

The urban bias in American education is an uncritical and unyielding attachment to de facto urban arrangements, which stems from society's pursuit of the overarching goal of endless growth. Examination of the ecological consequences of this goal reveals its unsuitability as a basis for future educational development. Educators must contribute to the reconstruction of the idea of growth if education is to deal constructively with the challenges of the present and future.

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The Urban Bias in American Education

At a time when American education finds itself operating increasingly in urban settings and under urban influences, it is with some trepidation that I venture to assert the main argument of this paper: the greatest obstacle to improvement in education today is the assumption by educators and their establishments of a bias in favor of the very urbanism which they see as an inescapable historical force, and whose challenge is their mission to successfully meet.

I realize that so bold a contention will seem strangely remote and in appropriate, if not foolishly heretical, to a society caught up in the great tide of worldwide urbanization. To suggest that urbanism is in some way an obstacle to educational progress, is to suggest an apparent contradiction — for urbanism, along with industrialization and technology, is part of what we mean by progress, one of its fundamental categories or forms. To a secular world, the belief in technical urban progress is probably more closely connected with a practical religious faith than we realize, a counterpart for us of an assured timeless order characteristic of an otherworldly culture. Today, the urban - industrial world, in spite of its many problems, is the source of our deepest allegiance; in a very real way it is all that we have.

It is not surprising, therefore, that discussion which centers on the ground of our faith in urbanism should be met with arguments to show that such discussions flirts with anachronistic irrelevancy: to critically question urban existence is to invite an impossible return to the past. Urbanism is here to stay, we are told; we cannot turn the clock back. Thus, all negative criticism is swallowed up in the assumption of an urban manifest destiny whose supposed inevitability immobilizes opposition. It is

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unfortunate that urban apologists have employed this kind of defensive and logically irresponsible tact in their pejorations. For in doing so they have discouraged an important body of critical opinion from contributing to the solution of urban problems. The success of urban apologetics, however, and the acquiescence of so many to its preachments, is due more to the pervasive feeling of helplessness engendered by the enormity and multiplication of urban problems, than to the adequacy of its argument.

No one, to my knowledge, has, in the recent past, at least, seriously proposed a return to a rural past, nor denied the legitimacy of urbanism *per se*. Such preposterous proposals are rather distorted caricatures constructed by urban apologists too busy with the "scientific" study of society to sympathetically entertain criticisms of underlying assumptions. The whole point of the majority of so-called "anti-urban" critiques¹ has been not that urbanism is a wholesale evil to be systematically rejected and dismantled, but that it has been developed *in excess*, without due regard to its consequences to man and Nature. While it is true that this point of view is receiving fresh support from recent work in human ecology,² it is interesting to note that urban ideologists either disregard it, or, more often, attempt to "co-opt" it in a way that is accommodating to an urban framework which itself remains unchanged.

It is not, then, the *existence* of the *phenomenon* of urbanism that has troubled its critics. It is rather the particular *kind* of urbanism that we have now, the way in which it has developed, and our attitudes toward it that has bothered many and is of concern in this paper. For there is a difference between a particular urban form and structure at a particular time and place (and the ideology that supports it) and the general idea of urban association. To assume that all the possibilities of the latter are necessarily contained in the former is a confusion of thought. Yet it is just such a confusion that underlies much urban thought today. In America, and probably most of the industrialized world, the *de facto* urban framework is insidiously promoted as the "inevitable" receptacle for the development of any future *de jure* urbanism. Since we are presently committed to an ideology of *mass-urbanism*, this means that current efforts to further urban growth take the ideology of *mass-urbanism* as a necessary if not sufficient condition of their realization. The important

¹The best of these, and perhaps the least known, is still Baker Brownwell's *The Human Community* (New York: Harper and Brothers, 1950). Cf. also Lewis Mumford, *The Culture of Cities* (New York: Harcourt, Brace and World, Inc., 1938); E. A. Gutkind, *The Twilight of Cities* (New York: The Free Press of Glencoe, Inc., 1962); Morton and Lucia White, *The Intellectual Versus the City* (New York: New American Library, 1964); David R. Weimer, ed., *City and Country in America* (New York: Appleton-Century-Crofts, 1962).

²Cf. the essays by Dasmann and Dickinson in F. Fraser Darling, John P. Milton, eds., *Future Environments of North America* (Garden City, N.Y.: The Natural History Press, 1966). Cf. also Paul B. Sears, "Utopia and the Living Landscape," *Daedalus*, Vol. 94, No. 2 (Spring, 1965). Many of the ecological problems and consequences of modern urban-industrial civilization are explored in Paul Shepard, Daniel McKinley, eds., *The Subversive Science: Essays Toward an Ecology of Man* (Boston: Houghton Mifflin Co., 1969).

thing to note in this is that the *value* of mass - urbanism for the future is thought to be contained in the mere *fact* of its present existence. The *de facto* present is used to justify and determine the *de jure* future.

It seems to me that much of the effort we devote to urban problems is based upon this way of relating fact and value. We allow ourselves to say that mass - urbanism is "good" because mass - urbanism is the state of affairs we historically find ourselves in. It seems hardly necessary to comment on the fallaciousness of this form of reasoning. No value can ever be attributed to a phenomenon solely on the basis of the factuality of its existence, irrespective of its consequences and a host of variables through which they are judged. We do not say that cancer, pollution, or flying saucers (supposing we were to find some) are beneficial simply because they exist. They are deemed beneficial or harmful in terms of their consequences to man and Nature. Yet when we come to urban life we uncritically take extant urban forms as a satisfactory foundation for the future. Current writing is full of "planners'" confident and even gleeful projections of an urban future which is little more than a gigantic enlargement of the present, supported by a childlike faith in the remediability of social problems through quantitative application of mechanical technological devices. Nowhere has the thought occurred to the future planners that the foundation which historically supported us up to now may not suitably lend itself to an indefinite extension into the future — that mass-urbanism, in other words, may not be the wave of the future.

The deep - seated confusion between fact and value which is embedded in our urban ideology is the source of the urban bias in American education and society. For the urban bias is simply a single - minded, confining concern with the sufficiency of present urban trends to generate a stable future, a concern which hampers externally derived contrast and perspective. A bias, after all, is much like a blinder, which fixes the eye ahead but prevents side vision. It is, in Webster's words, "such prepossession with some object or point of view that the mind does not respond impartially to anything related to this object or point of view."³ Out of the deep frustrations stemming from the expectation gap between potentiality and achievement, industrial America has rationalized its inability to solve its social problems by a compensatory adoption of a proliferating and hapless urbanism, to the exclusion of alternative forms of settlement. We are obsessed with urbanism, and to the extent that we fail to realize it to be an obsession, we make a shambles of our erstwhile efforts to erect a genuine science of society. For the essence of science is the passionate desire to consider as wide a variety of alternatives as possible, to search for the hidden and the negative, and to avoid like the plague the straightjackets of the obvious and the inevitable which, to use Peirce's phrase, "block the road of inquiry."

³Webster's Third New International Dictionary Unabridged (Springfield, Mass.: G. and G. Merriam Co., 1966), p. 211.

Yet, it is nothing short of incredible when we stop to consider that perhaps more than we realize American society is caught in a vise-like grip of the inevitable: the inevitability of urbanism. It hangs over us fatefully, with all the finality of the Marxian dialectical triad, which we regard as dogmatic and representative of a closed society. But is not our society just as closed? The end is set, virtually predetermined in the interstices of a rampant present, and the only question open for discussion is the means to achieve this fixed end. It is a strange conception of freedom which boasts of this determinism, and an even stranger conception of social science which acquiesces to its cynical designs.

It is important to bear in mind that the notion of urban inevitability to which the urban bias tenaciously commits us, is not to be thought of in a wholesale fashion; that is, it does not apply to urbanism *per se*: not urbanism in general is inevitable, only the particular kind — what I have called mass-urbanism — that we are familiar with today. Men will no doubt always live in cities: there is certainly a high probability about that. The only question is, what *kind* of cities. I have defined the urban bias in such a way to refer to a way of thinking about the future of cities *in general* which holds their fundamental nature to be little more than an extension of enlargement of present structural forms and growth tendencies. Thus urban inevitability, as I have used it, and consequently the urban bias of which it is an expression, has to do with one particular type of urbanism, albeit an almost universally present one: that is, it has to do with the urbanism of today, the urbanism of industrial mass-societies, and American mass-society in particular. This, again, is what I have called mass-urbanism.

I take pains to make these qualifications, not only to stress the possibility of other forms of urbanism than today's, and to guard against the black and white thinking which finds any criticism of urbanism a criticism of *all* urbanism, but because we cannot really understand the urban bias without noting its connection with the particular, immediate social system of which it is a part. For the urban bias is the outcome of much more than mere narrowness of mind, or even the confusion of fact and value which leads to inevitabilism. These characteristics are already the results of a complex system of socio-cultural forces, and we must strive to see the urban bias as a functional expression of it.

Today's industrial mass-urbanism is an inseparable combination of physical and social forces and entities: the city and metropolitan region, on the one hand, and their associated patterns of behavior, on the other. Both are products of a history of social development which is funded in the dominant themes of institutional ideology. It is these themes, rather than the details of social organization, which best account for the distinctive nature of the urban bias. There are three such themes which are central to the ground of belief of the urban bias.

The first is growth. Growth is the central concept in all urban industrial ideologies today. It cuts across lines of economic and political ideology. For all industrial societies, be they socialistic or capitalistic, totalitarian or democratic are committed to growth as an ideal. The most important meaning of growth is economic in nature. And in so far as all industrial societies are production oriented, we may say that growth has to do primarily with the production of goods and services — and of course their consequent consumption. That is, when we speak of growth in industrial society as a whole, we mean most fundamentally the furtherance of the relationship between production and consumption.

But when “the furtherance of the relationship between production and consumption” is examined in more detail, we find that it means “the quantitative increase of the rates of both production and consumption.” Growth means, in other words, “quantitative enlargement,” “becoming bigger.” Needless to say, qualitative improvement is supposed to be consequent of this quantitative increase: the bigger begets the better. In this, there seems to be little difference between the economics of capitalism and the Marxian law of the transformation of quantity into quality. But whatever else growth means to industrial man, it seems *not* to mean the maintenance of a relatively steady state of production and consumption, where both have achieved a plateau, or even rarer, a reduction in their rates.⁴ At no time does it occur to us to conceive of growth in alternative ways, using other models than that of marketplace and production line.

But there is a further dimension to the idea of growth as quantitative enlargement of production and consumption. And that is its endlessness.⁵ Growth for the industrial world has no end. It is perfectly timeless, eternal. Here amid the cannons of production and consumption in the 20th Century, the otherworldly eternalities of another age and civilization have been unblinkingly secularized. An attribute formerly reserved for deity now is ascribed to human economies, whose motive forces, policies and calculations are rooted in the notion of unending proliferation of material products. Though we may recognize intellectually that Nature has limits to the amount of such proliferation the earth can bear, it is the lack of emotional acceptance of this fact which characterizes the present blindness to the consequences of growth; and that is nowhere better illus-

⁴A leading ecologist describes our preoccupation with growth this way: “We are unwilling to face a future in which property will not increase in value because of increased demand, in which business or industry cannot grow and expand, in which opportunities for promotion or advancement become limited, and profits will find a plateau. We have grown accustomed to dependence on the economic horn of plenty for an unending and ever-increasing supply of material goods.” Raymond F. Dasmann, “Man in North America,” in Darling and Milton, eds., *Future Environments of North America*, *op. cit.*, p. 332.

⁵For an interesting discussion of the notion of perpetual growth, cf. Darwin Lambert, “Let’s Outgrow the Growth Mania,” *National Parks Magazine*, Vol. 39, No. 211 (April, 1965), pp. 4-8. Cf. also Erich Fromm, *The Revolution of Hope* (New York: Bantam Books, Inc., 1968), Ch. III, p. 135.

trated than in our own unwillingness to face the consequences of the growth of human populations.

Urbanism, of course, is a major expression of the idea of endless quantitative growth. In the same way that we speak of a greater GNP, and increase in automobile production and the construction of highways, and an enlargement of the population, so too we think of more and bigger cities and metropolitan areas. The connection between the expansion of industrial artifacts and urban areas is not incidental. For cities today are the physical and social expression of industrial civilization; they are the form through which man enacts his life in an industrial culture. While not all industrial production is performed in central cities or metropolitan areas, the urban area remains the hub of associated activities whose life beat is industrialization. The city and industrialization are indissolubly wed. And since industrial economy is wed to the gospel of endless quantitative growth, it is not surprising to find a similar union existing between cities and the same gospel.

The second major theme of industrial ideology is the idea of progress. Progress is closely related to growth in fact, we might almost say that progress is growth and growth is progress. In other words, what we mean by progress — or at least a substantial part of what we mean by it, is the same conception of growth just discussed. To be sure, progress has many accouterments in our society, but at bottom it is tied up with the primary institutional functions which serve the cycle of production and consumption, and hence feed the process of endless quantitative enlargement. When one hears the oft repeated phrase: "You can't stop progress," the reference is clearly to the total system of institutional forces which are related to fundamental economic activity. And since this economic activity is growth oriented, it encourages the inevitabilistic thinking that is so much a part of the urban bias.

Little more need be said about the growth - progress mechanisms of our industrial ideology, except to point to their close relationship with the third and last ideological theme: the faith in the remediability of science and technology. Since the Enlightenment science and technology have served industrial growth - progress so successfully that the inevitabilism which grew along with it became ascribed independently to the powers of science. As the belief in the inevitability of progress and growth became entrenched, a corresponding belief in the inevitability of science and technology to solve problems gradually became established. Now it is practically taken for granted that science and technology are capable of virtually unlimited creative and resolatory accomplishments, that all technical questions are theoretically solvable given the requisite time and human resolve. I say this not to dispute the point — for none of us can say that it may not be true. However, it is no denigration of the scientific enterprise to point out that the effect of this belief, when placed in the working context of the present social system, has been to provide a rationalization for the

dominant ideological system of modern industrial society, which, as I have pointed out, is urban - growth - progress in its orientation. Science, no matter how great its efforts to retain its theoretical distance, has become deeply involved in the aims and purposes of the modern social system. But it has become involved, not as an agency which contributes directly to the formation of original aims and purposes, but as a service agency operating within a historically determined complex of social goals — goals again which express the themes of growth and progress — where its major function is to provide the theoretical and practical means for goal realization. Science has become the servant of the industrial world, the handmaiden of growth and progress. It has become a cultural institution devoted to the discovery of means to ends which are the antecedent product of a rigid historical determinism.

When the function of science is narrowly limited in this way, when it is excluded as a method from questions of social ends and purposes, it tends only to reinforce the inevitabilistic attitudes of the growth - progress ideology. It creates the illusion that the controlling assumptions of the social system are basically sound, and that all that is needed to force them to fruition is continued and ever greater resort to, and application of the instrumentalities of science and technology. Thus, the general proposition that all human problems are remediable through science, has come to mean, in the context of industrial society, that all human problems are remediable through science *given* the fixed assumptions of industrial growth ideology.

Thus science — or rather our servile conception of it — forms, along with the notions of growth and progress, a central part of the interlocking ideological groundwork which sustains the urban bias in our time. I have tried to show thusfar that the urban bias is endemic in the institutional framework of American society today, where it is fostered by and expressed in the ideological themes just described. To say that we are biased toward urbanism means that our conception of it is limited, because of inevitabilistic thinking, to the particular forms of urban life which are presently inextricably bound to an economic and political ideology of growth. Thus, urbanism means just one thing to us: a commitment to one special form of urban arrangement and no other. It is this inability to imaginatively break our urbanism loose from the ideology of growth and progress that constitutes the distinctive feature of the urban bias. For we are not rendered biased in urban matters by a commitment to *any* form of urbanism. Our commitments are *unbiased* when they are the outcome of a critical appraisal of a wide range of alternative possibilities, in which the criticism of the aims and purposes inherent in ideological components is made central.

If I turn to education belatedly, I hope it is not without some benefit from the preceding analysis. For what has been said about the urban bias in general, applies practically without exception to the institution of

education. Education today is as much a victim of the urban bias as any other cultural institution. Educators make no bones about their commitment to urbanism. "The Greatest challenge facing public education today," the editors of a recent book emphatically state, "is that of preparing students adequately for adult life in a complex and changing urban society."⁶ And educators have gone about meeting this challenge with an unprecedented array of books, articles, speeches, special programs, enlarged facilities and ever greater funding. In the few works which have probed the historical and philosophical basis of the urban transformation in education, we are told to forget the irrelevant past, recognize that reality is the urban here - and - now, and get busy and develop through an appropriate education the intelligence and knowledge necessary to accommodate ourselves to this reality. This is the essential message of Kimball and McClellan's *Education and the New America*, which provides an imposing rationale for urban mass - education. "It does not matter," they write,

that the public world is imperfect, that its hugeness swallows up the small efforts of individual men and women, that the rapidity of change means that every achievement is soon superseded. For this public, corporate world, despite everything, is *real*. Here there is reality to success and failure; whether the human race survives or not depends on how we learn to work the institutional forms demanded by the density and consumption requirements of *homo sapiens* on this planet.⁷

The important thing for Kimball and McClellan is finding what the corporate urban world demands of a person in order that he may establish his own commitment to it.

The committed person *knows* what his world demands of him and acts accordingly, because of his knowledge. . . . Seeing the interconnections among the varied corporate structures in which one's personal life is embedded and knowing how all these are both connected with and also separated from the interpersonal life of family and neighborhood are ways of accepting the world and its demands on conduct.⁸

Education is important to the new urbanism because it provides knowledge of the "interconnections among the various corporate structures." The assumption is that a sufficient understanding of these corporate structures will enable the human family to take its place beneficently and creatively within them. The goal is clearly adjustment to the *status quo* — perhaps not the immediate *status quo*, for the urban ideology promotes myriad

⁶August Kerber, Barbara Bommarito, eds., *The Schools and the Urban Crisis* (New York: Holt, Rinehart and Winston, 1966), Preface, p.v. This statement either assumes that urban society is worth adequately preparing students for, or it does not consider the normative question important. A similar normative arrogation occurs in the following statement: "Metropolitanism is at one and the same time a set of events occurring in contemporary society and a set of goals or tasks which society should achieve if it is to become a better society." Robert J. Havighurst, "Introduction" to *Metropolitanism: Its Challenge to Education*, The Sixty-seventh Yearbook, NSSE. Pt. I, ed. Robert J. Havighurst (Chicago: University of Chicago Press, 1968), p. 3.

⁷Solon T. Kimball, James E. McClellan, Jr., *Education and the New America* (New York: Vintage Books, 1966), pp. 321-322.

⁸*Ibid.*, p. 313.

changes as long as they further the over - all aims of a growth oriented world. But there is little indication in either Kimball and McClellan, or the vast majority of our educational programs, that education seriously questions the fundamental desirability of the kind of urban - industrial world in which we find ourselves. Many shortcomings are acknowledged to exist, but they are thought to be correctable by a more enlightened pursuit and application of knowledge that is a reflection of present reality, rather than a revision of the basic purposes and structures of corporate urbanism.

The urban bias expresses itself in education through the pervasive rhetoric of commitment and accommodation, and in the countless educational practices and programs which that rhetoric serves. Even in the radical protest of the non - committed and those seeking new experimental educational arrangements, there is rarely a sign that their rejection of tradition and bias extends to the question of the goals or urbanism itself — as though any real radicalism could ignore the controlling framework in which most life today takes place. Instead, the emphasis is on social, economic and political — and even racial and religious — determinants of social and educational betterment. And while these are of course important, more often than not the policies which recommend their consideration are devoid of any awareness of urban limitations, and thus they amount to but another form of commitment to urban ideology.

Thus the notion of commitment in education is a veil which hides the powerful thrust of inevitabilism that binds American education to an urban *Weltanschauung* and equates endless quantitative growth with progress, fact with value, and prostitutes science to the great god Trend. In our frantic efforts to improve education so as to keep it abreast of urban advance, we reveal our urban bias. For the urban bias, again, is an inability to see the work of education in any other than mass - urban terms. It is the uncritical acceptance of *de facto* urbanism as the only possible framework for the conduct of education.

As long as the urban bias is the powerful force it now is, the hope for any real improvement in education is dim. Education cannot be intelligently reformed as long as it is linked to our present urban ideology. Without a significant shift in our horizons we shall go on with our fitful programs of funding, construction, and internal make - shift juggling which clutter the scene today. By these I am convinced we merely compound the difficulty, rather than get at root causes.

The alliance between education and urban ideology is an outmoded vestige of the past unsuited to the great challenges of the urban revolution. Urban ideology, as I said earlier, is an ideology of excess. It is predicated on the inevitability of endless quantitative growth in production and consumption, a notion which is a romantic fantasy with suicidal consequences. It is legitimate to speak of urbanism as the bearer of this myth because, as I tried to point out earlier, urbanism is the structural, formal and organiza-

tional motif according to which the social, political and economic institutional activity of corporate technological civilization is made manifest. Urbanism is truly a "way of life" that defines, not merely city concentration, but the modes and configurations of a totality of interacting events. The trouble with contemporary urbanism is its excessive proliferation generated by its adherence to the myth of endless growth. Endless growth, whether it be of people, automobiles, or skyscrapers is, of course, an ecological impossibility which would be laughable were it not for the fact that the nations of the world functionally assume its reality. Everywhere the cry is growth, growth and more growth. The majority of our future planners are concerned only with the question: How to effect this growth, and then accommodate to it? Only a smattering of social critics have had the courage to suggest that perhaps we need to reexamine growth as a goal. As one of these critics has perceptively written:

The discouraging aspect of most of the prophetic visions currently offered for our delight is that they seem to project only more and better of what we already have: more people, more industrialization, more push-buttons, more and bigger cities, more affluence, more leisure, etc. But salvation won't be achieved merely by extending present trend-lines. If our technological civilization is in some ways hazardous to our humanity, an increase in its efficiency will only render the hazards more rapid and more deadly.⁹

But our resistance to thinking of growth in new and imaginative ways is deeply rooted in the vested interests of our institutional activities. Educators, like other corporate professionals, find their policies and planning increasingly circumscribed within the growth oriented network of corporate institutional interrelationships. With so much energy devoted to keeping the system going, teachers and administrators find criticism of the goals of the system a philosophical will-o'-the-wisp, a luxury they have little time to pursue, and they relieve their frustration with what satisfaction they can derive from innovations which serve the goals of growth.

Given the degree of entrenchment which American education has in growth - related institutional activity, it is impossible to be sanguine with regard to the possibility of effecting any fundamental reorientation in our educational goals. Indeed, since these goals are the product of the total institutional complex, education cannot be expected to single - handedly redirect the purposes of industrial urbanism. But it does not follow from this that education is helpless to contribute to — and even provide leadership for — a rational reconstruction of social purpose. Through its agencies of instruction and research, education can undertake programs which make the critical examination of the *goals* — not just the means — of urban civilization central to its work both in the classroom and without. Such programs would, I realize, meet with deep - seated resistance from all those whose lives and work are a part of present urban establishments — and this includes teachers. For all of us are biased in favor of this urbanism, and we do not like it to be questioned. Yet, is there any alterna-

⁹R. L. Predmore, "What Role For the Humanist in These Troubled Times," *BioScience*, Vol. 18, No. 7 (July, 1968), p. 692.

tive to our present conception of education, tenaciously committed as it is to the urban bias, save one which provides all those involved in it with the opportunity to question the aims and forms of the urban revolution, and to proffer suggestions for the redesign of our way of life? Whether or not there is, I do not see how educators can continue to serve an educational system which holds that urban goals are inevitably given, and as such lie beyond the question of those in our schools. To continue to convey to our young — either tacitly or explicitly — the notion that our growth oriented urbanism is on basically sound footing, while its admittedly grave social problems are remediable within the urban context, is to ignorantly perpetuate a myth which has no foundation in fact, and whose harm to students and to society is enormous. To those who cry out that schools have no business taking up normative questions, questions of values and goals, the very persistence of the myth of endless growth and the urban bias is a strong argument *against* an education that *does* exclude normative questions from its purview. For in doing so such an education has prevented the examination of the *consequences* of our urban way of life, consequences which, when examined, give the lie to its supposed providence.

The fact of the matter is that contemporary urban society is not at all “fundamentally sound.” It is rapidly becoming fundamentally unsound. The trouble is that while we are aware of the social problems and consequences of urban society, we optimistically rationalize these because of our ignorance of the ecological consequences of mass - urbanism. By “ecological consequences” I mean the environmental effects of man’s continuing pursuit of the goals of growth and progress. We are all aware of these in general terms: our enormous pollution, our misuse of resources, and the glut and blight of an expanding population. But by and large we have not appreciated the implications of our environmental crisis. And we have not done so because, again, we rationalize these effects in terms of our faith in the remediability of science — a rationalization which in effect says: “Science will find a way of enabling us to continue our pursuit of endless growth.” But in this we are mistaken. Science cannot help us to pursue endless growth, because endless growth is a physical impossibility. Science, on the contrary, suggests just the opposite. Ecologists are pointing to a considerable amount of evidence to the effect that if industrial societies continue their present course of energy utilization, waste disposal and despoilation of Nature they shall provoke ecological catastrophe.¹⁰

¹⁰The reader will find that the following collections provide a wide ranging representation of ecologists’ views on this point: Paul Shepard, Daniel McKinley, *The Subversive Science*, *op cit.*; *Future Environments of North America*, *op cit.*; Jack B. Bresler, ed., *Environments of Man* (Reading, Mass.: Addison-Wesley Publishing Co., 1968); *Hearing Before the Committee on Interior and Insular Affairs, U.S. Senate on S. 2282*, April 27, 1966 (Washington: U.S. Government Printing Office 1966); *Hearing Before the Committee on Interior and Insular Affairs, U.S. Senate and the Committee on Science and Astronautics, U.S. House of Representatives*, July 17, 1968 (No. 8) (Washington: U.S. Government Printing Office, 1968). Cf. also: John H. Cumberland, “Economic Development and
(Continue?)”

Some ecologists, indeed, feel that we may have already tipped the scales of the balance of Nature in this direction.¹¹

For too long we have isolated the study of man from the study of Nature. Now, in the consequences of man's effects upon the natural environment, the two are being forced together. The world is undergoing an ecological revolution as well as a social revolution — or rather a single revolution in which social and environmental factors are inseparably connected. It is tragic that in the world's supposedly most advanced civilization, our system of education should continue to operate under and foster goals (endless growth, "progress," and the myth of the remediability of science and technology) which had their origin in a time when Nature was an object of exploitation and narrow control. These goals are now outmoded. Man and Nature are one, and cooperation must replace exploitation and selfish control if man and Nature are to survive. I have argued that our present mass-urbanism is the functional expression of these outmoded and ecologically unsound goals, and that our uncritical attachment to them has biased us in its favor. Eliminating the urban bias from our thinking is therefore imperative if education is to be appropriate to the realities of our world. Since these realities now underscore the importance of the consequences of man's interventions in Nature, education can no longer omit from its "studies" the critical appraisal of their worth and significance in terms of the alternative goals and values which determine them now and in the future.

its Long-Run Environmental Implications," *National Parks Magazine*, Vol. 41, No. 242 (Nov., 1967), pp. 11-13. For an optimistic, non-ecological point of view, cf. Harold J. Barnett, "The Myth of Our Vanishing Resources," *Transaction*, Vol. 4, No. 7 (June, 1967), pp. 6-10.

¹¹LaMont Cole, "Can the World Be Saved?" *The New York Times Magazine* (March 31, 1968), p. 35 *passim*.