

Can one love a plastic tree ?

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Every planner, landscape architect or human ecologist should read Martin Krieger's "What's wrong with plastic trees?" (*Science*, 179: 446-455. Feb. 2, 1973) if he wishes to catch a glimpse of the nightmare future that technology is preparing for man and nature. His article discusses the titanic events of the environmental crisis, of Man vs. Nature, totally outside of the framework of the biological reference; hence, one of his conclusions – that plastic trees and all sorts of nature substitutes have a valid place in planning – reads like a bad fairy tale. If he had only contemplated Hans Christian Andersen's "The Emperor's Nightingale" in which a mechanical nightingale is given the emperor to substitute for the real one whose song the emperor had loved. Eventually, of course, the clockwork breaks. Death comes and sits on the emperor's bed. But the real nightingale appears and sings so sweetly that the emperor recovers. It is an old moral – you can't make a real nightingale out of wheels and diamonds, an idea quite lost on the our author.

If there is nothing wrong with plastic trees, if plastic trees can "give most people the feeling that they are experiencing nature", why not invent plastic dogs instead of live ones? Why not plastic corsages with synthetic perfumes, instead of orchids or gardenias? Why not substitute plastic dolls which need no diapers instead of babies? Why not 3,000 giant Disneylands, one in each county, and then develop the rest of the country to grow more food and build more cities ?

Why worry about the extinction of the African giant sable antelope or the Indian tiger? Or the preservation of the weedy Mexican grasses ancestral to corn or Peruvian wild potatoes? Why protect the Amazonian Rain Forest, or preserve the arctic tundra ? According to Krieger, such proposals are "imperialistic at worst, unrealistic at best" (p. 447). But if biologists and ecologists or, for that matter, planners, won't concern themselves about the fate of Nature, who is there that will? And since most ecologists and planners are in the "developed" countries, should they remain uninvolved to satisfy misguided notions of what it is to be "imperialistic" ? Of course, we are all against "imperialism" and for "social justice" ! But we are also against stupidity and misinformation.

What then is a socially concerned teacher and biologist to do when he reads such misconceptions? What are we to think of *Science*, that editorially confused journal which proclaims its adherence to social justice and the scientific comprehension of the environmental crisis, yet publishes, regularly for years now, the unenlightened "optimism" of the technological bamboozlers? (to use Theodore Rozshak's apt expression) : of Spilhaus, Doxiadis, and Weinberg, and of Handler, Buckminster Fuller and Seaborg. And now, as a final insult, these gratuitous environmental opinions of a biologically innocent planner sanctified, as it were, by publication in *Science*:

One wonders why *Science* publishes this author who values flowers by cost/benefit ratios, and argues preservation of nature only in the framework of rarity and the free market in apparent ignorance of the vast and complex ecological arguments as to why nature and its diversity must be protected ?

Why, indeed, must Nature be preserved? This question has been answered in detail so many

times by others – biological diversity as a basis of long range ecological stability; genetic diversity as the necessary concomitant of continuing evolution (including gene preservation for future crop breeding options); and that vast uncharted New World of esthetic diversity: of human genetic needs for natural pattern, for natural beauty, for natural harmony, all the results of natural selection over the illimitable vistas of evolutionary time – of the complimentary co-adaptations of man to nature, of man and woman, of mother and child.

Do plastic trees have mycorrhizae? produce oxygen? transpire and cool the air? have fragrant flowers visited by bees and produce fruits that feed the birds? Do they have leaves that decompose into a rich humus? But further, in contemplating plastic trees as economically inexpensive nature substitutes, one may well ask the question, can one love a plastic tree? Or the sound of wind in a plastic Pine? Is indeed “the demand for a rare [read natural] environment . . . a learned one”? Is the love of a *living* tree or flower truly taught only by *culture*, or is it due to the interaction of culture and evolution? With such wonderful plastic surrogates, will this love eventually become obsolete? Will mail-order plastic women filled with warm water and greased with vaseline satisfy sufficiently our human needs? Will the false harmony of false trees or of surrogate sex be able to produce feelings of affection? Will all these makeshift substitutes send us screaming into the night for the satisfying totality of the emotions that evolution has led us to expect? Has our innocent apologist never heard of Charles Darwin?

And what of the special needs of children? Suppose that they have *biological imperatives* for wilderness, for natural beauty, for natural harmony? If these are not satisfied, what will happen to their orderly and adapted ontogeny? Supposing that, for the sake of social justice, *all* children, not only those of the rich, should have a chance to experience untouched wilderness (in order to grow up to be happy, healthy and wise)? What if, long *after* all of nature has finally been ground up in the garbage disposal of the technologic sink (with bamboozlers like the author at the switch), it becomes suddenly clear that there are indispensable genetic needs for many of these components of nature? But by then it would be way too late.

All planners should be human ecologists. They enunciate and illuminate what an alive, evolved and evolving man *must* have to remain human, with human biological needs foremost on their minds; with the needs of the technological colossus in proper perspective. And what does it mean to put human needs first? “Not until man places man second, or, to be more precise, not until man accepts his dependency on nature and puts himself in place as part of it, not until then does man put man first! This is the greatest paradox of human ecology.” (H. H. Iltis, *BioScience* 20:820, 1970)

But what in fact does our present school of planners think its duty is? Is it to offer frivolity of choice to a human population uniformly programmed to genetically determined and culturally influenced needs? Thus Krieger offers genuine, unspoiled nature only to those rich enough to rent a plane to visit it, and small city parks for the poor masses who can afford only to ride a street car. What brand of social justice gives the poor a tiny city park, the rich a giant wilderness? “A summum bonum of preserving trees has no place in an ethic of social justice” (p. 453) – indeed! It should of course be obvious that there can never be any meaningful social justice without “preserving trees”.

The counter-culture is bad enough in its simplistic insistence on the *Greening of America*. On having its car and driving it too. On living simply, in affluence. Are we now to be blessed with a counter counter-culture, which will hasten the destruction of most of what is biologically sacred, a destruction, while begun in a mindless technocratic profit-oriented capitalism, is now to be completed in the guise of social justice and relevancy by a pack of technologically optimistic liberal planners?

No matter what Harry Harlow's experiments might suggest, to the affection-starved baby monkey a terry-cloth, wire female with only a light bulb heart does not much of a loving mother make! And, likewise, plastic trees or tiny city parks do not a healthy landscape make. We cannot condition humans to be happy *and human* with the surrogates of technology – we can only make them happy and human with what they, biologically, have been selected to experience.

The planner who maneuvers himself into becoming an apologist for our cultural derelictions, including the virtues of plastic trees; the planner who encourages the faked and denatured environment, no matter how good his intentions may be, becomes himself and addict of the “technological fix” [\[1\]](#), a technological junkie, hooked on the propagation of that one, grand, and damnable lie (the lie which makes the absurdly destructive extremes of the technological revolution possible): that *man can adapt to anything*, even plastic trees; that man doesn't really need the matrix of nature to exist in; that “the way in which [man] experiences nature is conditioned by . . . society”; and that, therefore, society can de-condition man from wanting to experience the “real thing”, the real Nature, that lives and blooms and flies and sings.

Whatever the finer points of man's existence may be, the French sociologist and lay-theologian Jacques Ellul has put it well in *The Technological Society* (1964 p. 325) :

“The milieu in which man lives is no longer his. He must adapt himself, as though the world were new, into a universe for which he was not created . . . He was made to have contact with living things, and he lives in a world of stone.”

It cannot be, then, that our affection, our apparently overwhelming need for flowers, trees, and wild land is fortuitous, a mere accidental cultural fixation. We may expect, as a matter of fact, that science will furnish the objective proofs of suppositions about man's needs for a living environment which we, at present, can only guess at through timid intuition; that one of these days we shall find the intricate neurological bases of why a leaf or a lovely flower affects us so very differently than a broken beer bottle.[\[2\]](#)

Meanwhile, modern technological civilization continues in its accelerative growth and with unprecedented speed, magnitude and complexity, which are so great that most people in fact do not have the faintest notion what is good for them, for their families, for their society or for humanity as a whole. The problems are simply too complex, involved and removed for anyone but an occasional highly sophisticated specialist to understand. And that in itself is fraught with danger. Who will judge? And how? And even if we understood a problem and wished to effect a change, the momentum of technological civilization is so great that, like the sorcerer's apprentice, it is often quite beyond any rational control.

Krieger may, in fact, correctly describe what he observes in a horde of Disneyland visitors. But many of these may have been conditioned by their megalopolis environment and upbringing to blindly deny their own biological well-being, an increasingly prevalent phenomenon, especially of big cities. The general biological ignorance bodes ill for democratic decisions on environmental issues. Except for a deliberate expansion of public understanding of biology and evolution, I don't know how else the public will ever understand or realize its own condition. Meanwhile, we shall pay a terrible price in environmental damage for keeping evolution out of the schools and out of planning, and continuing the public's ignorance. Since we are, and always will be, biological creatures, the planner as well as the public should be biologically sophisticated if it is not to make erroneous assumptions. The lack of evolutionary input into the environmental crisis, and the mere existence of the “Teaching of Evolution vs. Creation” controversy in California (not in 1873, but in 1973!) all point to the great need for

reevaluating priorities in teaching and planning.

What then is a planner to be; what then is he to do? As a socially responsible individual, where must he lead? He must, above all, be a biologist and a human ecologist, sensitive to man's evolution and its holistic implications, *whose principal job it is to preserve the evolutionary harmony and diversity of this earth*. Nothing really matters more than this – no cleverness, no “fix”, no good intentions. There can never be a healthy humanity, both physically and socially, without its ancient evolutionary and ecological base.

Thus, neither the planner, the physician, the teacher, nor the landscape architect can compromise the evolutionary nature of man; he must accept it, because it is. He must accept the basic principle that the optimum environment for all organisms (including man) is that in which they evolved, because *it*, in fact, selected *them*, and in a dynamic sense still continues to do so. No experimentation is necessary to show this, it is true.

Let us therefore demand that the future of the human environment, the only environment to which man is genetically adapted, be left to those enlightened planners who, in prudence, humility, and biological understanding wish to protect and preserve it.

“It is time for men to commit themselves to a contemplative study of nature, however hard that may be for us to begin We are far from knowing all the facts. We need more information. It is too easy to say that people prefer their landscapes humanized and that we adore wilderness only after it no longer howls. The presumed fact that men like to tame wilderness does not prove that men are well off without wilderness. We are still ignorant of what men, in the deepest levels of their brains, need from the world.” [Daniel McKinley]

[1] A.M. Weinberg argues persuasively (*BioScience* 23(1); 1-45, 1973) that for every “technological fault” there is a “technological fix”, ironically forgetting that the latter phrase was coined by environmentalists to designate a cure of an ill analogous to the “fix” of a drug user hooked on heroin; i.e. it is precisely because so many “technological fixes” are bad that they do not represent a valid solution (e.g. the Green Revolution and unlimited food, atomic energy and unlimited power, etc.).

[2] At the University of Wisconsin, Sharon Decker, with Hugh Iltis, is compiling an annotated bibliography on “Man's needs for Nature”, sponsored by the Horticultural Research Institute, which may represent a small beginnings towards such an understanding. (cf. H.H. Iltis, 1966. The meaning of human evolution to conservation, *Wisconsin Academy Review* 13 (2) : 16-23.)