

Kid's KOrner

Foresters Push Green Islands Amid Gray Concrete Of Cities

SYRACUSE, N.Y.—Urban foresters recognize that most people can't see the forest for the skyscrapers.

And no wonder. The very concept of an "urban forest" seems contradictory. Forests and cities aren't supposed to grow together.

Yet 60 to 80 percent of urbanized areas in the temperate regions of the world meet the criteria of forests, says Rowan A. Rowntree of the U.S. Forest Service.

Cities are more wooded than we think. Trees cover about 30 percent of the land in an average U.S. city. Islands of green have survived among the gray concrete.

Tree-Filled Bronx

Even in densely populated New York City, there are 4,500 acres of oak and hickory forests, most of them in the Bronx. In the borough of Queens, there are as many trees as there are people, about 1.8 million. The Forest Preserve District of Cook County encompasses 65,000 acres of metropolitan Chicago.

In as much as 80 percent of any city, excluding its central business district, there is three to four times more vegetation surface—leaves, shrubs, and grass—than artificial surface—streets, sidewalks, parking lots, and houses.

"When we say cities are made of concrete and building materials, that's not really accurate," Rowntree says. "They are made up mostly of vegetation." Among the exceptions are some cities in the arid Southwest, such as Tucson, Ariz.

Only recently have foresters paid much attention to the urban-forest ecosystem, which can influence local climate and provide a habitat for other plants and animals.

Rowntree is counting trees in

selected cities across the country by studying aerial photographs and satellite images. He is project leader of the Forest Service's Northeastern Forest Experiment Station in Syracuse.

The Forest Service began a small urban-forestry program in 1978. That year it joined the American Forestry Association in sponsoring the first National Urban Forestry Conference.

Nationally, urban forests are estimated to number in the millions of acres. From the air, Rowntree says, a typical U.S. city, except in the Southwest, appears to be about a third trees, a third grass, and a third artificial surface. About half the city is residential; a fourth is parks and vacant land; and the other fourth is commercial, industrial, and institutional.

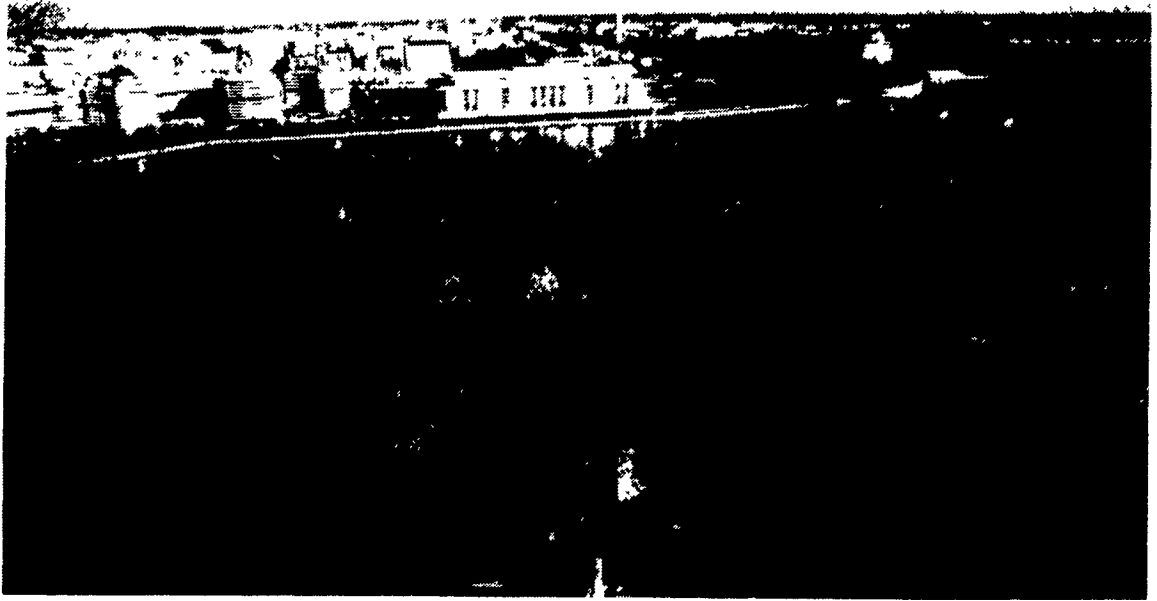
Wooded Hillides

Among the most-forested cities are those built on hills, such as Birmingham, Ala., and Cincinnati, where much of the land is still undeveloped hillides.

A Forest Service study of New Orleans trees—live oak, crape myrtle, slash pine, loblolly pine, and southern magnolia—concluded that they constitute "a genuine forest." About 21 percent of the developed part of the city is covered by tree canopy.

"Looking down on Salt Lake City, you see a landscape that looks like Connecticut," Rowntree says. "In what was almost a desert basin, the city over the years has created an urban forest." Tree cover reduces water runoff about 20 percent.

In Carmel, Calif., trees are revered citizens. Some 32,000 trees, mostly tall Monterey pine, crowd the one-square-mile town, far outnumbering its 4,700 people.



An island forest grows in the middle of the Potomac River between downtown Washington, D.C., and the high-rise office buildings of Arlington, Va., on the opposite bank (not seen). The trees of Theodore Roosevelt Island constitute an "urban forest," found in more cities than many people realize.

"Ours is actually a village within a forest," says City Forester Gary Kelly, who keeps a computerized inventory of every tree. "We have no sidewalks, no curbs; we have trees along the streets and trees in the middle of streets that you have to drive around."

On a much larger scale, Atlanta is a rapidly growing city within a forest. More than 743,000 acres of forest land and an estimated 62 million trees make Atlanta one of the most heavily forested urban areas in the country.

But the Atlanta Regional Commission, concerned that urban sprawl might eventually create a terribly hot city, has sought advice from the Forest Service. In 1984, Trees Atlanta Inc., founded by the parks commission and city

businesses, began an urban reforestation program in a number of barren downtown areas.

Dayton, Ohio, officials consulted the Forest Service about reducing summertime temperatures downtown. Rowntree says recommendations included planting more trees on streets and parking lots and converting some lots from black asphalt to perforated concrete blocks to allow grass to grow through. The air temperature above a "green" parking lot is about 10 degrees cooler, he says.

Computers Aid Planning

Rowntree hopes eventually to develop computer programs to help individual cities determine the "optimum plan for urban vegetation, species of trees, size,

and location, just as they prepare optimum plans for sewer pipes, roads, and utility lines," he says.

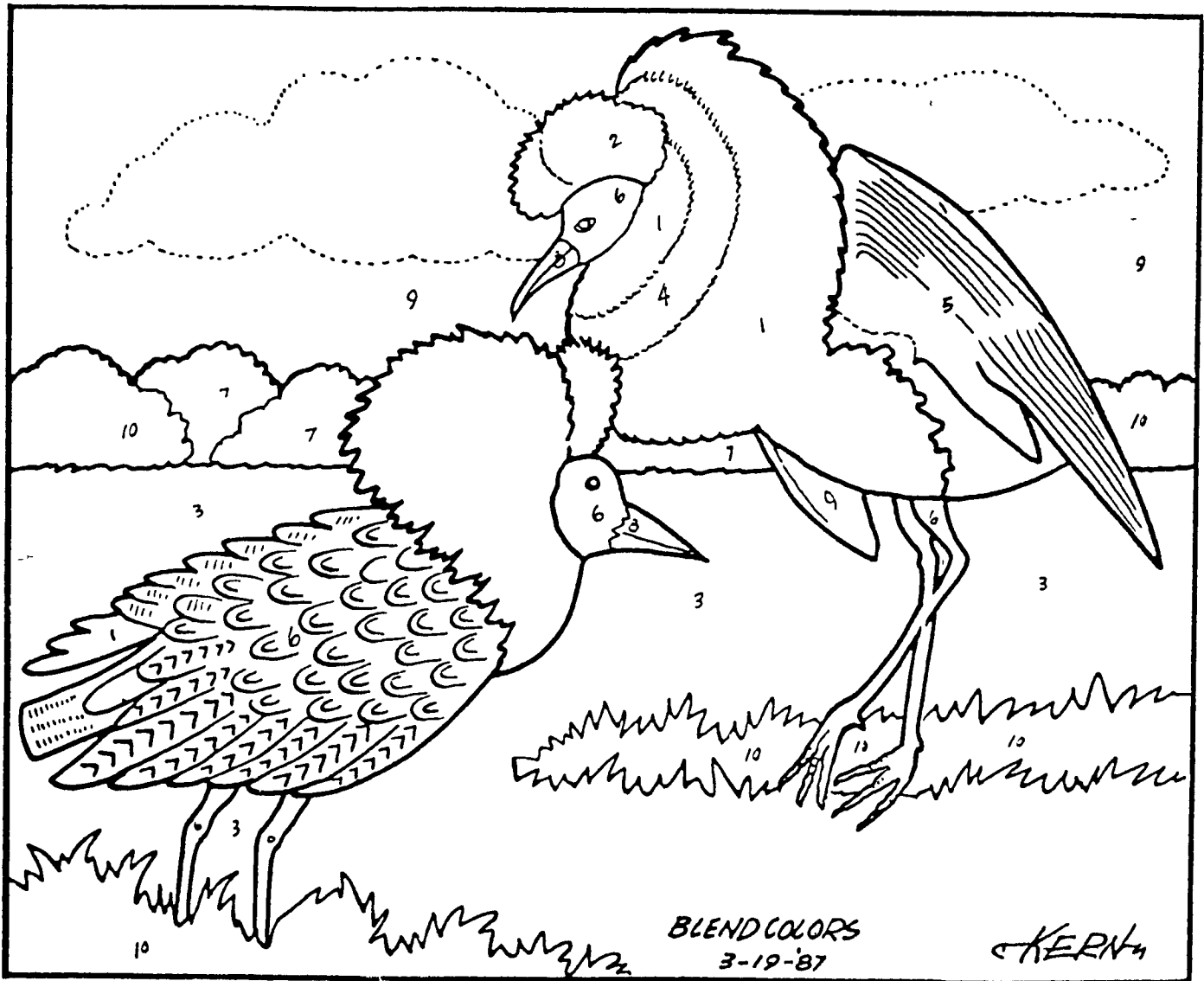
"We could program for maximum summer shading, for example, then feed in maximum access to low sun in winter." Sunshine in winter can be critical, particularly for people using solar collectors for heating.

Yet even without leaves, a single sugar maple can cause about a 40-percent reduction in sunlight reaching a southern exposure, says Gordon M. Heisler, forest meteorologist at the Northeastern Forest Experiment Station in University Park, Pa. "A bare tree still has all those branches and twigs, and a large mass up there in its crown."

COLOR THIS!

- | | |
|-------------|---------------|
| 1. BLACK | 6. ORANGE |
| 2. RED | 7. GREEN |
| 3. YELLOW | 8. LT. BROWN |
| 4. BLUE | 9. LT. BLUE |
| 5. LT. GREY | 10. LT. GREEN |

RUFFS ARE SHORE BIRDS FOUND IN NORTHERN EUROPE. THE NAME COMES FROM THE FACT THAT THE MALE HAS A DARK RUFF AROUND ITS NECK. THEY USE THEIR ORNATE FEATHERS TO AN ADVANTAGE. THE MALES ARE LARGER THAN THE FEMALES. THEY BAND TOGETHER ON DANCING GROUNDS FOUND ON OPEN HILLSIDES.



BLEND COLORS
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