



Norman Clarke

Hoofbeats are back on the byways of rural England.

of a second car—and mares, unlike autos, breed their own replacements.

The British Driving Society, which caters to buggy fans, has grown from around 50 members to 3,500. Retired brewer Sanders Watney, the society's president, predicts a steady membership increase in coming years, as more people discover the relaxation...as well as the economy, of carriage driving. The revival is also attracting collectors. Watney himself has 20 carriages, including floats, gigs, and rally-carts. And at the big carriage sales held at Reading, Berkshire, three times a year, trolleys, hansom cabs, bakers' vans, phaetons, broughams, and even hearses are on view. Most are genuine old vehicles, though some new gigs and carts are being made—strictly according to the Victorian blueprints.

As a result, business is growing for carriage restorers and practitioners of traditional crafts—like the blacksmith and the wheelwright—that not long ago were near extinction. Some restorers charge up to \$3000 for knocking a dilapidated old carriage back into top shape.

In the U.S. most rural people are likely to stick with their four-wheel drives and fancy "RVs" because of the long distances typically traveled. But interest among collectors is booming;

there are now at least two associations with their own journals for carriage drivers and restorers. Prices for old carriages range from a few hundred dollars to more than \$20,000, and they are going up fast. —Ivor Smullen

BRINGING DOWN THE ROOF

Say good-bye to the high-rise apartment building. According to one Chicago architect, the residence of the future will go up only a story or two. Dotted with gardens and walks, the low-rise will be cheap, compact, energy-efficient, and so simply designed some owners may be able to build their dwellings themselves.

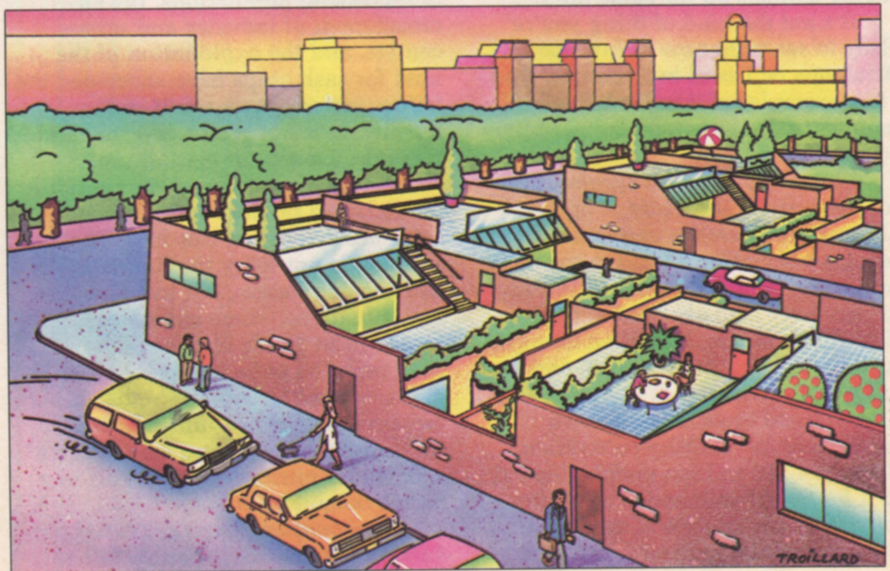
"It doesn't make any sense to construct apartments 200 feet high in the air," says Peter Land, a professor of architecture at the Illinois Institute of Technology. "It takes such an enormous amount of concrete and steel to keep them up there." Then there's the cost of elevators and all the pumps for water and sewage. The towers create wind tunnels, cast dark shadows, overload transportation facilities, and entomb their inhabitants. In the end, says Land, the soaring price of energy needed to maintain these monsters is bound to do them in.

To take their place, Land envisions rows of little townhouses packed tightly together along narrow, tree-lined streets—a return, in other words, to the time-honored styles of Washington's

Georgetown, New York's Greenwich Village, and Boston's Beacon Hill. He says these low-rises can pack in just as many people per acre as the high-rises, which have to be set far enough apart to allow ground-level apartments the customary minimum four hours of sunlight daily. And because low-rise communities will be so densely settled, residents will be able to get about on foot—and leave their automobiles in the garage.

The low-rise houses, unlike the buildings in a high-rise complex, will be exposed to the sun all day long, cutting heating costs. A layer of sod on the flat roof, plus earth embankments, or berms, around exposed sides, can insulate the homes cheaply. And hideaway gardens in the interior can provide private retreats that will be, says Land, "an antidote to the stresses and demands of modern urban life."

Most important, the houses will be easy to build—so easy, in fact, that Land foresees families banding together to build a townhouse community by themselves. Americans are already renovating old homes with their own hands; why, he asks, can't they construct new ones? Land has directed the self-help construction of 500 such dwellings by fishermen and farmers in northern Peru. Troy, New York, and other U.S. communities are considering similar projects as a logical outgrowth of rehabilitation programs. Doing the work themselves, residents could build a \$50,000 house for \$15,000 to \$20,000—and



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SOCIETY

then sit back and watch their equity grow.

Land believes this plan could help ease the housing shortage in the U.S., extending the American home-owning dream to the working class and even to welfare recipients who dislike the prospect of public housing and find the price tag of contractor-built housing far beyond their means. "If they've got an income," says Land, "we can find a way—even with a financial commitment of as little as \$20 a month plus sweat-equity loans—to help them build their own houses."

—John Sedgwick

FIELDING HIGHER YIELDS

In another five or ten years, if there's still enough gasoline around at a price low enough to make a Sunday afternoon drive worthwhile, you may see a change in the appearance of the farms you pass in the countryside.

Instead of a 25-acre field containing nothing but corn, for example, you may see the corn growing under small trees. And between the cornstalks, you're likely to see pumpkins.

What you'll be looking at will be neither agriculture, in the traditional American sense, nor forestry—though it will contain elements of both—but a new kind of farming called *agroforestry*. Agroforestry involves growing food crops and trees together, either at the same time or sequentially, and raising animals on the same land.

It's not the kind of thing you're likely to see right now in Iowa or Oklahoma or Texas, but you may find a few examples of it in New England, among "back-to-the-landers" farming poor, rocky soil.

The prime areas for agroforestry, however, are in the Third World. Although the name is new—and denotes a scientific approach to farming in poor areas—Third World farmers have actually used similar ideas for centuries. It's called *taungya* in Burma, *chena* in Sri Lanka, and *chaco* in Bolivia.

All these systems are known collectively as "shifting cultivation." More than 250 million people depend on it for their livelihood. The shifting cultivators cut down and then burn forest vegetation to clear a space in



In Kenya: cypress and maize in shared living quarters. Such cohabitations hold promise for the future, for they increase the productivity of farmlands.

which to farm. They raise food crops and animals there, using no fertilizers or chemicals, until the productivity of the land falls off. Then they move on and repeat the process elsewhere.

The area they cleared gradually regains its fertility as nutrients from rotting leaves and vegetation seep in. The land can then be used again.

In the past this system worked well, but in recent years the pressure of increasing populations, the encroachment of industry and urban centers, and the exploitation of the land for cash crops have shortened the fallow periods. As a result, soil fertility does not return and the land becomes useless for agriculture.

An increasing number of agriculturalists and farmers are proposing agroforestry to stem this loss. Their solution is not to try to eliminate shifting cultivation, but to adapt it to new situations. Some examples:

- Millet yields in Senegal have been reported to be 250 percent higher in grain and 350 percent higher in protein when grown under *Acacia albida* trees. These trees are legumes and can fix nitrogen from the air in a form available to crops.

- Indonesians have increased production from 0.7 tons per hectare to

1.8 tons in two years by growing rice between young forest plants.

- In Malaysia, rubber-tree growth is accelerated when intercropped with legume ground covers.

- In southeastern Nigeria, crops that were grown along with trees in a forest-planting program have yielded \$3 million worth of food annually.

—David Spurgeon

ON THE HORIZON

- Gasoline from Ronald McDonald. Convenience stores last year doubled their gasoline sales to \$5.2 billion, arousing the envious interest of the far more numerous fast-food outlets. McDonald's is now trying out gasoline pumps at one of its locations in San Diego.

- A neighborhood laughter center. One such center has opened in Staunton, Virginia, offering jokes, games, and movie comedies. *Entrepreneur* magazine predicts other laugh centers will follow.

- Offshore nuclear power from the Soviets. The first Russian-built nuclear power plant in the western hemisphere is scheduled to begin operation in Cuba in 1984. ■