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The Pursuit of Beauty in the Environment

Robert Kates

SCHOLARS AND PRACTITIONERS of natural resource management have long trod interdisciplinary paths before the advent of the encouraging signposts of academic fad or foundation largesse. Once we admit to a problemistic orientation, the paths of inquiry may wander deep into varied social and natural sciences, although the landscape is most often viewed through the special tints of each discipline's glasses. The newer resource-management problems related to the quality of environment encourage even longer journeys and an assignment at a symposium entitled *The Price of Aesthetics and Natural Beauty* held in May 1966 at Ohio State University found me, a mere geographer, on paths where even estheticians fear to tread. I had been asked not merely to speak of beauty but, alas, to measure it.

Yet Eric Newton advised in *The Meaning of Beauty* that: "Except within the vaguest limits, beauty cannot be described: therefore, it cannot be defined. It cannot be measured either in quantity or quality: therefore, it cannot be made into the basis of a science. It has always proved impregnable to the frontal attacks of the aestheticians." But Newton does not permit one to quietly fold one's tent and slip away. For he continues, "none the less it would seem reasonable to stalk the word, to outflank it and creep up on it from behind. Eventually one must have the courage to meet it face to face, but a preliminary reconnaissance demands subtlety rather than courage." While subtlety has never been for me a strong virtue, I did attempt a preliminary reconnaissance on dealing with beauty in problems of resource management. The path of this pursuit is the substance of this article.

The New Conservation

Some months ago I stood with my resource class in the oldest managed stand of hardwoods on the North American continent. We were in the Harvard Forest and in a particular stand of trees that had been managed continuously since 1908. We reviewed the history of the management: how the tract had been originally intended for softwood production and how belatedly it was recognized that it would eventually end up (as did almost all the old fields) in hardwood production. We reviewed in the esoteric language of the forester the many experimental practices tried on this particular stand. We spoke of the high demand for wood when management of this forest had begun and how demand and product, taste and technology, had ebbed and flowed, leaving this particular forest isolated from almost all of its market except for some faithful chimneys of its neighbors. But when we were finished, we asked the students to take a sheet of paper and to note whether they liked or disliked this particular stand and then in as few as three words tell us why. We had done this as well with each of five different stands that we had passed through that day. We were using my

students as voluntary guinea pigs, as generations of students have been used.

What was unusual was that this was not a class in elementary psychology but in geography. We were test-marketing a product. We had imported a set of consumers to sample the visual, tactile, aural and kinetic experience of a variety of forest settings. I recall distinctly wondering at the time whether my friends at the forest, with whose research my class was assisting that day, were struck by the symbolism of the event. In this, the very early stages of serious research into the perceptual and sensory qualities of forests, they were fulfilling much the same pioneer function as their intellectual forebears who had gathered in the same place on the now distant day of 1908.

The concept of sensory pleasure as a conscious product of forest management and manipulation is part of a major revolution, a veritable upheaval in thinking in resource management. We all find different ways of expressing this upheaval, but it is often summarized in the phrase "the New Conservation." For me, it is a series of paradoxes. At a time when economists assure us that the natural resource content of that sacred trinity of land, labor and capital has diminished, I find myself as a teacher of resource management busier than ever. At a time when still other economists give evidence that in this country, at least, the spectre of Malthusian scarcity has *not* produced sizeable increases in the real costs of natural resource commodities, I find society becoming more and more conscious of the fact that the traditional free goods—air, water and scenery—are becoming expensive and even scarce. At a time when I, as a geographer, observe that man exerts increasing control over the day to day variations in his natural environment, I seem to detect greater preoccupation with those aspects of nature that have escaped our influence, at least for the time being. One more paradox: I find that at a time when, by any standards, our society is far more antiseptic than that of our forebears, the popular and indeed the scientific press suggests that we are about to be choked in our own filth.

The foregoing paradoxes are, to be sure, more apparent than real. Nevertheless, they have inspired a vast program involved in preservation, ordering, organizing or manipulating natural and artificial environment. Resource management today is marked by environmental health programs of all kinds, but most specifically designed to reduce air and water pollution. Increasingly we will seek to control and modify weather and climate as we will seek to preserve natural land and enhance our scenic landscape. We have programs of highway beautification and of outdoor recreation, of urban renewal and of urban beautification. We maintain active concern with the preservation of architectural and historic sites and are beginning to set and maintain architectural standards and controls.

I have tried to identify the objectives of these programs as set forth in their specialized literature and to reduce them to the smallest number of common denominators. These objectives are physical and mental health, sensory and participatory pleasure and economic value. Programs are justified in terms of the prevention of sickness (e.g., pollution) and the provision of pleasure either through esthetic stimulation of the senses (e.g., highway beautification) or through providing opportunities for participating in pleasurable environmentally oriented activities (e.g., outdoor recreation). Economic value is a goal that takes the form of preserving present values (e.g., reducing corrosion-inducing pollutants in the atmosphere) or enhancement (e.g., increasing the value of real property through architectural control). If these be the irreducible objectives of these programs of environmental design and planning, then the central difficulty might be the lack of a common currency with which to mutually relate these objectives. But this is a separate problem, and what I do want to note is the relationship of beauty to the objectives of programs that involve the environment.

Beauty and the Goals of Environmental Management

My first observation is that beauty is not, by itself, the ultimate end of the extensive activity now going on in the resource field. The ends as I would identify them, the ultimate ends at least, revolve around health, wealth and pleasure. But beauty is presumed to be involved in each of these ends. It has been suggested that beauty is related to health and well-being, both physical and mental, and there is evidence that beauty is related to wealth, to value. There is, in fact, quite a market in beauty. Appearance, be it in a used car, a home or a piece of land, can obviously enhance its value. Finally, beauty is a producer of pleasure, pleasure which I have distinguished as sensory and as participatory even though I am aware that on the margin the distinction blurs between each. In noting the relationship between beauty and the varied purposes of environmental management, I want to observe that not only is beauty not an end in itself but seems to be just one of a series of alternative means of achieving a set of desirable ends.

Another preliminary observation deals with the distinction between natural and artificial. On the one hand I am clearly willing to accept a distinction between beauty in nature and art, to refer to Eric Newton again: "... natural beauty is a by-product of function ... beauty in art involves no such thing. What causes the artist to extract a fragment of the universal pattern is his *love* of the pattern. He presents it to us purged of functional trappings, as a thing admirable not because it *works* but because it *is*." On the other hand, the environment that we deal with today is more complex than the distinction between nature and art. We rearrange nature constantly, creating new *natural* objects and placing them in new assemblages. We surround ourselves with *artificial* objects only a few of which can be considered art. Given Newton's distinction, it is indeed architecture that seeks to imitate nature by seeking to provide beauty as a by-product of function. From a managerial standpoint the distinction between natural and artificial beauty, between landscape and townscape, is unwieldy and unnecessary though there is a possibility that men do indeed view natural objects in ways distinctive from artificial objects—that what Muir felt in the natural cathedral of the Sierras is qualitatively different from Henry Adams at Chartres. (A very difficult question on which some research has begun.)

And the Private Sector

In approaching the question of beauty in resource management (even by stealth) we face a classic example of the Galbraithian thesis of the need to redress the balance between public need and private consumption. Surely a nation as affluent as ours, the argument goes, should seek in its collective use of landscape and townscape the same high standards it strives to provide for its private spaces. There are those who would even argue further and say that it is not mere redress that is sought, but that it is possible to achieve in our collective use of public spaces higher standards than in the individual use of private space. My colleague, Martyn Bowden, suggests that this was the position of the Garden City and the City Beautiful movement at the beginning of the century. But I

would argue that we cannot hope to achieve much higher in the collective public use of our shared environment than what is already wide-spread and prevalent in the private use of space. Therefore, I suggest that a guide to reasonable expectations for the esthetic content of shared environment is the role of beauty in private space.

Most individuals who are above the margins of poverty evidence strong desire to create a private physical environment that if not beautiful is at least comfortable and pleasurable. How else can one explain the vast effort and expenditure that goes into the non-functional decoration of our homes and offices and the embellishment of our privately owned outdoor spaces by plants, soil and rock. I think, therefore, that there is ample evidence of desire for esthetic content in individuals' physical surroundings. But having said this, let us note, as Galbraith did, the role of manufactured wants and tastes in our society. For most of us the ideals that we seek in our private spaces are the ideals of the Sears Roebuck catalog, or at its very best the ideals of *House Beautiful*. In this we seem successful, for if we have not created beauty, we have at least not fostered ugliness. If there is a monotonous sameness to our partial success, it provides, at least for most of our people, a comfortable setting within which to live and work.

There are also those who aspire to do more than achieve the minimum level of *mass* taste in our private spaces. These few approach the environment of our private spaces with artistry, either employing their own native talents or those available for hire. We all know a few cases of exceptional success, occasionally the products of interior designers, more often the product of native artistic expression. In the outdoor spaces as well there are the successes of the landscape gardener and the occasional superb product of the Sunday gardener. If we count up the conspicuous successes we should note the many failures as well, even with the use of hired talent. One who places his faith in an artist must risk the occasional failure of even the most talented. From this glimpse into private space stems the following thesis: What we might reasonably aspire to in the collectively shared environment, both natural and man-made, is not beauty but comfort and pleasantness, punctuated here and there by exceptional products of artistic expression capable of providing a rare esthetic experience.

But I am not yet ready to meet beauty face to face. I am too much a relativist, too well aware of the variations in taste even among the cultivated sensibilities of intellectuals to set forth any prescription for the measurement of beauty in the environment, except one: that there is not a great deal of it. For if beauty were indeed commonplace we should probably be unconscious of it. Its very scarcity provides value, its rarity gives unique pleasure. Thus, I fulfilled my assignment to a limited degree. When asked to measure beauty, I replied that there is not too much of it. For if there were a lot of it, we would probably not recognize it as truly beautiful.

The Measurement of Beauty—Measuring Ugliness

But if I have not come to measure beauty, I have come to bury ugliness. For this is how I propose to sneak up on the question of beauty and to make it manageable for us resource managers. Talented and untalented alike, we can all share in identifying and eliminating the worst aspects of ugliness. My assumption is that beauty and ugliness are not reversible opposites; in fact, as a psychologist colleague, Joachim Wohlwill, has suggested, they may not even be on the same scale. Beauty is fleeting, elusive, personal, subjective. It is often related to emotion, to affect, to the peculiar evocative potential of calling forth treasured associations. But I suggest that that which is ugly draws upon a much wider consensus. That which is truly ugly has the power to destroy for us the pleasant and agreeable. The key to this destructive power is the misfit.

To Christopher Alexander the object of design is form, but a form that is a solution to problems posed by a context. The success of good design is the achievement of good fit between form and content. How does one know good fit? Alexander asks. Paradoxically by the lack of bad fit or individual misfits between form and context. In *Notes on the Synthesis of Form* he cites an example:

> "We should find it almost impossible to characterize a house which fits its context. Yet it is the easiest thing in the world to name the specific kinds of misfit which prevents good fit. A kitchen which is hard to clean, no place to park my car, the child playing where it can be run down by someone else's car, rainwater coming in, overcrowding and lack of privacy, the eye-level grill which spits hot fat right into my eye, the gold plastic doorknob which deceives my expectations, and the front door I cannot find, are all misfits between the house and the lives and habits it is meant to fit. These misfits are the forces which must shape it, and there is no mistaking them. Because they are expressed in native form they are specific, and tangible enough to talk about."

The notion of the misfit is expressed somewhat differently by Ian Nairn in *The American Landscape*. Nairn sets as the quality of good landscape the dual notion of identity—one should have a sense of where one is at—and relatedness—that there is good fit among the individual parts of the landscape, given the context.

For the specific application of these ideas to the problem of beauty, I am indebted to Ernest Gould and Dick Howard of the Harvard Forest who have extended the concept of the misfit to the problem of forest management. Faced with the desire to introduce landscape values into a computer simulation model of forest growth and management for traditional wood products, Gould and Howard embarked on a quest, similar to mine, seeking the meaning of landscape beauty. This meaning escaped them as it does me, and as it escapes all who attempt to pursue the notion in a critical fashion. Therefore, the direction of this research has led them to seek not to make forests more beautiful, perhaps because only God can make a tree, but to make certain forest situations less ugly, to eliminate those extreme situations for which one can derive ready consensus as to its disturbing qualities. Practical results of this research will not be to turn forest managers

into landscape gardeners—present-day Capability Browns—but it could enable them to avoid those often unintentional affronts to the esthetic sensibilities of outdoor users that arise by default because one forest management policy seemed, on strictly timber managerial terms, better than some other. And it would permit them by using the computer model to estimate the cost (either in timber or investment foregone) of various alternative esthetically desirable policies.

The foregoing observations and research leads me to a major conclusion—that *we should not seek to measure beauty but rather ugliness.* To do this we have a variety of tools at hand.

First there is the common, collective wisdom. I would start to identify the misfits in landscape and townscape, the misfits that I suggest are the underlying quality of much ugliness, by heeding this wisdom. It is obvious that junkyards and billboards and high tension lines often serve as misfits in the *context* of certain landscapes. It does not matter that these do not offend everybody or even majorities. But they clearly offend those sensitive minorities for whom managerial policy is directed. But I would argue that while the collective wisdom is often capable of identifying classes of objects frequently found in misfit situations, the mass elimination of these objects rather than elimination when they appear as misfits is *not* an appropriate public policy. It is self-defeating for two reasons. It cannot be done for even *our* resources are not sufficient to bury all high voltage lines or eliminate all junk cars, and it probably shouldn't be done—for I would fear the tyranny of the minority of tastes as much as that of the majority. Thus there is real need to develop policies that allow for the identification and elimination of misfits, not necessarily classes of things. Now how may some of these misfits be identified? I will suggest a few techniques.

First there is an elementary type of limit or boundary analysis. I am struck, for example, by the heated dialogue over the pollution of landscape by high tension lines. I am sure that some maps do exist, but I have never seen any that identify the boundary or limits of visibility of high voltage lines and relates these limits to both the accessibility of viewing population and to the uniqueness of the landscape being traversed.

With the obvious willingness of some power companies to compromise on this issue, such a relatively simple analysis can begin to reduce the problem of electrical transmission lines to a manageable size by trying to identify the potentially greatest misfits at points where they may be viewed by substantial numbers.

A more specific analysis than either identifying the common wisdom or defining problem area limits is to attempt to obtain from resource users their own perception of those misfit items in a specific landscape and townscape that lead to instant ugliness. For example, interviews by George Priddle with wilderness users have indicated a heightened sensitivity to garbage on the trail, garbage which in the context of a campground would probably not even have been noticed. To preserve for the seasoned wilderness traveler the aura of this high quality experience requires a considerable management effort to eliminate trail garbage. In another set of interviews made by Robert Lucas, wilderness users are found to be highly sensitive to acoustic pollution, particularly by motorboats, which in the wilderness context are misfits although basically acceptable on most reservoirs.

From the behavioral sciences there is a large body of techniques (many of which require adaptation) that can be used to identify misfits. But even without detailed analysis I would argue that we can readily accept junkyards in commercial districts but are highly sensitive to two or three junk cars displayed over some rural residence front lawn. The neon signs of Piccadilly and Broadway are vital parts of the glamour of the city but are highly destructive to the visual unity of the New England town village. The underlying assumption here being that we can obtain measures of ugliness easier than beauty and for the extreme misfits high degrees of consensus will be found. But if the measurement of ugliness is easier than beauty—what follows from taking this path of least resistance? We might end up with a landscape and townscape comfortable to most, pleasing to many, pretty to some and beautiful to none.

Beauty and Interest

What is the relationship between beauty and interest? If the strategy of eliminating the misfit is carried to its logical conclusions, do we not also eliminate interest? If everything is, in Nairn's terms, related, wherein do we inject the spice of novelty, complexity or incongruity that Professor Berlyne of the University of Toronto suggests are the leitmotif of exploratory behavior? Are we not in danger of creating a saccharine wasteland of standard landscape if we progressively eliminate that which does not conform?

Thus the relationship between beauty and interest is not an academic one because while the misfits are disturbing they can also be interest-provoking. Coleridge said: "You are wrong in resolving beauty into expression or interest; it is quite distinct; indeed it is opposite although not contrary. Beauty . . . is always one and tranquil; whereas the interesting always disturbs and is disturbed." But Eric Newton would differ: "A condition of beauty [is] . . . a certain percentage of apparent disobedience must take place among the prevailing obedience: an admixture of unintelligibility among the intelligibility, of surprise among the familiar and expected . . . Hence it is necessary that among the roses there should be an occasional orchid whose pattern is a little more difficult to grasp."

Work in psychology by Berlyne and others on stimulation and adaptation level all suggest that the reverse of minimizing ugliness will not bring instant beauty. But this work is only suggestive, and we are far from being able to measure or prescribe beauty for landscape and townscape. How then to not only eliminate ugliness but to provide beauty, elusive and rare as it may be?

The Provision of Beauty

The way must be, as it always has been, through the intuition and sensitivity of the talented in our midst. If we would aspire to provide beauty as well as minimize ugliness then we must rely on the skills and talents of those who pursue it. Beauty can neither be legislated by the State nor provided by committee, especially an interagency committee. We can appropriate government funds and choose artists by committee, but that is all.

What can such artists do to inject beauty into landscape and townscape? There are three forms of providing beauty: (1) identification and preservation of the beauti-

ful and good that already exists; (2) provision of accessibility to existing but unseen beauty; and (3) the design of beauty into the landscape and townscape where none existed before.

The rare, the fragile and the ephemeral: the acknowledged beautiful must be protected and preserved wherever it exists. There are landscapes in Vermont that fit this well, and they are in danger of being lost forever as a side effect of the demise of agriculture and reversion of fields to forest.

There are other landscapes to be identified, that lie beyond the woods that fringe the highway or a hillside walk away. A few judiciously removed trees might release the view to us; a well placed path might not only provide accessibility but enhance the view as well. A simple boardwalk at Hawaii Volcanoes National Park curves off into a wasteland of volcanic debris-choked forest and provides not only accessibility to the dead forest but adds an evocative element to the landscape that rivals and excels in my estimate the lonely wasteland of any surrealist painter.

Finally in landscape and especially townscape there are opportunities for great beauty in design and as many opportunities as there are talented artists. Here the imbalance between public and private is galling. How else to evaluate a society which pours its talent into the home office of distilleries and whose public centers of learning, in appearance, give the lie to the traditions of arts and sciences they seek to uphold? One caveat should be noted: there are opportunities for failure as well. The road away from ugliness may be by consensus but the road to beauty is not. If we would hire the talented to provide beauty we must realize that they will often fail and more often we, the onlookers, may fail. For if beauty merits pursuit, a corollary must be that we will often fail in the quest.

A Public Policy for Beauty

The pursuit of beauty in landscape and townscape is as difficult as that which is being sought. My basic assumption is that despite our affluence there are political and economic bounds to the pursuit of beauty in our society, and in fact I suggest that a reasonable aspiration in the use of collective space cannot really exceed that already attained in the use of private space. Therefore, I have suggested that the opportunities that will yield the highest return lie on the two extremes of the spectrum of landscape and townscape. Public policy, I have urged, should seek not to maximize beauty but to minimize ugliness, these not being bi-polar opposites. It is easier to identify that which is ugly through the misfit and thus make the shared environment more agreeable to the many sensitive people in our midst. But if this were all to such a policy we might well have found ourselves in pursuit not of beauty, but widespread mediocrity. Therefore we must seek to provide some accessibility to all for the rare and unique experience. In this we are limited by nature and opportunity but much more so by talent and the lack of a public policy that really desires or knows how to utilize talent. If we succeed in attacking both ends of the spectrum we will probably have run out of energy, money and will, and so the remaining landscape will be the mixed product of the multitude of decisions that characterize the way we use and organize space. And that is probably as it should be—for how else are we to know the ugly and the beautiful?

THE EVOLVING FOREST

THE SMALL TOWN of Stow, Massachusetts, threatened on two sides by urban encroachment, has become the first American community to make an inventory of its natural resources as a basis for future development. A technical team has surveyed the town and proposed a dozen development projects: recreation sites, water management areas, town forests, trails, historic sites and nature study areas. The citizens of Stow are expected to approve the purchase of these areas in the Fall town meeting.

THE MAPLE SUGAR industry of Vermont is expiring: lack of labor, increased cutting of maple trees for lumber, changes in farm practices have brought a sharp decline in sugar bushes and in production. The solutions proposed by the Department of Agriculture are thinning out non-productive trees, improved sap gathering techniques and new sugaring off procedures . . . The Vermont farmers remain unimpressed.

BALLOONS ARE BEING USED experimentally in Oregon to hoist logs from the forests and deliver them to the sawmill. The procedure, if successful, would reduce road costs, speed up logging, cut damage to smaller trees and return thousands of acres of land now tied up in roads back to timber.

BLACK WALNUT TREES are being recommended for highway roadside beautification programs in the South and East. Black walnut trees are not merely ornamental; they grow to be a profitable harvest. One log, 31 inches in diameter, recently sold for $1,400.