dolci's present social action group) Dolci wrote in the mid-1950's,

> I sometimes think that it is only a beginning. But I also remember the fever that gripped me when I decided not to participate in the trends of the world as I saw them, in order, instead, fundamentally to do only that of which I was convinced. It was a break with that world. I was alone. I did not know how it would come out. If now I look back and see myself taking the first steps, ignorant as I was about social work and knowing nothing about the zone (of Sicily) where I felt it was necessary to start, I believe it was good that I felt the need to be like air in the sun, conquering in myself all those doubts that the environment and my own old dreams aroused. By committing myself day by day I began to understand what I did not know and to harden myself to surmount difficulties.

In this spirit Dolci set out to transform Western Sicily. His enemies grew in number and size as he came to understand the nature and sources of the problems that faced the poor. Among his enemies were hunger, disease, illiteracy, unemployment, erosion, as well as multi-form varities of Mafia violence, countless forms of political abuse, and perhaps above all else, a people and a culture that had been taught by the forces of centuries to accept the inevitability of their misery. Correspondingly, to respond to these enemies, Dolci used diverse and varied tactics, all of which were predicated on the principle of nonviolent action. Some of his more dramatic tactics were demonstrations, sit-ins, strikes, fasts and, most famous of all, a strike in reverse. That is, Dolci effected a work-in by leading a group of workers to repair a road without pay in opposition to police orders; in turn, he used the court case, which he lost, to publicize the right of work which is assured to all by the Italian Constitution. While less dramatic than these tactics, no less essential for change are Dolci's overall strategies which include a steady attempt to teach Sicilians the principles of free and democratic discussion, long-range scientific efforts to find new and more productive forms of livelihood, a continuous promotion of co-operative experiments, a constant, probing, and obviously dangerous inquiry into the realities of Mafia power, and an unceasing quest to bring various Italian and international experts to join him in his work in Sicily.

By 1955 when Dolci founded his *Centro Studi e Iniziative* at Partinico (a city of several thousand, a few miles inland from Trappeto), he had already realized from the nature and dimensions of his enemies, as well as the successes and failures of his first tactics and strategies, that what he was doing was not simply trying to combat the problems of a given region. *But rather, what he was doing, was making Western Sicily a social laboratory in which the evils of poverty and underdevelopment were discovered and analyzed, and the cures for underdeveloped countries and peoples throughout the world were tried and perfected.*

Aside from some of his poetry, Dolci's writings also play an integral part in his inquiries into the problems of Sicily and underdeveloped countries. In his first major work, *The Outlaws of Partinico* (1955), Dolci through a series of interviews with Sicilians, provokes a searching of conscience before the reality of a half-starving and desperate people who are confronted by an outlaw state which ignores social evils and meets legitimate protests against them with prison sentences, and an outlaw police whose brutality and political connections make them more like mafiosi than servants of the law. In *The Report from Palermo* (1956), Dolci again lets the impoverished Sicilians speak for themselves. In this truly terrifying work, what is wrong and ugly in Sicily encompasses the reader; and pity

for the victims, and anger at the disordered orders that rule their lives, cannot be avoided. In *Waste* (1960), Dolci itemizes the human and natural wastes which, at one and the same time, are the causes and results of Sicily's poverty. In a *New World in the Making* (1964), which in large measure records what Dolci learned from his trips to Russia, Yugoslavia, Senegal and Ghana, he sets down the first principles of his attack on waste. "In order to build a new world," Dolci wrote, "you must work with three basic tools: man as the focal point of awareness and discovery; and open resource and developing group; and democratic planning of resource development." In *Chi Gioca Solo* (1967) — the title of which is taken from the first words of an old Sicilian proverb which runs: "He who plays alone never loses!" — Dolci aims his interviews primarily at the Mafia-client relationship, but he is invariably led to examine at its roots the cynical individualism of Sicilian culture, which not only nurtures the Mafia's, but stops most Sicilians from even hoping that things could ever be better. Taken thus as a whole, Dolci's writings are equally faithful to what the world is for the poor and what it could be for them.

In part, if Dolci's writings alone were our sole source for understanding him, one truth would remain undeniably certain. Dolci's compassion for the poor is inseparable from his passion for a new world. It is probably this truth that explains why Dolci has come to reject the Church, which for him, on one count, is socially allied to reactionary and Mafia forces, and on the other, is theologically committed to doctrines which, in Dolci's opinion, are an impediment to man's ability to will and build a new world. Not without similarity to many nineteenth and twentieth century radicals, *Dolci's own religion is dedicated to what man is and what man could be.*

When recently asked by the American Press what his philosophy of life was, Dolci responded by answering:

> So if I am to answer your question about my philosophy, it is that I believe in the individual as the center of awareness, the group, a new social unit which humanity is inventing with difficulty but nevertheless inventing; and then the democratic spreading of this form which is also a new form. We use a word in our work in southern Italy which is very useful, *'maieutica.'* It's a word I'd like to use here. We've been struggling with this word and we've decided that what it means is an on-going dialectic between the individual, the group, and all these groups together. . .a Socratic technique to get others to grow as you are growing. You have all read the *Dialogues of Plato.* You all know the process that is used to increase awareness instead of imposing it on people. In Socrates it was developed through the use of the dialectic form—the dialogue—but with humanity it is important to evolve this through groups and the whole community.

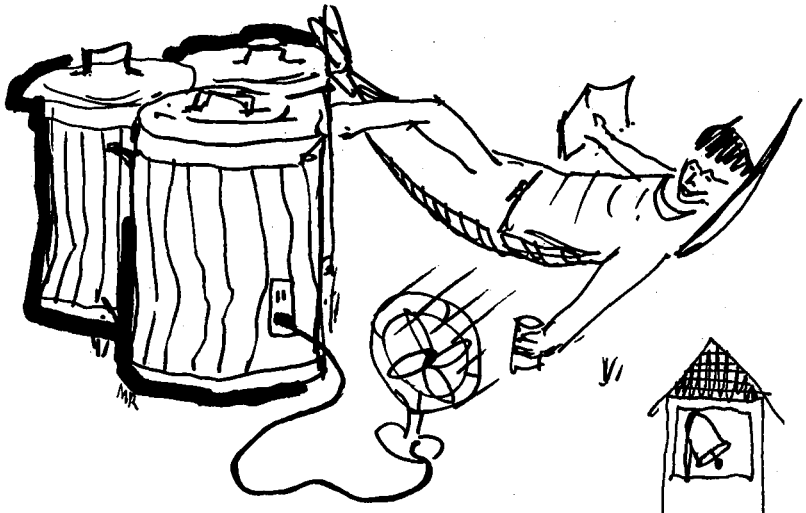
When further asked whether such a culture or society exists, Dolci replied: "No, it must be invented."

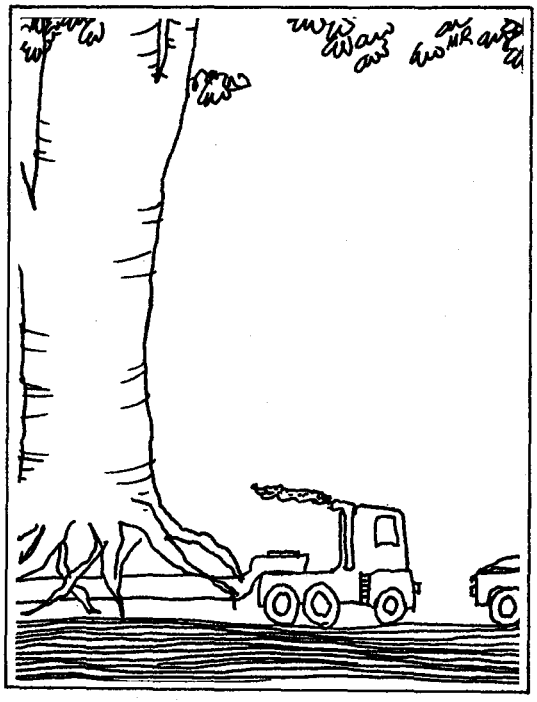
It would be misleading however, to end this short outline of Dolci's life at the point of his profession of faith. For no matter how generous such an estimate appears, it promotes a vague and sentimental idealism; and, more dangerously, it distracts us from what is most unique about him. The Dolci that should be sought out is not another well-meaning radical ideologue; we have them in abundance. Instead, the Dolci who should be sought out and understood, is the Dolci who dedicated his single life to a single people, the poor of Sicily — the Dolci who dares to wage daily and mortal combat against the hard, bitter realities of Sicily.

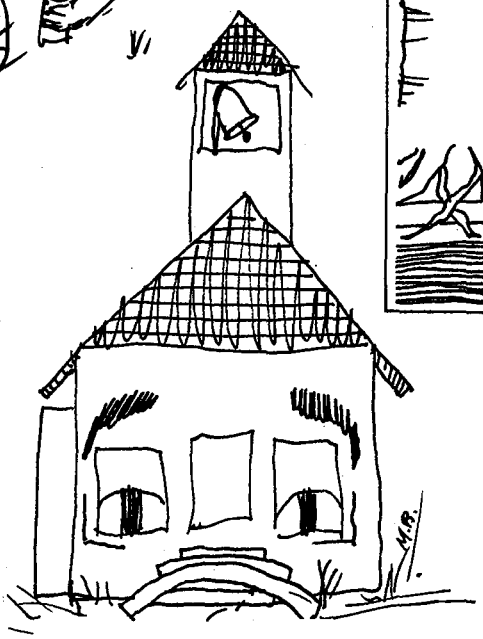
Dolci is inextricably tied to his twenty year mission in Sicily. He cannot be understood independently from such accomplishments as his publication of Doctor Pampiglione's classic medical "Inquiry into the Sanitary and Hygienic Conditions in Palma di Montechiaro," and more significantly, his long but successful struggle against government apathy and Mafia interest for the completion of the Iato Dam. Or, to chose three more examples, he cannot be understood fully apart from his abiding efforts to assure democratic control of Sicily's water supply, to rid the Gulf of Castellamare of Mafia fishing and control, and his more recent efforts to force a revision of building standards and practices so that the inevitability of earthquakes does not mean — as it did in 1967 — the inevitability of an immense destruction of property and human life. And, if any further proof be needed of the fact that Dolci is inseparably part of the Sicilian landscape: not only did Dolci marry a Sicilian widow with five children, but Dolci's daily struggle for a better Sicily today involves his personal attempt to make a better world for his now ten children.

Thus, from a first study of Dolci, I had already concluded that certain truths had to be admitted if he were to be understood at all. First, Dolci's life is part of a given people, in a given condition, at a given time. Dolci can only be understood on terms of those whom he leads and those who oppose him. The dedications and dissents, the love and hate, which inevitably accompany the presence and acts of such an imposing personality, are all part of his biography.

To note yet another essential truth about Dolci, is to recognize that he has *Continued on page 42* ——







ELSE WHERE

From Development Forum: **Britain**—Last year someone said to a politician—"plant a tree in '73"—it rhymed, he liked it and now it has become a full blown campaign to the despair of Britain's horticulturalists. The politician was Mr. Peter Walker, Environment Minister. His successor, Geoffrey Rippon, started National Tree Planting Year by digging in a flowering cherry by his office door on January 3. The trouble is that the horticultural industry needed more warning to prepare a reasonable supply of trees. Nevertheless it's a great victory for their own Green Survival campaign which has been fighting hard to get people to love trees and care for them. Like the farmers, the horticulturists are never entirely happy especially faced with the next two slogans. "Plant some more in '74"—and "Will they thrive in "75?"

From World Magazine: **Tokyo**—Out of 35,000 elementary and junior-high school students surveyed in 1969, 8000 were found to be suffering ill effects from air and noise pollution. School authorities and local leaders set up a series of "green schools" in the countryside for five-day periods of recuperation and study for the young victims of photochemical smog and noise. In the last three years public schools in 150 communities have sent students to the "green schools." However, for budgetary reasons the program had to be cut back; the length of stay shortened, and only the more seriously affected permitted to attend.

From EPA Citizens' Bulletin: **St. Louis**—In St. Louis, a project called "Trash to Kilowatts," is helping to supply electric power for many of the city's households. The project, jointly sponsored by the Union Electric Co., the City of St. Louis and EPA, is to demonstrate the practicality of recovering useful energy from solid waste. In the process, 1,000 tons of domestic refuse is hauled daily to the city's old incinerator where the waste is shredded and ferrous metals are removed magnetically. The shredded waste is then hauled 18 miles by packer trucks to Union Electric's Meramec power plant where it is fed into boilers at a ratio of 10-15 percent garbage to 85-90 percent soft coal by heat value, generating steam for a 140-megawatt turbine. The City is now using 10 percent of its domestic refuse to produce electric power, but hopes soon to raise this to 30 percent of the daily tonnage. Project engineers have encountered difficulties with removing nonmagnetic metals, but are optimistic that the system will prove feasible technically and economically, encouraging other communities to employ the method to help solve their solid waste disposal and energy supply problems.

Urban Consumer

THE NEW YORK CITY DEPARTMENT OF CONSUMER AFFAIRS

In December, 1969, the City Council passed and Mayor Lindsay signed a bill whose key sentence reads as follows: "No person shall engage in any deceptive or unconscionable trade practice in the sale, lease, rental or loan of any consumer goods or services or in the collection of consumer debts."

That authority, in the Consumer Protection Law, has been the source for the enactment and enforcement of a long list of hard-hitting regulations issued by the Department of Consumer Affairs.

These regulations involve consumer credit terms, truth in advertising, car rentals, mail orders, debt collection, door-to-door sales, furniture delivery, movie advertising, pyramid sales schemes, bait-and-switch, short weights, warranties and guarantees, standards for repair shops and dozens of other consumer areas. The full list is available to any consumer who cares enough to want to identify a fraud or misrepresentation *before* he pays for the experience. Free copies of all the regulations are available by writing to the Department of Consumer Affairs, 80 Lafayette Street, New York, N.Y. 10013.

The Department, albeit a small one, has managed to get several million dollars returned to consumers each year in refunds and debt cancellations. When your calls and letters put the spotlight on a consumer abuse, the department's lawyers and inspectors check it thoroughly. If the abuse is prohibited by existing regulations, it can be resolved promptly. If new regulation is warranted, responsible members of the industry are invited to share their suggestions with the department. The department may also hold public hearings to which all sides are invited.

A new regulation often begins with an individual complaint that might not have been uncovered until much later if individuals had not taken the time to call or write. If you have a complaint to make call 964-7777. That is the number of the department's 24-hour special complaint service. Last year more than 200,000 consumers dialed it.

The department also has five Federally-aided community complaint offices in the following communities: Forest Hills (107-06 70th Road); Jamaica (90-18 161st Street), Lower East Side (147 Delancey Street); East Harlem (227 E. 116th Street); and West Harlem (248 W. 116th Street).

In the past many consumers have been at a disadvantage when faced with the prospect of court action, either as plaintiff or defendant, in a buyer-seller dispute because of the time and expense involved or because they didn't know their legal rights. In cooperation with Judge Edward Thompson, the department has reclaimed the Small Claims Court for consumers. The department has prepared a booklet, *"How to Sue in Small Claims Court,"* available in English and Spanish on request from either the main or neighborhood offices. Further information may be obtained by calling the Department of Consumer Affair's information number: 566-2020. ■

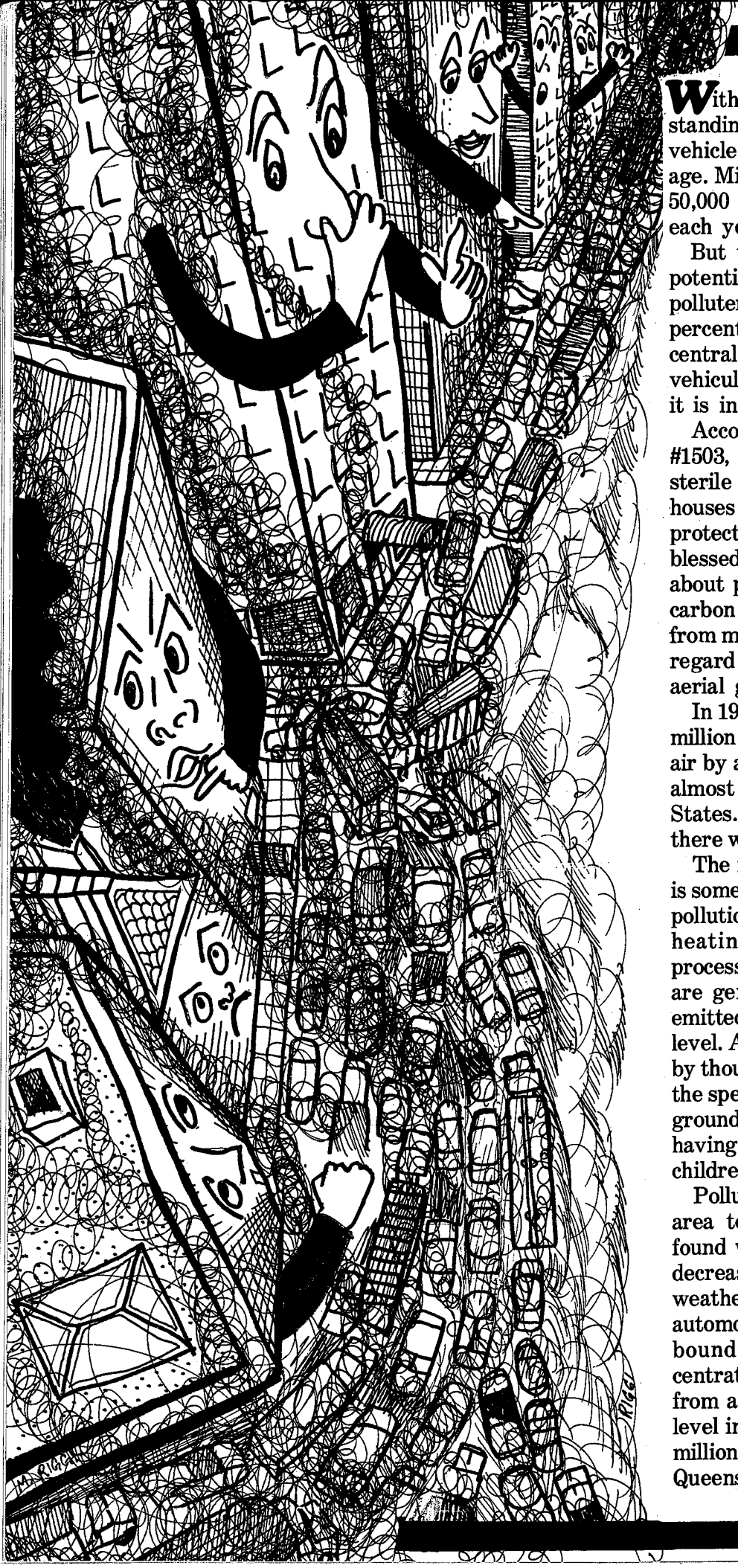
NEW ENVIRONMENTAL MATERIALS AVAILABLE

Single copies are free from Public Inquiries, Office of Public Affairs, EPA, Washington, D.C. 20460, except where noted. Multiple copies are available from the U.S. Government Printing Office, Washington, D.C. 20402 at the prices given.

Common Environmental Terms—A Glossary. For students and lay public, this defines words and terms commonly encountered in environmental discussions. (Multiple copies available from EPA).

Highlights of 1972 Environmental Laws. (Multiple copies of each are available from EPA):

The Federal Water Pollution Control Act
The Marine Protection, Research and Sanctuaries Act [Ocean Dumping]
The Noise Control Act
The Federal Environmental Pesticides Control Act



Without a doubt most Americans, in their long-standing love affair with the automobile, view this vehicle as the outstanding miracle of the machine age. Miracle perhaps, but wrought by whom? Over 50,000 Americans are sacrificed to this steel god each year and over two million are injured.

But the auto also works in more subtle, more potentially destructive ways. It is the single largest polluter in the country. It is responsible for 40 percent of all air pollution (by weight). In the central business district (CBD) of urban centers, vehicular pollution may be as high as 80 percent, as it is in New York City.

According to A.G. Cooper, *Carbon Monoxide*, Pub #1503, ". . .despite our ultrahygienic environment, sterile hospitals, white rooms, air conditioned houses and cars, and all those sanitary and protective modern conveniences that we are blessed with, we have not the slightest qualms about pouring daily approximately 250,000 tons of carbon monoxide, in addition to other pollutants, from motor vehicles alone, into the atmosphere. We regard it as a vast, boundless dumping space for our aerial garbage."

In 1968, 64 million tons of carbon monoxide and 17 million tons of hydrocarbons were released into the air by autos. Today there are over 100 million cars, almost one for every two persons in the United States. And it is predicted that by the year 2000 there will be one auto for every adult American.

The impact of the automobile on the atmosphere is somewhat different from that of other forms of air pollution. Pollutants from such sources as space heating, power generation, and industrial processes, while extremely serious health hazards, are generally concentrated in exhaust stacks and emitted into the atmosphere many feet above street level. Automotive exhaust, in contrast, is generated by thousands of street vehicles. The automobile has the special attribute of concentrating its pollution at ground level—where people are. City children, having no better place to play, play on the street. So children are special victims.

Pollutant concentrations vary widely from one area to another. The highest concentrations are found within vehicles and at street level, but may decrease at higher levels depending upon wind and weather. The striking geographic variations in automotive pollution can be seen within a city's boundaries. Hourly carbon monoxide concentrations for average New York City air, obtained from a sampling station located well above street level in Manhattan, are always under 10 parts per million of air. Hourly concentration obtained in the Queens toll plaza of the Queens Midtown Tunnel go

VEHICULAR AIR POLLUTION

What it is; What it does.

as high as 120 parts per million and are never as low as the 35 ppm that Federal Air Quality Criteria list as an hourly maximum—not to be exceeded more than once each year. This makes working conditions highly critical to the city's tunnel workers.

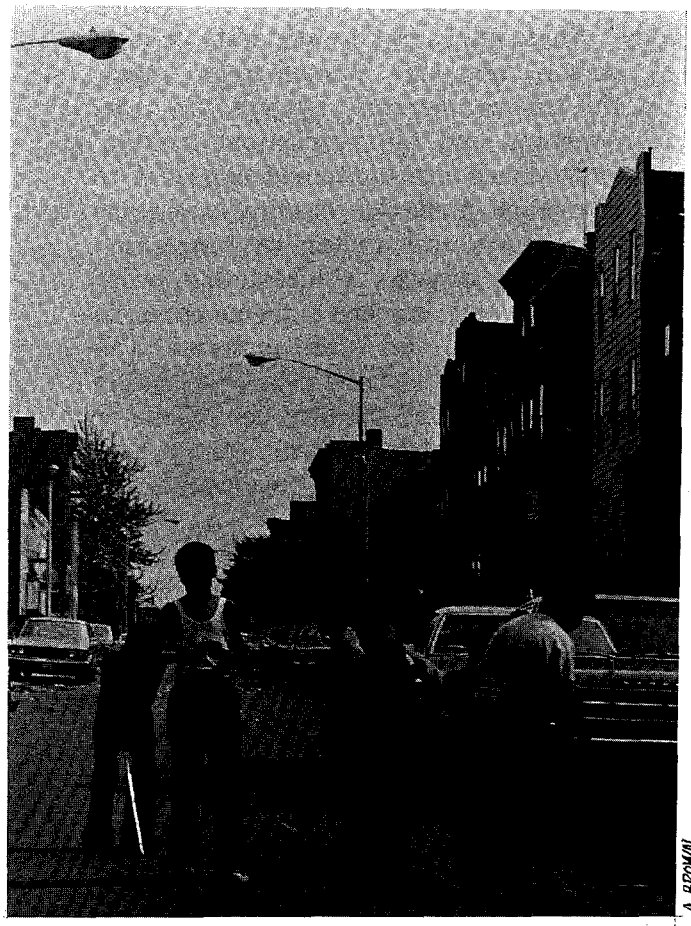
But carbon monoxide is only one of the major pollutants produced by the internal combustion engine. The other three are equally serious.

Major Automotive Pollutants

Carbon Monoxide [CO]: The most common of the several kinds of air pollutants, carbon monoxide is a deadly colorless, odorless, and tasteless, gaseous combination of harmless oxygen and carbon. It is a normal by-product of fossil fuel combustion including gasoline, and produced by incomplete combustion due to high fuel-air ratios.

Hydrocarbons [HC]: A class of compounds containing hydrogen and carbon in various combinations and found in oil, gas, and coal. These contaminants are introduced into the environment through the incomplete combustion of fossil fuels and through the evaporation of fuels and solvents. The gasoline or petroleum hydrocarbons consist of four main groups: (1) Paraffins, (2) Napthenes, (3) Olefins, (4) Aromatics. Partially burned gasoline also forms formaldehyde, acrolein and other irritant substances.

Oxides of Nitrogen: These make up the major pollutants. Of the oxides of nitrogen, nitric oxide and nitrogen dioxide (NO) are both present in substantial quantities in the polluted atmosphere. Nitric oxide is a pollutant created during combustion in high-temperatured applications such as auto engine cylinders. Nitric oxide (NO) by itself is allegedly not a pollutant, but when it reaches the ambient air, that is, outdoor air from about ground level to 10 miles in altitude that is the prime recipient of air pollutants, it becomes converted into nitrogen dioxide (NO). Nitrogen dioxide is a lethal gas resulting from any combustion process. It is a yellowish-brown air pollutant that plays an important role in the creation of atmospheric pollutants called oxidants. Nitrogen dioxide combines with hydrocarbons in the presence of sunlight to form a type of air pollutant called photochemical smog, which consists of many secondary pollutants such as ozone, aldehydes, and peroxyacylnitrate (PAN). Los Angeles is the prime example of a city engulfed in photochemical smog. Nitrogen oxide can also react with atmospheric moisture to form corrosive nitric acid. Thus far, nothing significant has been accomplished in abating the level of nitrogen oxides, since the catalytic mufflers only abate tailpipe pollution, and not fuel burning in stationary sources which accounts for 67 percent of New York City's air pollution.



A. BROWN

Lead [Pb]: Lead is a trace element, i.e. any of certain chemical elements found in very small amounts in plant and animal tissues and having a significant effect upon biochemical processes. Minute quantities are necessary and vital for the growth and well-being of plants and animals, however, high concentrations of these elements (lead, mercury, nickel, boron, cadmium, etc.) in the air, water, and food supply are dangerous. Lead is a cumulative, cellular poison. Airborne lead enters the air through the burning of gasoline containing lead. Lead compounds, such as lead tetraethyl are fuel additives used to improve the octane rating.

Continued

They are not burned and are released unchanged into the atmosphere. They are the primary cause of lead fallout from auto exhaust.

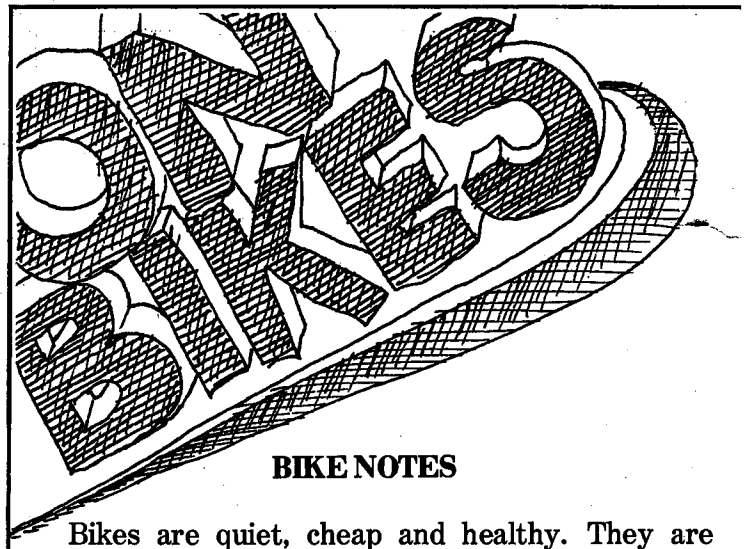
Health Effects

Carbon Monoxide: When ingested through the lungs, carbon monoxide can cause headaches, nausea, vomiting, dizziness, palpitations, and ultimate death, depending on exposure and CO levels. When carbon monoxide is ingested through the lungs it forms with hemoglobin to form carboxyhemoglobin which reduces the capacity of the blood to transport and release oxygen to the tissues of the body.[1] Short exposures to moderate or high doses of carbon monoxide immediately impair organs in the central nervous system, the cardiovascular system, and the respiratory system. There is also evidence that continued exposure to low levels of carbon monoxide results in chronic symptoms of fatigue and irritability, increased probability of heart disease, strokes, and other vascular conditions, and, in more extreme cases, in degeneration of aortical and vascular tissue. The carbon monoxide levels that have been recorded in New York City's streets (15-85 parts per million or ppm, averaged over eight hours) can impair reaction time and cause confusion, headaches, and irritability.

Hydrocarbons: Gaseous hydrocarbons, constituting a broad variety of organic compounds, are not in themselves usually implicated in health effects. However, they are a major contributor to the photochemic smog reaction that produces aldehydes and various oxidants. The aldehydes cause irritation of the eyes, upper respiratory tract, and skin, even in minute concentrations. Some hydrocarbons which are *Continued on page 58*

[1] Hemoglobin is the iron-containing red pigment flowing through arteries, veins, and capillaries. It combines with oxygen in the lungs and then releases it to the tissues where it reacts with various food materials to produce the energy necessary for all bodily processes. By an ironic twist of fate, hemoglobin prefers carbon monoxide to oxygen by the frightening factor of 200 to one. And whatever part of the hemoglobin combines with carbon monoxide is inactivated and prevented from carrying oxygen, just as if that hemoglobin were removed from the body by bleeding. Carbon monoxide not only inactivates that hemoglobin but also interferes with the release of oxygen from the remaining hemoglobin which has not been inactivated.

Furthermore, once the hemoglobin combines with carbon monoxide, it holds on to it for several hours even if carbon monoxide is removed from the environment. Tests have shown that, after a subject walks from an area containing 30 parts per million of carbon monoxide to an air-conditioned room containing none, carboxyhemoglobin (the mixture of carbon monoxide and hemoglobin) levels slowly decrease from 1.9 percent to 1.3 percent and remain elevated even though there is no carbon monoxide in the room air. This sluggish response of carbon monoxide-laden blood to changes in atmospheric carbon monoxide concentration emphasizes the potential harm of spending even a short period of time in areas of high concentration. An hour in congested traffic might raise carboxyhemoglobin levels in the blood for four to five hours. (Source: *Bulletin, National Tuberculosis and Respiratory Disease Association*, June, 1972).



BIKE NOTES

Bikes are quiet, cheap and healthy. They are more non-polluting, energy-conserving, exhilarating and faster (for trips under three miles) than any other form of transportation known. More than half of all auto trips are less than five miles long.

Twenty to 26 bikes could be parked in garages in the space of one car. If garages charged $4 a month per bike, they'd still come out ahead.

10,000 racks for 60,000 bikes would cost less than $300,000 (the cost could be divided among the major firms in each area).

"For urban travel, mass transit is more than twice as energy-efficient as autos. Human transport [bicycles and walking] is 10-40 times as efficient as motorized transport." —*Society of Automotive Engineers*

Congressman Koch found in a survey of his constituents that seven percent of the 20,000 who replied ride bikes to work while 49 percent would do so if they enjoyed safe bike lanes.

There is a bill in City Council (Intro 710) calling for a network of exclusive bike lanes in New York City. It was referred to:

Councilman Monroe Cohen, Chairman
Committee on Public Safety
City Council
City Hall
New York, New York 10007

Write to Councilman Cohen, or to your own councilperson to get this bill out of committee and openly examined.

If you're interested in working for bike lanes, contact Transportation Alternatives, a group who wants safe and separate bike lanes on New York City streets and the creation of ample indoor and outdoor parking facilities for bikes. They support all other alternatives to the car which meet their belief that *cities are for people.* Transportation Alternatives c/o Jody Byrne 105 Lincoln Road, Brooklyn 11225, 287-6530.

NEW STATE STANDARDS SET FOR BICYCLING SAFETY

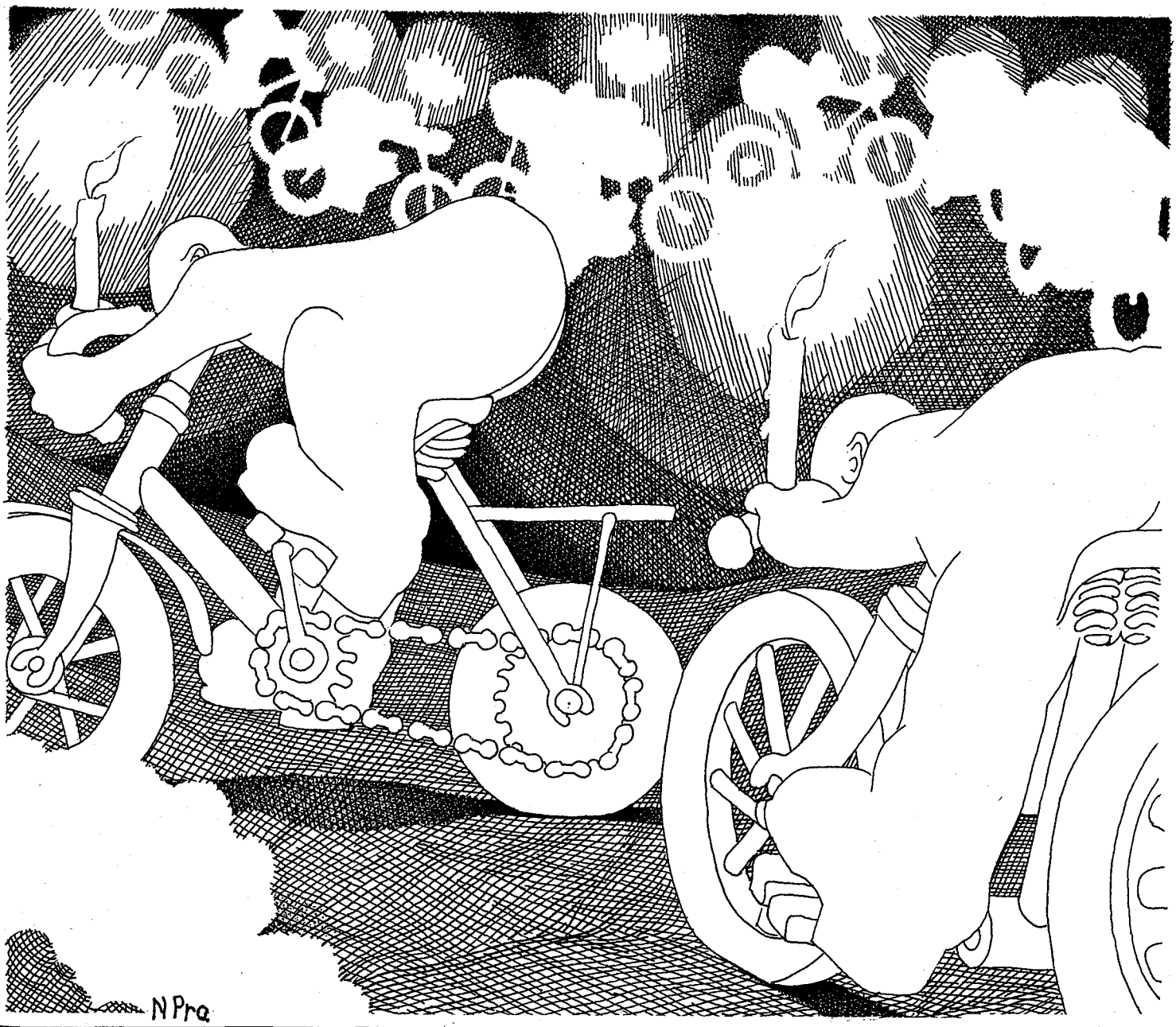
The state has adopted what are thought to be the most comprehensive bicycle safety standards in the country. The safety measure, applicable to all new bicycles sold in the state after January 1, 1974, calls for reflective material to be installed on the front, rear, sides, and pedals of new bicycles to increase their visibility at night.

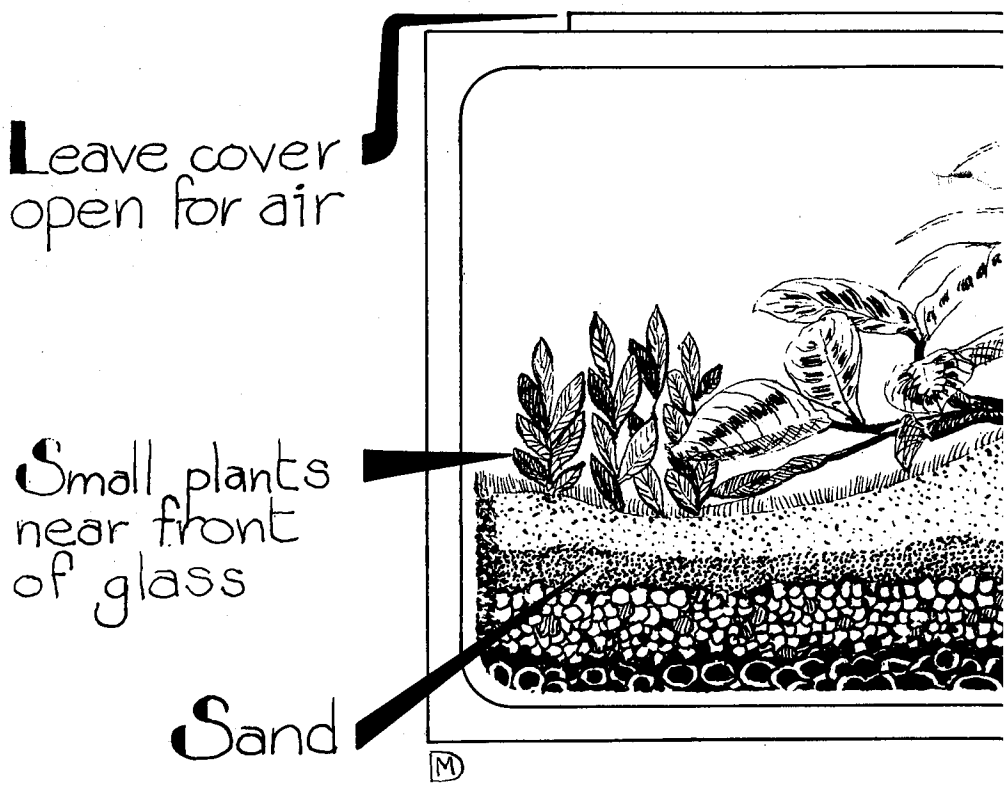
Specifically, the regulations require that "no bicycle manufactured or assembled on or after January 1, 1974, and designated as a new model, shall be sold in this state unless such bicycle conforms to these regulations." The regulations require unobstructed reflective devices or material on the front facing of the bicycle, red reflective devices or material on the rear facing, and white or amber reflective material on the pedals. White or amber sidefacing devices or material will be required on the front sides of the bicycle and white or red material to the rear.

On January 1, 1975, the safety standards will be extended to apply to every bicycle, new or used, sold by a dealer. A major feature of the new regulations that will go into effect on this date is a requirement that tires and rims must also be covered with reflective material. This will result in about 16 square inches of reflective surface on a 27-inch tire and "will make unmistakable the identification of a bicycle in the headlight of an oncoming car."

According to the measure, "on or after January 1, 1975, no bicycle shall be sold in this state by a person regularly engaged in the business of selling bicycles at retail unless such bicycle conforms to these regulations."

Since 1965, more than 33,000 bicyclists have been killed or injured in New York State accidents. In 1972, 70 persons were killed in accidents involving bicycles.





TERRARIUMS:

Terrarium gardening has opened up a whole new concept of indoor gardening with almost unlimited possibilities. A terrarium can be arranged to recall a favorite landscape, a miniature tropical jungle, a cacti desert, a ferny woodland, or to fashion a dream garden that would otherwise be impossible to create in your apartment.

Terrariums can be made in any transparent and colorless waterproof glass, plastic or lucite container. Brandy snifters, empty fish tanks, bottles of various shapes and sizes, and bowls are all suitable for miniature gardens.

Materials

To set up a terrarium you will need charcoal, gravel, sand, loam (a loose-textured planting medium), and moss. After washing and polishing the container place a layer of charcoal on the bottom followed by about an inch of gravel, then a layer of sand, and finally the planting mixture. (See diagram). You can start with a layer of gravel on the bottom and omit the charcoal.

Planting Medium

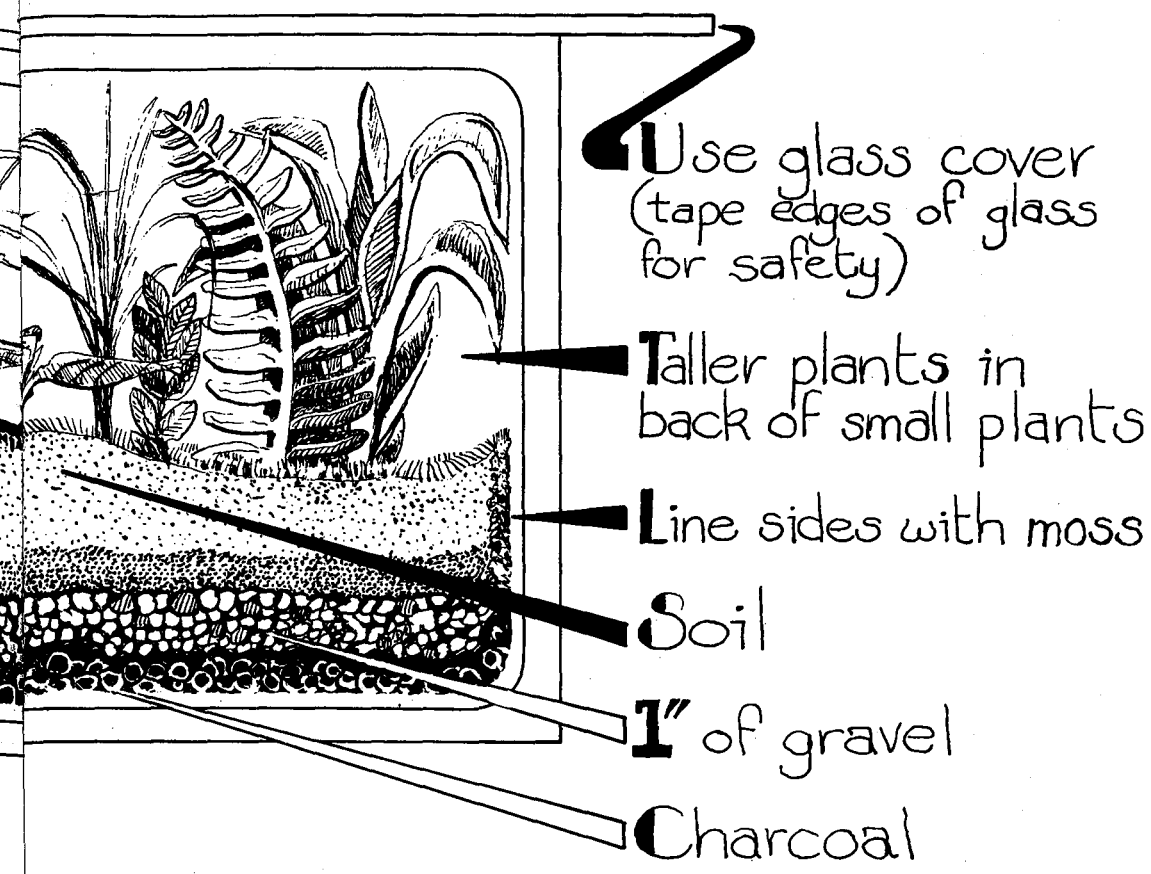
A good planting mixture (loam) is equal parts of potting soil, sand, and peat moss. For cacti and other succulents use equal parts of soil and peat moss with a double portion of sand and perlite or vermiculite.

Landscaping

Before starting to plant, envision the terrain for the garden you are creating. Shape the soil into a corresponding landscape with hills, valleys, and/or plains. A lining of moss, green side out, between the soil and glass is attractive. Choose compatible plants for the terrarium. It's best to avoid densely planted, fast growing plants except for those which can be cut back without harm such as coleus and artillery ferns.

Prior to planting, decide where the terrarium will be displayed. If only one side is to be seen, put larger plants in the back and smaller ones in the front. If it's to be seen from two or more sides, plants of major interest look good near the front and center. Try to place each plant so it will contrast pleasantly in size and color with its neighbor—variegated foliage next to solid, colorful next to green, shorter plants under taller ones, etc. Approximate whatever scene you are recapturing.

When planting a woodland scene, carpet the soil



Alternative Life-Style for Plants

with moss and lichen covered wood, or buy green sheet moss and use it for ground cover.

Small creeping plants provide a good ground-cover and will creep and cascade over small terraces built at different levels. They also carpet the soil around larger, upright plants, will grow over a small-scaled wall, or creep up a soft piece of rotted bark.

After everything is planted, complete the landscape with whatever "dressing" is suitable—moss, wood chips, bits of bark, pebbles, small rocks, shells, etc.

Water

The last step is watering. Ideally this should be done from the bottom with a syringe-type or bottle and tube watering device which can be purchased at most plant stores and nurseries. If you water from the top, be careful not to water too forcefully or you will disturb the soil arrangement and flatten smaller plants. Do not overwater. Too much water will encourage rot. On the other hand, too little water will shrivel up tender leaves and stems.

If a piece of glass, plastic or lucite is placed over the top, the terrarium will conserve moisture for long periods of time. An occasional sprinkling when the surface feels dry to the touch is all that will be necessary. A misting with a fogger or atomizer filled with clean, room-temperature water now and then will benefit plants in an uncovered terrarium.

Siphoning water through small tubes makes it easy to add moisture precisely where needed. Covered terrariums growing in filtered light rarely need watering more than once every four to six weeks. Use a half-strength solution of fertilizer for every other watering.

Light

The terrarium's success will largely depend on just the right amount of light. The location of the planter will greatly influence just how often water is needed.

All newly planted terrariums should be placed in a shaded area—perhaps near a northern window or wherever it will not receive direct sunlight, for a week to 10 days. If the terrarium is covered the inside may fog over. If this happens, remove the cover for an hour or so to allow the excess moisture to evaporate. After a week or 10 days move the terrarium into better light. —*Continued on page 52*

New School Newsline — is a recorded telephone message of the daily events, i.e. films, concerts, art shows, and public events at the New School located at Fifth Avenue and Fourteenth Street, Manhattan. Call 741-0707 at any time.

"A House Plant Primer" - is a handbook for 'window-sill horticulturists'. The handbook is designed to answer the questions most often asked by apartment plant growers. The publication is available from the Brooklyn Botanic Garden, 1000 Washington Avenue, Brooklyn 11225. Cost is $1.50.

where it's at

By Arnie Korotkin

Know Your Legislators — The League of Women Voters as a public service will advise callers of the names of their senators and congressmen. The League's phone number is 674-8484. Also request a copy of their publications list.

Home Gardens — Although it's a bit late in the season to think about starting a summer garden, it's not too early to think about one for next year. And why not plant vegetables. If you'd like to give it a try, then check out *"Growing Vegetables in the Home Garden."* This is the title of a booklet issued by the U.S. Department of Agriculture which will answer all of your vegetable gardening questions. It is available for 70 cents from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Control Garden Pests is a 47 page booklet that offers alternatives to pesticides which harm wildlife and man alike. *Make it With Natural Food* is also a 47 page booklet dealing with what you eat which is just as important as how much you eat. Both publications are available for 50 cents each from Robert Rodale, 33 East Minor Street, Emmanus, Pennsylvania.

Recycle Your Newspapers and Magazines — Collection points for the recycling of old newspapers and magazines have been established in several communities. To find out where these collection points are situated in New York City call the Environmental Action Coalition at 486-9550.

A Directory of Health Services is available from the Health Services Administration, Office of Public Information, Room 620, 125 Worth Street, NYC 10013. The Directory provides information on free health services, i.e. VD clinics, mental health centers, drug abuse clinics, etc.

Information Wanted — This column of assorted resources and information will appear regularly. If you have any items for future publication or requests for specific information write to Arnie Korotkin, P.O. Box 736, New York, New York 10009.

DESIGN HINTS

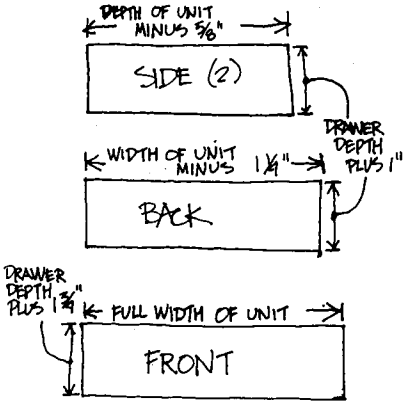
URBAN INSIDES

For More Livable Apartments, Part III by Buz Whistler

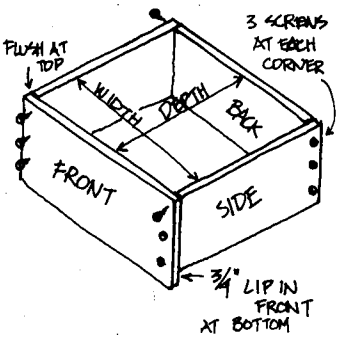
DRAWERS — FIRST DETERMINE THE DEPTH OF THE DRAWER DESIRED. SOME TYPICAL SIZES: DESK DRAWERS 3"-6"; CLOTHING STORAGE 6"-9"; LARGE EQUIPMENT STORAGE 7"-12". NOW ADD 1" (EXAMPLE: 6" DRAWER BECOMES 7") THIS INCH IS NEEDED TO ATTACH DRAWER BOTTOM. YOU'LL NEED THREE PIECES THIS NEW WIDTH, TWO SIDES AND THE BACK. THE FRONT MUST BE 3/4" WIDER STILL. THE LENGTHS ARE DETERMINED AS FOLLOWS —

DRAWER PIECE	INSIDE UNIT DIMENSIONS (LENGTH)	LENGTH SMALL UNIT	LENGTH LARGE UNIT
FRONT	FULL INSIDE WIDTH	36"	42"
SIDE	DEPTH MINUS 5/8"	14 3/4"	22 3/4"
BACK	INSIDE WIDTH MINUS 1 1/4"	34 3/4"	40 3/4"

CONFUSING? LOOK AT THIS DIAGRAM —

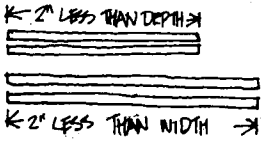


THE FOUR PIECES FIT TOGETHER LIKE THIS —

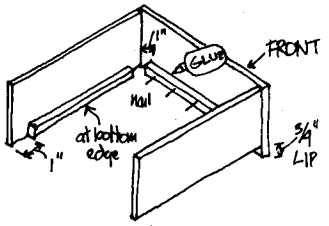


THE JOINTS ARE THIS WAY BECAUSE OF THE STRESSES INVOLVED. TO JOIN USE #8 1 1/4" FLAT HEAD WOOD SCREWS. YOU'LL NEED 12 PER DRAWER, 3 AT EACH CORNER. DRILL THE HOLES USING A COMBINATION DRILL & COUNTERSINK BIT IF YOU CAN'T GET ONE, ASK AT THE HARDWARE STORE FOR THE THREE BITS YOU'LL NEED TO COUNTERSINK THIS SIZE SCREW. BE SURE TO GLUE ADJOINING SURFACES BEFORE JOINING.

NOW MEASURE AND CUT FOUR PIECES OF 3/4" X 3/4" PINE. TWO PIECES ARE 2" LESS THAN THE DRAWER DEPTH AND THE OTHER TWO PIECES ARE 2" LESS THAN THE DRAWER WIDTH.

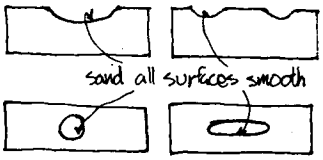


GLUE AND NAIL (WITH 1" FINISHING NAILS) THESE STRIPS INSIDE THE DRAWER FLUSH WITH THE BOTTOM EDGE, (EXCEPT IN FRONT) BE SURE TO CENTER THE PIECES.



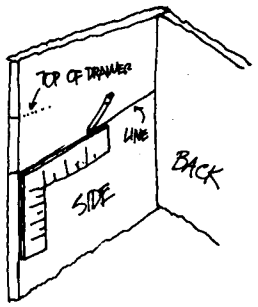
FOR DRAWER BOTTOM, MEASURE A PIECE OF 1/8" MASONITE (OR USE LEFTOVER PLYWOOD) TO THE INSIDE DIMENSIONS, THAT IS, THE DEPTH BY THE WIDTH. GLUE THIS PIECE TO THE STRIPS, IT MAY BE NAILED ALSO.

FOR DRAWER PULLS USE ANY OF THE SEVERAL DIFFERENT TYPES AVAILABLE AT THE HARDWARE STORE, OR CUT YOUR OWN GRIPS WITH A SABRE SAW. SOME EXAMPLES:

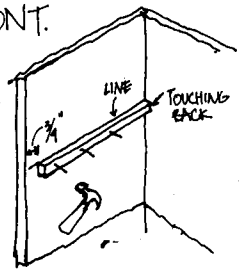


FINISH DRAWER BY COATING ALL EDGES WITH PUTTY, AND FILLING ALL NAIL & SCREW HOLES. SAND.

THE DRAWER GLIDES ARE MADE OF 3/4" X 3/4" PINE. YOU'LL NEED TWO, EACH ONE 3/4" LESS THAN THE UNIT DEPTH. (SMALL UNIT: 14 5/8", BIG UNIT: 22 5/8") DECIDE ON THE HEIGHT OF THE DRAWER. (REMEMBER THE GLIDES WILL BE AT THE BOTTOM, NOT THE TOP OF THE DRAWER.) AT THE HEIGHT DESIRED, DRAW A LINE HORIZONTALLY ACROSS THE INSIDE FACE OF THE UNIT. USE THE FRAMING SQUARE. REPEAT ON THE OTHER SIDE.



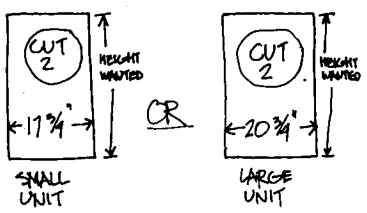
PLACE THE GLIDE SO THAT THE TOP OF THE GLIDE IS ALONG THE LINE AND IT IS TOUCHING THE BACK. THE OTHER END SHOULD BE 3/4" IN FROM THE FRONT.



GLUE AND NAIL THE GLIDES IN THIS POSITION. THE DRAWER SHOULD SLIDE EASILY. IF NOT, RUB PARAFFIN OR WAX ON THE GLIDES AND DRAWER BOTTOMS.

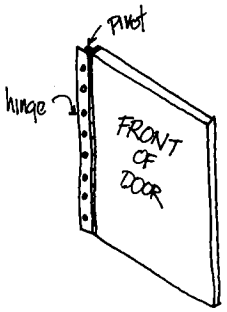
DOORS

FIRST DECIDE ON THE HEIGHT OF THE DOOR DESIRED. IF THE DOOR IS TO BE OVER 24" TALL THERE WILL HAVE TO BE ADDITIONAL BRACING FOR THE UNIT BECAUSE OF THE STRAIN CAUSED BY A SWINGING DOOR. FIRST, HERE ARE INSTRUCTIONS FOR SHORT DOORS— (LESS THAN 24" TALL) THE WIDTHS OF THE DOORS ARE: FOR THE SMALL UNIT- 17 3/4", FOR THE LARGE UNIT- 20 3/4". MEASURE AND CUT 2 DOORS FOR EACH SET WANTED.



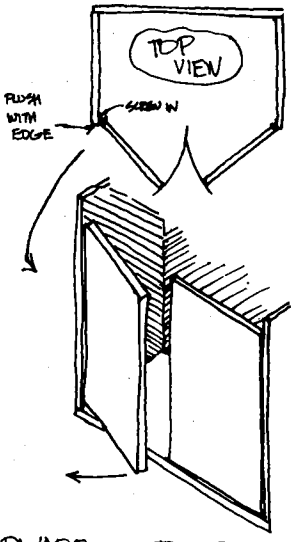
USE THE FRAMING SQUARE TO MEASURE AND BE VERY CAREFULL TO MAKE STRAIGHT CUTS OR ELSE THE DOOR WON'T HANG RIGHT. FILL HOLES AND EDGES WITH PUTTY AND SAND DOOR.

CUT WITH A HACKSAW TWO PIECES OF PIANO HINGE THAT ARE THE SAME LENGTH AS THE HEIGHT OF THE DOOR. PLACE THE HINGE ALONG THE EDGE OF THE DOOR SO THAT THE PIVOT OF THE HINGE IS INSIDE. INSTALL THE HINGE WITH 5/8" FLAT HEAD WOOD SCREWS. THESE USUALLY COME WITH THE HINGE.



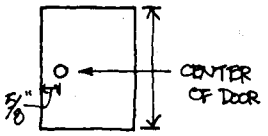
FASTEN THE OTHER HALF OF THE HINGE FLUSH WITH THE INSIDE EDGE OF THE UNIT. MOUNT THE OTHER DOOR ON THE OPPOSITE SIDE. THE TWO DOORS SHOULD SWING OUT AND MEET IN THE

CENTER LIKE THIS—



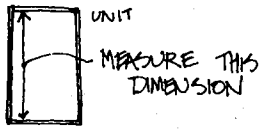
HARDWARE — DOOR PULLS AND HANDLES COME IN A VARIETY OF STYLES

THE PULLS SHOULD BE MOUNTED IN THE CENTER OF THE DOOR AND ABOUT 5/8" IN FROM THE EDGE—

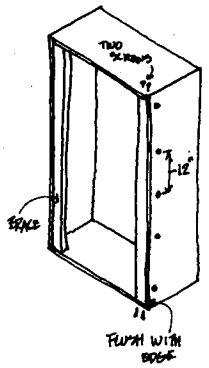


YOU WILL ALSO NEED A CABINET CATCH FOR EACH DOOR, INSTALLED AT THE TOP EDGE.

DOORS THAT ARE OVER 24" TALL WILL REQUIRE A BRACE FOR THE UNIT. FIRST MEASURE THE INSIDE HEIGHT DIMENSION.

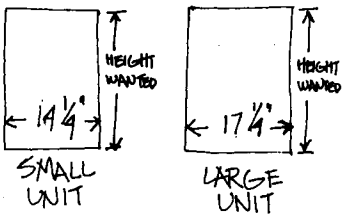


CUT TWO 2x4's THIS LENGTH. PLACE EACH FLUSH WITH THE INSIDE EDGE OF THE UNIT. GLUE AND FASTEN WITH 1½" FLAT HEAD WOOD SCREWS EVERY 12" ALSO USE TWO SCREWS ON THE TOP AND TWO SCREWS ON THE BOTTOM.



BE SURE TO DRILL AND COUNTERSINK HOLES.

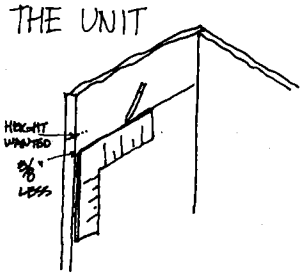
FILL HOLES WITH PUTTY AND SAND WHEN DRY. THE DOOR DIMENSIONS WHEN USING THIS BRACE ARE:



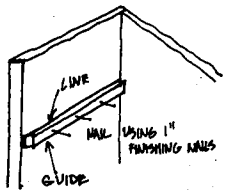
MOUNT DOORS IN THE SAME WAY AS THE SMALLER DOORS.

TABLES AND DESKS—

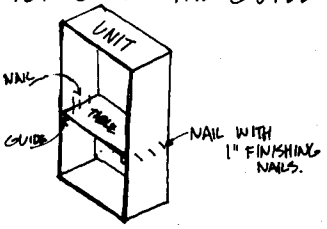
TABLE AND DESK TOPS ARE EASY. FIRST DECIDE ON THE HEIGHT OF THE TABLE. SUBTRACT 5/8" AND MARK THIS NEW DIMENSION ON THE INSIDE OF THE UNIT. USING THE FRAMING SQUARE, DRAW A LINE ACROSS THE INSIDE FACE OF THE UNIT



NOW CUT TWO PIECES OF 3/4" X 3/4" PINE THE SAME LENGTH AS THE INSIDE DEPTH OF THE UNIT. (SMALL UNIT 15 3/8", LARGE UNIT 23 3/8"). GLUE AND NAIL THESE ON THE LINE YOU HAVE JUST DRAWN — SIMILAR TO THE WAY THE DRAWER GLIDES WERE INSTALLED.



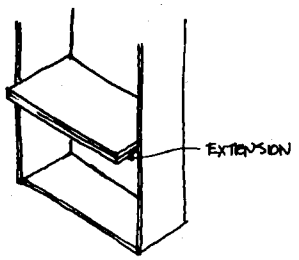
CUT THE TABLE TOP TO THE INSIDE DIMENSIONS OF THE UNIT. (SMALL UNIT — 15 3/8" X 36", LARGE UNIT — 23 3/8" X 42"). GLUE AND NAIL THE TABLE TOP ONTO THE GUIDES.



FINISH EDGES AND CRACKS WITH PUTTY. SAND

FOR A MORE SOLID SURFACE SUCH AS A DESK TOP, YOU MAY WISH TO GLUE TWO PIECES OF PLYWOOD TOGETHER, LIKE A SANDWICH

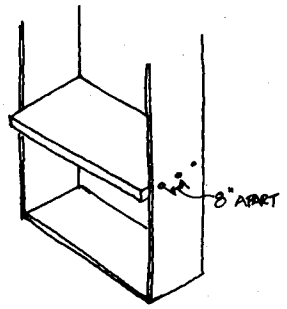
CUT TWO TOPS WITH THE SAME DIMENSIONS. HINT— YOU MAY WANT TO EXTEND THE FRONT OF THE DESK TOP OUT A FEW INCHES TO ADD LEG ROOM AND DESK SPACE, LIKE THIS—



SPREAD GLUE EVENLY ON ONE SURFACE OF EACH BOARD. APPLY WEIGHT TO THE BOARDS OR CLAMP UNTIL DRY. BE SURE TO WIPE OFF ANY EXCESS GLUE.

MOUNTING THIS DESK TOP IS DIFFERENT. DECIDE ON THE HEIGHT WANTED AND <u>TEMPORARILY</u> NAIL THE BOARD IN POSITION NOW

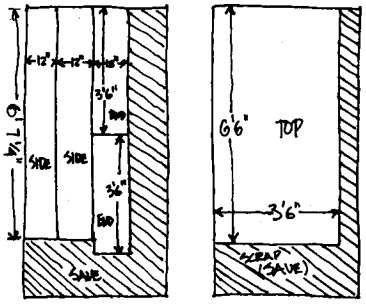
FASTEN WITH 1½" FLAT HEAD WOOD SCREWS, SPACED ABOUT 8" APART. BE SURE TO DRILL AND COUNTERSINK HOLES



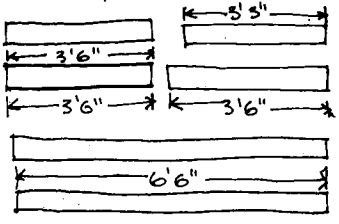
FINISH WITH PUTTY AND SAND.

BEDS—

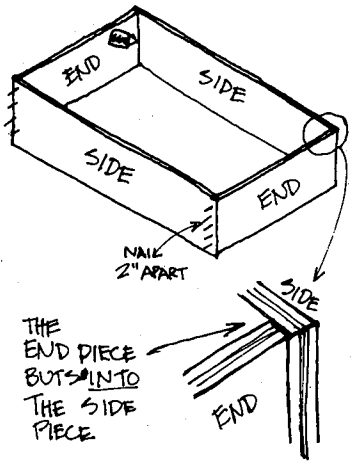
TO BUILD THE BED YOU'LL HAVE TO CUT THESE PIECES OF PLYWOOD—



AND THESE 6 LENGTHS OF 2x4 —

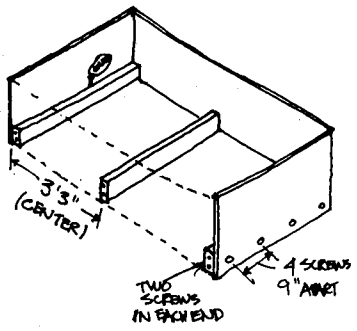


GLUE AND NAIL THE SIDES AND ENDS TOGETHER TO FORM A BOX. USE 2" FINISHING NAILS ABOUT 2" APART —



TAKE THE 3'6" LENGTHS OF 2x4 AND PLACE THEM INSIDE THE BOX. ONE AT EACH END AND ONE IN THE MIDDLE. THEY SHOULD BE FLUSH WITH THE BOTTOM EDGE OF THE

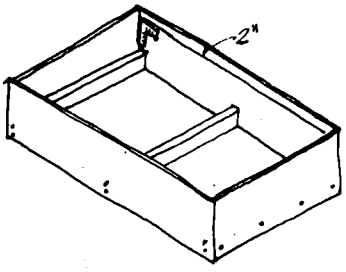
BED



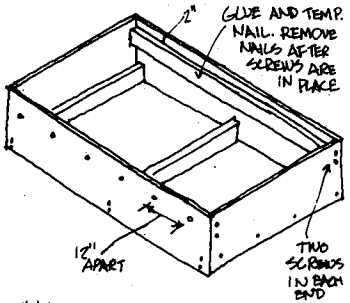
GLUE SURFACES AND JOIN USING 1½" FLAT HEAD WOOD SCREWS, 2 AT EACH END AND 4 ALONG THE SIDE. DRILL AND COUNTERSINK HOLES FIRST.

DRAW A HORIZONTAL LINE, 2" DOWN FROM THE TOP, ON THE INSIDE SURFACE OF

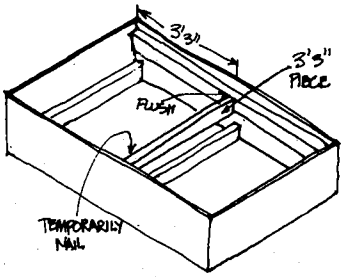
EACH OF THE SIDE PIECES.



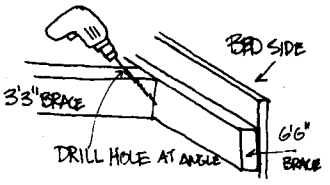
PLACE ONE OF THE 6'6" LENGTHS OF 2x4 SO THAT THE TOP EDGE OF THE 2x4 IS ON ONE OF THE LINES, GLUE AND TEMPORARILY NAIL IT IN THIS POSITION. REPEAT WITH THE OTHER SIDE. USE 1½" FLAT HEAD WOOD SCREWS, SPACED 12" APART TO JOIN. DRILL AND COUNTERSINK HOLES.



THE FINAL BRACE IS ATTACHED IN THE CENTER, PERPENDICULAR TO THE TWO LONG 2x4's. MEASURE 3'3" IN FROM THE INSIDE SURFACE OF THE END OF THE BED. MARK THIS DIMENSION ON BOTH OF THE LONG 2x4 BRACES. CENTER THE REMAINING 2x4 PIECE (3'3" LONG) AT THESE MARKS. GLUE AND TEMPORARILY NAIL IN POSITION.

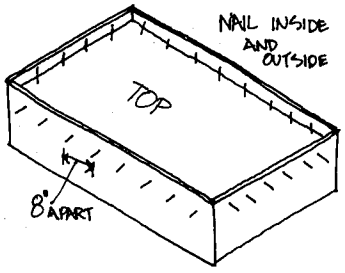


DRILL AND COUNTERSINK A HOLE, IN THE BRACE, FOR A 1½" FLAT HEAD WOOD SCREW. DRILL AT AN ANGLE INTO THE SIDE BRACE

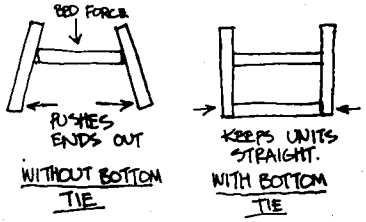


MAKE SURE THE HOLE IS DEEP ENOUGH SO THAT THE HEAD OF THE SCREW DOES NOT COME ABOVE THE SURFACE. REPEAT ON THE OTHER SIDE. JOIN USING 1½" FLAT HEAD WOOD SCREWS.

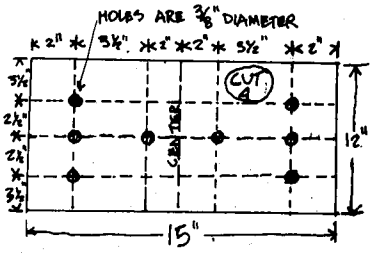
NOW SPREAD GLUE ON THE TOP SURFACES OF THE TOP 2x4 BRACES. PLACE THE TOP OF THE BED (6'6" X 3'6" PLYWOOD SHEET) ON THE BRACES AND NAIL IN POSITION, USING 2" FINISHING NAILS EVERY 8" OR SO. USE NAIL SET TO FINISH NAILS —



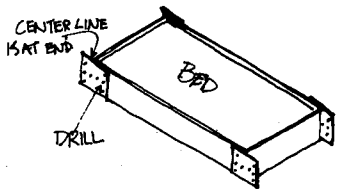
TO MAKE BUNK BEDS— YOU CAN MOUNT A BED BETWEEN TWO OF THE LARGE UNITS, THE WIDTHS ARE THE SAME. WHEN BUILDING A BED OFF THE GROUND, THERE MUST ALWAYS BE SOMETHING TO TIE THE UNITS TOGETHER AT THE BOTTOM. THE WEIGHT OF THE BED CAUSES THE UNITS TO SPREAD APART.



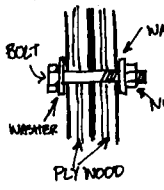
THIS TIE CAN BE ANOTHER BED, DRESSER SIZE UNITS, OR A 2x4 BRACE. THE BED AND THE UNIT ARE CONNECTED BY A PLATE. MEASURE, CUT AND DRILL 4 PIECES OF ⅝" PLYWOOD THIS SIZE —



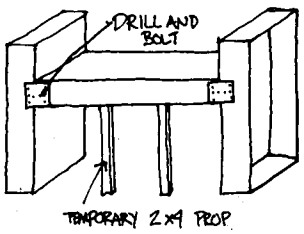
PLACE THE PLATE ON THE SIDE OF THE BED SO THAT THE CENTER LINE IS FLUSH WITH THE END OF THE BED. DRILL THROUGH THE HOLES INTO THE SIDE OF THE BED.



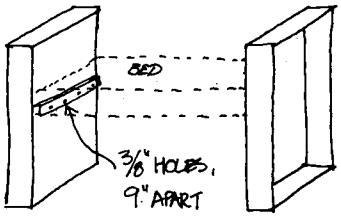
BOLT PLATE ON USING SEVEN 2"x⅜" LAG BOLTS AND ONE 3½"x⅜" LAG BOLT. (THIS LONG BOLT IS TO GO THROUGH THE 2x4 BRACE) USE 2 WASHERS PER BOLT, ONE ON EACH SIDE OF THE WOOD. THIS IS A CROSS SECTION THROUGH THE WOOD—



REPEAT FOR ALL FOUR CORNERS; SECURE NUTS TIGHTLY. GETTING THE BED INTO THE AIR MIGHT BE A PROBLEM. THE BEST WAY IS TO PROP IT UP AT THE RIGHT HEIGHT. OTHERWISE, TIP THE UNITS ON THEIR SIDES TO WORK. WHEN THE BED IS IN THE PROPER POSITION, DRILL AND BOLT THE OTHER HALF OF THE PLATE.



NOW DRILL FOUR ⅜" HOLES IN THE BOTTOM 2x4 BRACE OF THE BED. DRILL INTO THE UNIT, AND SPACE THE HOLES APPROX. 9" APART.



BOLT INTO THE UNIT WITH FOUR 3½"x⅜" LAG BOLTS, 2 WASHERS TO EACH BOLT. REPEAT ON THE OTHER SIDE.

ERE'S A LIST OF ADDITIONAL MATERIALS & TOOLS YOU'LL NEED:

EACH DRAWER NEEDS:
- ⅝" PLYWOOD
- ¾"x¾" PINE STRIPS
- ⅛" MASONITE
- 1" FINISHING NAILS
- 12 #8 1¼" FLAT HEAD WOOD SCREWS.
- * DRILL & COUNTERSINK BIT FOR 1¼" WOOD SCREWS

EACH DOOR NEEDS:
- ⅝" PLYWOOD
- PIANO HINGE
- ⅝" FLAT HEAD WOOD SCREWS
- DOOR HANDLE & CATCH
- 2x4 (FOR LARGE DOOR ONLY)
- * HACKSAW

EACH TABLE NEEDS:
- ⅝" PLYWOOD
- ¾ x ¾" PINE
- 1" FINISHING NAILS
- 10 1½" FLAT HEAD WOOD SCREWS
- * DRILL & COUNTERSINK BIT FOR 1½" SCREWS

EACH BED NEEDS
- 2 SHEETS ⅝" PLYWOOD
- 4 8' LENGTHS OF 2x4
- 2" FINISHING NAILS
- 42 1½" FLAT HEAD WOOD SCREWS
- * DRILL & COUNTERSINK BIT FOR 1½" SCREWS

BUNK BED
- 28 2"x⅜" LAG BOLTS & WASHERS
- 12 3½" x⅜" LAG BOLTS & WASHERS
- * ⅜" DRILL BIT.

THE IDEA OF THIS SYSTEM IS TO SHOW THE BASICS OF WORKING WITH PLYWOOD. FROM THIS POINT ON IT'S UP TO THE INDIVIDUAL IF THE DIMENSIONS OF THE UNITS DON'T WORK FOR YOU, CHANGE THEM, WITH THE TECHNIQUES IN THIS SYSTEM, ONE COULD MODIFY THE UNITS FOR ANY PARTICULAR NEED - EXTEND THE SYSTEM TO MAKE FOLD DOWN TABLES, SEWING CABINETS, ANYTHING. IT JUST TAKES TIME AND CARE. — GOOD LUCK!

NOTES ON RED DYE AND OTHER ADDITIVES

The next time you have red candy, a can of cherry soda or a strawberry popsicle, you may be eating poison.

According to Food and Drug Administration scientists, a dye called Red No. 2, found in virtually every artificially red-colored food, may cause cancer and birth defects.

Soviet scientists reported in 1970 that the dye caused birth defects and cancer in animals. FDA scientists obtained similar results from a reproduction test last summer, but FDA officials have delayed any action at all for almost a year.

The FDA has since introduced some minor restrictions on the use of Red No. 2, but has denied that there is any evidence of hazard to humans.

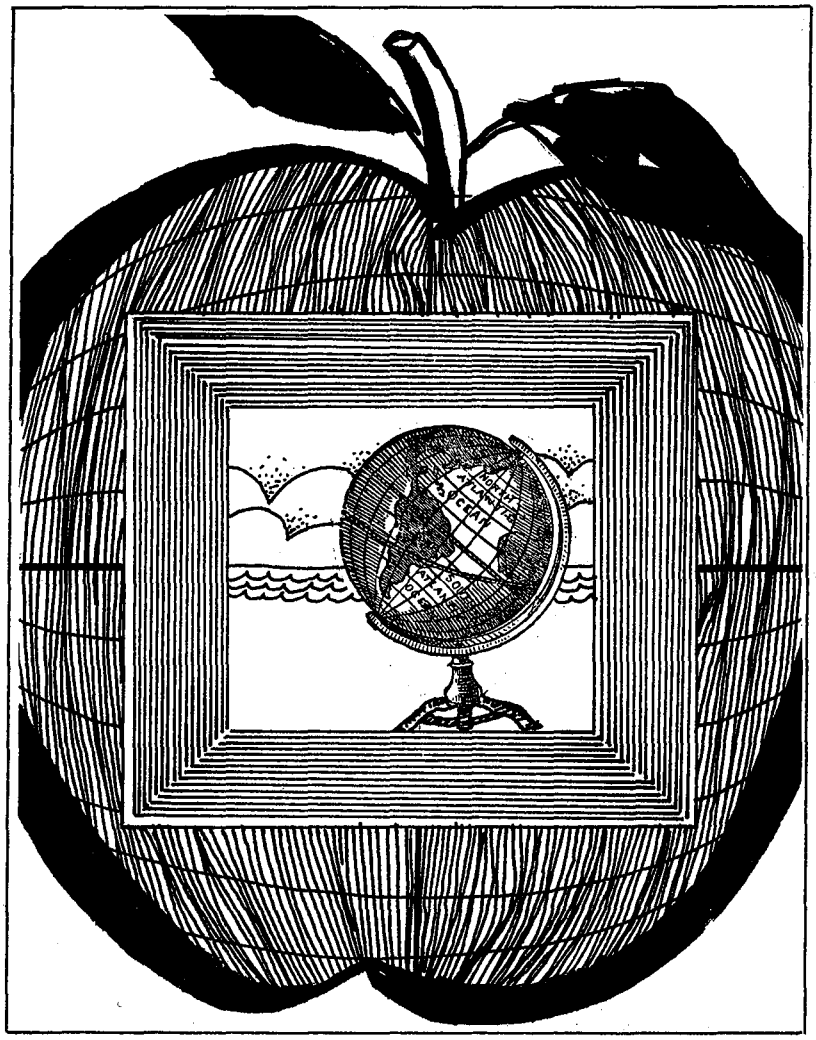
Although the color additives amendment to the Food, Drug and Cosmetic Act requires scientific proof of safety for all color additives in food supply, there is no such objective scientific evidence that Red No. 2 is safe for human consumption.

According to Sidney M. Wolfe, M.D. the safe dosage level would be 15mg/kg of body weight daily. This level of the dye in food would allow a 110 pound person to drink about two-thirds can of soda daily. Children would exceed the safe limit if they drank more than half a can of dyed soda.

"Hot-Dog" Headache is a syndrome which two physicians feel is caused by the nitrite added to frankfurters to impart a bright red color to the meat. William R. Henderson and Neil H. Raskin report in **The Lancet**, December 2, that "several" of their patients have reported headaches after eating hot-dogs. The effect is similar to that of the common food substance, tyramine, and of the food additive, monosodium glutamate.

Northwest Passage reports Secretary of Agriculture, Earl L. Butz, has said that Americans must learn to live with the risk involved in pesticides and other farm chemicals or face even higher food costs in the future. He scolded scientists and others for dwelling "unduly" on the safety issue with regard to the use of DES and antibiotics." (DES has been found to cause cancer in animals and humans. It is an ingredient used in the morning-after pill now thought to be directly linked with cancer).

Butz went on to say that "if they have their way. . .if they make us absolutely safe. . .the time could come when we won't eat meat (!?). . .the only reason we can sustain 210 million people in this country with a high-protein diet is that we have modified the environment. Without harming it or endangering animal species, including our own, we must modify the *Continued on page 53*



Places For Environmental Education

The following is a report from Educational Facilities Laboratories developed in cooperation with Project Man's Environment, American Association for Health, Physical Education and Recreation, and the National Education Association.

Two summers ago, EFL cosponsored a conference to explore the implications of different types of facilities on environmental education programs. EFL's conference partner was Project Man's Environment, administered by the American Association for Health, Physical Education and Recreation which is an affiliate of the National Education Association. The conference, held at the Smithsonian Institution's Belmont Center, brought together 26 nationally recognized authorities in disciplines related to environmental education. The participants included architects, landscape architects, planners, government leaders and educators (see list of participants in appendix). The purpose of the meeting was to identify existing educational resources and strategies for making optimum use of natural, cultural, and physical resources for environmental study. It also sought to identify the kinds of educational facilities needed to harness these resources for improving environmental education programs.

This report has been distilled from the Belmont discussions. One further distillation enables us to summarize the report in four statements that represent the consensus of the 26 participants.

— Environmental education is not a passing fad. The world's environmental crises with their accompanying threats to human survival mandate that man begin to understand his role in the over-all scheme of existence. Establishing a harmonious balance between nature and what man himself has created dictates the content of environmental education. Affecting change should be an end product of all education, and is an absolute essential of effective environmental education.

— Facilities facilitate learning. Educators must become familiar with facilities that can best contribute to effective environmental education. Usually a variety of facilities will be required.

— The methodology of instruction in environmental education is probably best centered around an interdisciplinary approach. One successful approach puts students through environmental encounters or experiences. A second approach interconnects a thematic strand through many aspects of a subject. *Continued on page 36*—

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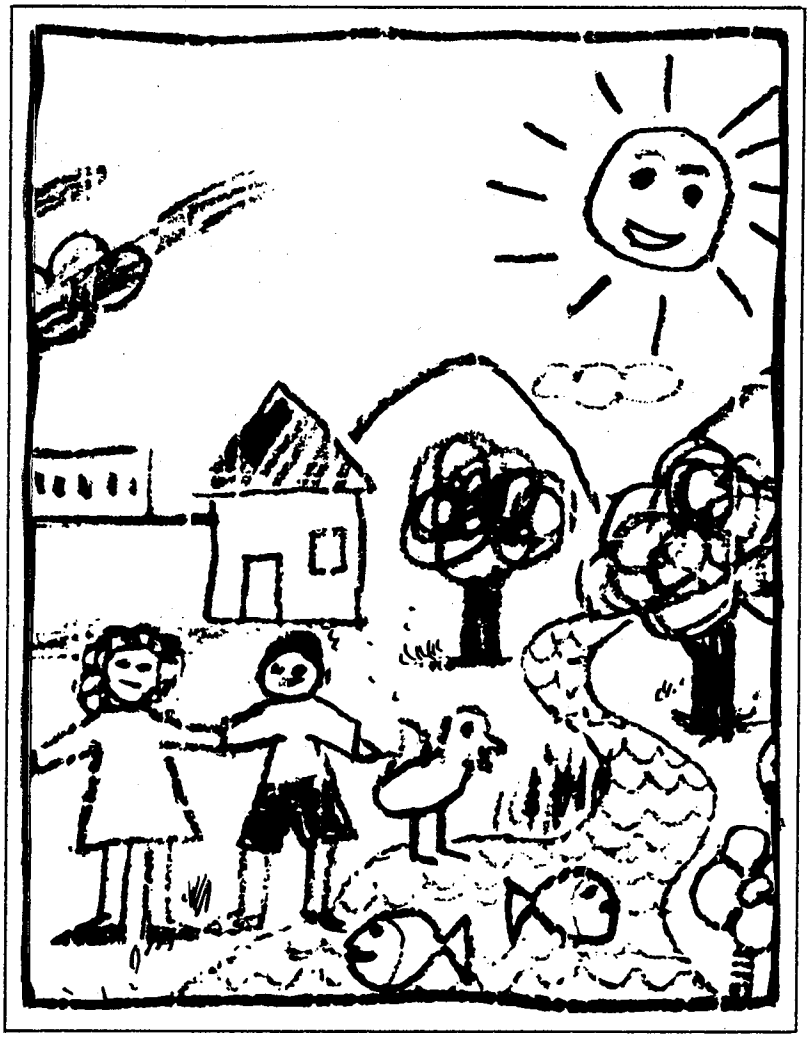


Children As Environmental Watchdogs

By Kenneth Mellanby

Today we are all aware of the general concern for "the environment." There is a widespread feeling that things are not as they should be, and a desire to do something about it. Children are particularly concerned, but they are often ignorant of the real situation, and so are easy targets for unscrupulous propaganda from those with vested interests in destroying—or even of saving—the environment.

A new club for children, called WATCH, is being started in Britain. It is being organized by a voluntary and non-profitmaking trust, the Advisory Centre for Education in Cambridge, with the support of the *Sunday Times* newspaper. The purpose of WATCH is to involve the children in environmental problems, to show them how they themselves may discover the real facts about pollution and destruction, and to encourage them to use this knowledge—knowledge, not just emotion—to get something done to improve the situation.

I believe that WATCH is a good idea because of the success of two pollution surveys, done by children in their spare time, in 1971 and 1972.

The first was about water. Some ten thousand children bought the clean water kit at the beginning of the summer holidays in 1971. This explained how to look at streams and rivers, to estimate some of the chemicals polluting them, and to identify the sort of animals which lived in very clean, slightly polluted or dirty water, and how to distinguish conditions so filthy that life was impossible. To the astonishment of many scientists thousands of surprisingly accurate results were obtained, producing a unique map of water quality for the country.

Of course it would be wrong to pretend that this was a major advance in knowledge—the main facts were known to the water authorities, but not in such detail, nor to such a wide range of people. The important fact was that the results were so accurate, and that the children (and their parents) saw the tangible results of identifiable sources of pollution in the places where they lived. Already this knowledge of the facts has made for unexpected local improvements—a factory which can be shown by ten-year-old children to be destroying the river by which they play is likely to do something about it. And the children, organized by WATCH, will keep an eye on all local rivers, and report on whether or not the Government's policy to clean them up is succeeding or failing.

Another and even wider survey of air pollution, based mainly on the effect of lichens, has produced the most extensive map of air pollution Britain has ever known. WATCH plans not only to continue these surveys, but to tackle noise, litter, tree felling and planting and a whole *Continued on page 42*——

Courtesy of **Development Forum**, Vol. 1, No. 1, February 1973. Published by the U.N. Centre for Economic and Social Information, Geneva, Switzerland.

Continued from page 34

— Major capital expenditures are not necessary for schools to mount effective programs in environmental education. On the contrary, perhaps the most effective and successful programs use existing school plants and sites as the primary facilities for environmental studies. By expanding this concept for all existing community resources, and developing cooperative regional and district wide plans, every school in the country should be able to enter the environmental education arena.

Environmental Education

Not all educators and planners agree on a definition of environmental education, but they know what environmental education is and what it is not.

Environmental education is:

— a new approach to teaching about man's relationship to his environment—how he affects and is affected by the world around him
— an integrated process dealing with man's natural and man-made surroundings
— experience-based learning using the total human, natural, and physical resources of the school and surrounding community as an educational laboratory
— an interdisciplinary approach which relates all subject areas to a whole earth "oneness of purpose"
— oriented toward survival in an urban society
— life-centered and oriented toward community development
— an approach for developing self-reliance in responsible, motivated members of society
— a rational process to improve the quality of life
— geared toward developing behavior patterns that will endure throughout life

The consensus is that environmental education is not:

— conservation, outdoor resource management or nature study (although these areas may be included in an environmental education program)
— a cumbersome new program requiring vast outlays of capital and operating funds
— a self-contained course to be added to the already overcrowded curriculum
— merely getting out of the classroom

The Methodology of Environmental Education

Two of the commonly used techniques for instruction in environmental education are centered around "environmental encounters" developed by Dr. William Stapp of the School of Natural Resources at the University of Michigan, and the "strand" approach advocated by the National Park Service and detailed in the 1970 publication *Man and His Environment: An Introduction to Using Environmental Study Areas.*

Environmental encounters are a series of experiences that focus the attention of elementary and secondary youths on the relationship of the economic, ecological, social, and political realities of living. These encounters are designed to provide environmental experiences at each grade level and are used to enhance and extend existing instructional programs. They are designed to be topical and relevant to the particular needs of individual schools, as well as to serve the environmental imperatives of the community. For example, the Morgan School in Utica, a suburban community near Detroit, developed a fifth-grade encounter on Investigating Septic Systems. It includes the study of disposal systems for human waste, a septic site installation visit, identifying community agencies charged with sewage disposal responsibility, and cost factors of different methods of disposal. A sixth-grade encounter in the same school investigates how the athletic field is watered, and the students study well drilling, water run-off, how water is transported, the costs of water, watershed problems, etc.

A major consideration of these encounters is that they fall into the normal range of challenge for children. They are neither too easy nor too hard, and involve the pupils in the selection and design of the encounter.

Encounters may focus upon basic resources such as land, air, and water, as well as upon community environmental problems such as waste disposal, housing, and recreation.

The strand approach interweaves taxonomical classification and open-ended research into all environmental learning so that students recognize that man and his environment are related to and dependent upon each other. It is a somewhat informal approach in which students limit their scientific vocabulary and teachers feel comfortable because they do not require any rigorous scientific education.

Whatever instructional approach is used, facilities for environmental education must be able to accommodate easily the instructional techniques inherent in the chosen philosophy.

Planning Environmental Education Facilities

Traditionally, the development of educational facilities has focused on problems of construction, site layout, land acquisition, access, and related factors. This approach to facility planning, while expedient, has produced physical plants which do not necessarily create optimum learning environments.

So, in planning programs and facilities for environmental education, planners should:

— adapt the traditional school for use as a neighborhood environmental education facility, particularly in the limited space of urban areas
— strive for cooperation between educators and planners in developing a site as an environmental study area
— consider the following when developing any environmental facility:
— ensure specific educational possibilities
— include elements that illustrate the effects of human activity
— choose an area that is consistent with sound environmental and ecological practices
— select an area that is easily accessible to students
— provide the essentials for servicing the facility
— choose a site that will support repeated use by groups and students.
— institute a comprehensive program of teacher preparation, including knowledge of materials, concepts, and techniques of stimulating student learning and involvement
— develop a design concept, involving architects, landscape architects, builders, educators, and those who will use the facility
— develop a facility plan involving professionals, lay people, community organizations, and students in the process
— analyze program and personnel requirements
— make inventories of existing resources and incorporate them into the total design plan.

Effective Use of Existing School Facilities

The existing school facility is the most immediately available resource for implementing an environmental education program. School administrators and those who control the purse strings can no longer delay in initiating programs by hiding behind the convenient crises in educational financing. Effective programs can be mounted in existing school facilities. Adapting the immediate environment to create expanded learning opportunities is practical and economical. The school environment is easily accessible to the student; its quality familiar to him. Solving problems within this immediate environment provides him with a sense of serving his immediate community.

To realize the full potential of the school facility as a learning laboratory, certain preliminary steps should be taken:

— recognize that the school plant and environs can be used for environmental studies
— inventory the school site and plant to identify available resources and determine how they can be best used, e.g., geographical characteristics of the site, physical features of the building, environmental problems on the site
— identify good and bad characteristics of the site, programs needed, facilities necessary for a comprehensive program
— determine site areas and nearby areas that can be developed
— invite student, faculty, and community participation in the planning process, priority determination, and implementation
— open the school plant for extended programming
— establish an environmental studies laboratory within the plant
— reveal the school building's structure and mechanical services so students can see how the building works.

William Stapp said, "the potential for developing environmental education facilities within an urban school is limited only by the boundaries of one's imagination, resourcefulness, and enthusiasm."

Some possibilities, particularly in urban schools, are: a) a rooftop development for gardens, weather equipment, air pollution detection equipment, and sound pollution devices, b) courtyard development using partial enclosure, c) development of surrounding streets, d) using basement and service areas of the school to study heating, power sources, waste disposal, water circulation, etc. The custodial staff becomes an important part of the pedagogical staff in this area, e) studying traffic patterns in and around the school. Tree planting, shrubbery, student sculpture, glacial boulders, and changes in

textures and colors of surfacing material can contribute to the aesthetics of the site and at the same time provide sources for environmental study.

The Morgan Elementary School developed an outstanding environmental education curriculum based upon full use of the total school site as a facility. The acreage around the school was left in its natural state so that trees, shrubs, wildlife, and other ecological realities could be studied at first hand. The children have done most of the planting in and around the school. Open classrooms abound with environmentally oriented programs at every subject level. The walls are covered with student work on subjects of ecology and environmental concern. Geography and social studies are studied in the surrounding woods and in homes. Neighborhood institutions and the mechanical equipment rooms of the schools swarm with students learning at first hand how their lives are affected by the environment in which they study.

Science teachers and students test water and air content, collect soils, and together investigate the possibilities of a new school policy to eliminate incineration. The art that decorates the halls centers on environmental themes, as do the collages and scrapbooks which the youngest children assemble. Under the direction of JoAnne Burgess, who is coordinator of Environmental Education, a series of grade level environmental encounters has been developed by the faculty, which seems to be committed to the philosophy of running an environmental strand through all curriculum matters. The school's principal, Richard Gwinn, meets regularly with student, parent, and community groups to keep the school in the focus of community environmental affairs.

At the Madison Elementary School, situated in a depressed section of Washington, D.C., an adjacent abandoned lot has been developed into an outdoor environmental laboratory that is tenderly cared for by the students and the inhabitants of the community. Here one finds a tiny desert, some grassland, a forest area, and a farmland which stand as symbols of pride and accomplishment in an otherwise degraded area. The project required the cooperation of the educational community and government agencies and has triggered a community-based beautification program for the neighborhood.

In New York City, piers, islands, waterfront, and streets serve as classrooms for an environmental education program that has succeeded for several years under the guidance of Mrs. Rose Blaustein, science coordinator for District 2. Children use Governor's Island, a military enclave in the harbor, to study water ecology, conduct gull censuses for the Audubon Society, and observe the life style of military families. Students have adopted trees on city sidewalks, led community improvement programs, and encouraged parents and teachers to participate in environmental affairs of the community. Mrs. Blaustein now uses her experiences to conduct in-service training programs for teachers throughout the city school system.

Using Total Community Resources

After exploring the potential of the immediate school facility, the next step is to look beyond the school environment and tap the learning resources of the community. Environmental education is an open process which knows no political, social, or geographic boundaries. By expanding the learning environment to include the community, it is possible to establish a system of environmental study areas and facilities that provide an overall view of where man lives and how he lives.

An environmental study area may be any site or facility—natural or man-made, park or urban setting, historical landmark or scenic site—used by a teacher to help students understand the relationships among the subject or concept being taught, the environment, and man. Resources that might be used for such purposes include libraries, shopping centers, courthouses, police and fire stations, sanitation and treatment plants, foundries, industrial parks, streams, nature centers, camps, museums, wildlife preserves—the list is practically endless.

The Milwaukee Public Schools, for example, use several community resources and facilities in the Greater Milwaukee area as sites for their program in environmental education. They use a mobile environmental laboratory to travel to schools, the local zoo, the three rivers in the center of Milwaukee (to study pollution and water problems), the Museum of Natural History, the planetarium, the Mitchell Conservatory (three huge glass domes each containing a different climatic environment), an outdoor study center, a resident camp facility, and a public forest, as well as the classrooms and science laboratories in every school. The school district is in the process of developing a master plan for environmental education. The significant aspect of this program is that the Board of Education coordinates the entire school district and makes available manuals, guides, workbooks, and other materials for teachers and pupils at each of the facilities. This kind of community cooperation provides the exposure necessary to generate interest among other institutions in the city. For example, the Schlitz Foundation of Milwaukee recently offered the National Audubon Society a

185-acre tract of land on the shores of Lake Michigan for an environmental education site.

The well-publicized Parkway School in Philadelphia also makes total use of community resources for school purposes. Although the cooperating institutions are not used specifically for environmental education, the concept is applicable, and certainly the community environment and its institutions become part of the total educational facility. Parkway uses over 70 Philadelphia facilities, including the Philadelphia Museum of Art, The Franklin Institute of Science and Technology, and the Philadelphia Public Library.

The Regional Center

Since the environment knows no boundaries, it is as important for a farm boy in Nebraska to be aware of environmental principles as it is for his counterpart growing up in an East Coast ghetto. Due to the increasing mobility of society, both boys will probably be exposed to a variety of environments during their lifetimes. While each must be primarily concerned with coping with his immediate environment, it is equally important that he gain a basic understanding of other environments which he someday will almost certainly encounter.

Taken in this context, environmental education is cross-cultural. This universal characteristic has prompted many authorities to recommend a regional approach to comprehensive environmental educational planning. Since the regional approach would serve a wide geographic area, it would result in large, sophisticated facilities. The regional approach should:

- identify the abundance of resources in the surrounding community (human, physical, natural) and explore the opportunities of using them for learning experiences
- explore sources of municipal, state, and federal support and assistance, i.e., state department of education, regional office of education, National Park Service, U.S. Forest Service, etc.
- provide logistical support, particularly by providing transportation
- look beyond the immediate community to the regional area for resources such as parks, corporations and museums
- use comprehensive planning procedures to optimize existing facilities, to avoid duplication and wastefulness, to make multiple use of resources, and to plan educational programs that recognize the differences in urban, suburban, and rural environments.

The Land Between the Lakes area of the TVA provides a wide-ranging program for a large area. School districts from many cities and towns use the headquarters at Golden Pond, Kentucky, as an environmental education center, for conservation studies and outdoor experiences.

The Nolde Forest State Park Environmental Education Center near Lancaster, Pennsylvania, is being designed to serve 17 Pennsylvania counties. It will run programs for resident groups, day trip students, and in-service training for educators. Its many natural features will attract thousands of students and outdoor recreation enthusiasts for programs dealing with conservation and environmental studies.

The Resident Environmental Education Center

A resident environmental education center can provide a variety of services designed to meet the particular needs and resources of the area. One objective is to put students in a new environment with people their own ages from very different home environments. They all live together for an extended period. The resident center also promotes closer interaction between teacher or leader and child or between parent and child. The resident experience provides sociological and aspirational experiences for inner-city children which are hard to come by in the traditional school setting. Customarily, the resident experience lasts for a week.

When developing a resident environmental education center, the following should be considered:

- a facility can become a self-contained society for the residency period, permitting the students a major role in environmental decision-making. The facility can then evolve into the focal point for all environmental management efforts in its area; such as planning, financing, and designing.

- the center's service should be oriented to directing, coordinating, and interrelating a multitude of study opportunities available throughout its environs.

- it should serve citizens teachers, leaders, and students as a training center where they can become involved in the problem-solving process as it relates to environmental education concerns. Such training would stress the actions and interactions that should take place at the community level, but it would include

relationships to other levels of government.
— the facility should have devices for monitoring the conditions of the immediate environment, and provide students with current information on the quality of this environment, and, over a period of time, on its improvement or degradation.
— the center should serve as an information bank, allowing data collected by groups in various areas of the regional service area to be analyzed within the region and stored and shared with each other and with other groups and other regional centers for comparative study purposes.

The Lorado Taft Field Campus of Northern Illinois University, in Oregon, Ill., serves as an environmental education resident center for a large part of northern Illinois. School groups, college groups, community organizations, and other interested groups use the facility, which is staffed and directed by professionals from the university. Similarly, about one hundred miles from New York City, the Ashokan Field Campus of New York State's College at New Paltz provides resident facilities for about 150 students taking one-week courses in environmental education. The facility is very much in demand and is used throughout the entire school year by classes from New York City and the metropolitan area. Dr. Kent Reeves, the director, is a full-time staff member on the college's faculty who is assigned primarily to the development of the program and facilities at the Field campus.

The Hidden Valley Camp near Fishkill, New York, illustrates how a social agency's facility can be put to use by public schools during the school year. During the summer the camp is used by the Fresh Air Fund, but at other times schools from New York City use it for camping and environmental education. The staff is supplied by the Fund and the schools. Hidden Valley is a completely winterized residence accommodating 250 and is also designed for comfortable use by the physically handicapped.

The significance of this type of rental arrangement is that often there is no need for school districts to build or purchase expensive resident facilities. Most urban centers are ringed by camps belonging to social agencies, institutions serving youth, and suitable privately owned facilities. Most of these are available for rental or sublease during the school year.

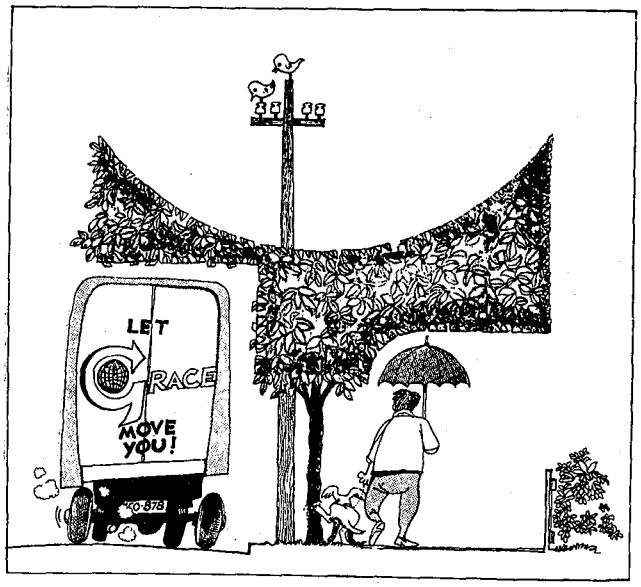
Joint Use of Facilities

The ultimate solution for environmental education facilities would be to combine elements of regionalism and resident sites with practical financial arrangements. With the public keenly aware of the need to enter into cooperative educational ventures in order to stretch the education budget, joint ventures between school districts or with other agencies becomes a reality. In environmental education, cooperative programs would allow districts to share resources, personnel, facilities, and expertise at the same time as sharing costs.

New York State set a precedent several years ago with the Boards of Cooperative Educational Services (BOCES) that enabled small school districts to combine their funds and resources in developing educational programs which would otherwise be unavailable to them. In considering joint ventures, planners should not overlook the possibility of cooperating with community educational agencies other than formal educational institutions. These could include recreation groups, conservation societies, youth agencies, national service organizations and quasi-public institutions. In many cases, these agencies seek the cooperation of the local schools.

These joint efforts can result in substantial programs and facilities, such as district-wide resident centers or even regional centers serving a larger area. They also can result in wider and more efficient use of the existing facilities of the cooperating agencies or schools. ■

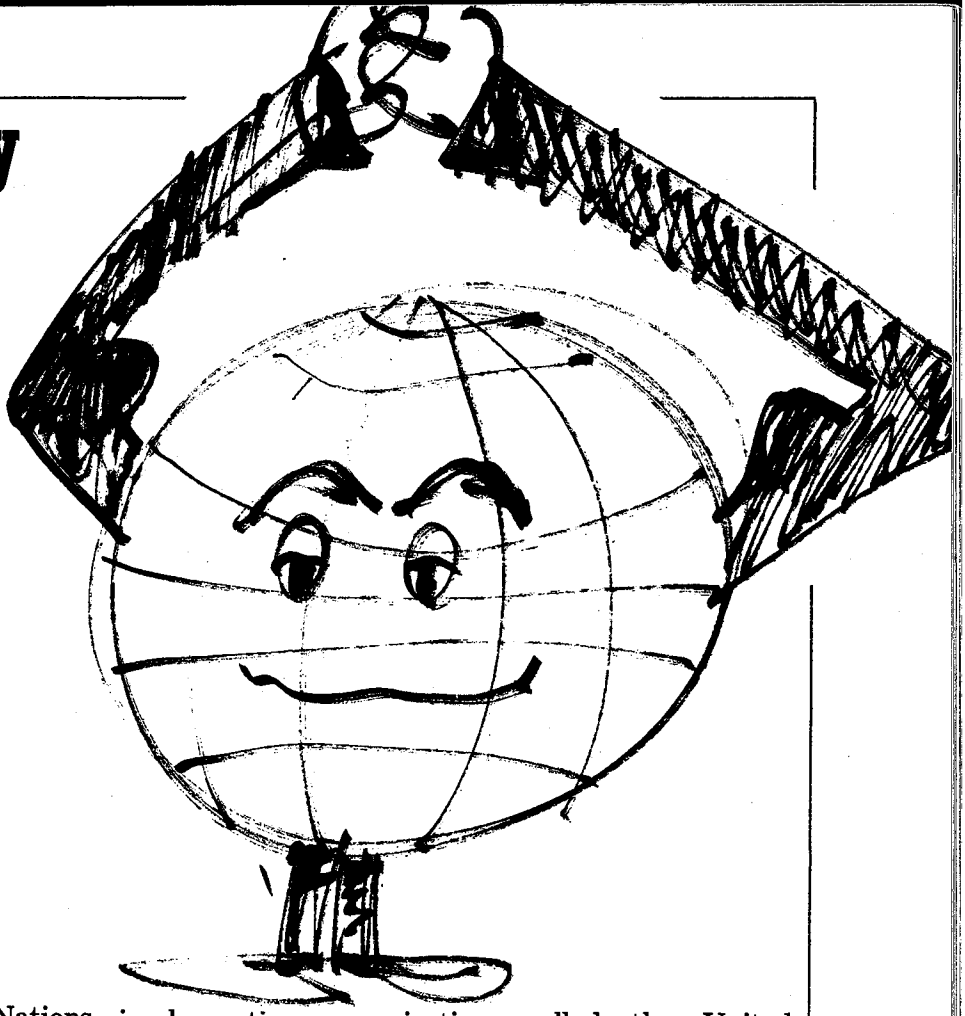
Available from the American Association of Health, Physical Education and Recreation, 1201 - 16th Street, N.W., Washington, D.C. 20036.



THE IDEAL STREET TREE

Not quite! Further requirements: Sheds no leaves, nuts, fruit, bark or flowers; produces no hayfever; harbours no insects or noxious fauna; requires no pruning or spraying; and grows no roots. *Australian Parks* February 1972

Environment Day Marks First Year of World Effort



Just over a year ago the United Nations Stockholm Conference launched an effort to promote global cooperation as a means of bringing about real and lasting improvements in the human environment. The Conference emphasized that intensive action and responsibility at the national and international level was needed, to limit, and where possible, to eliminate the impairment of the human environment. Such action for both worldwide economic and social development was considered essential to provide safeguards for future generations.

Tuesday, June 12 was observed around the world, pursuant to a 113-nation Stockholm resolution, as the first World Environment Day, commemorating the two-week parley that formulated a massive program of environmental rehabilitation and protection. The anniversary brought with it a gathering in Geneva of the 58-nation governing council created by the United Nations to oversee the environmental program.

U.N. Names Headquarters

The last year, in spite of several setbacks, has seen greater accomplishment in the international environmental field than many observers and skeptics expected.

Last December the United Nations General Assembly voted overwhelmingly to establish an implementing organization, called the United Nations Environmental Programme. The Programme will coordinate international environmental activities, with the governing council acting as a "board of directors." Headed by Canadian diplomat Maurice Strong, who organized the Stockholm conference, the organization is setting up headquarters in Nairobi, Kenya, scheduled to open this October.

Meanwhile, several major items on the Stockholm agenda have moved ahead. Last December 79 nations reached agreement in principle, subject to individual ratification, on a convention or pact

ENVIRONMENT DAY

Continued from page 41 against dumping toxic and noxious substances in the ocean.

In a second agreement, formalized in March, 80 nations renounced commercial traffic in 375 "endangered" species of animals and products thereof and agreed on trade in 239 other species only under special permits from the nations involved.

A third project is the World Heritage Convention, under which nations would establish special custodianship over tracts of land and other areas of distinctive ecological and historical interest, such as the Grand Canyon, to preserve them for international enjoyment.

Two concerns at Stockholm on which less progress have been made are whaling and atomic bomb testing. The conference urged a 10-year moratorium on commercial whaling to preserve the species, but a subsequent meeting of the International Whaling Commission in London rejected the proposal.

Both France and China strongly opposed a Stockholm declaration against continued atomic testing. France has continued aerial tests in the South Pacific, and Australia and New Zealand have carried their protests to the International Court of Justice.

U.S. Funds Pledged

Supplementing its coordinating activities, the United Nations Environmental Programme, has an adjunct organization called the United Nations Environment Fund to further selected international environmental projects. President Nixon pledged $40-million to this group on a matching basis, toward a five-year budget of $100-million. An initial $10-million appropriation is in the foreign aid bill now before Congress. ■

CHILDREN AS WATCHDOGS

Continued from 35 gamut of environmental problems.

Last year we brought two of the children who took part in the clean water survey to the United Nations Human Environment Conference at Stockholm. We found that delegates and others from all countries were most impressed by the practical value of this survey. Britain is now harnessing this enthusiasm. But the environment is equally at danger everywhere, and I hope that we will first have many national WATCH clubs, and eventually perhaps and international organization where the children of the world will investigate and help to save the global environment. The British scheme in its present form may not suit everyone in the same way that our pollution surveys, based on British animals and plants, may not be directly applicable elsewhere in lands with different plants and animals, but the idea is one which should have a universal appeal.

Particulars about the Club WATCH may be obtained from the Advisory Centre for Education, 32 Trumpington Street, Cambridge, England, from whom the Water Pollution Kit (87p) and the Clean Air Research Pack (97p) may also be obtained. ■

Mr. Mellanby is the director, Monks Wood Experimental Station, Huntingdon, England

DANILO DOLCI

Continued from page 17 arrived at a state of spirit that transcends those academic, if not often destructive, dialectics of contemporary thought and action, which pit left against right, theory against practice, individual against group. In the sense that the contemporary French philosopher, Emmanuel Mounier gave to the word, Dolci is a "personalist." He accepts man as creature of body and spirit, thought and act, solitude and community. And he sees it as his total responsibility to bring himself and all men to as full realization of themselves as is possible. In a word, the essence of Dolci must be found in a spirit that transcends any formalized path of action or thought, and will not be circumscribed within any conventional political, social, religious and cultural language and acts.

Third, and finally, a truth about Dolci, which I still continue to meditate upon, Dolci accepts the conditions of a finite struggle without relinquishing his infinite aspirations. That is, acknowledging the limits of himself, his group and his position in Sicily, Dolci, nevertheless, gives everything of himself in order to make the world he aspires after. The agony of fighting a mortal battle on a particular terrain, the realization that this battle is small in light of all the historical and contemporary forces that have made the enemy what he is, do not dissuade him from acting on what is best in man and what could be best among men. Nor does Dolci yield to the far more subtle, but nevertheless egotistic, temptation of making the dramatics of his situation, the secret end of his life and acts. In effect, Dolci, is too much a man to be easily tailored to the styles of contemporary biography; too much a person to be understood apart from what he does daily, and what he hopes eternally, too much a voice, speaking of what is and what could be, to be quickly forgotten.

Mr. Amato is an Associate Professor of history at Southwest Minnesota State College. He received his doctorate from the University of Rochester in 1970, and this year or early next year the University of Alabama Press will publish his work on twentieth century French Catholic intellectual life, **Emmanuel Mounier and Jacques Maritain: A French Catholic Understanding of the Modern World.** *Mr. Amato visited Dolci in Sicily last year, and in turn, Dolci has visited him and his college in his recent tour of the United States. He hopes this short essay will be first of several he intends to do on Dolci.* ■

ECOLOGY and Camping

Throughout the years, campers, because of their direct involvement with and love for the outdoors, have always been considered in the vanguard of the fight for environmental quality.

That image may be getting a little tarnished now, says one camping industry leader. William Wenzel, president of The Wenzel Company of St. Louis, one of the nation's largest suppliers of camping and hiking equipment, feels that some deeply engrained habits must be changed if campers want to strengthen their reputation for environmental concern.

"This realization hit me recently when I visited one of our larger national park campgrounds," he said. "If you can look at one of those things objectively you can see it's not really far from being a slum. It's a big city, temporarily existing in the country with many of the problems of the city but without the facilities to handle these problems."

"Basically, campers are going to have to quit demanding all the comforts of home and start being satisfied with the comforts and pleasures of camp," said Wenzel, a lifelong sportsman/outdoorsman. "And what's so bad about that?"

When asked to cite specific examples of bad habits, the first thing he mentioned was paper plates and cups.

"From an ecological standpoint, with all the emphasis on recycling, disposable plates and cups make no sense at all," he said. "Nobody can deny their convenience but the fact is they are unnecessary and are adding their fair share to the solid waste disposal problem."

When reminded that the things could be burned, he said trash burning contributed to air pollution, which was becoming another serious problem in campgrounds.

"At some larger campgrounds, in the evenings, you can't take a deep breath for the smoke," he said. "That's another habit campers are going to have to change—this thing of building campfires just to have a campfire. It's one thing to build a cooking fire but it's another just to build a fire out of habit. I know how nice it is to have a fire in the evenings—I've spent many a pleasant hour sitting by one myself—but in the larger campgrounds they are just too much of a nuisance. They cause unnecessary air pollution and they also cause a lot of trees to be cut down to provide firewood."

Wenzel suggested that people buy permanent-type plastic or metal plates and cups.

"I know they must be washed after meals but that's not really such a chore," he said. "Stainless steel tableware is much more pleasant to use than disposable plastic utensils, anyhow. I'll say one thing, you never see stainless steel utensils littering up the countryside."

Another habit that should be changed is the indiscriminate use of foil, Wenzel said.

"Some campers use it for everything. They cook on it, eat on it, build fires on it, even pick their teeth with it. It's wonderful stuff, really, but it isn't biodegradable. That means it is adding substantially to the litter and solid waste problem. I'm not saying campers should stop using foil and foil products entirely but I think they should cut back on it whenever possible."

Nonreturnable containers such as beer and soft drink cans and bottles have become bad medicine among environmentalists, too, Wenzel said.

"It wasn't too many years ago when nobody seemed to mind beer and soda bottles around," he said. "Now everybody is using nonreturnables and the countryside is covered with them."

One more pet peeve he mentioned—the careless use of gasoline lanterns.

"I don't think most campers realize that you can kill a tree by hanging a gas lantern on it the wrong way," he said. "The usual practice is to drive a nail into the tree and hang the lantern on that. The nail is bad enough but worse is heat from the lantern itself. With the lantern leaning against the tree, heat actually cooks the delicate tissue beneath the bark. This creates a large scar through which disease can enter the tree. I've seen large campgrounds where every tree had at least one lantern scar and trees were dying all over the place."

Wenzel said that campers must reexamine their attitudes about their environment and put concern before convenience if spoilage of the outdoors is to stop.

"The desirability of a place to camp is directly related to its beauty," he said. "We as campers must do everything we can to preserve beauty." ■

Reprinted courtesy of *North Dakota Outdoors*, June 1973. Official publication of the State Game and Fish Department, 2121 Lovett Avenue, Bismarck, North Dakota 58501.

SURVIVAL

Continued from page 5

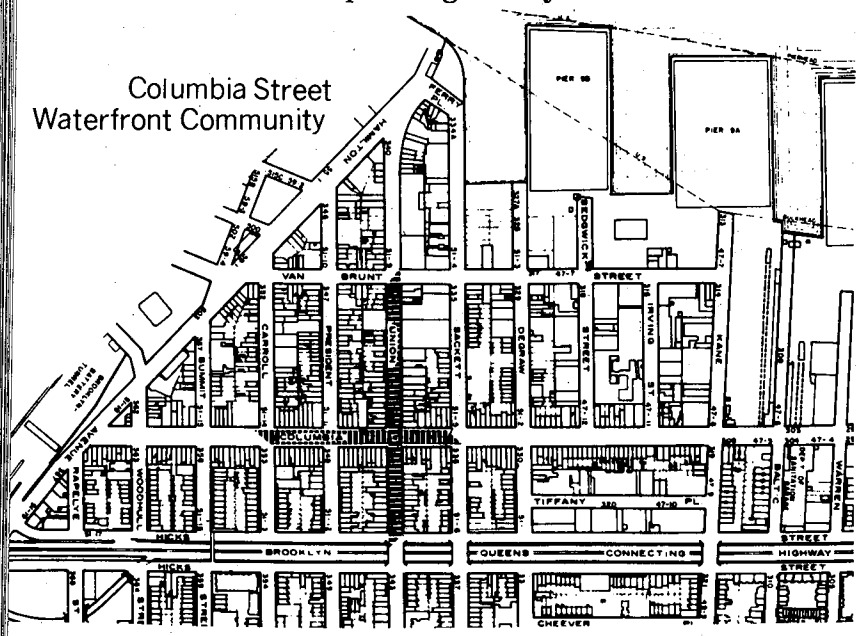
for containerized cargo, an addition felt necessary to provide jobs for longshoremen and prevent further loss of commercial shipping to New Jersey's modern ports.

Once again however, the announcement appeared in the form of a press release. The community was never officially informed regarding the actual status of the plan for their neighborhood.

Rumors started again in 1968 when planning consultants Goodkind and O'Dea were hired by the city to undertake a feasibility study in order to provide the Housing and Development Administration and the Economic Development Administration with information for planning the urban renewal process to provide upland support for existing pier facilities for the South Brooklyn waterfront.

In 1969 the Goodkind-O'Dea plan was submitted to the city for approval. The study was not approved and was never made public. But community leaders in South Brooklyn did get a copy of the report and became convinced that there was a need in Brooklyn for containerized facilities but that the one planned for Columbia Street was impractical, would not succeed, and would end only in destroying the waterfront community.

By the time EDA announced its "final" containerization plan in 1970, the community was prepared. Tired of six years of talk, of living in limbo, not knowing whether to stay or leave, faced with the refusal of banks to give improvement loans because of the quasi-official urban renewal status of the area, of planning for day care centers and other



services that were not approved because no one knew for sure what was going to happen, watching people move out and stores close, seeing buildings deteriorate. .and now finally being informed that EDA was going to demolish 13 square blocks, eliminate 1200 jobs, and dislocate 115 stores and industries leaving virtually a "strip city" 13 blocks long and one block wide. For this the community was to get 150 units of low-income housing on a one-half acre site adjoining a trucking garage and the BQE.

Well prepared and ready to fight, the Ad-Hoc Committee to Save the Waterfront was formed in 1971 and worked with the South Brooklyn Development Council, the Pratt Institute Center for Community and Environmental Development and a number of local organizations to find an alternative to the destruction of their community.

After several months of indepth study alternative plans were devised and the community convinced the City Planning Commission to scrap the EDA plan and adopt most of the counter proposals. The result, to make a long story short, was that the ethnically mixed Columbia Street community was saved while city officials conceded they got a better containerport plan in the bargain.

The Community Today

If you want to give yourself a treat, visit the Columbia-Union Street area—and bring a friend. The street ambience is marvelous. Everyone seems to know everyone else; plans for the area, the next meeting, the newest project are discussed in the shops, on the street—wherever. The neighborhood is alive with a contagious ethnic vitality. And the shopping is unbeatable. Retail clothes, at Filsals on Columbia Street for example, are a bargain in price and quality. Then there's the Columbia Street Fruit Market, an open air greengrocers on the corner of Columbia and Union, and for fresh pasta its Louis Ravioli at 94 Union Street. They make all their own pasta in a spotless kitchen in the back in every variety conceivable.

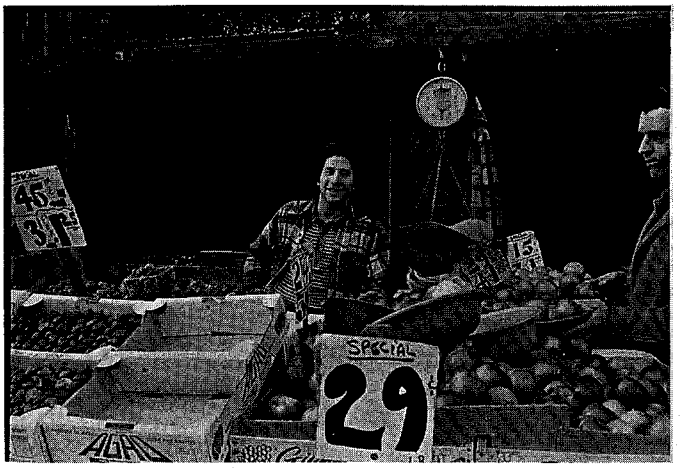
At Frank and Bill's Live Poultry Market, 183 Columbia Street, you can survey the stacks of crates and pick out the live chicken, duck or turkey

Barbaro Pastry Shop, 240 Columbia Street

of your choice and have it slaughtered on the spot. Or at the Pork Store (Esposito and Son) 113 Union Street, you can buy fresh pork of all cuts. Sausages are made on the premises as are the cheeses.

Barbaro's, 240 Columbia Street was established in 1911. The second generation owners are maintaining the decor of the front of the store as it was 62 years ago, but the bakery is completely modernized, producing a wide array of delectable baked goods—from diet cookies to cannoli. They also make their own ice cream. Incidentally, Barbaro's bakery kitchen is open to the public for inspection.

On 96 Union Street Cioffi's is also famous for its homemade pasteries. And the hospitality is worth the trip. Ackerman's, at 115 Union Street has some of the best buys on fresh country eggs and butter you can find. Italian-style grocery stores such as Latticini Barese, Inc., 138 Union Street, and Mastellone Bros., 106 Union Street, have both been around since the 1920's providing shoppers with both a small town warmth and a wide variety of both domestic and imported foods. Here you'll find marble counters and shelves stocked with smoked eels, baked figs with almonds, vinagrette salads, prosccuito and mozarella, tins of green basil sauce, pastas—the inventory is endless and the prices low. Sausages and cheeses hang overhead and it's hard to pass anything up.



Columbia Street Fruit Market (corner of Columbia and Union Streets)

There's fresh fish markets too, stocked with striped bass, shellfish, eels, calamari, pulpa—just about everything.

A trip to the area isn't complete without lunch at the "panelle place," Focacceria Ferdinando's at 151 Union Street. It's a hospitable Sicilian restaurant heavily patronized by local residents and serving a good country red table wine which goes great with the braciole—and everything else.

The above is only a partial sampling of the stores where the bargains are great. You'll have to discover the rest—like the Norwegian, Swedish, Phillipino, Puerto Rican and Italian bars, the dry goods stores, photography shops, and more.

Commercial Revitalization

Unfortunately many shops have closed over the past nine years due to the uncertainty accompanying the somewhat vague earlier urban renewal plans. Matters weren't helped much when the MTA discontinued the Union Street (B-71) bus about a year and a half ago claiming the fares weren't sufficient to justify the route. Shopkeepers report that their business has dropped off 20-50 percent since then because the people who used to come into the neighborhood no longer can.

But something is being done. Although the "freeze" on community development, public and private, has taken its toll and the area is physically deteriorated, the community is rallying. Now that its once uncertain future looks far more certain and positive, steps are being taken to pull the neighborhood back together again into an economically viable commercial area. Much of this effort is centered around the Columbia-Union Street Board of Trades and La Casa, a dynamic community service center.

The Board of Trades, established in December, 1971 under the presidency of Salvatore Susino, started with 16 merchant members and in the past year and a half has grown to include 25 members dedicated to the betterment of business and the community. The association hopes soon to have the membership of all the stores—some 40-45 active


Interior, Latticini Barese, Inc., 138 Union Street

businesses in the "cross" (see map) area of concentration.

Working together, Ramon Regueira, Director of La Casa, and the Board of Trades in cooperation with the South Brooklyn Mayor's Urban Action Task Force and other groups, have already managed to get the new sodium lighting installed ahead of the city's *Continued on page 46*

SOUTH BROOKLYN MAYOR'S URBAN ACTION TASK FORCE

"We do the impossible at once—miracles take a little longer, but nine times out of ten we deliver." This is the credo of Samuel Azadian, Chairman of the Park Slope-South Brooklyn-Sunset Park Mayor's Urban Action Task Force and Deputy Commissioner of the Department of Water Resources. The South Brooklyn Task Force was one of the first of the original 18 city-wide task forces designated by the Mayor in June, 1967 in response to the President's Kerner Commission's report on national disorders. Their formation was intended to provide increased coordination of city services on a local level and increased communication between citizens and the city government.

Since 1967 almost 60 task forces have operated within the city, but in May, 1971 when the budget cuts were announced, the task forces were among the first to go. However, kept open by community support and private funding, the South Brooklyn Task Force is still operating and serving 10 Brooklyn neighborhoods: Park Slope, Boerum Hill, Cobble Hill, Red Hook, Downtown Brooklyn, Sunset Park, Carroll Gardens, Gowanus, the South Brooklyn Waterfront, and Windsor Terrace.

Since Sam Azadian, a long-time South Brooklyn resident, assumed chairmanship in 1967, the public advocacy office has served as a liaison between the community and the city government, bringing the lines of communication closer and cutting through masses of red tape. The office has handled every conceivable complaint and inquiry, ranging from landmark designations, to sanitation problems, pot holes, sewer backups, muggings, drugs, housing, and more. But handling complaints is only one aspect of the task force's activities. The office has also helped establish merchant, block, and tenant associations, provided assistance to other organizations, been instrumental, indeed successful, in getting blocks included in the city's sodium lighting program, made available resources for summer programs, obtained half-fare transit tickets for senior citizens and youth groups, gotten tickets to the baseball games for kids who otherwise could not have gone, and scheduled the Parks Department's summer mobile units, to mention a few achievements.

Mr. Azadian sees the office as a one-stop local government organization and information clearing house for community people. But more than that, he sees it as a positive force within the community for achieving viable alternatives to whatever problems and situations which arise. It is a way of bringing power back to the neighborhoods, of bridging the gap between young and old and between ethnic groups. It works to prevent polarized positions by realizing that most community issues, from school strikes to neighborhood beautification, affect everyone equally, and the only solution is working together to achieve a common goal.

As mentioned earlier, the Task Force operates solely on monies donated by private individuals and Block and Merchant Associations. The Committee to Save the Task Force has been formed to raise money to keep the Task Force going. The need for money is very serious and an appeal is being made for contributions. If the Task Force is going to continue to help the community, it must have money to pay the rent and keep the doors open to all. Anyone or any organization in the community who wishes to make a contribution may send it to: Committee to Save the Task Force, 46 Fourth Avenue, Brooklyn, N.Y. 11217. Phone: 237-9211.

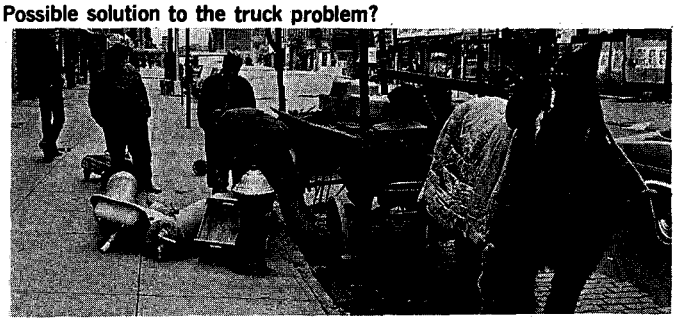
SURVIVAL

Continued from page 45 schedule along the length of Columbia Street. They have also obtained the commitment of landlords to improve upon the properties and assist commercial tenants in repainting their store fronts.

Extensive plans are currently underway to reinstate or provide alternate routing of the discontinued B-71 bus to once again serve the area and bring in residents from the other side of the BQE. The neighborhood is in close proximity to the brownstoners from Cobble Hill, Boerum Hill and Park Slope. It is hoped that the appeal of inexpensive quality foods, drygoods, etc. will draw them into the community's commercial area.

Other plans already in the pipeline are for planting trees along Columbia and Union Streets or building planters, installing benches, and developing a parking facility. One special pet project is to raise enough money to sponsor the festival of Sta. Maria S. S. Addolorata, the Patron Saint of Mola di Bari. The feast, lasting for four days in the second week of September, is similar to that of St. Gennaro's and would be an attraction to community and other Brooklyn residents. ■—B.A.

Possible solution to the truck problem?



THE GOWANUS CANAL

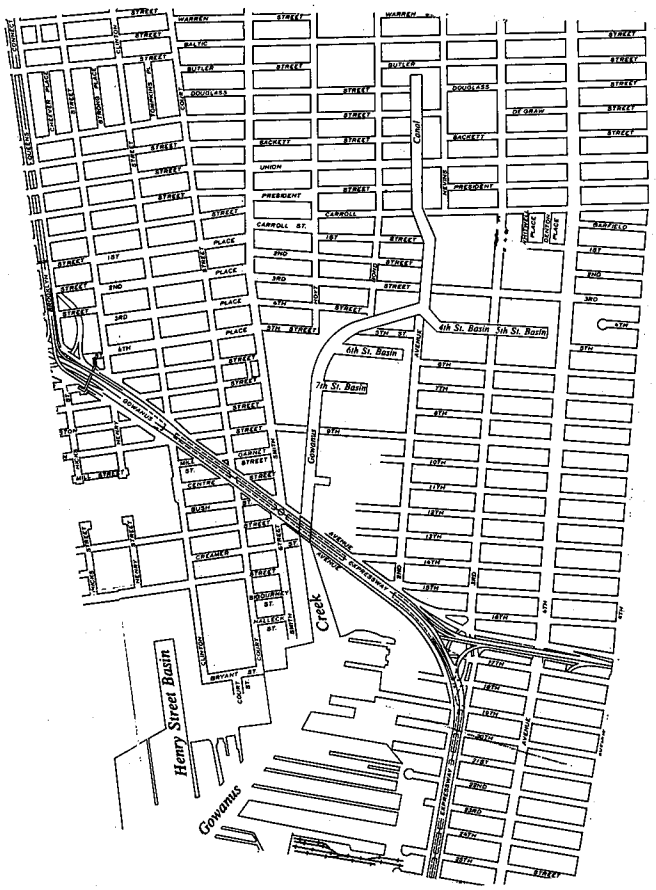
Time, space, and funding limitations have made it impossible for us to print *Part II* of *"The Gowanus Canal."* The article, which will deal with community efforts to clean up the Canal, their efforts to make political leaders aware of the problem, and the several planning issues involved in its improvement, will appear in the next issue of STREET.

Red Hook Plant Progress Report

Last March $11-million in Federal funds were released to start construction of the top-priority Red Hook Sewage Treatment Plant. At present, plans to do so are under review by the State. The city expects permission to advertise for construction of interceptors by the beginning of this month. Awards will be made a few months later.

The "interception" system, which will be in the form of a series of tunnels designed to ease the present drainage prsssure put on the Gowanus, will run the length of South Brooklyn. This series of interceptors will be linked to the sewerage system. The treatment plant will be built in the Brooklyn Navy Yard.

Once the interception system is complete, construction of the other components of the treatment plant can begin—if Federal funds are forthcoming. City Water Resources officials are optimistic on this score. The city has won the court suit it filed last December against the Federal Environmental Protection Agency for impoundment of funds for clean waters projects (STREET IX, 1973), and is pushing for the rest of the estimated $300-million to complete the plant. (The Federal government will pay three-quarters of this amount; the remaining amount will be assumed by the State and the city). ■



The Plaster Eaters

Three pale tongues licked at a chalky hole
in a room built for a mole.
With white interred veins and silent chests,
three little children were put to rest.
A North-Shore man who owned the room,
gave up his rent to buy a proper tomb.

By David Millman

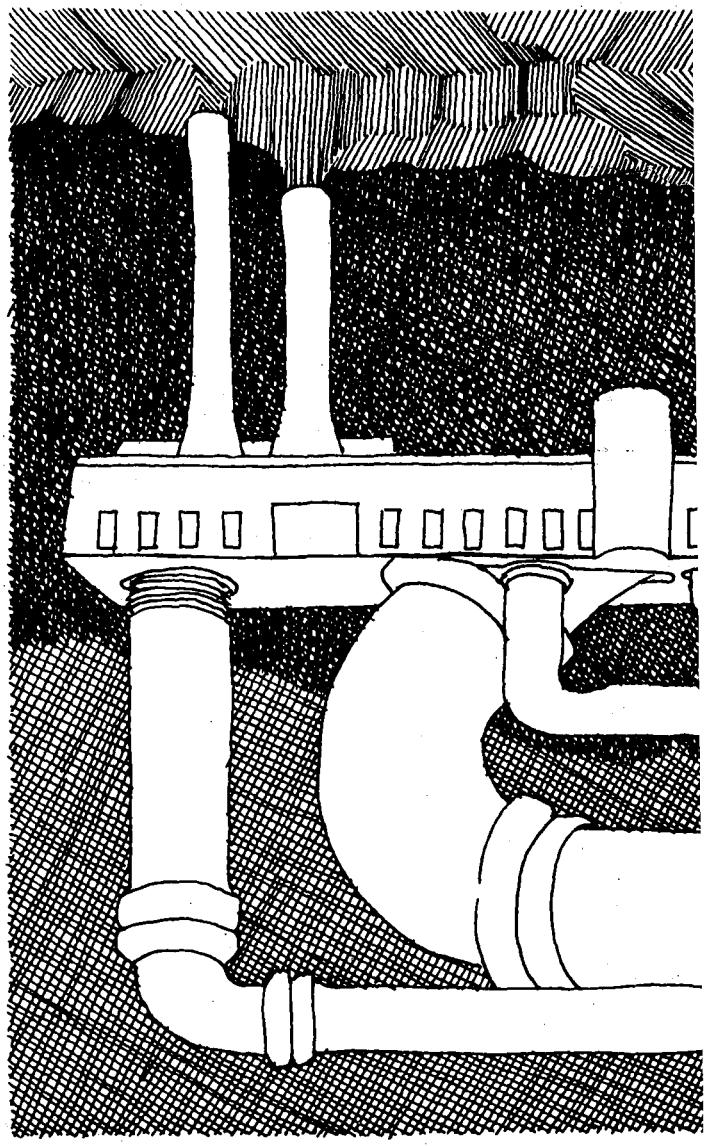
Americans traveling in foreign countries are often warned to be careful about the water: it may not be safe to drink. It is only then that many of them reflect—always proudly and often for the first time—on the high quality of America's water.

But how long will we be able to drink our own water? As everyone knows by now, its quality is rapidly deteriorating. Water pollution is most serious in the Northeast and in the Great Lakes region, but the pollution problem exists in all parts of the United States.

Like most problems, this one is subject to oversimplification. For instance, what causes water pollution? Put that question to almost any group of people and you're likely to hear a great deal of talk about laundry detergents that contain phosphates. If you want clean lakes and rivers, someone will say, get rid of the phosphate detergents.

True—eliminating those kinds of detergents is a necessary step. But that alone will not solve the problem, for detergents are not the only source of phosphates that issue from our sewer pipes. Another major source of phosphate is human waste. If anything, the hue and cry about phosphate laundry products has tended to obscure a vastly more important issue: as a nation we have been unwilling to pay for proper sewage treatment.

Here, as in other areas of deep concern, it's all too easy to become confused by controversial claims and counterclaims, political opportunism and general hysteria. The purpose of this series of articles is to report sanely and with balance on these vital issues.



SEWAGE POLLUTION:

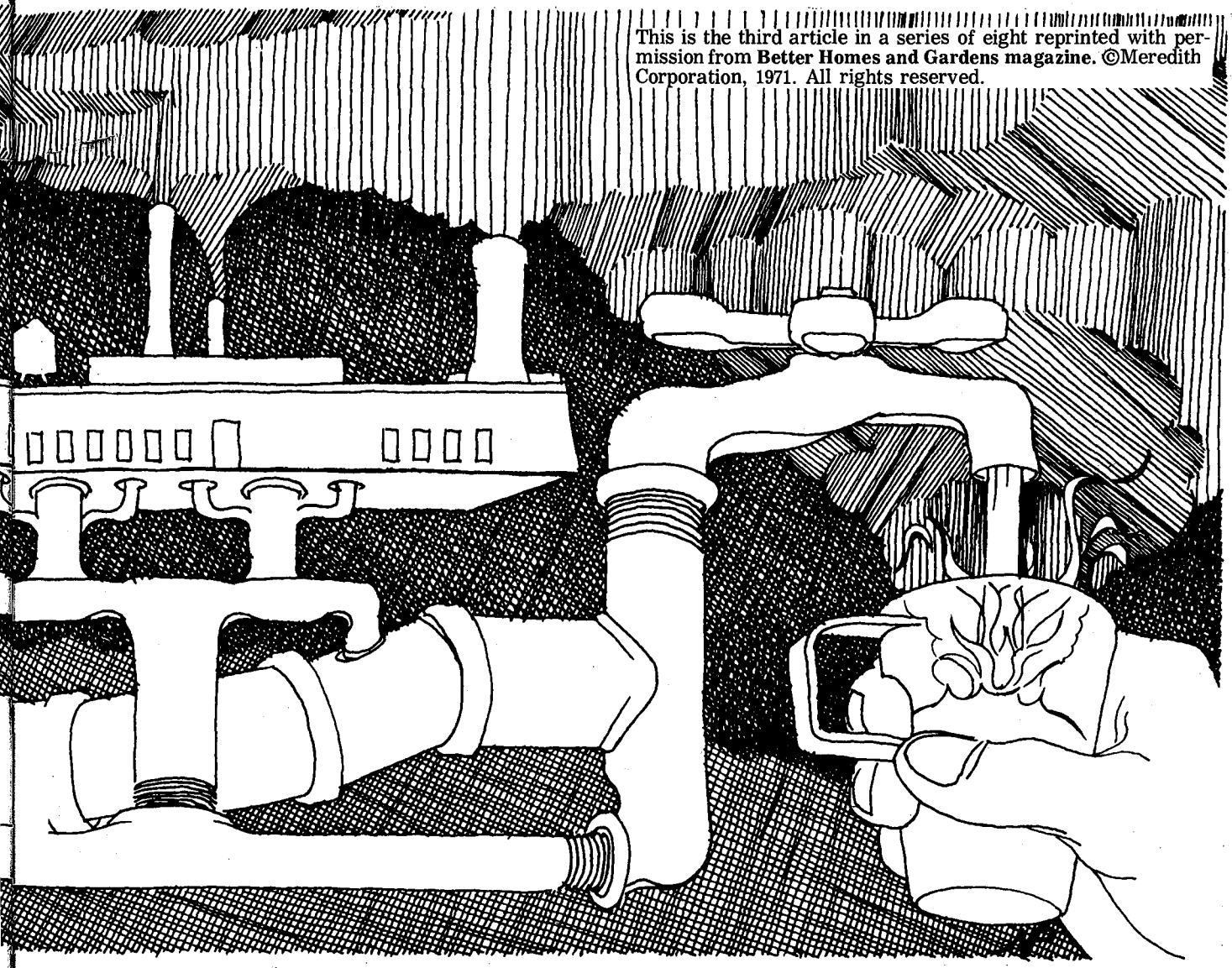
Some 1400 communities, including New York City, dump all or part of their sewage raw into the nearest water. A third of our population lives without sewers of any kind content with cesspools and septic tanks whose residues seep into underground streams. Another third is served by sewage treatment systems that simply don't do an adequate job.

It's almost unbelievable: the body wastes of two out of three Americans—more than 130,000,000 human beings in the richest country on earth—return into the water cycle practically unchanged.

The hygienic aspects of this situation are obvious. Shellfish from some sections of our coasts harbor the threat of hepatitis and worse. Numerous beaches have become unfit for use. The specter of epidemics lurks in our lakes and streams. Wells in many areas of our country require constant testing, and must be dug ever deeper to escape contamination by intestinal bacteria now common in the higher strata of the subsoil.

Contaminated water not only poses a health hazard but greatly hastens a process called eutrophication, the "dying of lakes." That's where the phosphates come in—the phosphates in detergents as well as those naturally present, along with nitrates, in body wastes. Both phosphates and nitrates are powerful nutrients. The trouble is that they act as plant fertilizers in water just as they do in soil.

They stimulate an overgrowth of algae and other aquatic plants. As this plant material dies, it decomposes and consumes the water's oxygen. This leads to foul odors, kills fish, and halts the bacterial action that normally consumes organic wastes. The process eventually fills lakes, ponds and streams



What can be done and When?

with muck and turns them into swamps or marshland.

Actually eutrophication is a natural process. It happens in waters unsullied by man, simply as a result of the nourishing runoff from adjoining the land. In nature, though, this takes thousands of years. We have greatly stepped up the process. Unsewered and densely populated as we are, we can almost see it happen before our very eyes. The Potomac River is a sluggish sink. Klamath Lake in Oregon, Chain O'Lakes in Illinois and Wisconsin, Lake Onondaga in upstate New York—they and others are all dying from lack of oxygen. The shallow western end of Lake Erie has turned into a festering reservoir of dead organic mush. Once the continental United States possessed 33 sparkling salmon streams; now only six can support that fish which is so dependent on clear, aerated water.

The facts are plain: we can't rest with finding new, hopefully harmless detergents. We also have to clean up our body wastes—and on this score we can't pas the buck to government or industry but must assume responsibility ourselves.

Sewage treatment comes in three stages. Primary treatment means no more than screening out large material, such as sticks and rags, and allowing solid matter to settle, then draining off the foul water from this noxious sludge. That's all there is to it. Nearly one-third of our population is served by systems that go no further than this. Why? Because it's the cheapest method.

Secondary treatment consists of holding the liquid from primary treatment in tanks. Bacteria in these tanks consume organic waste, with artificial aeration helping to speed the process. More sludge forms in the tanks, and at *Continued*

Continued from page 49

the end of this treatment 85 to 90 percent of pollutants have been removed. This system costs more, of course, and so far only one-third of our population has been willing to finance it in their communities.

The third and most advanced stage, called tertiary treatment, goes after the remaining pollutants. It is complicated and expensive, requiring chemicals, physical agitation and a complex system of filtration. Indeed, tertiary treatment is more costly than the two earlier steps combined—but unfortunately it's only at this last stage that phosphates, nitrates and other nutrients are finally removed.

The country's outstanding example of three-stage sewage disposal can be found in South Lake Tahoe, California, whose system transforms raw sewage into water pure enough to drink. This plant, built by Envirotech Corporation, was designed for a potential 100,000 population in a 20-square-mile area. The price tag was $6 million ($28 million counting the laying of sewer pipes). Its operation, including amortization, cost 40 cents per 1000 gallons of sewage. At 70 gallons of household sewage per person per day, this brings the monthly cost per resident to about a dollar.

A similar plant in a city of 1.5 million would cost $17.5 million to build. The operational cost would drop even more: to 11 cents per 1000 gallons, or about 25 cents per person per month. Still, few communities can afford tertiary facilities like this one, and to consider installing them while so much of the country still lacks even secondary treatment is utterly unrealistic.

Tertiary treatment may not always be necessary. There are several other ways to remove phosphates at earlier stages of treatment. For the most part, though, these methods are either still experimental or are presently workable only in particular localities. Until one or more of these methods can be widely adopted, tertiary treatment remains the best method of removing phosphates, nitrates and other nutrients.

What Government Can Do

How about federal financing? To demand that Washington foot the whole bill is begging the issue: in the end, the funds must come out of taxes anyway. But the government should stand ready to contribute a fair share, and it has done this where municipalities are willing to meet standards.

Right now it is the federal policy goal to bring secondary treatment, at least, to nine out of ten communities within the next five years. Studies by the Department of Interior indicate that this will cost some $10 billion. The proposed federal share would be $4 billion—provided Congress approves it—with the rest coming from states and cities. President Nixon has gone even further. He has just asked for $2 billion a year to enable cities to build or improve waste treatment facilities.*

This is a lot of money to ask of Congress, especially when Congress is not in a spending mood. But it's not really so much in a country that has passed the trillion mark in gross national product, and spends billions annually on space exploration, not to mention nearly $80 billion for defense. The editors of *Better Homes and Gardens* feel strongly that this issue must be pressed before Congress, and hope that for once partisanship will be forgotten when it comes to the vote.

What Industry Can Do

Industry can't help much on the sewage problem. It has its own industrial pollution to worry about. Only the detergent makers are directly concerned. But let's take a closer look at the phosphate situation.

Actually only about 13 percent of all the phosphorus produced in the United States is for detergents. That's about 500 million pounds a year. By far the largest portion— about 77 percent—goes into fertilizers and animal feeds. We can't ban it there if we want to keep eating, for it's vital for crops and animal growth. Much of the phosphorus used for such nutrient purposes reaches our waters through agricultural runoff, and there is nothing we can do about it. Some of it, of course, reaches the water indirectly through body wastes: every adult human contributes nearly two pounds of phosphorus a year.

Still, removing phosphates from detergents—even though they're only part of the picture—is an essential step in the right direction, and detergent manufacturers are well aware of this. They have been looking for substitutes for years. One company alone has tested hundreds of different materials,

Editor's note— **UPDATE:** In October, 1972 Congress overrode a Presidential veto and authorized the spending of $18 billion over a three-year period for construction of waste treatment plants and systems to remove pollutants from the waterways. The Federal Environmental Protection Agency estimated the total need for sewage treatment plants in fiscal 1972-1974 at $14.5 billion of which the Federal share would be $11 billion. In November, 1972 President Nixon ordered the Congressional authorization slashed by $6 billion resulting in a 50 percent cut in New York State funds. However, on March 2, 1973 the Federal EPA approved $200 million for the construction of nine top priority waste treatment plants in New York State. As of press time the latest news is that the Federal EPA has prepared an operating budget for fiscal 1974 with a proposed increase of $53.1 million for water.

such as starches, carbonates and other chemicals for their cleaning ability, toxicity and biodegradability. So far no satisfactory replacement has been found.

For a time, NTA (nitrilotriacetic acid) seemed a promising substitute. It passed a long series of laboratory tests for health and safety hazards, and it did not contribute to eutrophication. Then suddenly NTA had to be discontinued last December after preliminary government tests showed that high levels of the substance might combine with high levels of other metallic elements to cause potential problems.

There is considerable controversy about the reliability of the government tests. No matter how that is resolved, the short history of NTA has a moral: any hasty substitution of new ingredients for phosphates in detergents can put enormous amounts of *untested* chemicals into our sewage. It may be more prudent to live a while with the known problem than to risk new hazards. Every buyer of detergents should be cautious about lists of low-phosphate products. Not only the phosphate content but the other ingredients should be questioned. A compound that corrodes metal badly, or one that could poison a child, is hardly the right substitute. Of course, there are low-phosphate and no-phosphate detergents that are neither corrosive nor poisonous. The trouble with many of these is that they may not clean as well over a period of time. How clean is clean? Must your clothes be whiter than white? Standards of cleanliness are subjective; only you and your family can decide what kind of cleanliness and brightness you'll settle for. But many homemakers have decided that, at least for the time being, they would rather have less cleaning power than more water pollution.

Rather than impose an immediate phosphate detergent ban—which has been suggested in Congress—it might be well to tackle the problem first on a regional basis. All manufacturers should, for example, tailor their products so that only a minimum of phosphate is used in areas where the water is soft and the chemical not so necessary.

In any event a little patience is called for. When an effective substitute is finally found, it will take at least two years of testing before it can be approved by agencies such as the Food and Drug Administration and the Department of Agriculture, and before it can be moved from research laboratory to supermarket shelf. But even then we will still be stuck with our major sewage problems unless we're really willing to do something about it.

What You Can Do

Will we ever clean up our mess? It's up to the individual voter. In some communities it has been done. Seattle was one of them. San Diego is another. And Chicago is trying.

Seattle cleaned up its Lake Washington 15 years ago with a sewage system that cost $145 million and serves an area of 231 square miles. The monthly cost of drinking pure water and enjoying the delightful lake runs $2 for the average family.

San Diego was a little slower in solving its problem. Its famed bay was brown with sewage and eutrophication, due to inadequate primary treatment from a single, overloaded plant, and the dumping of raw sewage by the Naval Amphibious Bases and the City of Coronado. It remained brown for a long while—the needed bond issue was defeated the first time around. In 1960 it finally passed, and now the bay is a beautiful blue, thanks to a $60 million plant that serves seven communities with a combined population of one million. The plant's potential capacity is for 2.5 million people. The monthly cost is $1.50 per household. (The Navy is still discharging raw sewage but has promised to stop it by 1973).

Chicago is taking a different approach, so far only on an experimental scale. Its sanitary engineers are drying some of the sewage sludge and shipping it to Florida as fertilizer for citrus groves. Chicago gets back $12 a ton, not quite enough to pay for the operation. The city is also testing a new system that turns its sludge into a safe, odorless fertilizer, which is then piped to abandoned farmlands on the outskirts to restore productivity.

On the other hand, the State of Georgia has set an example of how things should not be done. A $52 million treatment plant is needed to clean up the Chattahoochee River, which serves half the state's population. Atlanta is willing to put up its 20 percent share of the costs; its sewage creates most of the problem. But there has not been enough public pressure to persuade Georgia legislators to contribute the state's 25 percent. (The remaining 55 percent would come from the U.S. Government).

Federal enforcement officials of the Environmental Protection Agency are now threatening the city with court action to force construction, but it's by no means certain that this move will succeed.

The lesson is clear: We will continue to drink diluted sewage, eat polluted seafood, swim at filthy beaches, and watch our wild waters die until raising taxes to pay for cleaner water makes politicians popular instead of spelling disaster for them at the polls. How soon that day comes depends on how serious we really are about our environment—for sewage pollution is an area where we can't blame anyone but us. ■

TERRARIUMS

Continued from page 25

After a few days check the plants. If they seem to be fading and are leaning toward the light source, move them closer to a stronger light. Many terrariums grow well with only early morning or late afternoon sun.

If placed in a sunny spot, the terrarium will dry out faster than if it is in filtered light or shade. It's not a good idea to place terrariums in bright sunlight unless they are planted entirely with cacti or other succulents. The sun creates a steamy, jungle-like atmosphere and the leaves are beaded with moisture. Sun shining on these beads turns them into burning glasses which disfigure and scorch tender foliage.

Terrariums also thrive under artificial light. One of the benefits of having an artificial light set-up is that the terrarium can be used to brighten up dark corners, unused fireplaces and the like. Plants do well under about 12-14 hours of light per day.

PLANTING IN BOTTLES

Old water jugs and bottles of various shapes and sizes convert well into mini-gardens. Because of the narrow mouths, fingers are out, so planting must be done with a few long handled tools. The handiest are a wooden dowel pointed at one end, and a bamboo stake with a bent paperclip attached to the end to serve as a pruning hook. To pour in gravel, sand, and soil, a funnel (you can make one from aluminum foil) is fitted into the bottle opening or into a cardboard tube which has been fitted into the bottle mouth.

Clean and dry the jar or bottle and line the bottom with moistened decorators moss, living sheet moss, or shredded florists sphagnum moss. Form the moss into a cup to contain the soil and aid in absorbing moisture. The moss cup should be about one-fourth the height of the bottle. (Don't fill the bottle the same day you have used a cleaning spray—the fumes might harm sensitive plants).

Pour in gravel and sand, then one-half inch of crushed charcoal to keep the soil sweet. Tap the bottle on a hard surface to settle the drainage mixture, and add spoonfuls of light, slightly moist soil. Pack it firmly against the sides with a long, bent stick, old coathanger wire, tongs, or chopsticks.

Use wire or sticks to make planting holes. Remove plants from their pots and wash the soil from the roots to keep the bottle sides from smudging. Drop each plant into its hole and press the earth firmly around the roots.

Rather than overcrowd the plants, fill in gaps with leftover strips of moss or wads of moistened

PLANTS FOR TERRARIUMS

African violets
Baby's Tears (**Helxine**)
Begonias (**Semperflorens**, dwarf Rex)
Coleus
Fittonia (White vein, pink vein plants)
Gesneriads
Miniature Gloxinia
Miniature Ivies
Maranta (Prayer plant, Rabbit-track plant)
Small Palms
Peperomia
Philodendron
Pteris (Small table ferns)

Woods Plants:
Evergreen seedlings, dogtooth violets, Dutchman's breeches, hepatica, varieties of mosses, mushrooms

Small Creeping Plants:
Selaginella (Mossey-leaved Sweat Plants—like steamy atmosphere), varieties of **Pilea** (Aluminum plants, Creeping Charlie, Artillery Fern), and the tiniest of mints, Corsican Mint (**M.requienii**).

sphagnum, gravel, pebbles, bark, wood chips, driftwood, etc.

After a light sprinkling—just enough to moisten the soil—cork the bottle. The garden is now on its own as the bottle is self-maintained by recycling evaporation moisture and condensation. Water only if the moisture fails to bead the inside of the glass. Dry plants result from a loose cork or insufficient water to start the moisture cycle functioning. Cloudy glass usually means nothing more than a temperature change. If the situation persists, it may indicate a moisture build-up which will cause mold and plant decay. Fix this by removing the cork until the glass clears or the interior dries out.

Bottle terrariums do best in a bright window that receives little or no direct sunlight or under 12-14 hours (or less) of artificial light per day.

Moisture prone, shade inclined plants are suggested for bottle gardens. Avoid brittle leaf stems that will break in the bottle neck. Choose plants that share similar growing needs and conform to the size of the bottle. Again, as in larger terrariums, pick slow growing plants or those that can be cut back without harm. ■

—B.A.

Recommended reading: **The World Book of House Plants** by Elvin McDonald. Published by Popular Library, N.Y.C. O 1963 in paperback for $1.25. **The World Book of House Plants** provides extensive lists of terrarium and bottle plants and their ideal growing conditions in addition to just about everything you need to know about other house plants.

For outdoor gardeners there's a wealth of information on the subject to be found in *The Brownstoner*, a publication of The Brownstone Revival Committee of New York City. *The Brownstoner* is also packed with useful articles for both brownstoners and apartment dwellers providing information on such topics as Federal crime insurance, mortgage programs, landmark proposals and designations, ways to curb crime, and current events.

The Brownstoner goes with membership to the Brownstone Revival Committee which costs $5. per year. To join, simply mail a check to the Brownstone Revival Committee, Room 1825, 230 Park Avenue, NYC 10017. Besides receiving the newsletter, members get BRC's *Home Buyer's Guide to New York City Brownstone Neighborhoods* and free admission to the three lectures held during the year.

FOOD

Continued from page 33 environment to our use. . . ."

Another note on DES: David Hawkins, researcher for Natural Resources Defense Council said in the *Washington Post*, October 24, 1971 that "Seventeen men who were treated with DES for prostrate cancer ended up developing breast cancer, an exceedingly rare disease in human males." ■

GREEN IS GOOD

For a refreshing summer menu change try making a cold soup that is both nutritious and inexpensive. It only takes about 10 minutes to prepare if you have the base stock on hand.

GREEN GAZPACHO

2 cups chicken OR vegetable stock (bouillon cubes may be used, but homemade is better)
1 bunch chopped watercress leaves (or about 1 1/2 cups)
1 peeled, coarsely chopped cucumber
1 seeded, coarsely chopped green pepper
2 T * chopped scallions
Fresh or dried dill weed, salt and pepper to taste.

Put the above in a blender until the vegetables are liquified.

Add:
6 T. plain yogurt
3 T. white wine vinegar
2 T. sugar
Blend until well mixed

*T Tablespoons

Chill for three hours. Shake before serving. Garnish with garlic croutons, chopped hard-cooked eggs, sliced cucumbers, or a dollop of yogurt. ■

Oops! Department

We forgot to thank Reliable and Franks Naval Uniforms (Reliable Naval Tailoring Co.) for donating the army fatigue cap used in a photo in the "Brooklyn Lives!" column, STREET IX, 1973. Incidentally, Reliable and Frank's, opposite the Brooklyn Navy Yard at 106 Flushing Avenue sells all sorts of used and new uniforms, 13-button bell bottoms, pea jackets, etc. at bargain prices.

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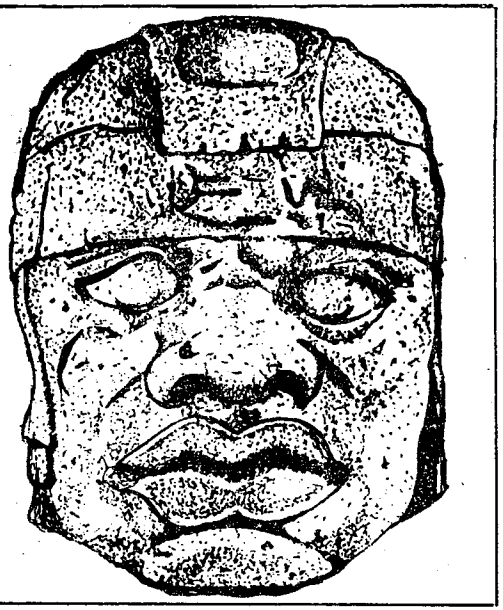

THE RETURN OF AFRICAN TRADITION

History was made at 5 A.M. on April 28th in front of the Balogun Museum of Art and Science when a traditional African ceremony was held to invoke blessing upon the museum's new sign contributed by C.W. Hamilton, a building contractor of Bedford-Stuyvesant. Highlights of the ceremony were conducted by Priest Baba Orifunlade and the House of Nilaja Drummers and Dancers. The museum, at 471 Jefferson Avenue, Brooklyn 11221 (228-0900) offers classes for African youth and adults in the areas of carpentry, electricity, plumbing, political science, horticulture, herpetology (the study of reptiles), agriculture, hair styling, hygiene, sewing, clothes design and self defense. Additional work space is being constructed in the museum so that it may offer classes in auto mechanics, art, masonry, electronics, photography, engineering, painting and music. The museum is open daily, Monday-Friday from 10 A.M. to 8 P.M. and weekends from 12 noon to 8 P.M. Other than fund-raising activities, all programs and admissions to the museum are free.

DIAL FREE FOR HELP

All 1,800 pay phones in the subway stations have been adapted to permit coin-free use for calls to the police emergency number 911. Calls to city police are automatically transferred to the Transit Police. MTA chairman William Ronan termed this expansion of services to all stations part of a continuing effort "to incorporate another vital crime deterrent into the TA's public safety program."

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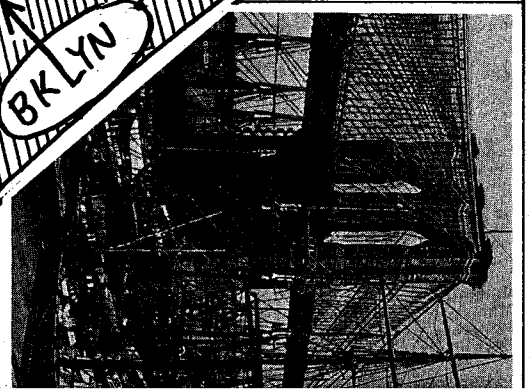

BROOKLYN BRIDGE CELEBRATES 90TH BIRTHDAY

Constant rain didn't stop several thousand people from turning out to gather on both sides of the Brooklyn Bridge in celebration of its 90th birthday party May 20th. The graceful, massive span with its cobweb cables was planned by John Roebling who died of lockjaw while building it. His son Washington took over, but suffered the bends while on the job. In all, 20 men died building the bridge which opened on May 24, 1883. In celebration of Brooklyn's most famous landmark, dancers, singers, poets, and puppeteers performed. There was free cake and punch and fireworks to close the event—just as there had been for the opening 90 years ago.

STRONG! LIKE THE BRIDGE!

Brooklyn.

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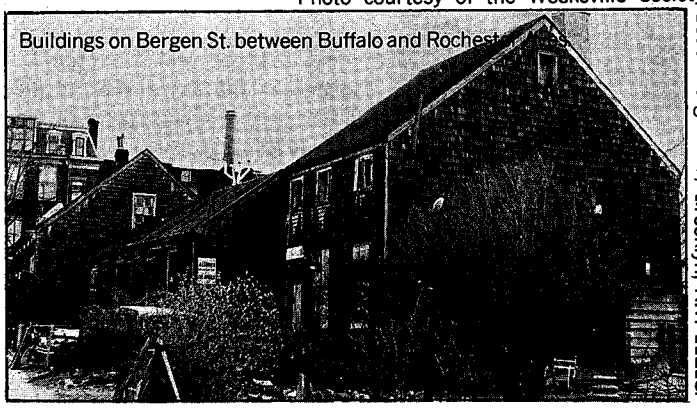
Photo courtesy of the Weeksville Society, 1698 Bergen St., Brooklyn, N.Y. 11218.



Buildings on Bergen St. between Buffalo and Rochester Aves.

BED-STUY RESTORATION BUYS WEEKSVILLE PROPERTY

On June 15, 1973 the Bedford-Stuyvesant Restoration Corporation purchased the historic New York City Landmark houses of Old Hunterfly Road, presently known as 1700-1708 Bergen Street. On the same day, the Society for the Preservation of Weeksville and Bedford-Stuyvesant History signed an agreement with Restoration Corporation to purchase the houses from the Corporation within three years. These historic houses, the last remaining within the old Black community known as Weeksville, as well as being New York City Landmarks are on the National Register of Historic Places in the United States. The goal of the Weeksville Society is to purchase and restore these houses and establish the Weeksville Afro-History Museum to house the artifacts and documents found during the Weeksville inquiry. Each day new knowledge has come to light regarding the viable Black community that was known as Weeksville. The signing of these documents was the culmination of a year of effort on the part of the Society and Restoration to save the houses from vandalism as well as the natural elements. Upon signing, Restoration began the protection and preservation work.

COMMUNITY GARDENS

Aspiring gardeners rejoice! The Pratt Area Community Council is clearing lots and setting up community gardens and everyone is invited to help. So far there are two: one at the corner of Hall Street and DeKalb Avenue and one on Greene Avenue between Classon and Franklin Avenues.
Old-movie buffs can enjoy free outdoor flicks this summer at the Hall Street garden.

Brooklyn.

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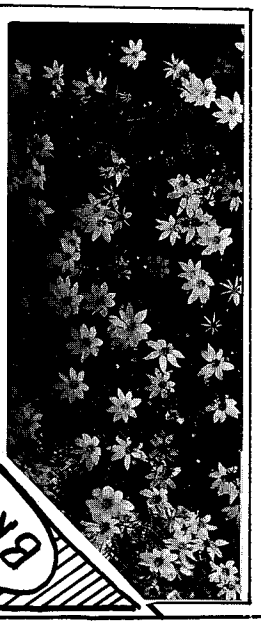

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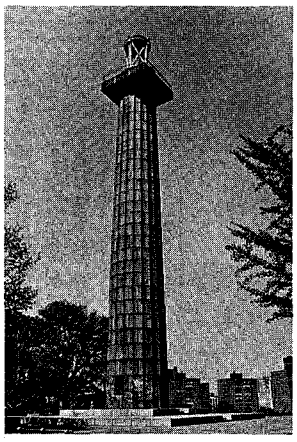
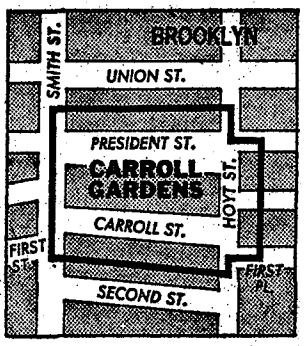
BROOKLYN LIVES

The Fort Greene Park turn-of-the-century memorial to prisoners of the Revolutionary War will soon undergo complete restoration. Officially known as the Prison Ship Martyr's Monument, the 146-foot Doric column was designed by Stanford White. Additional restoration and rehabilitation will include resurfacing walks, new benches, special lighting and improvements for the tennis courts, an area for group activities, fences, and extensive landscaping. A watch dog committee has been set up by Friends of Ft. Greene and for status reports you may contact Nat Thayer, 858-0186.





The New York Times/May 7, 1973

In a move "to augment the community service role of libraries," Mayor Lindsay has signed a two-year contract with the Administration and Management Research Association, a non-profit organization, to establish a system of information and referral to city services in all Brooklyn Public Library branches. Under the pilot plan, each of the 55 branch libraries in the borough will have two specially qualified residents working with a librarian to provide the information. Examples of what the system would be able to do are cited: provide information on how a child can be placed in a cay-care program, indicate how a senior citizen's program can be developed, and tell where to secure needed legal services. If the program proves successful, it will be extended to other boroughs.

The city has approved the addition of six new express bus routes for commuters. The city presently has 31 express routes in operation carrying over 278,000 passengers per week. The new routes will raise the number to 37. The newly approved bus routes are the Pioneer Bus Corporation route from the Kings Bay area to midtown Manhattan; the Green Bus Line, Inc., route from Far Rockaway, Queens to Manhattan; and four additional Transit Authority routes between Manhattan and Staten Island.

A neighborhood collective of Pratt Institute alumni, staff, and students have opened the first art gallery in the Ft. Greene community. The Burgerhaus Gallery at 324 DeKalb Avenue, Brooklyn, 11205 has already had several shows since its opening in March. The gallery is being used primarily for exhibiting photographs and graphics, but there is also space for small sculptures and crafts. Designed as a non-profit corporation, the gallery will enable serious artists in the Brooklyn area to show their work for absolute minimum fees. The gallery hopes to be able to run completely free of fees in the future. There is no charge for admission. Craft and pottery shows are planned for the Fall as well as an erotic art show (possibly the first in Brooklyn?). All artists are welcome to contact the Burgerhaus Gallery to have their work reviewed for showing. For further information contact Richie Lebenson at 636-3600 for more information. Hours are: Monday-Friday 4-7 P.M. and Saturday 1-5 P. M. These hours may change during the summer --- for information call the Gallery, 783-9236.

The Landmarks Preservation Commission has designated the Carroll Gardens section of Brooklyn a Historic District. The designation capped a four-year campaign by civic groups in the area to win recognition for what they consider an unusual example of neighborhood preservation. The neighborhood, comprising 160 two- and three-story houses on President and Carroll Streets between Smith and Hoyt Streets, has been praised by the commission as a "good example of a 19th century brownstone residential area." The commission noted the neighborhood's "remarkable homogeneity," achieved apparently because different builders worked together for the sake of architectural harmony. The Carroll Gardens Association and the Carroll Gardens Brownstoners regard the designation of the historic district as a significant achievement for the neighborhood. But the civic groups' over-all concerns are much broader. They hope the landmark status will increase the feeling of community pride that is already strong among Carroll Gardens residents, and that it will help to win battles to clean up the Gowanus Canal, to establish an industrial park nearby that will provide new jobs, and to gain new schools and other public facilities for the neighborhood. The neighborhood derives its name from Charles Carroll, Maryland's signer of the Declaration of Independence.

A new prepaid group health insurance plan called Healthcare, will open in downtown Brooklyn this fall. The plan is jointly sponsored by a 65-member physician corporation and the Connecticut General Life Insurance Company. Healthcare's clinic will be at 333 Livingston Street, in the Atlantic Terminal Urban Renewal Area. Initial enrollment will be drawn from people living in Brooklyn and in parts of Manhattan, Queens, and Staten Island. While no firm boundaries have been set, the sponsors would like the patients to live within 30 minutes traveling time from the center. The plan will be the first new large-scale prepaid health service in the city since the Health Insurance Plan of Greater New York (HIP) was established more than 25 years ago. The insurance company plans to market the health-care package through employers. The cost will be $25.25 monthly for a single person and $69.75 for a family. The subscriber will receive all clinic-based physician and diagnostic services at an additional cost of $2. a visit; hospitalization at no additional charge; maternity care at no additional charge; prescription drugs at no more than $5. a prescription, and in-patient psychiatric services for no additional charge for two separate 30-day confinements, and out-patient psychiatric services for $5. a visit for the first 10 visits and $10 a visit for the next 40 visits. Doctors will make house calls for $7. per visit, and subscribers can receive emergency treatment away from home, with 80 percent of those costs covered. All participating physicians have Brooklyn-based practices and all are affiliated with Brooklyn Hospital which will provide the back-up in-patient services and emergency services when the clinic is closed. Similar arrangements are being established with Caledonian Hospital in Brooklyn, where a number of the participating doctors work.

A. NEWMAN

Continued from page 11 national absurdity in the face of continued control of indigenous gas prices at much lower levels.

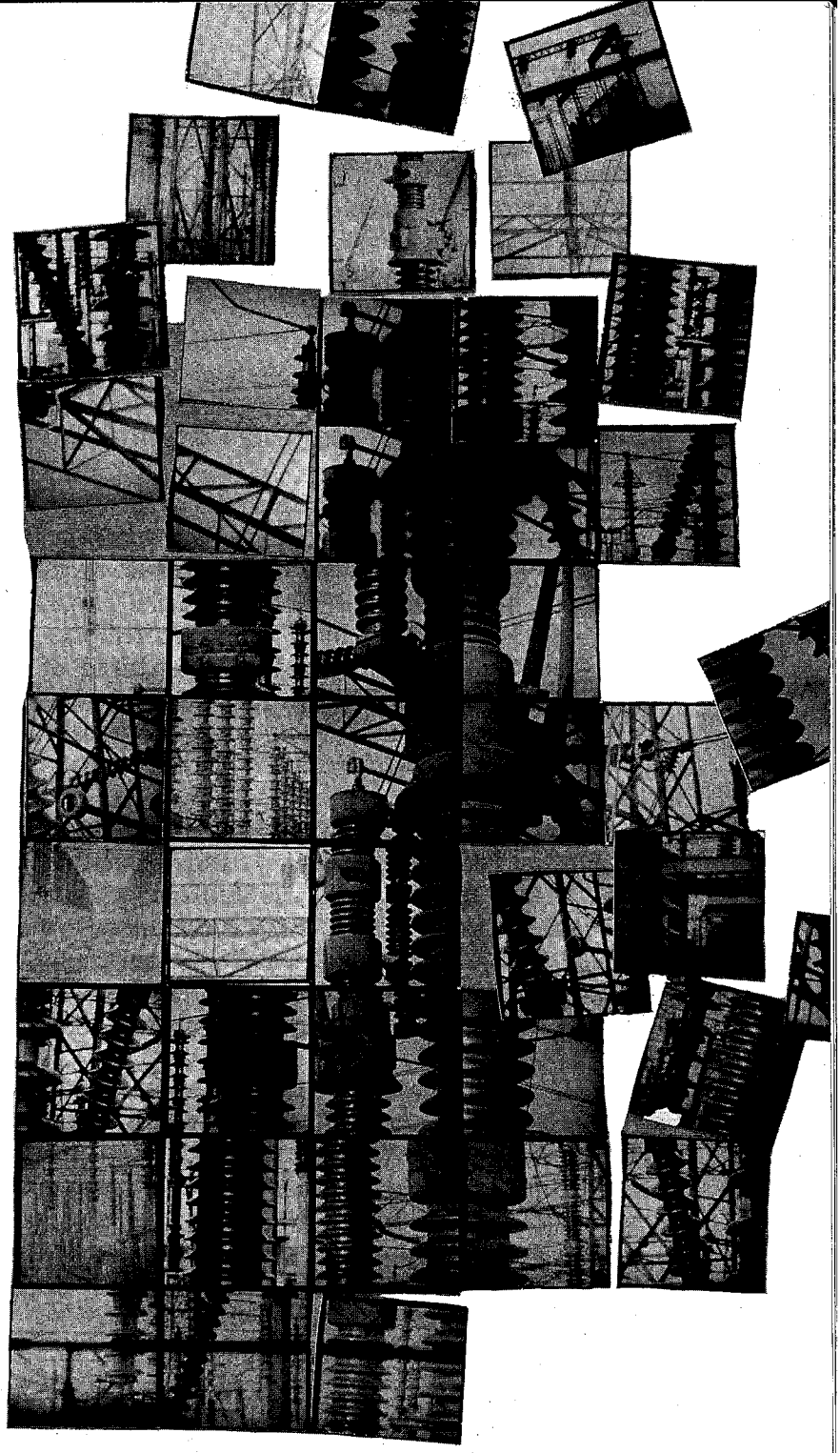
We need to accelerate the leasing of federal lands on reasonable terms for resource development. This is particularly true with respect to the Outer Continental Shelf which contains some of our most promising potentials for new oil and gas discoveries.

These are only a few of the actions which can and should be taken immediately to stimulate development of our indigenous resource base.

Third, we should initiate strong programs to reduce waste in the consumption of energy throughout our entire society. I am not suggesting curtailments in the consumption of energy which would have a negative impact on the growth of our economy. On the contrary, I believe the consumption of energy should be encouraged because it inevitably increases the overall efficiency of our economy—providing that the energy is used effectively for socially desirable ends.

There are, however, many areas in which we could conserve energy without impairing economic growth. For example, about one-fifth of our energy is used for commercial and residential heating; here significant savings can be made through better insulation. About one-fourth of our energy is used for transportation; here significant savings can be made through the development of mass transportation and smaller and more efficient automotive engines. About 25 per cent of our energy is used for the generation of electric power in processes that waste about 70 per cent of the energy input; here significant savings can be made through the development of more efficient conversion systems, such as the combined gas turbine-steam turbine cycle and the magneto-hydrodynamic generator.

Finally, I believe the time has come when we should lift our concern with energy matters from the national to the international level. Most of the major industrial nations of the Free World will be facing essentially the same energy problems as we do. Clearly, the situation provides a wealth of opportunities for cooperative research and engineering in the development of new energy sources. Clearly, there is a need for cooperation in the development of a sound framework of political relationships with the countries of the Middle East to promote stability and peace in that area. And, clearly, there is a need for some type of cooperative action among the major oil consuming countries to establish a sound, long-term relationship with the powerful Organization of Petroleum Exporting Countries already in existence.



In conclusion, let me express my own conviction that we can and will solve our medium-term energy problems. But the task will not be easy, and it will require a greater sense of urgency and commitment on the part of both industry and government than presently exists.

Let me also remind you that our energy difficulties in the 1970's have arisen—not because we lack an adequate resource base—but because we failed to foresee our problems and to act in a timely manner to meet the situation. Let me share with you the hope that we will not make the same mistake with respect to the decades of the 1980's and the 1990's. ■

Continued from page 22 allowed to evaporate into the atmosphere are carcinogens, chemicals that can induce the growth of cancer, and others are poisons of various forms. There is a great deal that is not yet known about the potential danger of these compounds.

Oxides of Nitrogen: Nitrogen dioxide is fatal in high concentrations and prolonged exposure. Levels of the average found in New York City's air can cause respiratory diseases. NO causes irritation to the eyes and nose, pulmonary discomfort, and irritation and tightness of the chest on short exposure. Longer exposures cause chronic pulmonary ailments and cellular degeneration. Nitric oxide inhalation causes edema of the lungs, arterial dilation, a fall in blood pressure and dizziness. The photochemical oxidants (mixtures of hydrocarbons, NO , and NO), principally ozone and peroxyacylnitrates (PAN), are known as secondary pollutants. Ozone causes irritation of the mucuous membranes, coughing, headaches, and severe fatigue. Long term exposure may result in a reduction in breathing capacity and structural changes within the lungs. It also damages plants, fades colors, and rots fabrics. PAN is related to eye irritation at low levels and with aggravation of pulmonary conditions at higher concentrations. The aldehydes, which have a suffocating, pungent odor, can cause severe respiratory irritation.

In high doses the nitrogen oxides cause the bronchial tubes to close off acutely, with death occurring in hours to days, depending on the concentration and duration of exposure. Symptoms such as tightness of the chest and coughs result from irritation of the small bronchial tubes and are similar to those suffered by individuals who die from exposure to higher doses of nitrogen dioxide. Clinical observation also makes it apparent that people have varying sensitivity to smog. When people exercise, they breathe deeper and faster and so inhale higher doses of these irritant nitrogen oxides. It is for this reason that parents and teachers are cautioned to keep children from vigorous exercise when smog levels are high and/or air quality is rated unsatisfactory or unhealthy.

The lungs have 300 million delicate little air sacs and 280 billion tiny blood vessels across which oxygen and carbon dioxide are exchanged. For people to be able to change their level of activity without disability, there must be a great reserve of these air sacs and vessels. As we age they deteriorate and we lose our ability to exercise as well and as freely. In patients with emphysema, so many of these air sacs and vessels have been destroyed that there are not enough left to allow the person to exchange adequate amounts of air to be comfortable even at minimal activity. The child exposed to these pollutants undoubtedly loses some of these air sacs and vessels. He has lost some of his reserve capacity. It may make him fail to win the race as a high school athlete, and as a father, years later, he may be too short of breath even to take a walk with his children.

Lead: Lead is a cumulative poison that remains in the body for some time after it is inhaled or ingested. Lead poisoning damages the central nervous system, the kidneys, the blood forming organs, the bowels, the heart, and the thyroid.

Research on the health hazards of ever-increasing amounts of airborne lead is insufficient, but there are indications that this pollutant can enter body tissues. So far, the level in the atmosphere in this country has not reached the point that it is a likely cause of clinical lead poisoning. However, if a continuous subclinical level of lead is kept in our bodies from this atmospheric pollution, the safety factor has been lowered. The consequences of subclinical exposure for long periods of time are not yet known. The greater sensitivity of children may be a clue that has not been looked at carefully enough. In children, levels one-half that of adults can cause brain damage that is irreversible. It is known that lead interferes with the manufacture of the important chemical, hemoglobin, which carries oxygen to the tissues.

The Federal Environmental Protection Agency's (EPA) own staff has pointed out in a position paper on health effects of airborne lead that 25 percent of city children tested have abnormally high blood levels and that lead in gasoline is probably a significant contributor to the problem, along with leaded paints. According to the Federal EPA staff report, dated November 29, 1972, blood lead levels in children higher than 40 micrograms per 100 milliliters of blood or higher than 30 micrograms in umbilical cord blood are excessive and dangerous. The New York City Health Department reports that nearly 30 percent of the 85,000 city children tested in 1970 had blood levels over 40 micrograms, while nearly six percent had over 60 micrograms.

The city's Bureau of Lead Poisoning Control, however, reports that its case load had dropped appreciably since November of 1971, which is when the first lead-in-gasoline restriction went into effect in the city.[2] The bureau also reports that its case

[2] Last February, the city's EPA administrator Jerome Kretchmer denied a request from ten major oil companies for a variance from the city's strict limits on the lead content of gasoline. Mr. Kretchmer stated that he was strongly persuaded, despite the industry's claim of economic hardship and continuing controversy over the effects of lead, that the denial was essential to protect the health of New Yorkers, particularly young

load peaks in the summertime. The Department of Air Resources points out that atmospheric ventilation is poorer in summer and that small children pass most of the day out of doors and are therefore more directly exposed to airborne automotive lead. Attention is also drawn to recent cases of lead poisoning of animals in the Staten Island Zoo in which the evidence points strongly to automotive lead as the source.

Other Vehicular Polluters

The passenger car, while the major vehicular polluter on a borough-wide basis, is not the only contributor. According to the Summary of the New York City Metropolitan Area Air Quality Implementation Plan, February, 1973, the private car contributes from 11 to 14 percent of all vehicular related pollution in the mid-Manhattan Central Business District (CBD), from 30 to 50 percent in the CBD's of the other boroughs, and from 55 to 80 percent for the boroughs themselves. However, the report states that trucks are the city's most serious and least understood air pollution problem. In midtown Manhattan they contribute almost 50 percent of vehicle-related pollutants; and in downtown Manhattan they contribute more than 65 percent.

Taxicabs are responsible for 35 to 40 percent of the vehicular pollution in midtown Manhattan, with slightly lesser amounts in areas adjacent to midtown. In downtown Manhattan, taxi contribution is only 10 to 12 percent, and in the CBD's of the other boroughs it is even less.

Buses are minor contributors of carbon monoxide and hydrocarbons, but contribute significantly to oxides of nitrogen in the CBD's and are the source of odor and visible emission complaints. ■

WHAT THE MOTORIST CAN DO

Non-polluting autos for mass consumption are going to be a long time coming. Although industry is working on the problem, the solutions are slow to reach the market. So it's up to every car owner to assume responsibility for keeping his/her car in top running condition.

The more completely your engine burns fuel, the less pollution it produces. If you waste gasoline, you hike emissions. Gasoline can be wasted in badly tuned engines. It is also wasted by poor driving habits. Much of this waste—and the pollution that results—can only be prevented by the motorist.

Pollution from poorly tuned engines alone is substantial. Graduate engineering students from the University of Michigan proved that fact. They reduced emissions from 40 cars invited in off the street an average of 55 percent, simply by tuning them properly.

The First Step

The first step toward improving your car's performance is to understand what emissions it produces and how these are controlled.

Hydrocarbons are found in crankcase vapors, exhaust gases and evaporated fuel. Carbon monoxide and nitrogen oxides are found almost entirely in the exhaust.

• *Crankcase Vapors*—When the engine is running, a certain amount of unburned fuel and combustion gases slip by the piston rings and enter the crankcase below. Since 1963, all new cars have been equipped with a "positive crankcase ventilation" system which recycles these gases back into the combustion chambers for burning. Simple servicing of the PCV system at recommended intervals is all that's needed to keep it working effectively.

• *Fuel Evaporation*—Gasoline evaporates from both the carburetor and the fuel tank. Before emission control devices were used, about 15 percent of the hydrocarbon emissions from cars escaped by evaporation. These emissions are now almost eliminated on all new models by totally-enclosed vapor gathering systems that trap vapors and suck them into the engine intake system each time the car is started. There they are burned along with gasoline from the tank. Here again, proper functioning of the systems depends on periodic servicing.

• *Exhaust Gases*—Engine exhaust gases used to account for roughly 65 percent of auto hydrocarbon emissions. All 1968 and later models (and all new cars sold in California since 1966) are equipped with exhaust control systems that result in more complete combustion of the fuel in the combustion chamber or in the exhaust. These systems also need a periodic check.

The Second Step

Recognize the signs of an ill-tuned engine:

- Visible exhaust smoke
- Rough running
- Increased oil consumption
- Poor or uneven acceleration
- A noticeable drop in mileage

Continued

children and infants.

New York City's Air Pollution Control Code, which was passed in 1971, mandates a stepwise reduction in the lead content of gasoline. The first major stepdown was in November of 1971, and this was followed by a drop to a level of 1 gram per gallon, effective January 1, 1972 for all grades of gasoline. The next major stepdown was to 0.5 grams per gallon, effective January 1, 1973. It is from this step that the ten companies sought relief. The final step in the City's regulation is to zero lead content, effective January 1, 1974. New York City is the only jurisdiction in the country to have enacted such a lead restriction, which may possibly pre-empt a weaker Federal EPA regulation.

- Hard starting
- Frequent stalling

Things To Check In A Tune-Up

1. The ignition system, including spark plugs, wires, points, condenser, distributor rotor and cap.
2. Basic timing and spark advance.
3. Carburetor cleanliness, idle mixture, idle speed setting, and automatic choke operation.
4. Fuel and air filters.
5. PCV valve and other emission control components.
6. Heat control valve, cylinder power balance and signs of fuel leaks.

A malfunction in any of these areas could increase emissions. For example, an overly rich carburetor setting can increase carbon monoxide by 50 percent. One dead spark plug can boost hydrocarbon emissions by 10 to 15 times normal.

Some Other Essentials

Change oil at appropriate intervals. This will maintain engine and PCV valve cleanliness for optimum emission control and also prevent engine wear that would lead to more serious operating and emission problems.

Have your battery checked regularly. A weak battery can mean slow starts and increased pollution.

Change your air filter when necessary, especially if you drive on dusty roads. A sufficiently dirty filter can cut air flow to the carburetor and cause gasoline-wasting emissions.

Non-Leaded Gasoline

Another way to cut emissions is to use a non-leaded gasoline. Besides lowering hydrocarbon emissions, the removal of lead from gasoline supports the aim of pollution-control agencies to reduce lead in the atmosphere.

In addition to most models manufactured after 1970, about 20 percent of 1960-1970 American-made cars can run on a 91-octane, non-leaded gasoline.

Practice Good Driving Habits

You can enhance both your wallet and the air by the way you drive. For example, jackrabbit starts waste more gasoline and cause more exhaust fumes than a normal, gradual acceleration. So do high speeds. You get more miles to the gallon—and fewer emissions—at 50 mph than 70 or 80. So drive with the flow of traffic at fairly constant throttle for good mileage and lower emissions. In short, drive conservatively and you'll get additional benefits besides safety.

THE AUTO AS A PERSONAL GAS CHAMBER:

FOUR MARYLAND HEALTH EXPERTS CITE DANGERS OF MONOXIDE TO PASSENGERS AND WARN THAT DEATH RATE COULD INCREASE IN CLOSED-ENVIRONMENT AIR-CONDITIONED CLUNKERS

A team of four Maryland health specialists says that exposure to lethal doses of carbon monoxide resulting from poor automotive design or deterioration or damage to motor vehicles is the causative factor in numerous deaths.

The team estimates that more than 500 Americans die each year from such carbon monoxide-vehicle related poisoning. They point out that in 1967 alone 819 deaths in the U.S. were classified as accidental poisoning by motor vehicle exhaust gas. They reviewed all deaths attributed to asphyxia from carbon monoxide in the state of Maryland from 1966 through 1971. Cases were selected where monoxide poisoning occurred inside a vehicle and where there was no indication of suicide. Blood tests determined the amount of monoxide present in each victim.

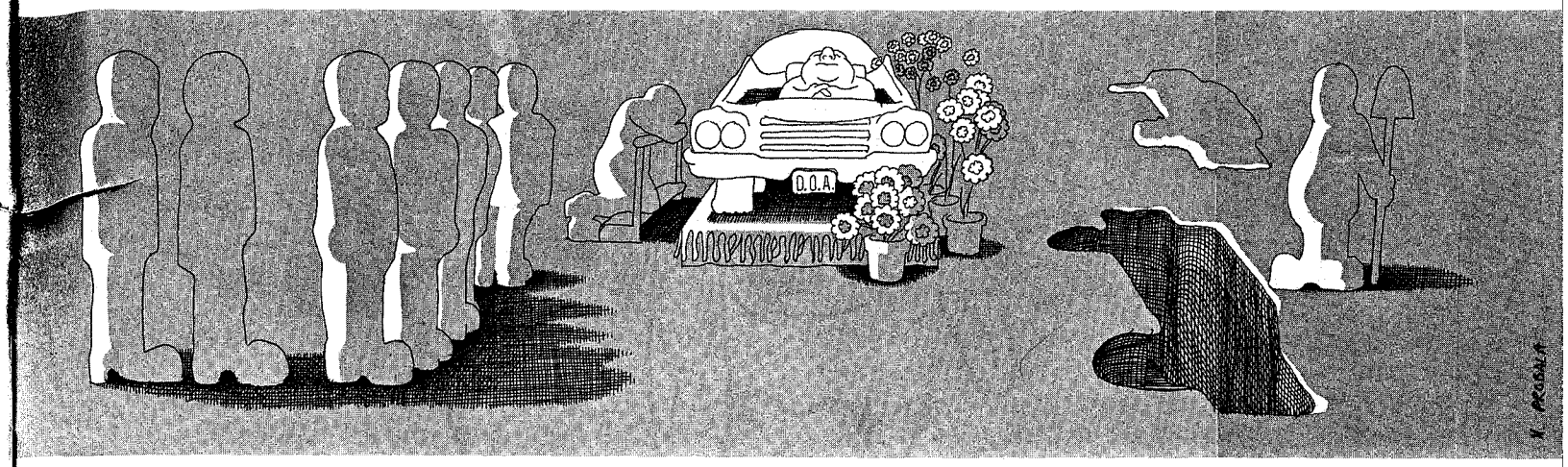
Sixty-eight deaths involving 50 autos and four trucks met the criteria for inclusion in the study. The experts divided the deaths into two main groups: 17 occurring in vehicles that were indoors and 51 in vehicles outdoors. Forty-six deaths occurred during the period between November through February and three-fourths of the deaths involved men sleeping in cars or couples parked in cars. Many of the men were in the habit of sleeping in their cars after drinking. One married couple died in a drive-in movie. A young unmarried couple was sitting in a car in the girl's driveway. Many couples were parked in remote areas.

Three vehicles were in motion when the driver was overcome; one ran off the road, another blocked an intersection, and a truck entered a grassy median strip.

Fifteen vehicles were parked inside garages or service stations with the engine running, apparently to provide heat. Seven of the vehicles that were outdoors had at least one window opened one-half to four inches. Two such cars, subjected to monoxide tests while parked with the engine running, accumulated potentially fatal levels of monoxide with the window in the same position as when the bodies were discovered. Several cars were found with one or more windows completely open.

Cars For Everything, Even Coffins

The researchers noted: "Considering the power of human needs for sleep, sex and warmth and the ready availability of automobiles which can provide



not only heat but privacy for the first two needs, perhaps the remarkable thing is that these deaths are not even more numerous. Certainly the problem is widespread. . .when persons with cars in poor condition are also heavy drinkers—as suggested by an association noted between older vehicles and high blood alcohol levels—the risk of carbon monoxide poisoning is compounded.

A Range of Defects

Cause of entry of fumes into the passenger compartment ranged from rusted floor pans to defective muffler-exhaust systems. Although 32 states now have periodic motor vehicle inspection programs, only 16 check for floor pan holes and none inspect for holes in fender panels—also found to be a source of monoxide flow into passenger areas.

Maryland itself does not have a mandatory inspection program. But the investigators questioned the efficacy of existing inspection programs in other states since three vehicles in this study were registered in states that do include the exhaust system in their yearly or twice-yearly inspection. One of the three death cars had been "inspected" only a week before obvious and long standing rust damage caused a death in a neighboring state. One month later another person died while sleeping in the same car in Maryland.

Interestingly, one death in the group studied occurred in a car that had been equipped with a control device to reduce monoxide exhaust gases. The device had been disconnected to provide additional horsepower.

The team concluded that their study raises the question of the possible role of sublethal doses of carbon monoxide in motor vehicle crashes. They pointed out that crashes have resulted from the presence of exhaust fumes in the passenger compartment although it is *Continued on page 62*———

STUDY SHOWS HIGH INDOOR POLLUTION

An Environmental Protection Agency study shows that some apartment dwellers and workers in older office buildings in New York City may be exposed to almost as much carbon monoxide from motor vehicles as pedestrians outside.

The study was performed by General Electric under contract to EPA and was made to determine if there is an impact on air quality and human health when buildings are constructed in air spaces over streets and highways.

Indoor and outdoor monitoring conducted at two buildings, both without central air-conditioning, showed carbon monoxide levels exceeded Federal standards. The building selected for monitoring was the Washington Bridge Apartments, a high-rise which straddles the Trans-Manhattan Expressway approach to the George Washington Bridge. For purposes of comparison, researchers also studied an older 20-story office building on West 40th Street, a canyon-like thoroughfare in mid-Manhattan.

The results were somewhat surprising.

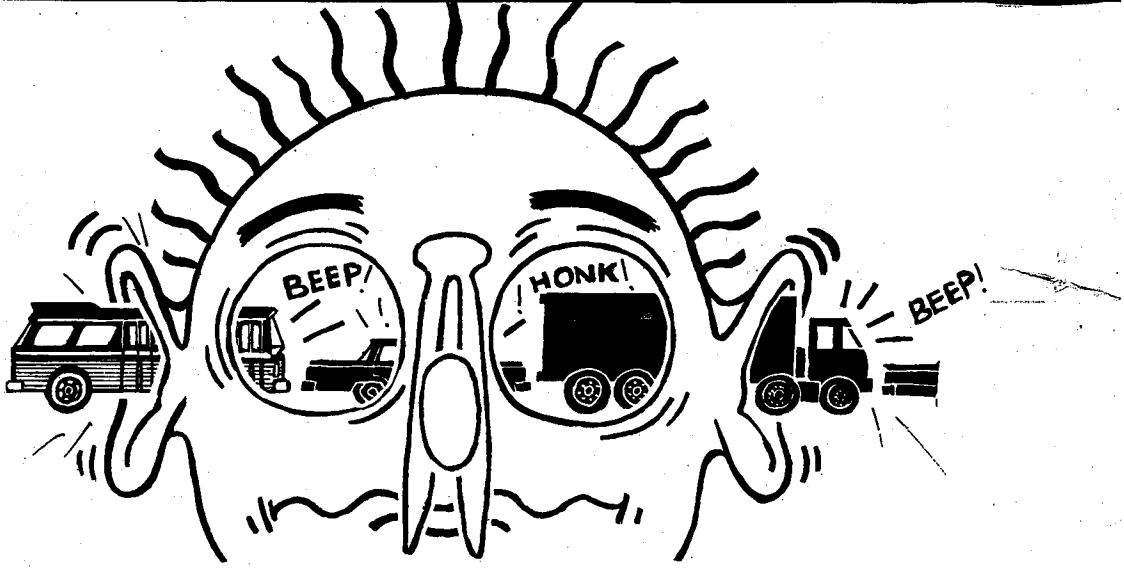
For example, although only 7,000 vehicles passed daily along the West 40th Street location, compared with 150,000 vehicles on the George Washington Bridge approach, Federal carbon monoxide standards were violated 47 percent of the time in the heating season and 33 percent of the time in the non-heating season.. At the Washington Bridge apartments the standards were exceeded 23 percent of the time in the heating season and 15 percent in the non-heating season.

Measurements at both buildings were made at third floor levels. Concentrations are higher in the heating season due to a chimney-effect which causes heated air to rise in the building, drawing in colder polluted air from the roadway.

No significant difference was found between carbon monoxide concentrations inside and outside the buildings at ground level. At the mid-town location, carbon monoxide fumes were trapped by surrounding structures along the narrow street; at the Washington Bridge Apartments, the fumes were dispersed by winds.

Monitoring was performed at various elevations in both buildings, and findings confirmed that concentrations of carbon monoxide decreased with elevation. Nevertheless, inside the Washington Bridge Apartments, carbon monoxide fumes during the heating season exceeded Federal standards 19.7 percent of the time as high as the 32nd floor of the building.

The report includes the following recommendations and suggested guidelines for urban planners: (1) that lower levels of new buildings be sealed to exclude CO generated by traffic; (2) that building buildings be amply spaced to permit wind dilution of air contaminants; and (3) the CO "traps" such as indoor garages, elevator shafts and other contained spaces be equipped with adequate forced ventilation systems.



ENVIRONMENTAL LEGISLATION

1974 BUDGET INCREASED PESTICIDES, NOISE

The Federal Environmental Protection Agency's proposed operating budget for fiscal 1974 will increase $44 million for a total of $515 million according to a recent report from the Agency. In addition, a recent release of $5 billion of 1973 and 1974 contract authority for funding municipal waste treatment plant construction will supplement $1.9 billion of appropriated 1973 funds. Accordingly, there will be $6.9 billion of construction grant money available in 1973 and 1974.

Principal increases are: $53.1 million for water, including $20 million for grants to State water pollution control agencies; $4.4 million for the pesticide program; and $1.6 million for the noise program. In addition, $4.6 million is proposed for agency and regional management functions to carry out the new legislation in water, pesticides and noise. And $10.6 million is proposed for intermedia and program support activities to implement the legislation and to create a toxic substance program.

Cuts in the budget (down $24.2 million) were made in the solid waste program. EPA proposes to undertake a "regulatory activity dealing with the safe disposal of toxic and hazardous solid wastes." Legislation will be proposed to authorize this program.

Also proposed is a decrease of $6 million to a total of $80 million in the air program. With the Agency moving to second generation control technology that will not immediately involve large-scale demonstration projects, funding requirements will be less. In the second phase, the private sector is expected to further and refine air control technology although EPA will continue research and development of such technology including fuel cleaning techniques.

Finally, an increase of $5.2 million is proposed for enforcement of air standards and State implementation plans and enforcement in auto certification and regulation.

CITY RULES ON QUIETER CAR HORN

For years, all sorts of proposals, plans, and projects regarding the reduction of vehicular horn honking have drawn a deaf ear from horn honkers themselves.

Horn honking, "one of the most abusive and unnecessary noises to which New Yorkers are subjected," according to Environmental Protection Administrator Herbert Elish, will soon be noticeably quieter under a new city regulation. Starting with 1974 models, all cars sold or operated in the city must be equipped with "the city-country horn," which sounds like any other auto horn, except that its decibel count will be governed by the speed of the vehicle at the time the horn is being used. Given the average speed of city traffic, it is expected that the adjusted horns will make only a fourth the noise emitted by horns presently in use.

According to the new regulation, made mandatory by the city's Noise Control Code, dealers accepting vehicles without the city-country horn already installed will be held responsible for their installation. ■

AUTO AS GAS CHAMBER

Continued from page 61 uncommon to find levels of monoxide in the blood of such drivers that are greater than monoxide levels associated with smoking.

They warned that "the growing popularity of air conditioned cars can be expected not only to make death in closed cars a year-round phenomenon instead of one primarily associated with cool weather, but also to increase the likelihood of carbon monoxide poisoning in moving vehicles." ■

Courtesy of **Rational Transportation**, published by Helen and William Leavitt, 4215 37th Street, N.W. Washington, D.C. 20008.

Announcements! Announcements! Announcements!

HELPFUL HANDBOOK AVAILABLE

A new handbook designed to help New Yorkers wind their way through the red tape of city government is now available in most bookstores. Entitled **Call For Action—A Survival Kit For New Yorkers**, the paperback consists of 276 pages of New York City telephone numbers—ranging from emergency services to bus information.

There are 2,142 references in the book including information on all-night services: telephone numbers for physicians in all five boroughs, the Mayor's night line, 24-hour drug stores, where to get help in gas and water emergencies, and how to report crank telephone calls in the middle of the night. Other references tell what to do in case of rat bites, where to apply for a loan, where to get a cancer test, where to get pregnancy tests, birth-control devices, and abortions.

In most cases the book states the hours that a given agency is open, whether a fee is required and, in some cases, a brief description of just what services the agency provides. There is even a number listed for "Complaints About New York City Agencies." It states that anonymous complaints are accepted.

Compiled and documented over the last 10 years by radio station WMCA's "Call For Action" volunteers, the book is a compendium of information in more than 600 categories. It is published by Quadrangle and sells for $1.95.

BOROUGH HALL "HAPPENINGS" RETURN FOR FOURTH SEASON

The celebrated Borough Hall "Happenings" have returned! The daily, noontime entertainments at Brooklyn's Borough Hall Park, Fulton and Montague Streets, are back for the fourth year. The free outdoor shows, coordinated by the Brooklyn Arts and Culture Association, Inc. (BACA), will run Mondays to Fridays, Noon to 2 p.m. through September 15th.

Events will include performances by musical groups, solo instrumentalists, singers, and dancers in a wide spectrum of rhythmic attractions. Every Wednesday will be devoted to unique musical events co-sponsored by the Brooklyn Borough President Leone, the Music Performance Trust Fund, and BACA. These events will offer an opportunity for Borough Hall area workers and residents to perform with professional musicians. For information on this program, call BACA at 783-4469.

All BACA programs are sponsored in cooperation with: The Department of Cultural Affairs, PRACA John V. Lindsay, Mayor; Richard M. Clurman, Administrator; Phyllis Robinson, Deputy Commissioner; The New York State Council on the Arts.

TUBERCULIN SKIN TESTS REPLACE TB X- RAYS

The New York City Health Department has replaced routine TB X-rays with the tuberculin skin test because of recent medical evidence that the skin tests are more effective in discovering active TB and can be administered without the risk of radiation exposure. X-rays will continue to be used for diagnostic purposes and when prescribed by a doctor.

Tuberculin skin testing will be available on a walk-in basis from 9 to 11:30 a.m. and from 1 to 4:30 p.m. at the Health Department, 125 Worth Street, N.Y.C. and at the following district health centers: Fort Greene, 295 Flatbush Avenue Extension, Brooklyn; Tremont-Fordham, 186 Arthur Avenue, Bronx; 90-37 Parsons Boulevard, Jamaica; and 2238 Fifth Avenue, Harlem.

The Pratt Institute Center for Community and Environmental Development
240 Hall Street, Brooklyn, N.Y. 11205

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