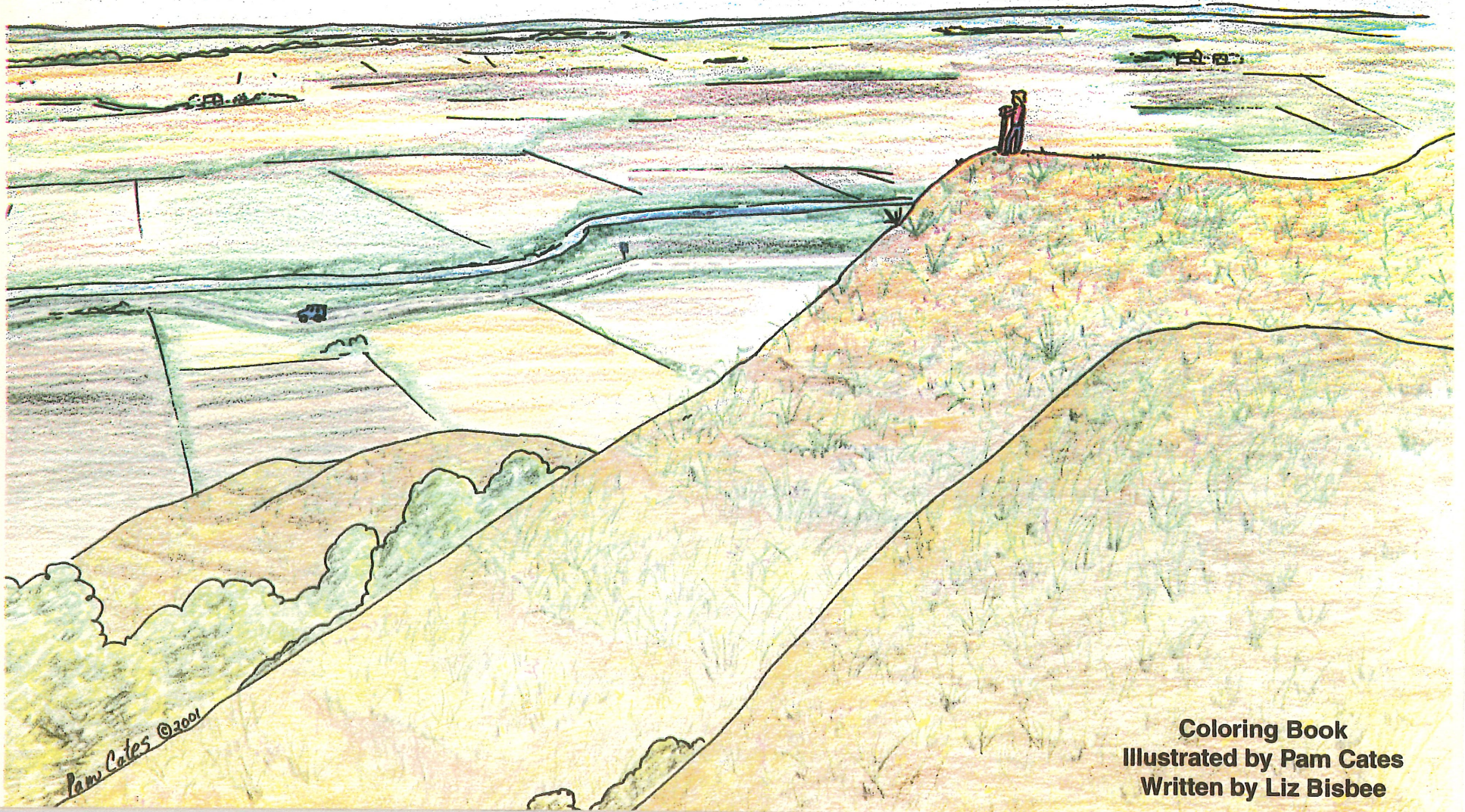
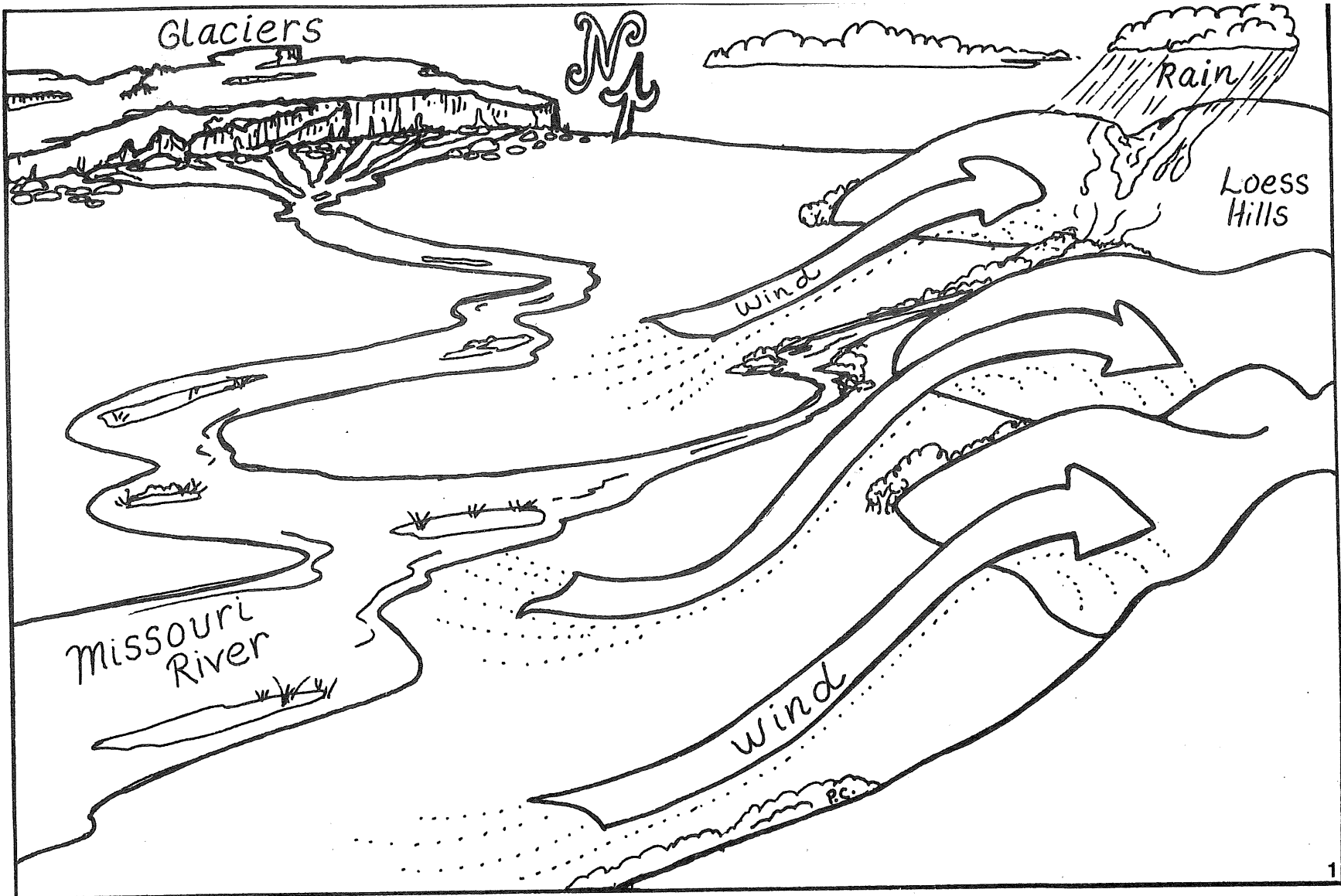


Western Iowa's Loess Hills



Pam Cates ©2001

Coloring Book
Illustrated by Pam Cates
Written by Liz Bisbee



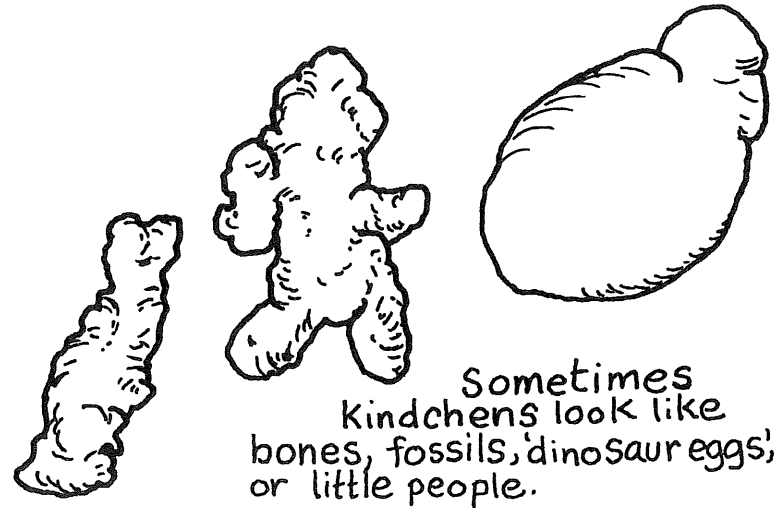
Long ago, northern glaciers ground up rock into fine, loose soil. This soil was carried south by the Missouri River and formed the wide flood plain between Iowa and Nebraska. Winter winds blew the soil into Iowa, forming tall hills. Then rain shaped unusual gullies and ridges. The Loess Hills were formed.

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1. catsteps



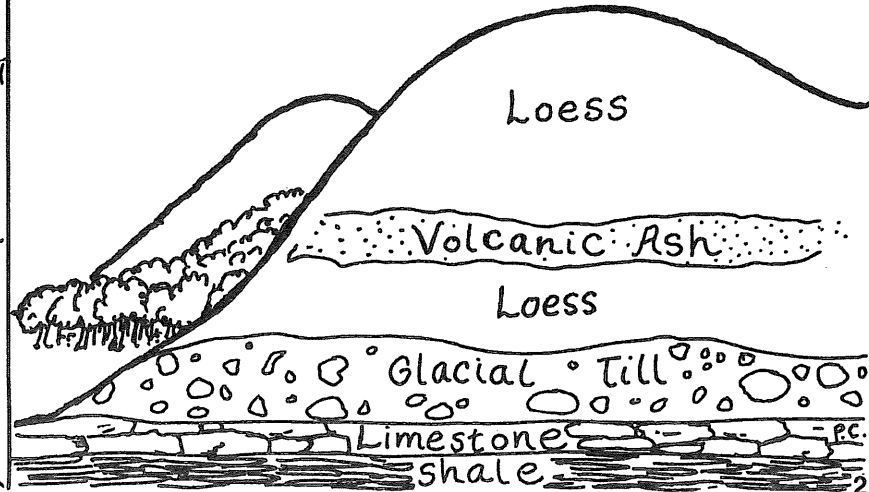
2. kindchens



3. sheer cliffs

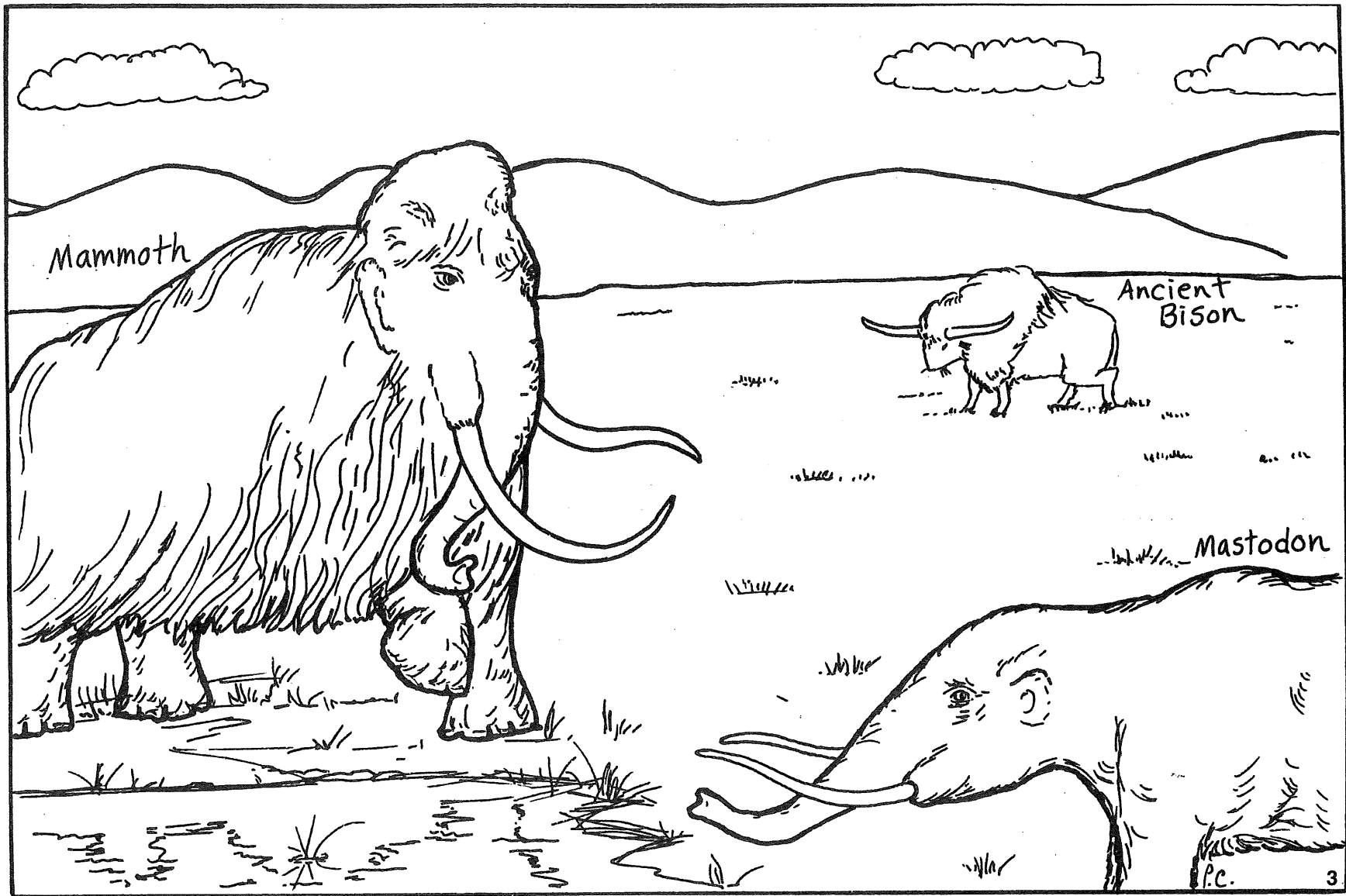


4. layers under the loess.



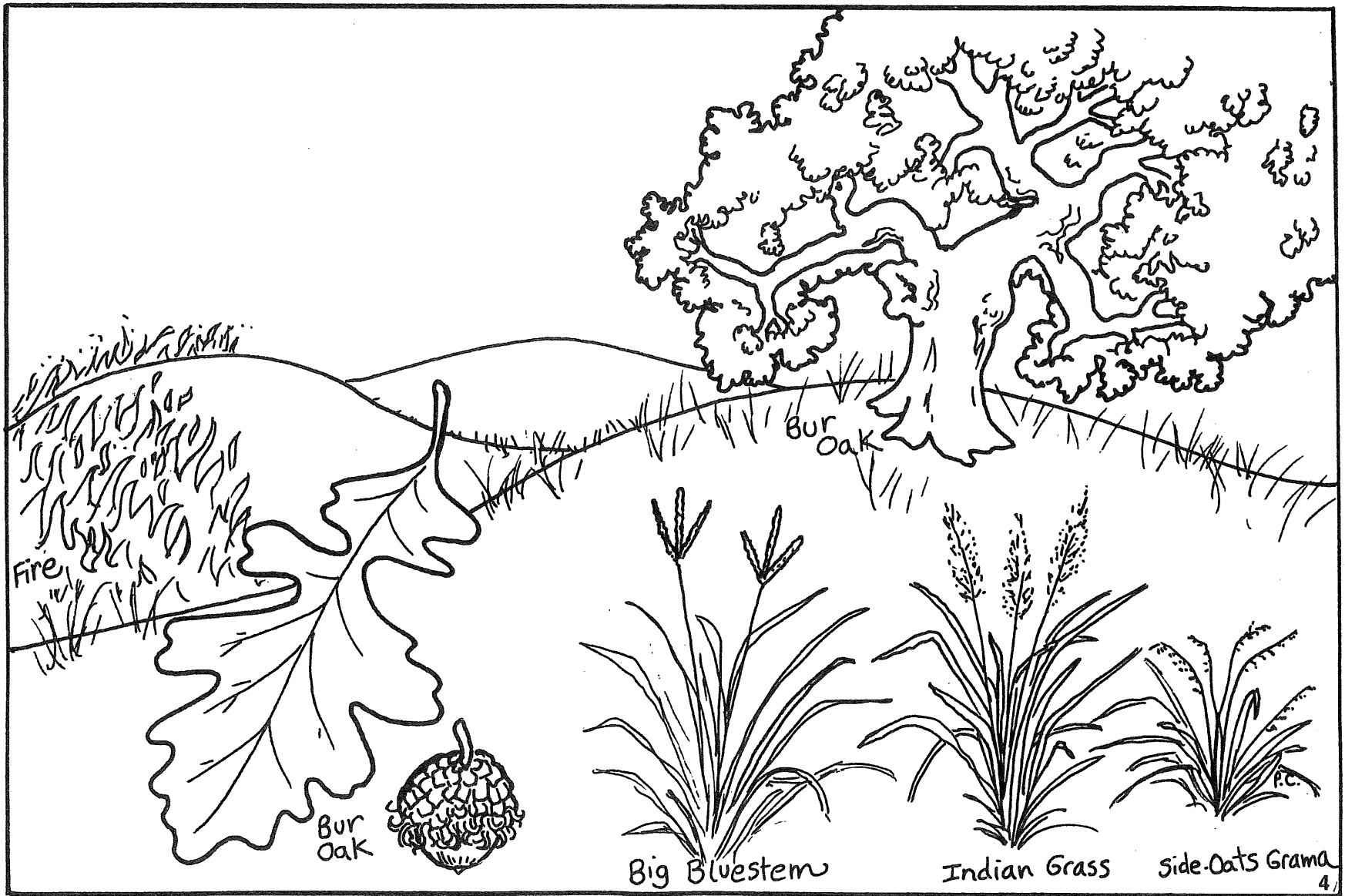
"Loess" means "loose" and is pronounced luss. Because the soil particles are flat and about the same size, loess soil has some unusual characteristics. 1. Natural mini-avalanches cause catsteps. 2. Air pockets in the soil fill with lime deposits, call "kindchen." 3. Sheer cliffs stand better than slopes, if they stay dry. 4. Over 200 feet under the loess there is a layer of glacial till and also layers of limestone and shale. In some places you might find a layer of volcanic ash.

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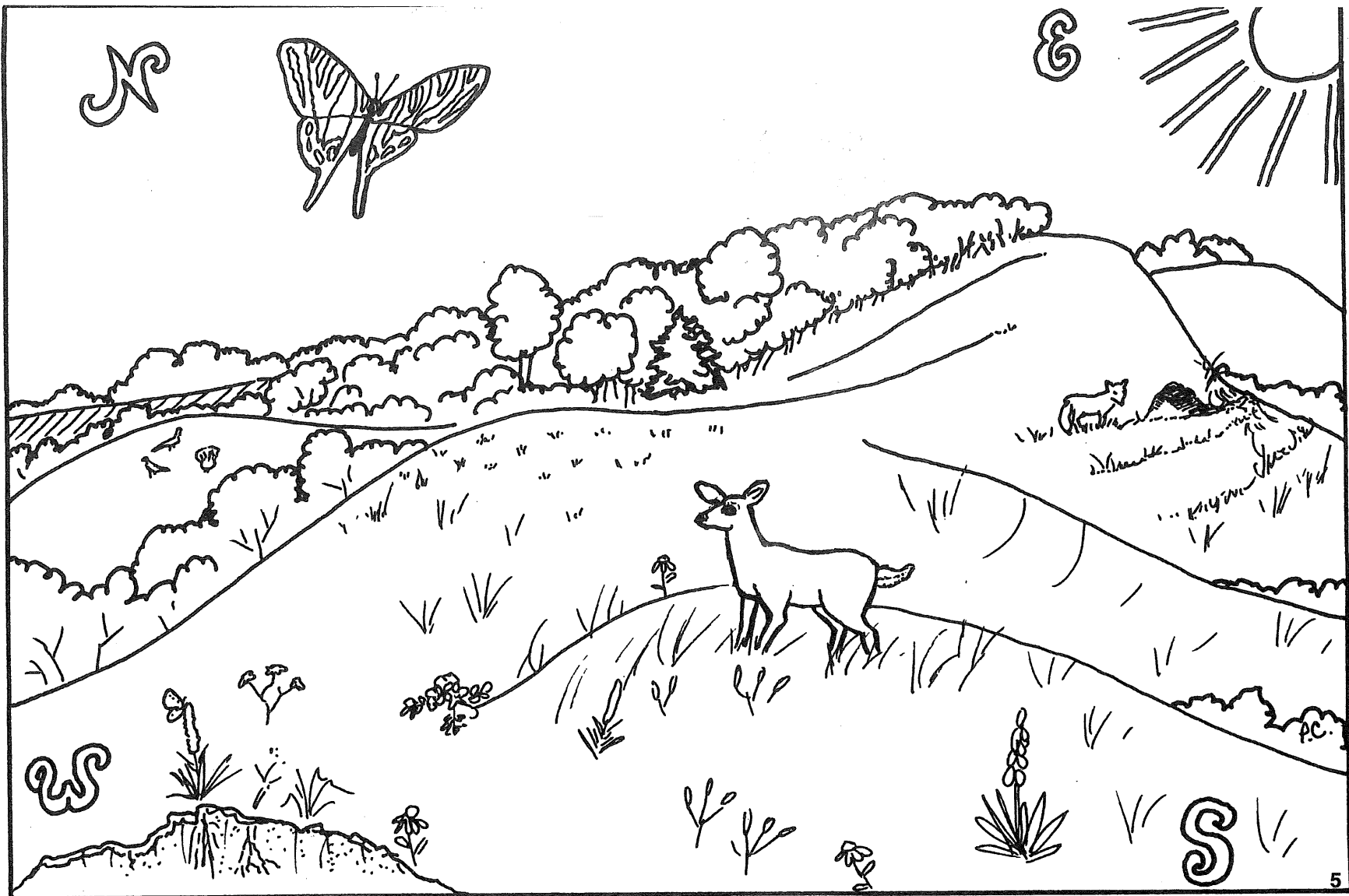
Loess soil preserves fossil evidence of ice-age mammals. Huge mammoths and mastodons roamed these hills along with ancient bison with horns measuring three feet from tip to tip. These mammals became extinct about 14,000 years ago.

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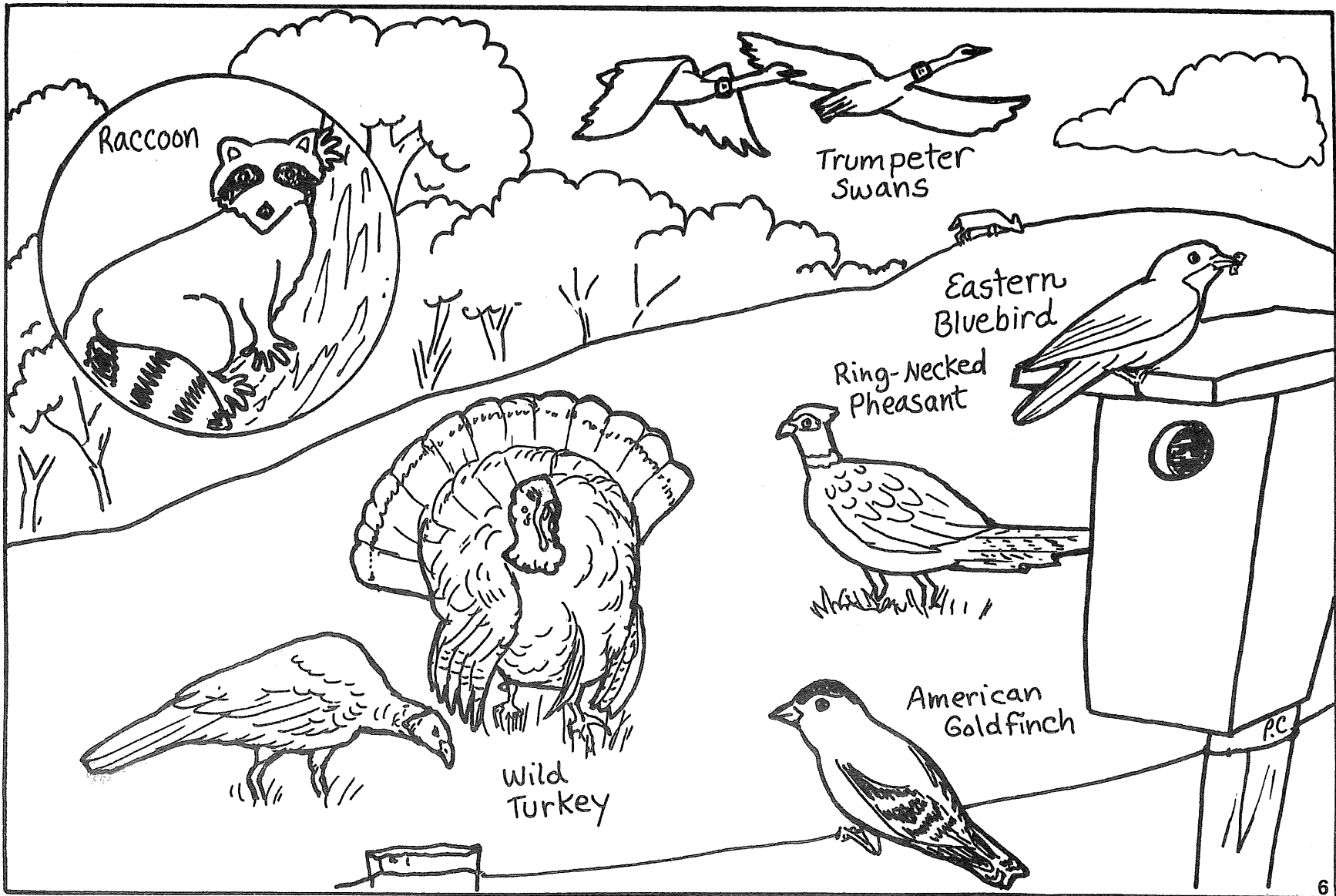
The climate changed in the "Hills" region and eventually the Loess Hills were covered with prairies and savannas. Lone bur oaks called "wolf trees" spread their branches wide, and dot the prairie. They survive because of a tough cork layer that protect them from prairie fires. Fires keep the prairie healthy by discouraging unwanted plants and encouraging new growth. The oak is Iowa's state tree.

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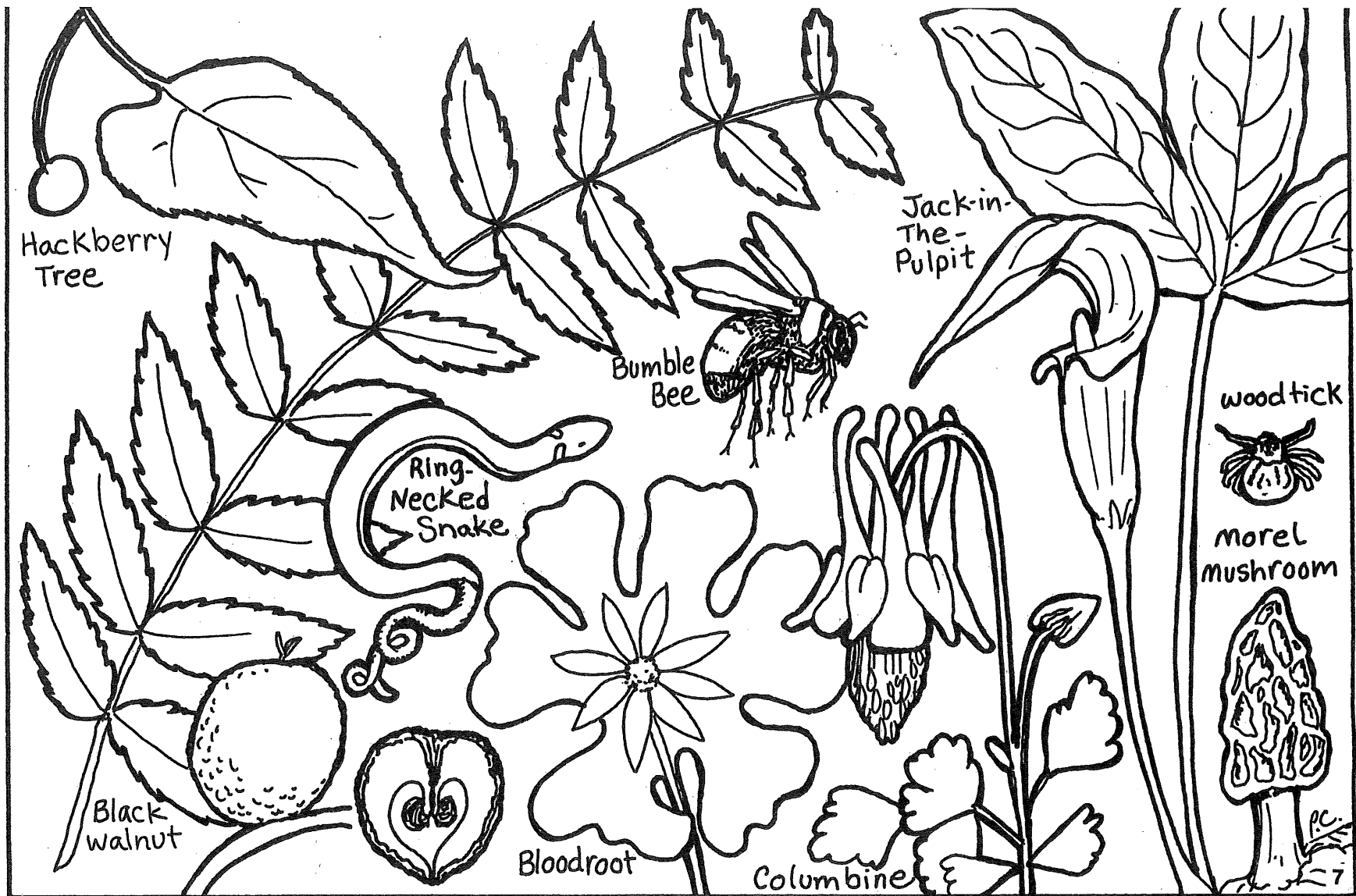
Because the "Hills" have so many different kinds of habitats all together, they have been called a mosaic. You can find moist woodlands on the north face of the same hill that has prairie on the south face and a desert-like area on the west side and ridge top.

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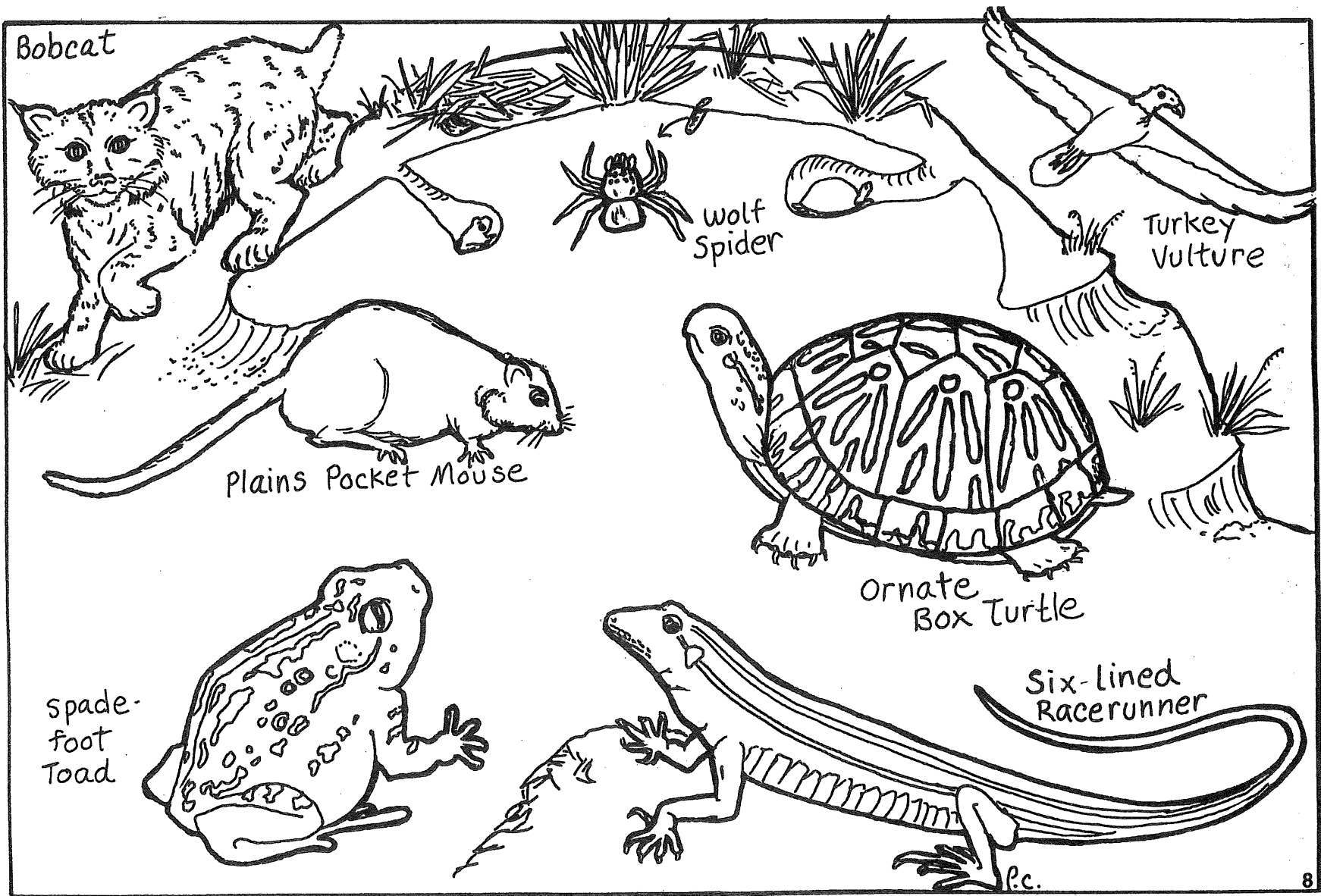
The place where the different habitats come together is called the "edge." Many wild animals need this edge as part of their home. The Loess Hills have an abundance of wildlife and wild places. A reintroduced animal, the wild turkey, can be seen throughout the hills region. The goldfinch is Iowa's state bird.

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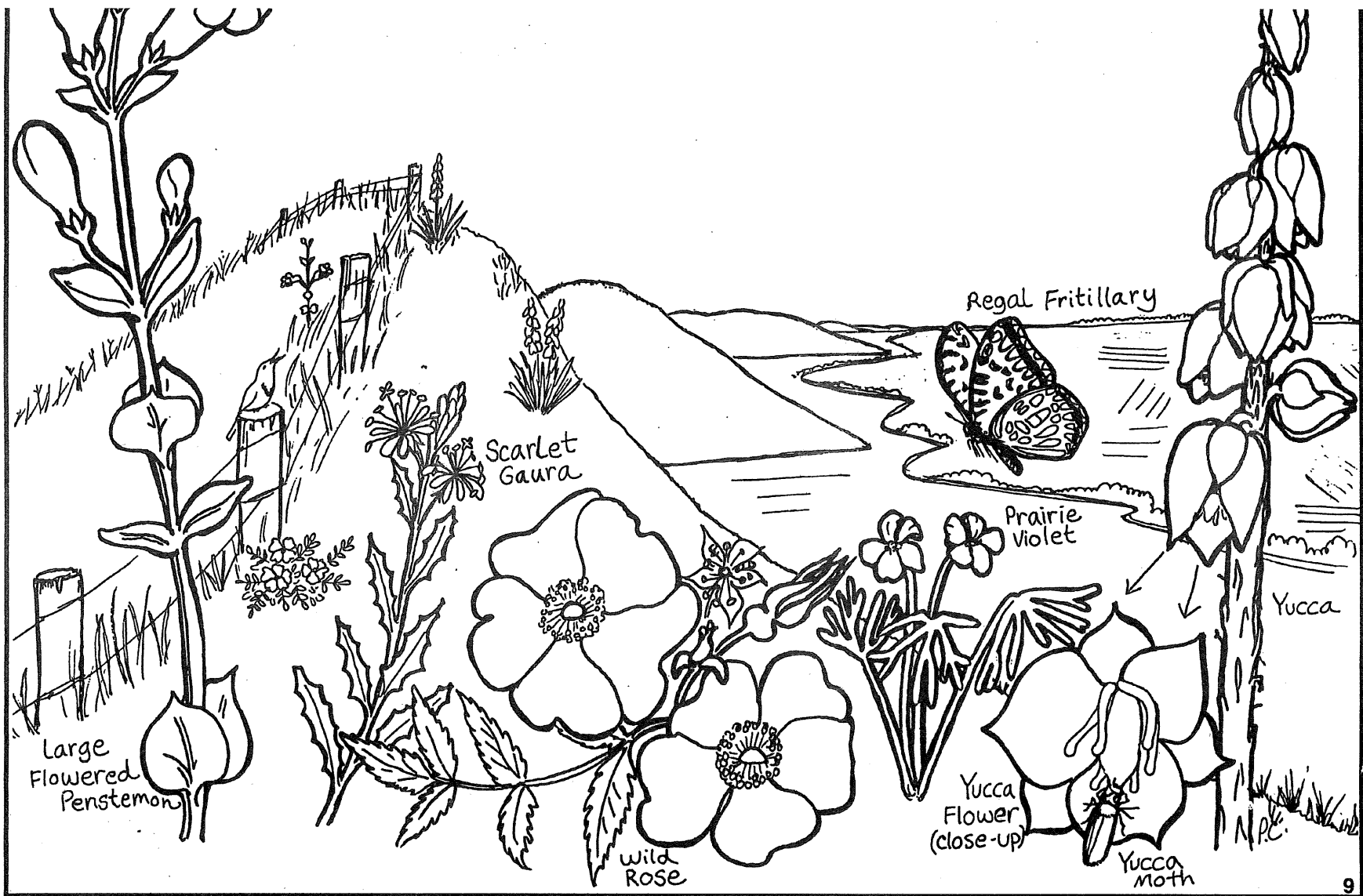
Woodlands are found in the river valleys and on the north or east sides of the hill slopes where it is cooler and more moist. Some of the woodland trees are bur oak, black walnut, shagbark hickory, hackberry, and cottonwood. Spring woodland wildflowers such as columbine, bloodroot, Dutchmen's breeches, and timber phlox carpet the ground. Sometimes you may find a Jack-in-the-pulpit.

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Iowa endangered species like the bobcat roam the Loess Hills. Animals not usually found in Iowa such as the ornate box turtle and spadefoot toad can be found on the driest and most desert ridges. Many animals burrow to escape the harsh climate at the top of the hills.

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Iowa's State Flower, the wild rose, grows in the Loess Hills. The dry ridges also grow flowers unusual to Iowa. Some of the plants that grow here are also found in drier climates like Texas and Arizona. Some of the prairie plants that grow here have insect partners. The partners shown here are the prairie violet and the regal fritillary butterfly, and the yucca flower and the yucca moth.

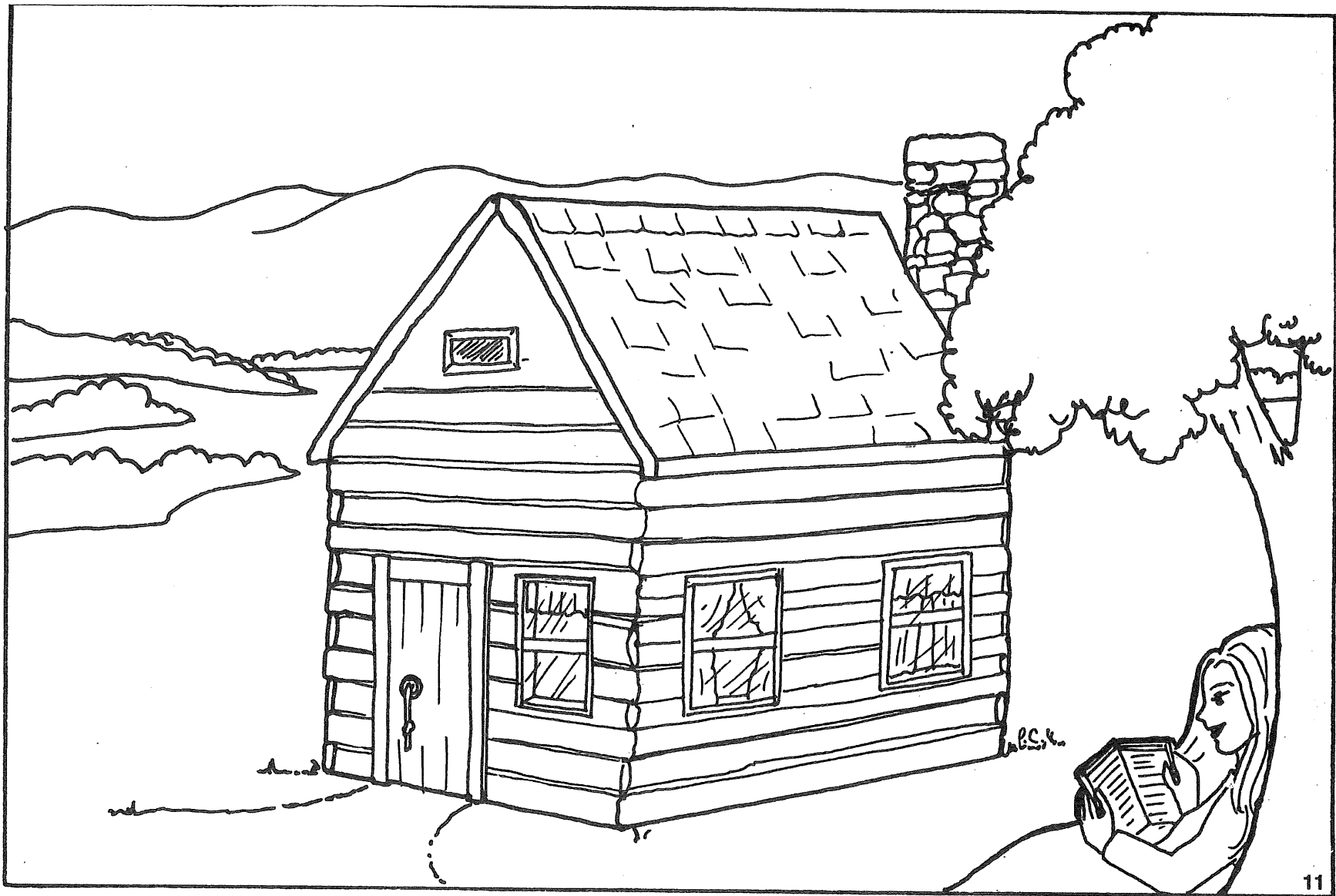
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10

Early people in the Loess Hills were earth-lodge builders. Near Glenwood, Iowa, many of these lodges have been studied by archeologists. The people who built these lodges are called the Glenwood Culture and were thought to have been farmers and lived a peaceful life. One of the lodges has been rebuilt by the Glenwood Earth Lodge Society.

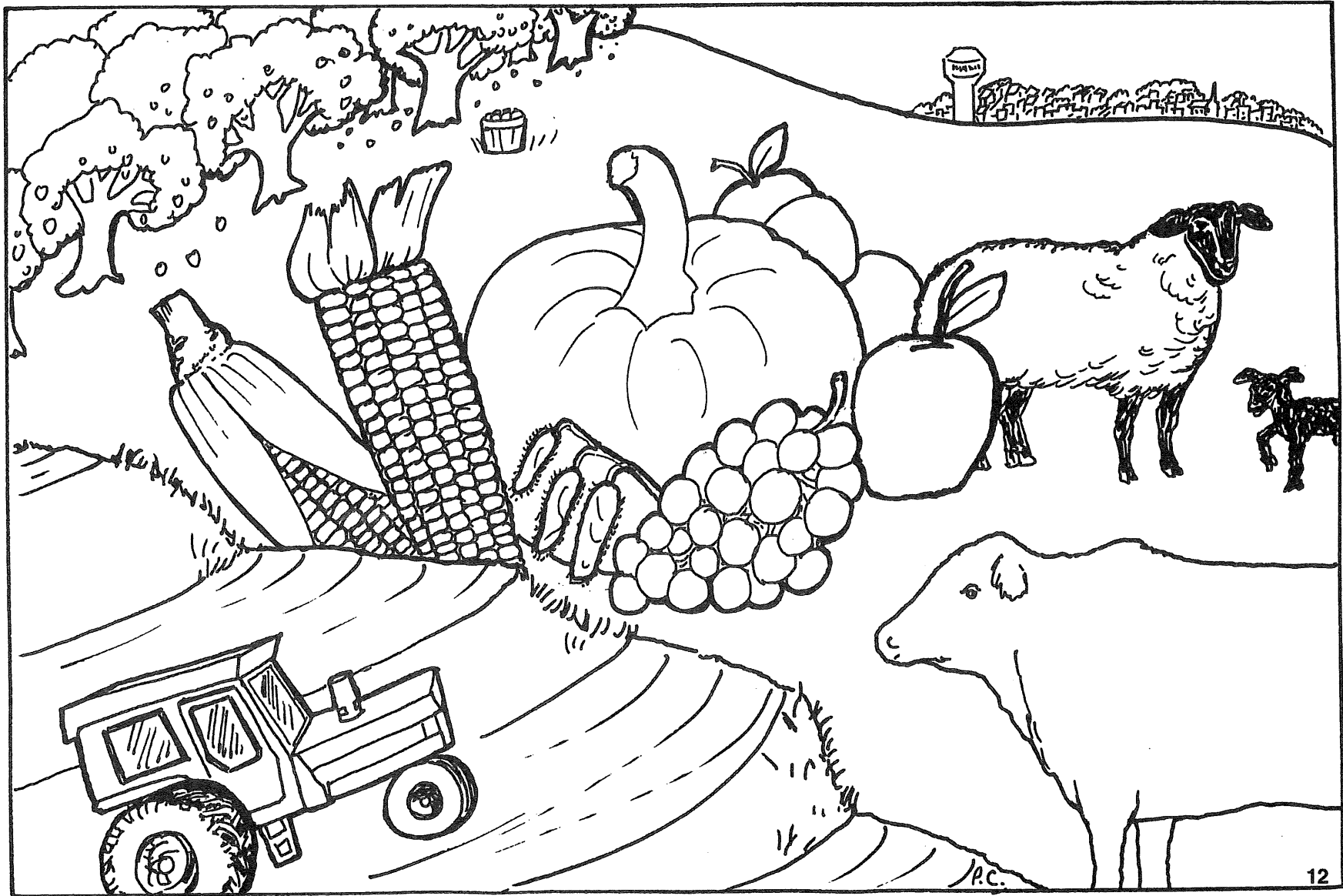
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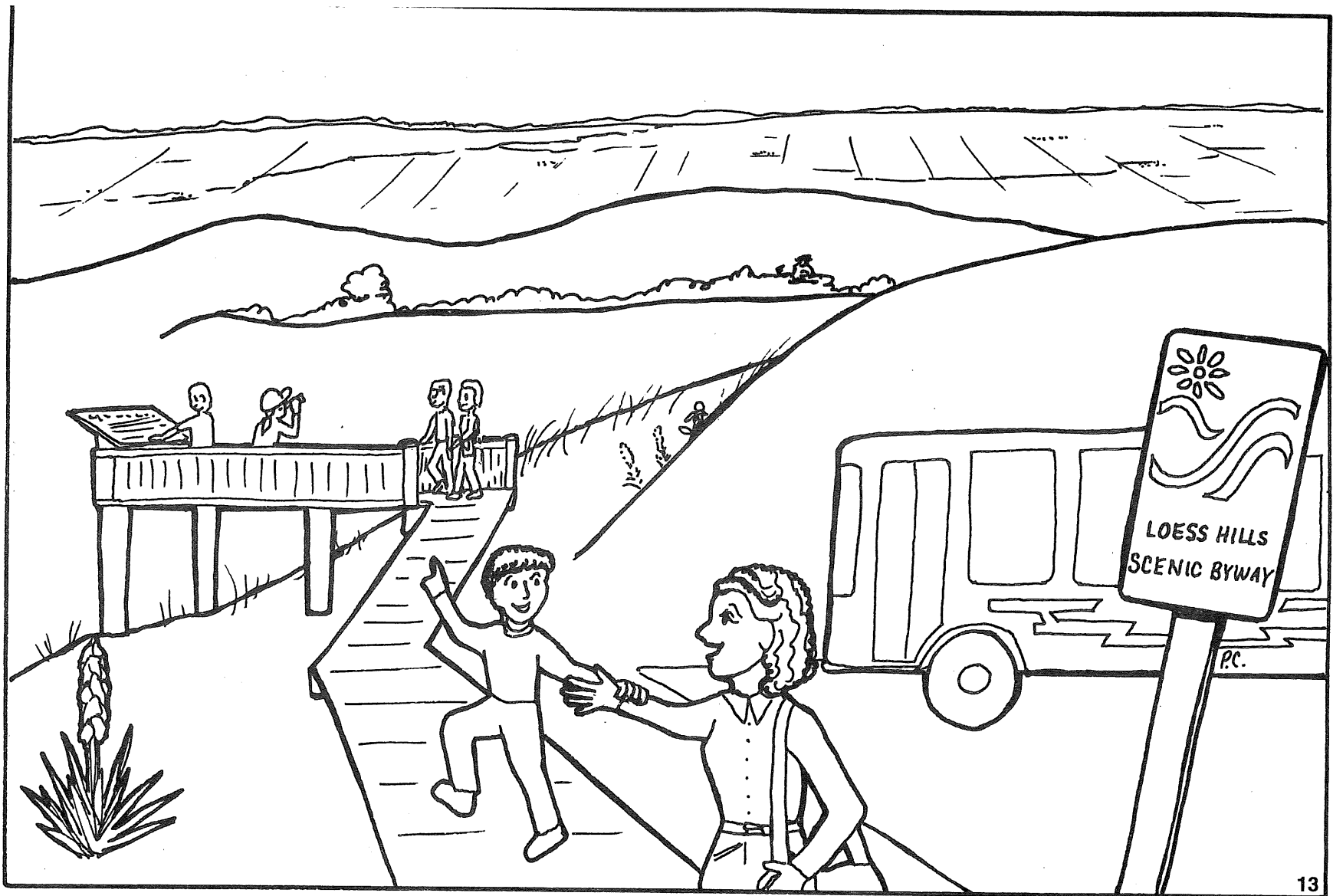
The hills were covered with prairie and few trees when the first pioneers arrived. The trees were found in the floodplains and river valleys. Settlers plowed the prairies and found the hills to be very fragile with the prairie removed. The soil eroded so fast when wet, it got the nickname "sugar clay," even though loess is not clay. Farmers today work hard to stop erosion in the hills by contouring and building terraces.

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Most of the Loess Hills today are in private ownership. People farm, own orchards and vineyards, work in towns and in cities. If you go exploring in the hills, be sure you are on public land or ask permission to hike on private land.

Sponsored by Mills County Conservation Board



As people learn how special the Loess Hills are, they have become a popular place to visit. Traveling the Loess Hills National Scenic Byway can show visitors some of the best scenic, historical, and cultural places. To get your Scenic Byways brochure, stop by any of the welcome centers located on the map in this coloring book.

Sponsored by Monona County Conservation Board & Woodbury County Conservation Board & a friend of the Hills