

CONVERSATIONS ON ECOLOGY IV

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Washington 25, D. C.

April 26, 1963

Dr. Pierre Dansereau
The New York Botanical Garden

Dear Pierre:

The conversations on ecology have mentioned the pesticide problem, and in such discussion it is easy to lose sight of the basic philosophic view which is an undercurrent in Miss Carson's book. I should like to expand on that philosophic premise and examine some of its implications for planning vegetation management measures as well as other measures for resource development.

Crowning a rounded hill and floating on the ground swell of New England in full fall color is a slim white shaft, pointing upward. The church spire symbolizes the raising of eyes aloft. It therefore reminds us of something higher than the mundane turmoil of the commonplace.

The little white church stands alone on its hill, flanked by native oaks and facing a little grassy sward. Whereas the spire points upward toward things of higher order, the village green also is a symbol—a symbol of elbow room. And if a weary businessman feels pressed or smothered by the day-to-day cares of the economic world, he can lift his eyes and see that there is still about him room to breathe and to let a weary soul expand.

So also in the Spanish-speaking communities of the Southwest, the long line of hitching posts before the mercantile houses seems to keep the economic turmoil from completely filling the room held open by the plaza, whose cottonwoods reach toward the blue sky. But how many of these plazas still remain? In La Junta, Colorado, for example, the cottonwoods are gone and no strip of grass remains. The windowless face of an air-conditioned office building looks from its four stark sides over the little storefronts where once the cowboys lounged. In Santa Fe, New Mexico, the old Federal Building, centered in a green oval of grass, has given up many of its cottonwoods and half of its open space to a new Post Office. Something has been lost. The balance sheet of economics undoubtedly showed that such a valuable piece of property in the center of town could not indefinitely be maintained as a wooded open space. But what appears to be a credit in the balance sheets at the town hall is a loss splashed in red ink before the eye of any discerning man.

To whom was the plaza in the southwestern village a thing of value? What was the nature of this value? One would suppose that if the majority of citizens had thought it a necessary part of their lives, it would not have gone

under before the bulldozer of progress. Yet conversation with nearly any citizen indicates that he regrets the decision to give up the plaza for a new and ugly town hall.

Aesthetic values are often lost, not because it is the will of the majority to give them up, but because the issue placed before the public is not in such form that their wishes on such a matter are directly expressed. The wheels of administration have usually turned too far toward a particular decision before the real desire of the people becomes known. Even the elected representative is usually faced with a decision to build or not to build. Very seldom is even he asked the question, "Is this something you want to give up?"

With this background we can begin to visualize one aspect of planning which has been, if not overlooked, at least given short shrift. Planning commissions, we are usually told, are bodies whose task it is to determine the best use of available resources. The duties of the planning commission are usually discussed in far greater detail than the definition of "best use."

Restricting ourselves now to resources, we may ask what we mean by "use." In practical terms a list of possible uses for a resource includes only those whose results can be evaluated in monetary terms. The idea of non-use is usually, therefore, excluded. Failure to use a resource can be considered foregoing a monetary gain and therefore would be debited as a monetary loss. By the same token, existence of scenery is not thought of as a use of landscape. On the other hand, maintenance of a scenic site for the purpose of herding the public in and out at two bits a head would be a very profitable use, and the usefulness of the scenic spot would then be measured by the ticket sales.

Then it is necessary to define what we mean by "best use." It immediately becomes obvious that we must ask—best use for whom, and in what way is it best even for them? Again, "best use" means the highest monetary return.

If one thinks this is far-fetched, he need only inspect the administration of national parks or the development of flood-control plans to take two somewhat dissimilar examples. A growing proportion of an increasing population, we are told, wishes to see the national parks. The success of the parks is demonstrated by the great increase in the number of visitors. That the quality of the experience of each visit has been materially reduced by the competition of mass use appears to have been all but overlooked.

Flood control offers another type of example. The construction agencies of the Federal Government, by the Flood Control Act of 1936, are authorized to provide flood protection for any area in which it can be demonstrated that the benefits exceed the costs. What benefits and what costs? Clearly, it is very difficult to assess the indirect and the non-monetary benefits and costs. Therefore, simple and straightforward schemes are used by which the direct cost is mea-



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sured by the engineering and associated works, and the benefits are computed in terms of direct flood losses which were prevented by these measures. If a few serene and historic valleys are flooded, the losses are at best recounted in a paragraph in a report, but they have no real effect on the decision to build. If some persons are displaced from the land their grandfathers tilled, the costs are listed only in terms of the money necessary to buy them out or to place them on new farms. That there was some cost to their souls is not a matter of economic concern.

With these examples we may then consider another aspect, or perhaps a different purpose for planning commissions. A planning unit might best assume the job of identifying values which, to be maintained, must be protected from the effects of ordinary expansion of use and development. We need not fear that the insatiable hunger of the Machine Age will fail to develop resources when the economic setting makes such development profitable.

If planning were to be viewed as the protection of the quality of the landscape, rather than as a publicly supported chamber of commerce to speed development, then it would be necessary to begin asking ourselves the question, "What kind of land do we want to live in?" This is the experiment which I suggest is in need of trial. What are the limits of development beyond which the people themselves would not care to go regardless of some slight increment of monetary gain? What in their community life do they want to protect and maintain? What aspects of the quality of living have that particular measure of esthetic value which a given community would not care to trade for economic expansion? Such questions could be asked of town councils, of civic groups, of business associations.

Presumably in considering the answers to these questions, most citizens would hope, and for good reason, for a reasonable expansion. But hopefully they would draw a limit when a slight increment in the income so derived would jeopardize certain aspects of their surroundings which they consider essential to their souls rather than to their pocket-books. Interestingly, these kinds of questions have, to my knowledge, not been specifically directed to those groups of citizens and administrative bodies most concerned.

The answers might be expected to be tentative at any particular point in time. It would be only reasonable to expect that it would be necessary to assess the cost of what is singled out for preservation. But it is quite a different thing to assess the cost of a foregone gain than to weigh the value of the non-monetary object with others whose monetary value is clear and definable.

Next weekend you may decide to go skiing. It is only proper to ask yourself how much that weekend is going to cost you. It would, however, be fruitless to inquire in this connection what is the most economical way to spend your weekend. If you did so, obviously you never would ski.

It seems necessary, then, to visualize a new type of resource planning, based not on an extreme view of conserving and saving everything, but on a new kind of economics in which the monetary costs of saving something worth having would be realistically appraised after the decision to save it has already been made.

Continued preservation of landscape quality must sooner or later require that people begin to ask themselves what kind of place they want to live in and what it is worth to them to have it.

Sincerely,
Luna B. Leopold

(Continued from page 140)

the eighth edition of Schreber.

² Haenke's "Observations Botanicae in Bohemia, Austria, . . ." were published by N. Jacquin in *Collectanea*, 2: 3-96. 1788.

³ *Sequoia sempervirens*. See Jepson in *Madrono* 1: 242. 1929.

⁴ Josef Gottfried Mikan, 1743-1814, Professor of Botany at Prague University, is commemorated in the Composite genus *Mikania* Willd. The vinelike *M. scandens* is widely planted in Mediterranean and subtropical gardens as an ornamental wall-cover.

⁵ Botanical aspects of the Malaspina Expedition are recorded by MacKelvey, *Exploration of the Trans-Mississippi West*, pp. 15-25. 1935; Alston in *Journal of Botany* 72: 223-5; Stearn in *Journal of the Society of Bibliography of Natural History* 1: 153-4. Each of these quotes the basic sources for a general history of the Expedition.

⁶ Jan Swatopluk Presl (1791-1849) and Karel Boriwog Presl (1794-1852). Their middle names, which strike the Anglo-saxon eye as positively heathen, are piously Christian to the Czech. Prince Boriwog (or Borivoj) was the first Bohemian convert (ca. A. D. 873) to Christianity; Swatopluk = Heavenly Host.

⁷ *Journal of The New York Botanical Garden* 34: 184. 1933.

⁸ The herbarium of J. J. Bernhardt (1774-1850) of Erfurt. An illustrated account of the Haenke grasses in this collection, which had been named by J. S. Presl, was given by Lamson-Scribner in the *Annual Report of the Missouri Botanical Garden*. 10: 35-39, 54 Pl. 1899.

⁹ But he lives on in Alaska's Malaspina Glacier, etc.

¹⁰ The basic source for Haenke's biographer is Sternberg's account in the Preface to K. B. Presl's *Reliquiae Haenkeanae*. I have also drawn on the essay of J. Glichhorn in *Botanischen Centralblatt*, Beih. 60A: 157-222, Pl. 5 + fig. 1. 1950.

The world is too much with us: late and soon,
Getting and spending, we lay waste our powers;
Little we see in Nature that is ours;
We have given our hearts away, a sordid boon!
This sea that bares her bosom to the moon;
The winds that will be howling at all hours,
And are up-gathered now like sleeping flowers;
For this, for everything, we are out of time;
It moves us not.

WILLIAM WORDSWORTH (1770-1850)

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