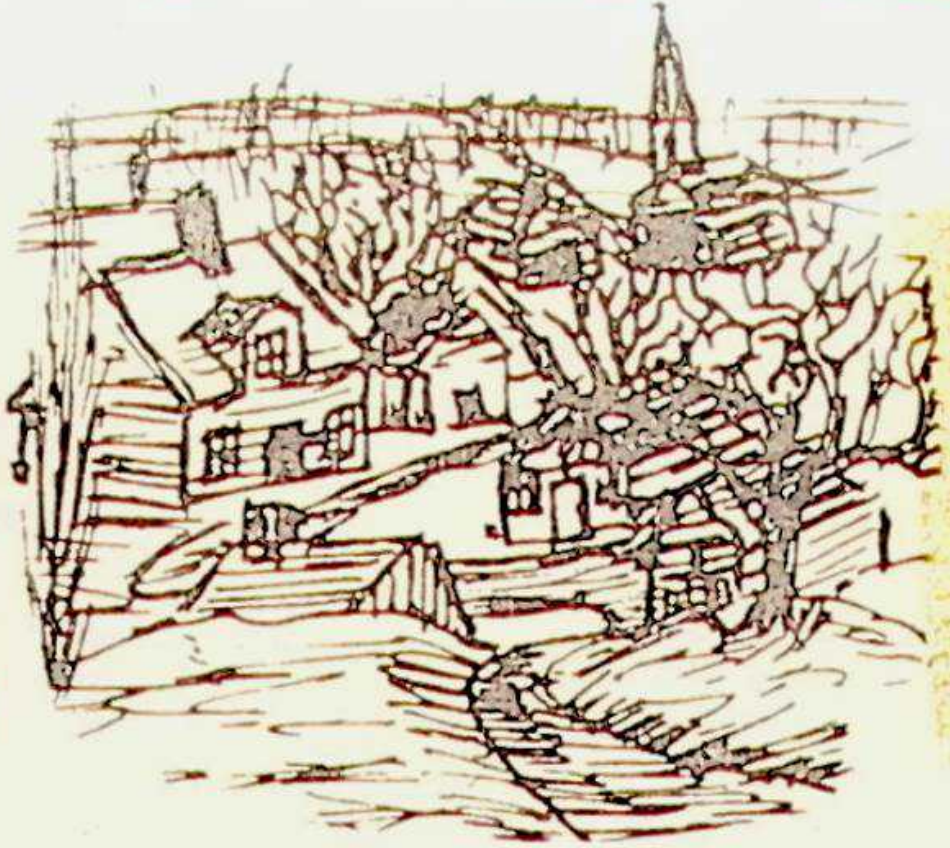
Village View

by Andrea Leonard



The time has come to review our progress in conservation and protecting our environment.

The recent gasoline shortage is now seen by most as a cruel hoax on the part of oil companies and a ruse to raise prices. We who've been fighting to preserve the quality of life in this country can stop feeling defensive.

The energy crisis was never caused by environmentalists; we must not stop insisting that new commitments be made to preserve the environment.

In no way, however, does this discount the fact we're using oil and energy reserves at an alarming rate.

We can't go on, in the future as in the past, grossly overtaxing the thin limits of our natural world without suffering a collapse to make those gasoline shortages seem like a passing April shower.

Indefinite continuation of current patterns of uncontrolled economic development, unrestrained exploitation of natural resources, and undirected patterns of growth will undermine the quality of life for the vast majority of persons for decades ahead.

During the next 25 or 30 years, the entire physical plant of our society must be duplicated to meet population and market demands projected for the year 2000 and just beyond.

Okay. What are some possible solutions?

There's enough energy in solid waste in large U.S. cities to light every home and commercial establishment in the country all year long, according to the Environmental Protection Agency.

These wastes can be diverted into electrical energy in large urban areas and provide the equivalent of 150 million barrels of oil a year.

Saving 150 million barrels of oil a year will provide the equivalent of 27% of the oil projected to be delivered through the Alaskan pipeline.

An additional 30 million barrels of oil a year can be saved by recycling metals, glass, rubber; it normally takes less energy to manufacture a product from secondary materials -- scrap iron or steel -- than to make it from iron ore.

Two cities in Massachusetts are now considering this type of energy recovery program; Boston and East Bridgewater. In Lowell, Mass., a resource recovery demonstration project is under way to recover materials from incinerator ash. Lowell has received from the Environmental Protection Agency a $2.4 million grant for the program.

A St. Louis, Missouri, demonstration project, supported by the EPA, is providing evidence of this large, virtually untapped, energy source. Solid waste is being profitably used as fuel for electricity.

Other ways fuel can be conserved have been suggested. If communities now collecting solid waste twice a week collected only once a week, a 29% fuel saving would be effected. Improved routing could reduce fuel consumption nationwide by five percent.

These two changes together could result in a national annual saving of 18.2 million gallone of diesel fuel and 39.1 million gallons of gasoline.

Research is turning away from biodegradable plastics and toward intensive recycling of this material.

One percent of every barrel of crude oil goes to manufacture plastics, half of which are used in packaging. So far, technology has not developed ways to reuse thermosetting plastics (those that harden under heat). Recycling of polythenes -- the familiar plastic wra ,er -- however, is already under way in

Britain and elsewhere.

Another process combines "dirty" polythene with waste paper and processes boards up to half-an-inch thick for making such products as pallets for materials handling.

Cryogenics, the science of using very low temperatures, is serving the recycling industry. Under intense cold plastics are reduced to fine powder, enabling stablizers, dyes and other additives to be removed.

The same process is dealing with junk cars representing millions of tons of high-grade scrap steel and aluminum going to waste.

The snag, until recently, has been that the metals are inextricably mingled with plastic, rubber, chrome, etc. Because metals break down at different low temperatures, cryogenics separates them.

Although installation costs are high to implement this process, soaring prices of metals will encourage this method in the near future.

Communal heating is under study. Some engineers feel it's as ridiculous for every home to have its own little heating system as it would be to have its own water - processing plant.

So-called backward countries of Eastern Europe are far ahead in this field. For forty years London's giant Battersea power station, a pioneer in heat conservation, has used steam generated to produce power for heating buildings in the surrounding area.

Even the international oil companies are involved in heavy research programs designed to get the maximum use from a barrel of oil. That's good news, indeed.

More and more local authorities see that using energy left in garbage, after usable materials have been extracted for communal heat, makes sense, thus solving the problem of waste disposal as well as providing an untapped source of energy.

It's better than incinerating it and letting the heat dissipate in the atmosphere. The atmosphere, itself, can become heat-polluted and there are fears the polar icecaps and glaciers may start to melt. This would cause widespread flooding of lowlands the world around.

One major problem with burning garbage has been the gummy tar residues. While most of this ends up as bituminous road surfacing which is cheap to install, road maintenance costs compare poorly with concrete paving. New uses are being sought.

A recent discovery promises extracts from this material may make flower gardens of the world's deserts. A team of British scientists, currently working on a test project in the Arizona desert, finds the residues capable of stablizing sand and making it suitable for cultivation.

A few years ago it appeared many of our environmental problems might be insurmountable. Today, however, although the problems are still monumental, progress is being made, work is being done, and things are starting to shape up.

One happy example is pollution abatement programs have sufficiently cleaned up the Connecticut River; scientists now believe it possible to re-establish a brood stock of Atlantic salmon. In this and other New England rivers pollution abatement has made waters clean enough, once more, to permit the fish to survive.

Good news indeed. With environmentalists continuing to press, we may survive, after all. We've taken some baby-steps; the giant steps are still ahead of us. Keep plugging away at it!