In Praise Of Gandhi
Technology And The Ordering Of Human Relations

Mulford Q. Sibley
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Editor’s Introduction

This essay, like two previous pieces by Mulford Q. Sibley that have been published as QUF pamphlets, is a lecture left among his papers. As stated more fully in the introduction to Quaker Mysticism: Its Context and Implications (QUF. June, 2000) Sibley was among the founding members of the Twin Cities Friends Meeting and a long-time and greatly revered teacher at the University of Minnesota. He delivered this paper before the annual meeting of the American Political Science Association at Chicago in 1976. Since he never revised it for publication, I have abridged it somewhat, taking out passages that were clearly intended for oral presentation to an academic audience. Not having access to all the sources he used, I have simply given the citations as he left them.

During the 20th century, Friends were deeply influenced by Gandhi’s concept of nonviolent resistance as a tool for social and political change. They have been less sympathetic to his ideas on technology, although as Sibley makes clear, those ideas were rooted in Gandhi’s religious beliefs and in a testimony of simplicity not unlike that of traditional Quakers. Today, nearly thirty years after Sibley wrote this piece and more than seventy years after Gandhi put his arguments forward, they seem more relevant than ever. Since Gandhi’s ideas were never implemented in India or elsewhere, one cannot say that history has upheld them, but the contrasting views of Nehru and other advocates of modern industrialism have been thrown into deep question by the devastating effects of industrial technology on agricultural and village economies worldwide. And as Quaker Earthcare Witness and other environmental groups are telling Friends, Gandhi’s urging that we restrain consumption, live more simply, and make greater use of plentiful human labor as a source of energy is worth a fresh look.

Rhoda R. Gilman
The debate about technology, economy, and politics was already an old one in the West when Mohandas Gandhi was born in 1869. In the Bible, for example, two major attitudes stand out: In the one, there is a tremendous awe of humankind’s possible achievements, and this is reflected in the divine command to the first man to have dominion over all living things. Great admiration for cities, the mythological technology associated with Tubal Cain, the powers exemplified in the construction of the Tower of Babel, and Egyptian technological achievements stud the pages of the Old Testament. Humans, it was assumed on this side of the Biblical tradition, were placed on this earth to subdue it and to go beyond, indeed to conquer, nature.

But, as in most things, the Bible also reveals a contrasting attitude which is just as important. Human beings have a tendency, it maintains, to grow so enamored of their own capacity for techné, art or skill, that they leave the worship of Nature only to substitute for it the worship of technique, whether mechanical or social. Thus they attempt to reach heaven with the tower of Babel, only to be punished by a jealous God. Or they establish cities that become the seed-beds of crime. Complex economic and technological orders engage so much human energy that the purpose of life is forgotten and people become slaves to their own creations.

In the classical Greek and Roman traditions, too, the debate reflects the two sides of technology and politics. There
is tremendous admiration of such technological achievements as the Seven Wonders of the World and those celebrated in the myth of the semi-divine Prometheus. At the same time, as in the Hebraic tradition, technological progress is seen as filled with danger, for it casts a kind of spell on human beings and thus leads them to become the prey of forces that they cannot control. The fearsome punishment of Prometheus may be seen to symbolize the gods’ wrath at the tendency of humans to overreach themselves technologically.

The classical view was echoed throughout much of the history of Western political philosophy down to the 17th century. With the development of the idea of progress, however, particularly after the time of Francis Bacon, cautious in the classical view of technology tended to fade and it came to be assumed very widely that technological progress meant progress in all realms of human existence. There were voices of dissent that included Jonathan Swift, many of the 19th-century Utopian socialists, Mary Shelley, and Samuel Butler; but in such predominant political philosophies as those of liberalism and Marxism, it seemed to be assumed that complex technology, while perhaps creating havoc in its earliest industrial phase would ultimately be reconciled with a just social order, either, as with liberalism, through a kind of automatic adjustment process, or, as with Marxism, through the inevitable development of socialism and then of communism.

It is against this background of Western thought that we turn to Mohandas Gandhi’s reflections on technology and politics. He stands half-way between Western and Eastern traditions, drawing heavily on both for his ideas, yet in some respects being atypical of the predominant tendencies that led to the Indian independence movement. He has been known chiefly for his notions of satyagraha and ahimsa and many in the West have supported his argument for nonviolence in politics. But there was always a side of his teaching which led many in both East and West to deplore its co-existence with the
conceptions of satyagraha and ahimsa. This side had to do with his economic, technological, and sexual views.

There have been great admirers of Gandhi who have accepted neither his principled nonviolence nor his conception of the economic-technological order. Thus Jawaharlal Nehru, who followed Gandhi's nonviolence for strategic reasons only during the struggle for independence, has this to say about his own attitude to the man he so much respected in general:

For him progress and civilization consist not in the multiplication of wants, of higher standards of living, but “in the deliberate and voluntary restriction of wants, which promises real happiness.” . . . . Personally I dislike the praise of poverty and suffering. . . . Nor do I appreciate the ascetic life as a social ideal. . . . This desire to get away from the mind of man to primitive conditions where mind does not count, seems to me quite incomprehensible.\(^5\)

Nehru may be said to epitomize the many critics of Gandhi’s conceptions of economy and technology, which include most liberals and socialists. Were Nehru and other critics right? Did they correctly report Gandhi? How should we assess his position on the technological-economic problem? How can we relate Gandhi’s conceptions to the main currents of Western political thought? What is his relevance, if any, for the problems confronted by both “developing” and “developed” societies in the declining years of the 20th century?

As is well known, Gandhi spent the formative years of his professional life in South Africa, where, in excruciatingly severe struggle, both social and intellectual, he worked out the main conceptions which were to guide him in later life.\(^6\) On technological and economic issues, he arrived in South Africa holding many typical end-of-century views on progress.

Then he began to read and to correspond with Tolstoy, and, above all, to study John Ruskin’s *Unto This Last*. Ruskin
and men like William Morris were among the leading critics of the idea of technological progress and espoused a view of the world in radical conflict with the liberal-Marxist perspective. Gradually Gandhi came to question much of what passed for social progress and to criticize what he saw as a misplaced confidence in complex technology. This attitude to the technological issue is closely interwoven with his general political philosophy.

Throughout his analysis of the latter, Gandhi is so concerned with the means that, as in the case of Marx — although for quite different reasons — the end is often left rather vague. In general, he holds that if the means shape the end and the means are nonviolent, the end will be a society in which nonviolence characterizes all aspects of political and social relations. Despite his general vagueness about ends, it is possible to become somewhat more explicit if we comb his writings carefully.

The goals that he has in mind for the world exist at two levels, the remote and the intermediate. The remote end in his doctrine would seem to be a “stateless” world: a kind of freely cooperating association of villages and functional groups in which rights arise out of widely recognized duties, and centralized power structures are things of the past. Centralization begets violence, stifles the personality, and tends to reduce individuals to mere instruments of the “state.” The state as an organ of history is “unnatural” — a contrivance which, to be sure, may have to be tolerated for many years, but which ought not to be regarded as a permanent fixture of human relations.

There is an obvious affinity between Gandhian anarchism and the goals of communism. Both exalt freedom and equality; both define the state as organized violence; both envision a withering away of the bureaucracy and the police; and both think of private property as a factor in perpetuating inequality. But while there is little doubt as to Gandhi’s ultimate objective,
he does not dwell on it. Just as the problem of immediate means concerns him more than neatly stated political goals, so he is far more interested in what might be termed intermediate as over against remote ends. These intermediate objectives connect the means, his central concern, with the ultimate and rather vague remote goal.

That Gandhi is quite aware of the distinction between remote and intermediate objectives is shown in his comment on a pamphlet circulated by the Western India National Liberal Association, a political opponent. The pamphlet characterized Gandhi’s objectives as “No Railways. No Hospitals. No Technology. No army and navy will be wanted, because Gandhi will assure other nations that India would not interfere with them, and so they will not interfere with India! No laws necessary, no courts necessary, because every one will be law unto himself. Everybody will be free to do what he likes.”

Gandhi admits that this “Gandhi-Raj” is “an ideal condition” in which “all the five negatives” of the pamphlet “will represent a true picture.” However, he also observes that in terms of intermediate goals the picture is a false one. In reply to the pamphlet, he pictures these immediate objectives as including railways, without their being used for military and economic exploitation; hospitals, but employed “more for those who suffer from accidents than from self-indulgence”; machinery in limited degree, but now the servant of the people. He foresees an “army” of sorts, not composed of “hirelings to be utilized for keeping India under subjection,” but rather to police India; and law courts that will no longer be used as “instruments in the hands of a bureaucracy” but rather as “custodians of the people’s liberty.”

In the peculiar combination of deeply held religious beliefs and constant experimentation which constitutes the foundation for his politics, he is always emphasizing that “we must not repeat history but make new history.” Although rather sharply aware of what some have called the recalcitrances of
human nature and history, he still asks, “If we may make new discoveries and inventions in the phenomenal world, must we declare our bankruptcy in the spiritual domain?”

Thus Gandhi’s perspective on technology cannot be understood without some reference to his religious conceptions. According to a long tradition in Indian thought, the ordinary condition of humanity is not its real or ultimate being. People have within themselves a consciousness beyond reason and intellect which in the terminology of Hinduism is called the atman. It is the principle in us that is not to be identified with mind, body, or even “life,” at least as we usually understand that word. To be fully aware of this higher level is to attain moksha, or salvation. And this awareness is associated with that of pure freedom and love. Gandhi accepts this teaching and attempts to relate it to his concerns in the political and social world.

To become filled with the atman’s transcendent being is to experience God. It is not incorrect to suggest that this God-consciousness for Gandhi becomes the source of all virtue and of all insight into the realm of practical existence. God is not the discovery of or an intellectual affirmation about something beyond. Rather is God the fruit of growing knowledge of the universal soul or spirit within each man and woman which reflects the “true self.” Gandhi came to identify God with Truth; and the center of his outlook tends to be his search for Truth and its implementation, particularly in the moral realm. It is Truth which unites us and before which a wide variety of religions admittedly bow. The quest for it brings atheist and theist together. In politics, it is “truth power” (satyagraha) which Gandhi thinks of as most compatible with the attainment of atman consciousness. “Truth force” is set over against “brute force” in his ethical teaching, and progress will be defined in part as the gradual triumph of the former over the latter.

Atman consciousness makes us identify with all of life; and this leads Gandhi to embrace many viewpoints which to others
seem absurd or “reactionary.” Protection of cows, for example, he identifies as one of the central distinguishing marks of the Hindu faith. The cow symbolizes all the sub-human world; and its protection is designed to reflect our awareness that the human species is closely connected with all life and should have a kind of empathy for all living beings.10

But just as atman consciousness makes us identify with all life, so it leads us to a realization of our unity with Nature in general and this in turn paves the way for Gandhi’s view of technology. Nature is opposed to human creations. Gandhi does not deny the worth of the latter, but he suggests that at best the artifacts and structures created by humans must be seen in the light of the revelations of natural creation. At worst, human creations may be ugly and inhibit sensitivity to the atman. Natural symbols of beauty, for example, are generally to be preferred. Like Tolstoy, who so profoundly influenced him, Gandhi holds that too great a separation from Nature leads us not only to be alienated from God but also, in the long run, to be estranged from other humans. This strong tendency in Gandhi and Tolstoy to be suspicious of a departure from nature (defined in its “primitivist” sense) is important for the political philosophies of both.

A recent analysis of Gandhi’s position on the aesthetic values in nature and human creations points out that “the ‘panoramic scenes’ of nature, ‘the starry heavens overhead stretching in an unending expanse,’ and the like are for Gandhi more beautiful than human artistic products. . . . They are not beautiful as such, but as symbolizing God, the original beauty.” An inferior sort of beauty could also be reflected in fruits of human labor, of course, but only if their production has not involved exploitation and has served a good purpose. By contrast, human creations that are the result of exploitation or that dissolve family life are almost ipso facto lacking in aesthetic value, whatever may be their superficial appeal. Beauty is thus strongly linked to goodness.
Given this attitude to nature and to nature as related to God, it is not surprising that Gandhi should be highly critical of the cult of modern technological progress. Not only will human inventions probably be inferior aesthetically to the products of nature, the very existence of complex technology tends to encourage us to believe that the products constitute the road to moksha. We take our eyes off inner spiritual development and tend to worship gross national product, which, in modern times, is largely the fruit of complex machine technology. We value economic growth as an end in itself and forget that materials goods, beyond a very bare minimum, constitute a burden on spiritual evolution and the achievement of moksha.

Replying to Rabindranath Tagore, who criticized him for rejecting machinery with all of its potentialities for alleviating the hard economic lot of people, Gandhi maintains:

I do want growth, I do want self-determination, I do want freedom, but I want all these for the soul. I doubt if the steel age is an advance upon the flint age. I am indifferent. It is the evolution of the soul to which the intellect and all our faculties have to be devoted.  

And on another occasion, he asks:

Does economic progress clash with real progress? By economic progress, I take it, we mean material advancement without limit and by real progress we mean moral progress which again is the same thing as progress of the permanent element within us.

In answering his own query, he suggests a sharp conflict between the two kinds of progress:

I hold that economic progress in the sense I have put it is antagonistic to real progress. Hence the
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ancient ideal has been the limitation of activities promoting wealth. This does not put an end to all material ambition. We should still have, as we have always had, in our midst people who make the pursuit of wealth their aim in life. But we have always recognized that it is a fall from the ideal. . . . I have heard many of our countrymen say that we will gain American wealth but avoid its methods. I venture to suggest that such an attempt, if it were made, is foredoomed to failure. We cannot be “wise, temperate and furious” in a moment.13

People are put under a spell by complex technology, he maintains, even when it deprives them of work.

What I object to is the craze for machinery. . . . Men go on “saving labour” till thousands are without work and thrown on the streets to die of starvation. I want to save time and labour, not for a fraction of mankind, but for all. . . . Today machinery helps a few ride on the backs of millions.14

Labor intensive, not capital intensive production, we might interpret him as saying, would often be the best way to show respect for human personality.

One might think, given this view, that he would accept all types of technology provided that the element of exploitation could be eliminated and people displaced by machines were supported until they were reabsorbed into the economic system. After all, Western economists tell us that in the “long run” machines greatly increase production and that hardship — technological unemployment, for instance — is only a matter for the “short run.” Moreover, while the industrial revolution has undoubtedly provided an opportunity for exploitation of the many by the few, it has also greatly increased the absolute material well-being of the many.
But Gandhi seems to hold that complex technology in itself sets up so many imperatives forcing us to be unvirtuous that even its admitted economic benefits cannot always outweigh its negative effects. Thus complex machinery always requires a great measure of centralization of control and coordination. But centralization, by moving the coordinators from direct relations with those being coordinated, sets up conditions which breed violence. Centralization also destroys community ties and substitutes the artificial contrivances of contracts — with a corresponding proliferation of the legal profession — for the natural and personal relations characteristic of the small group. Human beings are less than human under these circumstances. Politically, the central controls which seem to be inevitable concomitants of machinery and industrialism make genuine democracy and popular regulation of power-holders difficult if not impossible.

Nor does Gandhi believe that “socialism,” as widely understood in Western culture, can be the answer. There are limits fixed by industrialism and complex technology themselves on the degree to which changes in the property system can make technology the servant rather than the master. The spirit of complex technology must itself be questioned before we proceed to move in a “socialist” direction.

But does this mean that Gandhi is simply a machine-smasher, a kind of 20th-century Luddite? Offhand, it would seem so. Yet in several statements that have become near-classic, he denies that he opposes the introduction of all machinery. In one interview, for example:

Replying to a question whether he was against all machinery, Gandhiji said, “How can I be when I know that even this body is a most delicate piece of machinery? The spinning wheel is a machine; a little toothpick is a machine. What I object to is the craze for machinery, not machinery as such. . . . The
supreme consideration is man. I would make intelligent exceptions. Take the case of the Singer’s sewing machine. It is one of the few useful things ever invented.”

“But,” said the questioner, “if you make an exception of the Singer’s sewing machine and your spindle, where would these exceptions end?”

“Just where they cease to help the individual and encroach upon his individuality. The machine should not be allowed to cripple the limbs of man.”

Passages of this kind suggest that Gandhi’s principle is just the reverse of that prevalent in Western culture and the Soviet Union. Instead of assuming that technological innovation must and will take place unless, in rare instances, some is rejected, Gandhi would assume that no technological innovation would take place unless relatively infrequent exceptions were deliberately made. The burden of proof, so to speak, would be on those proposing the innovation.

Gandhi’s economic goal is one which embraces the ideal of thousands of small communities that can be largely self-sufficient for the essentials of life. This will be accomplished by inculcating an ethic of limited wants and at the same time introducing relatively simple mechanical contrivances which can be administered and repaired largely on a local level. There will have to be some larger factories, he recognizes, and where these involve large numbers of persons, they will be under state ownership. Where factories are today owned by wealthy capitalists, Gandhi would invite “their cooperation in the process of conversion to state ownership.”

He distinguishes his position from that of most socialists in that he questions not merely the virtues of industrialism but also, beyond a very ascetic level, the value of material things. All material objects belong to God and individuals possess them only as “trustees” for humankind — a view strikingly similar to that of many Western medieval thinkers. While a given person
is morally entitled to utilize the material goods that he needs, given the principle of very limited wants, he has no “absolute right.” Any “right” of private property, as usually understood, must be rejected. As a student of Gandhi’s political ideas puts it:

He would like to dispossess every person of all kinds of belongings. If he tolerates the institution of private property, it is not because he loves it, but because he has yet to discover a truthful and nonviolent method of abolishing that institution.¹⁷

His attitude to complex technology and highly developed economy must also be seen in the context of his defense of the caste system as he thinks it was intended to be. From the Rig Veda and other traditional Hindu writings, he takes over the notion that the universe is an organic whole and society a kind of organism composed of different limbs. The limbs of the social organism are represented by the several castes — intellectuals, soldiers, traders, farmers — and sub-castes. The basic notion of the caste scheme of things he identifies with something very similar to Plato’s principle that each shall do that which nature best equips him or her to do. The individual is related to the whole social cosmos through the intimate relations developed in his or her particular caste. Gandhi would presumably transform the role of “soldier” into that of nonviolent resister.

Complex technology, the ideology of economic growth, and their related phenomena break up “organic” ways of structuring society such as the caste system and destroy the basis for genuine human community. While welcoming selective and well-considered change, Gandhi values the social stability that accompanies the traditional way of life, once the notion of an “out-caste” group is discarded. By promoting mobility and uprootedness, complex technology undercuts social stability and creates a bad environment for the nourishment of the soul.

Like Tolstoy, Gandhi exalts manual labor. The law of “bread labor,” he holds, requires that every person, whatever
his particular vocation, should engage in hard manual work, particularly in agriculture. Manual work is essential to maintain health of the body. More than that, it is the kind of labor most compatible with nonviolence and love; for those who are close to nature can grasp the notion of nonviolence almost intuitively. Random and widespread introduction of complex technology deprives human beings of the opportunity to do significant manual work; and while material goods may multiply, the soul shrinks in this process. And Gandhi also observes that manual work “will serve to improve . . . the quality of . . . intellectual output.”

The law of bread labor is one dimension of what Gandhi thinks of as equality. Another aspect is that “each man shall have the wherewithal to supply his natural needs and no more.” The ideal of a nonviolent society requires this, and Gandhi proposes to implement it through the “trusteeship” principle. But if the rich refuse to dispossess themselves of those goods they do not need, then the poor have the right and the obligation to turn to nonviolent noncooperation and civil disobedience, for the rich cannot accumulate wealth without the cooperation of the poor in society. Here Gandhi reminds one of St. Thomas Aquinas and his principle that the needy have the right to take from the rich openly or by stealth any food they may require to keep body and soul together.

Gandhi is careful to stress that the norm of economic equality does not mean that everyone would literally have the same. “It simply means that everybody should have enough for his or her needs. . . . The elephant needs a thousand times more food than the ant, but that is not an indication of inequality. So the real meaning of economic equality was ‘To each according to his need.’”

“Democracy” for Gandhi means primarily a spirit in which human beings voluntarily limit their wants and ambitions, thus paving the way for the ultimate statelessness. J. P. Suda thus comments on this aspect of his thought:
The spirit of democracy is far more important than its mechanism or external framework. . . . No member of such a community would want anything for himself or herself which he or she would not like others to have also. There would thus be a voluntary check on material needs. . . . What needs to be equalized is not wealth or income but the ambitions of men. If the ambitions of men are not equalized, any equality of distribution of national wealth which may be established at one time is bound to be upset at a later date.21

It is perhaps because Gandhi conceives democracy as primarily “spirit” that it is so difficult to pin him down as to specific structures. Generally speaking, however, he envisions a federation of largely autonomous villages, each of which will be governed by a panchayat of five persons. The panchayat will be chosen annually by the general assembly of all adult villagers, both male and female, and will combine legislative, executive, and judicial functions. With such a structure, and against a background of very limited scale technology, Gandhi believes that it will be possible to conduct a largely nonviolent government responsible to the genuine needs of men and women at the “grass roots.”22

While he does not repudiate government at the center, he hopes to reduce its prerogatives through limitations on technology and industrialism and encouragement of near self-sufficiency of the individual communities. Higher organs of state authority (those beyond village and town level) would be chosen indirectly. A formal police system would still exist but would experiment with nonviolent techniques and stress preventive work.23

But he is never happy with the central state. Not only does it tend to violence, but state institutions often freeze situations that ought to remain fluid. Patterns of conduct
developed by the state become as if eternal; rigidities set in; legal systems resist necessary change; experimentalism is discouraged. While Gandhi values the social stability present in organic relations of human beings under strictly limited division of labor, the state’s tendencies to rigidity and violence undermine the “natural” rootedness of organic society. Hence comes his emphasis on initiatives from below, his principle of annual elections in the village, his insistence that the basic unit of society must be the small relatively stable community which is not constantly being undermined through technological innovation. Throughout his thinking, Gandhi has a kind of horror of bigness.

Although an Indian nationalist, Gandhi seeks to sever nationalism from its military connections and to see the nation as simply one link from individual through the basic small community to a kind of world confederation of small communities. His criticisms of runaway industrialism and complex technology, as well as his distrust of highly complex organization, would apply to the whole world.

Having described Gandhi’s position, let us again turn to Nehru as a critic of this primitivism, asceticism, and anti-technology perspective. Said the first prime minister of independent India:

Nor do I appreciate in the least the idealization of the “simple peasant life.” I have almost a horror of it, and instead of submitting to it myself I want to drag out even the peasantry from it, not to urbanization, but to the spread of urban cultural facilities to rural areas. . . .

[In Gandhi’s thought] the very thing that is the glory and triumph of man is decried and discouraged, and a physical environment which will oppress the mind and prevent its growth is considered desirable. Present-day civilization is full of evils, but it is also
full of good; and it has the capacity in it to rid itself of those evils. To destroy it root and branch is to remove that capacity from it and to revert to a dull, sunless, and miserable existence. But even if that were desirable it is an impossible undertaking. We cannot stop the river of change or cut ourselves adrift from it, and psychologically we who have eaten of the apple of Eden cannot forget that taste and go back to primitiveness.\textsuperscript{24}

In passages of this kind Nehru represents what might be called the politics of modernity. Gandhi, by contrast, stands for a generally unpopular politics which would seemingly undermine the modern spirit. Nehru in some measure distorts Gandhi's views. But if Gandhi's position is legitimately subject to considerable criticism, still its core makes an important contribution to the politics of both "developing" and "developed" segments of the world.

While Gandhi does tend to exalt nature as against complex civilization, and thus may be said to give every benefit of the doubt to nature, it is also true that he would accept much simple to intermediate technology. Moreover, some of his statements appear to be deliberate hyperbole, after the manner of many teachers of morality, to stress a point. He is not always to be taken in a completely literal sense. The key concept in Gandhi's view seems to be "discrimination," with preference to be given to the simple, uncomplicated, and that which can be effectively administered on a small scale. Even here, as we have seen, there is room for some centrally administered enterprises, although they would be the exception rather than the rule.

Thus interpreted, the main thrust (although not necessarily all the details) of Gandhi's position can be defended along a number of lines. He had a much better insight than Nehru into the serious issues faced by those millions of rural-based human
beings who constitute the majority not only of India's population but also of many portions of Latin America, Africa, and other parts of the world. Emphasis on heavy industry, on the introduction of complex machinery into the countryside, and on expensive fertilizers, which has characterized so much national policy in “undeveloped” nations since the death of Gandhi, is highly questionable, to say the least. Policies of this kind have actually meant a vast movement of country people into the cities, which have been ill equipped to handle the problems involved.

This is better recognized today, but Gandhi with his “reactionary” views was one of the first to anticipate these results. Perhaps two or three generations of human beings will have suffered because of a kind of blind faith in complex technology and industrialization; whereas an effort to keep many peasants on their land, with only simple technological innovation (such as improvements on wooden plows or sinking of new wells), while it might not have produced vast material improvement, would have made life more bearable than in the past and much less chaotic and alienating than the existence represented by vast urban shantytowns, disintegrating family structures, and life and death in shelterless streets. Here again Gandhi was far more prescient than most Marxists and liberals.

The core of his position is relevant not only for the so-called underdeveloped nations but also for the world as a whole, including the ostensibly progressive industrialized West. A part of the mystique connected with the ideology of industrialism and complex technology has been the dubious proposition that large-scale technology always tends to reduce the cost of production per unit. Gandhi attacked this notion and in fact contended that at least sometimes it was not true. Much depends, naturally, on how we define “cost.” Do we include, for example, the long-run wear and tear on the industrial worker? Do we embrace the cost of pollution, of living in the noxious atmosphere of a Gary, Indiana, or a Newark, New
And what if we include both the economic and social costs of unemployment? Even if we define “cost” rather narrowly according to orthodox modes, there is reason to believe that at times simple or intermediate technology may be more efficient than more complex types. Such at least has been the argument, often supported by considerable evidence, of many decentralists. While this is more likely to be true where labor is plentiful, it may also be the case under other circumstances.

Pin-pointing more exactly what the defender of Gandhi might well argue, one writer contends that there are many instances of manufacturing units in which “men have discovered for themselves that low-cost indigenous and often hand-operated equipment and machines are a better proposition than costly, sophisticated machinery.” As an example he cites a study carried out by the Small Industry Training Institute of Hyderabad. The investigation involved the manufacture of high-quality cycle gear cases. There are two methods of manufacture — one depending on a very elaborate and expensive power press, the other on a hand-run press. A detailed study was made of the costs of operating the two systems. The study showed that from an economic viewpoint the advantage lay with the hand-operated technologically simple press. Capital cost of equipment was not even half that of the complex machinery; men employed were about one-third more; distribution of wages was about 100 percent greater and investment return 50 percent. More recently, of course, E. F. Schumacher, the British economist, has also challenged the widespread assumption that large-scale and complex technology necessarily lowers per unit cost. 25

But Gandhi’s position can be vindicated on much broader grounds than this. He was keenly aware that complex technology entails certain social and political consequences which may be undesirable. Even if it were true that all the economic consequences of complexity and large-scale are favorable, complex technology might still be legitimately criticized and possibly repudiated on noneconomic grounds.
In light of his religious philosophy, Gandhi calls attention to such high-ranking values as simplicity and personalism; and he stresses community. Yet simplicity, personalism, and community appear to be eroded in complex technological societies, particularly where the machines are introduced with little or no public debate (as in most instances). The tendency to reduce human personality to thinghood and numberhood seems to be directly related to technological imperatives, as Jacques Ellul and many others have suggested, long after Gandhi called attention to the same phenomena.

By contrast with the main thrusts of liberalism and Marxism, Gandhi sees runaway complex technological industrialism as a sort of sickness to which people submit themselves as if in a kind of stupor. Here he has much in him of the spirit of Western classical political philosophy. But while Plato and Aristotle lived in an age long before the modern technological and industrialist explosion and hence dealt with blind economic forces only against the background of commercialism, Gandhi defied in an intelligent way the whole idolatry associated with a century and a half of technological and industrial complexity.

Like the classical writers, he had many doubts about a money economy, here, too, showing an understanding but rarely reflected in the economic thinking of modernity. Money valuations, he contends, have no necessary connection with the needs of humanity and may run counter to them. In a capitalist society prices are regulated by the vagaries of a market profoundly affected by oligopolies and gross disparities in income; while in a state capitalist society like that of the Soviet Union they are controlled by a state bureaucracy in part, at least, for its own ends and for the greater power of the state. Gandhi is keenly aware, too, of the dishonesty of the money system. Money as a store of value is capricious and unreliable, for inflation takes the savings of the poor and middle classes with utter irrationality and in deflationary periods (and, as recent
experience shows, even under inflation), thousands or millions may be thrown out of work. Economies of large-scale technology seem to operate, to borrow an expression from Schumacher, as if “people did not matter.”

Some critics of Gandhi may admit all of this and yet reject Gandhi’s simple and intermediate technology and his severe strictures on industrialism. The critics say that the answer lies not in the “retrogression” implied in an emphasis on less complicated technology and deliberately restricted wants but rather in social reorganization and perhaps, even more, adoption of new technology which might enable us to use and distribute the products of a machine age. Instead of severe limits on technological innovation and an accent on deliberately restricted material wants, these critics would seem to advocate merely a new system of economic organization plus computers.

Many socialists, whether Marxist or non-Marxist, appear to move in this direction. Gandhi’s probable reply should carry great weight: beyond a certain point human beings cannot control complexity and subject it to the only worthwhile end — the development of atman consciousness. Instead, the complexity dominates them and in wrestling with it they inhibit the progress of the soul by burdening it with external nonessentials. Moreover, where is the evidence, the defender of Gandhi might ask, for a contrary position?

Part of the debate, of course, turns on how one conceives the development of “mind.” Nehru says: “The desire to get away from the mind of man to primitive conditions where the mind does not count seems to me quite incomprehensible.” The assumption is that “civilization” and technological development both reflect the evolution of mind and lead to its further desirable growth. Gandhi legitimately questions this, even though he perhaps overly romanticizes nature in the process. As we have said, he would accept a modicum of technological development beyond the “primitive” but it would be a highly selective technology and would be of such a nature
that it could be controlled by relatively small communities. With reference to Nehru’s “mind,” he would say that some economic and technological development are indeed essential for mental and spiritual growth, but only up to a point; beyond that point they become hindrances.

Gandhi would identify the point as much closer to the primitive than would classical political philosophy, but the thrust of the two is in the same direction. Both reject the cult of bigness and the notion of indefinite economic and technological growth. Many in the Western tradition would move in the same direction — Thomas More, for example, and the Jean Jacques Rousseau of the Social Contract — although differing among themselves as to where the line should be drawn. It is only quite recently that we have believed that we could somehow have unlimited technological development, a complex economy, large societies, a high degree of centralization, and, at the same time, a genuine polity — one that rests on rationality and deliberation.

One of the weaknesses of the tradition of small community and limited technological innovation is that it is vague as to how to combine the emphasis on smallness with ecumencial ordering, or the organization of humankind as a whole. If we reject the idolization of the sovereign nation-state, how are small communities — perhaps built on what Schumacher calls “intermediate” technology — to be related to one another? It was an issue with which Rousseau wrestled and one that Gandhi recognized, albeit in only a vague way. Is it possible to combine the intimacy so essential for a genuine polity with the ecumenicity seemingly essential to reflect the common attributes of the human race? Or to put it in other terms, can we combine the essence of the polis idea with the cosmopolis or mundus of the ancient Stoic and Cynic? Perhaps we can pardon Gandhi for not providing a clear answer to this question. Few others have provided one either.
All things considered, Gandhi's teaching on technology — and particularly his effort to relate religious experience to the subject — may be as significant and as relevant as his political application of nonviolence. Hyperbolical as he may sometimes be in his statements, the core of his conception is as relevant for the politics of “developed” as of “developing” nations. For the former, it provides a much-needed perspective on ecological and energy problems, and it warns us that we cannot go on indefinitely increasing per capita consumption and wasting resources without threatening human existence. It also reminds us that technological progress does not necessarily lead to moral progress and, in fact, may well be antagonistic to it. For the so-called developing world, it warns against emulating the foolish fever heat technological and economic development of the West. It rightly attacks the notion, still so widespread, that the industrialized and technologized West should be the model for the rest of the world.

Whether we can in fact subordinate technological development to the growth of the soul is highly problematical. In the developing world the extent of involuntary poverty is so great that it is tempting to resort to a rather indiscriminate utilization of complex technology whatever its long-run or short-run social consequences. As for the developed world, it has so long been under the technological spell that it will be extremely difficult to cast it off, particularly since this would entail a radical redistribution of income and power and a drastic change in the operative value system. Despite these difficulties, however, the questions raised by Gandhi will not disappear. The coming generation will probably find, in fact, that they are more significant than ever.
Notes

2. Hence the admonitions in the Bible against the worship of nature. The obverse of the worship of nature is the worship of technology and socio-political structures. Both are reprehensible.
3. Perhaps it is significant that Cain, who murdered Abel (Genesis 4:8) also founded a city. He symbolizes the revolt against nature.
4. Bacon’s New Atlantis may be said to inaugurate the new spirit of extreme confidence in technological progress.
6. See Gandhi’s Satyagraha in South Africa.
8. Young India, March 9, 1922.
9. Young India, May 6, 1926.
10. Young India, October 12, 1921.
11. Young India, October 13, 1921.
13. Speeches and Writings of Mahatma Gandhi, p. 353.
15. From an article by Shri Mahadev Desai in Harijan. This article was subsequently reprinted as a preface to the new edition of Gandhi’s Hind Swaraj in 1938.
17. Mashruwala, Gandhi and Marx, p. 78.