

## Landscapes of Early Iowa

Iowa is a land of beauty. No traveller makes his summer outing by her prairie highways, north, south, east, or west, but returns to tell of wondrous fields, sunny pastures, groves, farm houses, and villages hardly elsewhere to be matched. So completely has the whole State passed beneath the plow, so quickly assumed the appearance of one vast farm, that one who thus studies the Iowa of to-day realizes with difficulty the strange picturesque wildness of fifty or sixty years ago when of farms, villages, cities, over the vastly greater part of this area there were none. For the benefit of those whose later experience makes them familiar with the present status only, it is worth while to describe the Iowa of that earlier day. For older men this is less needed; such have but to shut their eyes a moment till memory, all too willing, lifts up again the vision of past scenes and years.

It might perhaps be thought that the signs of human occupation form the chief distinguishing characteristic of the new physiognomy; but this is only partly true. Our human sympathy leads us to dwell on such features and to find in them a certain

[This description of primeval Iowa by the venerable botanist and president emeritus of the State University is reprinted in THE PALIMPSEST from *The Iowa Historical Record*, Vol. XI, where it was published in October, 1895.—THE EDITOR]

charm. But even were all the houses suddenly to disappear, even though the netted highways with right-angled meshes should dissolve and blend again unmarked into the adjoining fields, even then the prehistoric landscape would lack much of restoration.

Hill, valley, rock and stream are always of course the same, but these form only the background, the skeleton; the charm, as the character, lies in the details with which the larger features are evermore clothed and covered. In detail the modern landscape is very different from the old. Apart from inequality of surface, diversity in the appearance of a country is due largely to the distribution of forest and meadow. This distribution, ever picturesque, at least in eastern Iowa, remains to-day so far unchanged as to indicate the original conditions. True, very much of our Iowa woodland has been reduced to so-called farms or pasture-fields, but enough still remains to suggest the principal outlines of those landscapes which must have met the eye of the earliest civilized inhabitant. The differences lie deeper and affect alike the forest and the prairie.

The primeval woods were confined to two very dissimilar locations; to ridges of clay, sand, or rock and to flood-plains of streams, flats more or less wide, subject to overflow. All the richest, most fertile areas of the State were prairie. Sometimes the two poorer regions mentioned blent, or came

close together, especially since Iowa streams have a fashion of cutting through ridges and rocks; but not infrequently the streams were found shaded with only a fringe of their characteristic species while groves of forest trees covered isolated hilltops far away.

The primeval forests in these diverse localities were very different in character. The species were different. Down by the streams the wild plum, wild cherry, box-elder, soft maple, and elm made, with the grape and Virginia creeper, thickets almost or wholly impassable, with shade so dense that the ground beneath was absolutely bare. Where by the junction of two streams the flood-plain was widened with richer alluvial soil, walnuts, hackberries, and cottonwoods with an occasional bur-oak, gave to the woodland more the appearance of an eastern forest, and here and there on rocky banks were groves of hard maple rivalling those of Pennsylvania and Vermont. But on the clay ridges the white oak flourished sometimes to the exclusion of all else; while the most striking peculiarity of the Iowa upland forest was its openness. One could drive through it anywhere. To one following some long clay ridge the trees opened on every hand as in a royal park, and out past their clean white weathered boles on a summer day the emerald prairie gleamed and shone to the horizon's edge.

Even in the midst of these wooded hills there was many an open mead, an area perfectly bare of trees,

an acre, ten acres, or a section, it might be where no tree had ever stood. Here the ground received the drainage of the surrounding region, was therefore more moist and covered with denser grass. Around the margin of such a little meadow sometimes the hazel flourished with the blackberry, the plum, and the thorn. Instead of grass-grown mead, sometimes occurred a lake of greater or less extent; sometimes a lake filled full of aquatic or marsh-loving vegetation, a morass in which incautious quadrupeds were lost continually. Such morasses were not infrequent in the woods on the hilltops forty or fifty feet above the surrounding prairie.

Everywhere, however, grew the grass, rankest where the soil was strongest except, as noted, immediately along the banks of thicket-bordered streams. In many cases even the thicket was lacking by the stream and the grass grew down to the water's edge. The Cedar River in its upper courses, used to flow along mile after mile through open prairie with scarcely a bush to darken its pellucid waters, while any forest to which the stream might rightfully lay claim shaded the sandy hilltops sometimes miles away! The woods of to-day are all thickets where time has not sufficed in the struggle for place to give the stronger individuals such pre-eminence as effectually shuts out all smaller growth.

To the old regime or status contributed likewise the annual fires which swept all grass-grown regions, forest and prairie alike, keeping down the natural

increase of the forest so that only the hardiest individual under exceptional conditions managed to thrive at all. Occasionally where an "old settler" still preserves them may yet be seen some of the old oaks of Iowa's primeval woods. Such trees are now, owing to the absence of forest fires, wholly surrounded by "second growth" and do not show to the casual observer for what they really are; but if one be privileged to walk through such a surviving bit of woodland and can for the once imagine the smaller trees removed, and the ground beneath the remaining lofty white oaks carpeted with grass, he may even yet at least in imagination see the woods of Iowa when through their shades the Sacs and Foxes "pursued the panting deer."

But if the woodlands have thus undergone notable alterations hardly less remarkable to the eye of the careful observer are the changes to which the simple prairie has likewise been subjected. Here the modifications are of two sorts: in the relative moisture and in the flora entire. I am aware that it is rather hazardous to indulge in any positive assertions in reference to matters meteorological; still I believe it will be readily conceded that the prairies of Iowa are everywhere appreciably drier than they were prior to their cultivation. This we may attribute not to any special change in climate, but to the simple fact of universal drainage consequent upon the processes of agriculture. The prairies were wet, and in all low places stayed wet. Very rarely did

the surplus water pass off by anything like a ditch as now, but every valley was a bog, utterly impassable to man or beast. The waters did not seem to run at all, but gradually evaporated or sank to lower and lower strata. Our pioneers were great readers of *The Pilgrim's Progress* and thoroughly did they appreciate Bunyan's famous slough. They pronounced it "slew" and no one needed to go far to ascertain exactly the force of the dreaming tinker's figure. Over the oozy sloughs the sedges waved head-high, and into their treacherous depths horses, oxen, or even men ventured at peril of their lives.

In a state of nature every region has a flora of its own, every species holds in check another, and all persist from year to year, from century to century, in a state of trembling equilibrium. The slightest interruption produces an immediate effect, starts a readjustment. What then must have been the effect when the ploughshare overturned thousands of acres in a single day. The whole flora of the prairie went down to rise no more, to give place to plants of man's selecting and to weeds.

The original prairie flora included species comparatively few; only such as could endure an annual conflagration found a place. Plants suited for such conditions are either those having perennial subterranean stems and roots, or annuals whose seeds are in some way protected from the action of the fire. Most prairie plants were of the class first

named. In the lowlands, under the general name of slough grass, sedges covered thousands of acres with a mantle of deepest green, whose lustrous sheen went waving in the breath of summer like the rolling of the tropic sea; on the highlands "upland prairie grass" offered in softer tints an equally attractive picture. Here too flourished the red-root (*Amorpha canescens*) with leaden foliage and purple flowers, pest of the ploughman; and the wild rose blushed unseen. In moister meadows the *Habenaria*, the green-fringed orchid, waved its creamy spikes and the wild lilies tossed their fiery cups. Everywhere *Lobelias* sprang and in the swamps wild parsnip stood in forests and hemlock filled the air with odors rank. Later in the year the composites took the field completely. The sunflowers spread their cloth of gold, the torches of *Liatris* flared, the compass plant marked with edge-set leaves the meridian of the prairie and lifted its tall stems distilling resin. In fact one can hardly imagine anything more richly beautiful than an Iowa prairie in full bloom under the summer sun. Only the fertile pastures of the Alps can show such wealth of color and these by their scant dimensions hardly offer a comparison.

Against the invasion of foreign plants the native species formed efficient barrier, but once disturbed, the charm was broken and hosts of alien species occupied the ground. For instance blue-grass, now so common, seems at the outset to have been wholly lacking. It can endure the plough; not so our native

grasses. It will even drive out most other weeds and as we know has overrun the State. The plantain came with the pioneers and the dandelion followed shortly after; although as late as 1854 there were no dandelions in some of our eastern counties, and surely none farther west. In the year mentioned people sent to Pennsylvania for dandelion seed! The cocklebur was unknown and ragweeds confined to narrow limits. The flora of the prairies has been wholly changed.

Since the characteristic animals of a region also lend character to its landscapes, a word or two as to faunal changes may not perhaps be out of place. Changes in the animal world are of course even more radical than those seen in the world of plants. Deer that were once abundant are entirely gone and many a smaller species is quite extinct. Even the avian fauna, if students tell us rightly, has been more or less modified by the inrush of civilized man. The prairie-hens were a most common bird over the whole prairie. All day long you could hear the rustling of their wings, and in the winter mornings their trumpeting filled the State with strains of more than martial music. Mating took place in early spring and every old resident must remember the abundant eggs with which the prairies were once strewn. The prairie fires which should have taken place in autumn sometimes were delayed and did not come until the grass was dry enough again to burn in the following spring. Often before the fires

would come the prairie-hens had made their nests. The birds all flew before the fiery storm and after the blaze had passed many a nest lay white with ruined eggs, conspicuous upon the blackened plain.

Even parrots once enlivened the groves and meadows of our southern counties. Great flocks settled in spring on leafless trees and lit them up with the colors of the rainbow, easy mark, alas! for every idle vagabond with wit enough to carry a gun.

Twice in the year were the landscapes of Iowa glorious with a beauty they can show no more: in summer, when as described the whole earth was one parterre in which nature displayed her maximum variety of vegetation, the attainment of unnumbered ages; and in autumn, when that same vegetation, the frost-cured harvest of the year, went down in general conflagration. After a few killing frosts came then as now the delightful sunny weather which passes on to Indian summer, and the prairies became perfectly dry. Then came the fires. Where they started or to what end no one seemed to know. Various were the explanations offered. It was said the Indians lit the fires to set the great game in motion. Some thought the fires were started by the careless habit of the passing hunter. A better explanation lay in the fact that fire was needed to make clean the way for next year's crop of grass. At any rate no one seemed to care much whether the prairie burned or not and everywhere precautions — back-firing and ploughing — were taken to protect the pioneer's stack-yards.

Fires were expected and people were on the look-out for them every night. Sometimes their coming was announced by smoke which filled the air by day with filmy haze, and at evening rolled in cloudy masses down the low watersheds of the plain. More frequently by night a pale red tint appeared along the horizon's edge, a light reflected, as from the sky to-day comes to the traveller the glare of a distant electric-lighted city. If there were no wind the phenomena were repeated sometimes for days together before ever we saw the flames at all. We learned the first approach by the ever increasing smoke until at length along the sky-line of our landscape we saw the painted flames, like distant choppy waves on a sunrise-tinted sea; so slowly they came on, the very poetry of combustion, as tuft after tuft of tall blue-stem went up in lambent blaze. By morning everything had passed; the blackened prairie spread for miles, far as the eye could reach, the image and reality of desolation.

But if once upon a prairie fire the wind should rise, then came the storm, a fiery blizzard of destruction. The flames sped along the ground with marvellous rapidity, the air was burdened with ashes and flying sparks, and great smoke wreaths were rolled along in ever increasing volume, darkening the sun. Whole hillsides burned as by a single blaze, and down in the valleys where the grass was high the flames were higher still and the roar terrific. No living creature could stand before the storm.

Everything ran for life. Deer, led by wonderful instinct, sought the streams and pools; wolves dashed in terror past the settler's cabin, and the wild fox found his covert in the bank. Domestic animals shared the excitement of their wilder kin. Horses neighed, cattle bawled, and all ran to and fro striving to escape the rude confine which alone insured their safety. Of course, such a storm was but a moment in its passing, but grand in its on-come and retreat, while in its wake was left the same blackened prairie as before, only that everywhere the fires continued in unburned tufts and smouldering heaps, smoking by day and blazing up at night like fitful embers.

There are yet many among us to whom the whole history of our State is but life's memory. In the hearts of such, amid all the refinements of modern life, there rises often doubtless a longing unconfessed, a keen desire for the old-time freedom and the wild beauty of that earlier day when the State was new. That may not be; no more for them nor for the generations following. Let such rather congratulate themselves on the experience which is theirs. Once only in recorded time has nature turned over to the hands of civilized man a world in newness, freshness, absolute. Has destiny made us in any sense partakers of the gift unique, ours be the joy, ours too the peculiar responsibility of use.

THOMAS H. MACBRIDE