Project '74: A BIT OF WILDERNESS ON THE The golf course superintendent has a unique apportunity to create a

GOLF COURSE
The golf course superintendent has a unique opportunity to create a Wilderness Acre on the golf course. Thus, he can help to bring back what has been lost while satisfying his members' penchant for beauty

by FRED V. GRAU

The term "wilderness" means many things to many people. In irreducible simplicity, it means "naturalness." But a wilderness on a golf course? Why not? To drive a point home, let's look around us to see if the wilderness concept may not already be accepted and in progress on golf courses. Let's admit at the outset that a golf course wilderness will not be the clear, rushing, fish-laden streams and the massive forests of Daniel Boone's day. Nor will it be the mighty rivers, the mountains, the plains or the majestic awe-inspiring scenery that met the Lewis and Clarke expedition.

For openers, I cite Pine Valley CC, nestled in the sand dunes and piney woods of southern New Jersey. The backing of president John Arthur Brown and the expertise of nature-loving superintendent Eberhard Steiniger have combined to create a true wilderness, faithful to the nature of the country. The golf course has been enhanced by the efforts to preserve the true wilder-

ness concept.

A few examples. As the golfer walks from the 15 tee, he crosses a bridge where turtles can be seen sunning on nearby rocks. Wild fowl are present, but not completely trustful of golfers with clubs. In a dense thicket of rhododendron, he stoops to drink the pure, sweet cold water from a flowing spring.

If his drive on the 18 fades toward a pond surrounded with aquatic plants, the golfer may be rewarded with a glimpse of a wood duck flashing to its nest set in the center of the pond safe from the ever present marauding muskrat. Or a trophy-sized bass may thwack the surface, as it falls back from an attempt at a free-flying insect.

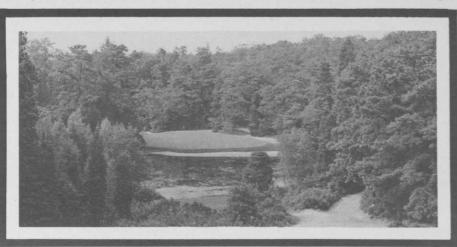
I have seen major soil disturbances in the pine woods where flourishes the sweet huckleberry. Such is the dedication of the entire crew to preserve nature at Pine Valley that one may pass by the disturbed area the next day, and it is as though

nothing had been disturbed. This is a vital part of the wilderness concept naturalness. Even in the huge neverraked bunkers, the wilderness concept is encouraged. Here grow the Hudsonia, a native heather; a sedge that develops naturally and is a feature of the course; huckleberry bushes that belong to these woods, and broom sedge, a relative of the tall prairie grasses of the Midlands. These are only a few of the wilderness features that make Pine Valley unique. Steiniger continually patrols the course to see what needs to be trimmed, what to be added, what to be eliminated. He has done this so skillfully and so unobtrusively that golfers believe that nothing ever needs to be done to keep the course perfect.

Do other courses follow the wilderness concept? Yes. But no two are alike. They differ in terrain, soil, natural vegetation, water and, most important, in the personality and imagination of the golf course superintendent. I could cite numerous instances and name many courses that follow the concept, but the example given here should stimulate the imagination and motivate those who approach the idea hesitantly.

As farmers in eastern Nebraska, my parents taught their six children to appreciate and to enjoy two very different kinds of wilderness. A three-hour ride in a box wagon behind a team of good horses brought us to a virgin hickory-butternuthazelnut community of the loessial bluffs north of Omaha high above the Missouri River. What fun we had picking the bounties of nature and drinking in the pure unspoiled beauty of the woods. Evening found a bunch of quiet, tired people going home behind the plodding horses, napping on huge sacks of nuts, which would provide many evenings of fun, cracking and picking the sweet meats for flavoring cakes and cookies. The joy that we found in that bit of wilderness on those crisp autumn days has become part of our American heritage.

Another bit of wilderness, quite different than the first, was located a mile or two to the west of our farm. There flourished large tracts of the true, original tall grass, short grass mixed prairie. How we loved to pick the prairie cone flowers, the



Scenes like these prevail at Pine Valley, where man is only a visitor.



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blue amorpha (lead plant), the astragalus with creamy pea-like flowers and to throw the stipa (needlegrass) seeds, which, like miniature javelins, could penetrate clothing and were withdrawn with difficulty.

Dr. John E. Weaver of Nebraska was a world-renowned plant ecologist who studied and understood the prairie. I was fortunate to have studied under him. He learned that the mixture of grasses and forbs created a massive network of roots that occupied and drew strength from all layers of soil, even to great depths. In the various monocultures of modern agriculture, our crop plants use only a small part of the soil reserves.

Where are these wilderness areas today? The walnut groves have given way to homes-with-a-view. The Omaha Country Club retains remnants of those huge black walnut trees, but the naturalness of the wilderness is gone. The rolling prairies have been plowed for grain crops, which opened the hillsides and allowed the torrential rains to carry the rich dark loam down to the Papio, to the Missouri, to the Mississippi and on into the Gulf of Mexico. Part of the silt clogged the mill pond that furnished the water power to grind our grain where we used to swim and catch bullheads. Now the old mill is gone, and the Papio has been straightened and scoured to hurry the rushing siltladen rainwater to the Gulf. Can this bit of our wilderness be restored? No. Not in our time nor in the time allotted to our grandchildren-if ever.

Time was when the great Midlands sustained huge herds of buffalo and antelope which, fattened on the rich grass, sustained the early inhabitants of the plains. They say that one prairie dog town covered 400, 000 square miles. Gone are the buffalo and the antelope as freeranging herds. Gone are the prairie dogs except for a few carefully protected "zoos" where the curious people may come to gape at the prairie dogs, who gape back at the curious people.

In Pennsylvania's Seven Mountains near State College, there is an unspoiled wilderness area known as Bear Meadows, a relic of the ice age where strange (to us) plants flourish—a mecca for the botanist. It is a

bog from which the water flows dark with dissolved and suspended organic matter. Nearby there are massive virgin hemlocks in protected stands known as the Joyce Kilmer forest. These wilderness areas are as fragile as they are priceless and deserve loving care and protection. They, like the prairie and the nut trees, are part of our natural heritage, which only now (and too late in many cases) we are beginning to understand and appreciate.

Concerted efforts are being made to save the Great Dismal Swamp from being drained and paved over to make building sites for developers. Like the prairie, it lives just once. Destroyed, it can never be regained!

A great wilderness is represented by the redwood groves of Northern California. "Hungry" developers by now would have leveled the groves, converted the lumber to houses and destroyed a "wilderness temple" had it not been for the Save the Redwoods League and others.

No one can deny the wilderness aspects of Yosemite, of the Dakota badlands, of the Grand Canyon, the great Snake River and of the great American deserts so beautifully photographed by my friend Walter Meaver Edwards of the National Geographic staff. Not long ago, with a friend, I was privileged to see briefly a bit of the Big Bend country in Texas along the Rio Grande. Here is unspoiled wilderness that everyone can enjoy. But for how long will the wilderness remain unspoiled when those who come to enjoy it insist on despoiling it with discarded trash? For those wilderness areas that remain intact, this is one of the greatest hazards.

In some areas, such as the Pacific Northwest, there is a firm reticence about attracting more tourists or more residents. The wilderness areas that are left there are being jealously guarded against further invasion. I get the idea that folks in New England feel much the same way about the building of more and more ski trails through their priceless forest preserves. It is inconceivable that we have waited so long to protect our heritage and have allowed developers to despoil priceless wilderness areas.

Part of our wilderness heritage is the wild things on wings that, in their own mysterious ways, migrate

between key points with occasional stopovers. Who has not thrilled to the high sounds of honking geese in early spring on their way north to their breeding grounds? To see a V-formation cross the face of the full moon is something that one treasures for life.

On Kittatinny Ridge in Pennsylvania, there are the headquarters of the Hawk Mt. Sanctuary. This spot marks the north-south flyway of the eagles and the great hawks. Once this was a favorite hangout for killers who, with their shotguns, brought down the raptors. Since this senseless "sport" was stopped, Hawk Mountain has become a watcher's paradise, a true wilderness area where the wild things may be observed and enjoyed but not gunned down. This sort of "wilderness" is self perpetuating so long as man does not intervene.

Another unique wild fowl wilderness is the Pot-Hole country along the United States-Canadian border where ancient glaciers dumped huge chunks of ice which, as they melted, formed miniature lakes. These became a haven for all species of wild fowl. Attempts to drain these natural areas, so that more grain could be produced, have seriously reduced the breeding and nesting sites of ducks and geese. Hopefully this type of wilderness area can be preserved for posterity.

A few years ago in Canada, I visited the site where a new golf course was to be built. Even then the bulldozers were knocking down trees and clanking their way along, pushing great mounds of earth before them. Ages earlier, nature had performed miracles in sheltered glades, carpeting the earth with trilliums. I was shattered to see the bulldozer. unthinking and unfeeling, crash its way through these wilderness glades of trilliums, blindly following some lines on the architect's plans. By changing a line here or a line there, the established wilderness area of trilliums might have been spared for future generations without affecting the playability of the golf

Now that, on this golf course, the trilliums have been destroyed, wherein lies the future of wilderness areas on golf courses in general? Are we harboring an illusion to think that there may be a place for wilderness areas on a golf course? My answer is an emphatic and an unequivocal "No!" It is not an illusion. I've seen wilderness areas on golf courses where nature has free play-where creatures can swim, fly, play, breed and live out their lives undisturbed.

In contemplating the preservation of natural wilderness areas and in creating new ones, I am intrigued by the writings of Isaac Asimov, professor of biochemistry at Boston University School of Medicine. His article in June-July 1973 National Wildlife, wherein he postulates our world in 3,000 A. D., is particularly stimulating. Nearly 40 years ago when I first experienced the utter charm of the Pennsylvania scene, and that of two run-down farms we had bought, I sensed and voiced the prediction that the time would come when people would live largely underground. They would be safe from storms; they would live in uniform, healthful climatic conditions. Asimov reaches the same conclusion with the revelation that the wilderness would remain unspoiled, but within easy reach by a short elevator rise to the top. It is a lovely thought! Just think, instead of driving 30 miles through traffic to reach the golf course, you would ride a silent pollution-free vehicle to the elevator which, in a few minutes, would put you on the first tee ready for your game.

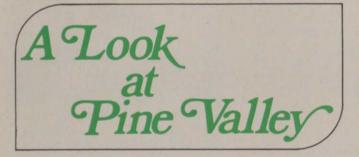
No longer can anyone afford to destroy even another tiny bit of our natural wilderness, wherever it may be. Instead, each person who has the opportunity to re-create a bit of that which has been lost or to save that which remains, is challenged to do his utmost in that direction. Size is relatively unimportant, but action is terribly necessary.

"But what can I, an individual, do to create or to save a Wilderness?" you may ask. The answer is, "Plenty." You can plant a tree, build a bluebird nest, let an area develop Nature's way, import a beaver colony, plant wildflowers, sow native grasses, import bog plants for wet

spots, grow food plants for wildlife, stop erosion with grasses and perennial legumes. You can become interested and involved. You can keep up with magazine articles. When engineers plan to straighten the course of a lovely meandering stream to get the rain water to rush away from the land and out to sea, you can protest. When enough sensible people protest, things can be saved.

There can be wilderness areas even on intensively cropped farms. Who from the Midlands can forget the joy of seeing and hearing the meadowlark rise from the grassy fence row full of wild plums, spiralling into the sky, singing for the joy of being alive and having a home in that fence row. Big farming methods said, "Tear out the fence rows, clean them up and plow long contour furrows. It is more efficient." Where the meadowlarks went, we don't know, but they don't live here anymore.

How shall we describe a "Wilderness Area" so that anyone any-



In 1912 the Pine Valley community and country club in southern New Jersey was 900 acres of sand dunes with a few intermittant scrub oak trees, all of which the ocean once covered. In that year a bevy of forward looking Philadelphia businessmen took the area in hand: they planted bull and white pine, cedar, magnolia and gum trees. Scotch broom bushes and a wide variety of wild flowers. The next nine years saw the area invested with deer, many varieties of birds, including ducks and geese, flying squirrels, woodchucks, and five lakes, some of which now spill into the Delaware River. Within this natural wonderland they cleared a bit here and a bit there and developed one of most beautiful and challenging 250acre golf courses in the United States with short wooded trails between holes. By 1921, 900 acres of sand had been parlayed into a breathtaking wilderness area, teeming with vegetation and wildlife through which wound a golf course of international reputation.

Situated in one of the few hilly areas in southern New

Jersey, Pine Valley boasts being the smallest town in the state with 18 voting residents occupying the several prodigious estates appended above different parts of the course.

Pine Valley is little known to the residents of the surrounding towns, as the entire 900 acres is protected from intruders by a high wire fence and a guard at the entrance gate. Its purpose and its treasures have always been and likely will continue to be an enigma to its neighbors and passersby and this is the way Pine Valley hopes it will remain.

The club has an unrivaled exclusivity, having an eight year waiting list and an international membership of 850, only 250 of which are local.

The course and environs are manicured by German born turf manager Eberhard Steiniger, a 47 year veteran of the Pine Valley experience, who lectures periodically at colleges around the country and enjoys a reputation as club superintendent extraordinaire among his colleagues in the field. Pine Valley has always been a monument to his abilities.

The complex contains its own fire department, water system, a turfgrass experiment station with a 10-acre turf nursery, a full-time 20 man staff, a land-fill program and a fully automated and centrally controlled irrigation system. Pine Valley is a refuge for some, a richly rewarding place of study for turf managers, wildlife enthusiasts, landscape architects and many other types of professional people, but most of all it is a model for the golfer's dream of getting back to nature on the golf course.

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where can recognize and emulate it? What are some of the factors that characterize it?

Water: When and where available, include it to attract aquatic fowl and amphibious animals. A pond? Put up a wood duck nest. Encourage cattails (good to eat, too), ducks and other fowl. How about some reeds, ferns, marsh marigolds? Stock it with fish, if it is suitable. Plant alder for woodcock, Craetagus (thorn apple) for the birds. That's a start. Choose your plants to fit the region—consult local and state authorities for suggestions. Let your imagination soar! Dare to be different!

Fence rows: Talk to a farmer friend and see if he doesn't have a fence row that could be allowed to grow wild. Quail, pheasants and rabbits need thick cover. Have you ever tasted wild plum butter made from the fragrant wild fruit that grew in profusion in the fence rows? Sassafrass leaves (tender young ones) are great in soups and stews. The young roots yield bark from which the rich fragrant tea is made. They thrive in untended fence rows. Mowing: A Wilderness Area never is mowed.

Spraying: A Wilderness Area never is sprayed.

Livestock: A Wilderness Area never is grazed by domestic animals. They trample nests and burrows and destroy seedling trees and other plants. Fire: A Wilderness Area seldom is burned over intentionally. Nature's way is to set fires with lightning bolts, which often must be controlled.

Shooting: The only shots that should be fired in a Wilderness Area are those that are recorded on film. Wild things deserve to be observed, not disturbed. In our eagerness to "manage wildlife," we have made some classic blunders. As we kill the last wolf, panther, wildcat grizzly bear and other natural predators, we have spelled disaster for the wild things that we profess to love-the deer, moose, elk, antelope and other game. Without the predators, the hooved herds grow in size until they starve themselves by consuming all the available food plants. Predators thin the herds—the very young, the very old,

the weak, the sick, the infirm leaving the healthiest specimens to mate and reproduce.

A Wilderness Area will mean something different to every individual. To a ghetto child who thinks that milk is produced by the milkman (or by the supermarket), the sight of a real cow grazing in a pasture could be the start of his own little Wilderness. Wilderness, then, should mean "something differentsomething new." Not many of us ever will backpack through the Grand Tetons or traverse the Appalachian Trail. These are Wilderness aspects at their best, if we can only leave them unspoiled and unlittered.

In the name of progress, we (as the human race) have blundered abyssmally. One was the plowing of the prairies, one of the truly great Wilderness Areas. The fragile soil, released from the binding action of roots of the prairie grasses and forbs, began to blow away, never to return. Farms were abandoned en masse. I knew the drought years of the 30s when cattle were led to believe that Russian thistles made good fodder. It was in 1936 that I was in Pittsburgh overnight to inspect a golf course the next day. It rained that night. The next day, walking the fairways, we were struck by the yellowish glare in the sky. Then I noted that my legs were black to the knees from dust on the turf-dust that had ridden the air currents more than a thousand miles from the plowed prairies of Kansas and Nebraska. That year we saw the greatest display of Northern Lights that any living man could remember.

Another colossal blunder is the Aswan Dam on the Nile River in Egypt. Since the history of man was recorded, the Nile overflowed its banks and deposited rich layers of silt on the flood plains. There, grew great crops which fed and clothed millions. The dam has stopped the floods; the plains no longer produce bountiful crops; the fish have left the area; the silt now chokes the dam so that soon it will be useless; the electric power produced has little value without transmission lines and appliances to use the current, and the unchecked breeding of snails in the stagnant water is creating a massive health hazard.

Another way to approach the Wilderness concept is to study the ways of nature. The opportunities are limitless! Many golf course superintendents whom I know are doing something about it by preserving and creating bits of wilderness on the properties of which they are custodians.

I can't help but refer to Mrs. Parker Shirling's Little Wilderness where, in a corner of a large, beautifully groomed lawn, unmowed and untended, native wild flowers bloomed in profusion. (See "A Little Wilderness,," February, 1973, p. 7.) Spectacular? A start toward loving and understanding at least a small bit of nature.

The challenge is there for every golf course superintendent to develop his love of nature and to create a bit of wilderness where he lives and works. There is a tremendous urgency to stop despoiling the wilderness areas that still remain and to recreate others that are not yet completely lost.



Serene, elegant, Pine Valley's club-house recalls a genteel past. Note, too, the harmony that plays between the clubhouse and the surrounding grounds.

RECOMMENDED READINGS

"A Sand County Almanac" by Aldo Leopold. American Museum of Natural History. Special Members Edition (paperback \$1.95). Oxford University Press, London-Oxford-New York.

"Isaac Asimov's Mind Travels to 3000 A. D." by Isaac Asimov. National Wildlife Magazine, June-July 1973. The National Wildlife Federation, John Strohm, editor, 1412 16th St., NW, Washington D. C. 20036.