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Man v. Technics?

THE FIRST flight across the Atlantic, by Lindbergh, thrilled the world. It gave us a hero, in a flimsy machine: hence his fame. The first flight across the Atlantic by a pilotless bomber, twenty-five years later, afforded a spectacular demonstration of a sovereign extension of man's powers over matter and nature. It passed almost unnoticed. What did it change in the living habits of nations or individuals? So little as to be nothing. It is easy to see that the introduction of the plough among the Mayas would have altered their civilisation, perhaps prevented their exodus to Yucatan, and revolutionised their whole social system. But our technical conquests do not appear to have so radically upset our ways of life, our manners, and the continuity of our national characters. The question then arises: has not the thinking West formed the habit for the last fifty years of exaggerating, without measurement or verification, the importance and danger of technics, and of their effects on the human person? These diatribes repeated a hundredfold against "the enslavement of man by the machine"—do they not seem to betray a greater alarm over man's intoxicating freedom than over the limitations which the machine may be inflicting upon him?

There has been a prolonged cry of anguish at the spectacle of the modern world delivered over to the inexorable laws of the machine. All the thinkers of the century, with a gloomy passion, have one after another, following Tolstoy, given utterance to it; and every periodical and newspaper has amplified and broadcast it—thanks to the machines they

were able to use. The Depersonalisation of Man is denounced, and mass-production is blamed for it. The reign of the robot is prophesied. It is now even common to go to the extreme of opposing the H-bomb to the idea of progress and even to scientific research as a whole. It is like cursing electricity on account of the electric chair, but no matter: the cause is noble and the anxiety betrayed is genuine and popular.

Within this universally popular campaign, one can distinguish two themes.

Protests are made in the name of spirit, or mind, against the impersonal forces which repudiate man and his dignity, and which threaten to sterilise his most human faculties—judgment, choice, fantasy, need of the unexpected, serenity, leisure, self-control, individuality, and freedom.

Protests are put out in the name of Nature, of the majestic movement of the seasons and contact with the earth, against a world which grows artificial and ugly, uniform and abstract, breathless and time-tabled, cut off from the natural cycles and the poetry of the *Georgics*.

Or perhaps the two themes are orchestrated and spirituality is joined with naturalism in an unexpected but lyrical alliance.

Before analysing these two themes, one general remark is called for. Although nearly unanimous among our intellectuals and their public, this reaction remains powerless. It has sometimes deprived scientists of subsidies, but it has not seriously hindered the march of technical enquiry and research. "The invasion of our lives by machines" is slowed

by the price of machinery, not by the complaints of literary men. Workmen have long since given up smashing machines, and the middle classes were always careful not to. As for those who have decided to walk out of the world and weave their own clothes, etc., nothing lasting has emerged from their small communities living in retreat. Nevertheless, the posture of impotent revolt against the way of the modern world, if it fails to change the world, does modify those who assume it. It does increase the sense of insecurity, and sometimes the vogue of pessimism, among the general public, and in that way it contributes to sustaining that "crisis" which is the favourite topic of our best minds.

And yet: even though it remains powerless, even though it is content on the whole with pathetic but fallacious arguments—nonetheless this anxiety about the machine age, the Age of the Bomb, is indicative of our Western situation. What has to be ascertained is whether it signifies a dead-end or mere growing pains, the failure of the Western venture or the stresses of a new hazard.

I. Pre-History

THE PRE-HISTORY of technics goes from the beginnings of mankind down to the end of the 18th century. Till then, and in this respect, East and West hardly differ. Chinese junks were better than the caravels of Columbus. Hindu architecture was never inferior to ours. The craft industries—textiles, paper, and printing—which lagged behind in Europe till the Renaissance, did not forge ahead of those of Asia to any extent until machines were invented. It was about 1800 that they underwent a sudden transformation.

But let us go back to the palæolithic age. Why did men fashion tools? There are as many answers to the question as there are views of man. One is that man was only impelled by the desire to improve his lot or to amass more food and wealth: this "economic" or utilitarian theory assumes a type of man little met with, or not met with at all, until the 19th century—the type of man who has written our school text-books and never in-

vented anything.* Finally, from Nietzsche to Spengler, we have been shown a kind of "man of prey" who hurled himself at Nature in order to subjugate her to his "will to power." Prometheus has been appealed to, the sole figure that could serve to illustrate this tragical theory, which reflected the taste of the age far more than the reality. Did primitive man—who still survives inside each of us—ever think of mastering Nature? As we look back at him, he appears rather to be submerged in her and to be part of her. How could she have threatened "the free development of his personality?" No doubt she compelled him to work very hard, in our Western climate, in order to get food and protect himself from cold, floods, and drought. Nature might well kill him; but from her he drew his life.

What seems clear—or should seem clear—is that primitive man did not attack a Nature whose intentions were far from being consistently malevolent; he aimed to bargain with her so as to cope with demons. The way to come to terms with the fire god—who appeared at two points on the planet, in the Caucasus and in China—was first to commune with him in order to appease and propitiate him: he was given a lump of the same meat that the suppliants ate (whence the invention of cooked food?). With that, the god was committed, having shared the same ritual meal with men. We should feel in this, not so much a "will to power"—which would be a conception of man's strength unimaginable at that stage—but a need *to play*, in the strong sense of the verb, which is a religious sense. Civilisation appeared simultaneously with tools, weapons, and pots, clothing and houses, all things a little stronger or more solid than man, and which enabled him to play his hand by making up for the weaknesses which are his mark. But the usefulness of these articles in no way exhausted the in-

* An examination of the circumstances in which great inventions occurred down to our day shows that the attraction of wealth and well-being has hardly ever operated. This changed in the 20th century with the setting up of research laboratories in the service of the large industries.

tion which created them, and even, most frequently, did not take account of it. Everything was magic to begin with, everything was dialogue with the natural forces which had to be won over even while they were being obeyed. Whence the lack of adaptation which our rational mind thinks it discovers in what it erroneously mistakes for "technics" among ancient peoples.

THE history of inventions is not that of the needs which may have existed before them. Its logic is not that of utility, but of play.* Now to speak of "play" is to mean "set rules." What had to be kept up, with jealous care, was the system of sacred conventions between man and natural forces. What men feared was not the laws of nature but, on the contrary, the *unexpectedness* of phenomena. Far from there having been any effort to escape from those laws, the hope was that sun and rain, the powers which made the earth fruitful, were going "to go on playing the game," according to the rules. Thus mankind, in its religious rites, "played" with the natural order, so that this order could be perpetuated. Notions of magic, myth, and liturgy, the alchemical ideal and the active pantheism of the Renaissance, and religious motives in general, all seem to have been far more fruitful than motives of utility and power in explaining the real aim of the enormous majority of inventions down to our own period.

Man created tools because he played a game with the demons lurking in fire or stone, in running water or in an animal, and later with the demons peopling his dreams or waking fancies. The dream of flying is what produced the aeroplane; and the dream of setting out at haphazard along the open road, the motor-car. See Henry Ford's autobiography: Ford was an incurable dreamer, a jack-of-all trades without either culture or genius, who wanted

* The 18th-century automatic robots were toys—pure play. They were nevertheless the ancestors of our factory robots, which are indispensable for manipulating radioactive substances, for example. In turn, the discovery of radioactivity corresponded with no utilitarian need, but has created many needs that have become "vital."

to build a "road engine" which would not have to obey the rigid rules of the railway track and its time-tables, but could go off at random—a typical adolescent dream. It met with fulfilment in 1893, a few years after the German, Otto, had invented the internal combustion engine.

A history of the inventions which did not come off, or were not "made use of" (as we suppose), would lead to the same conclusion. Why did the Mayas not plough their soil? Why did the Aztecs use a wheel only to make toys? And why was gold purely ornamental among so many peoples? Owing to their magic, to their differing dreams, to the particular rules of the game they played with Nature.

ONCE the nexus of rites, codified beliefs, and instruments of a dawning civilisation enabled man to put a kind of distance between Nature and his life, the human mind conceived of a Good separate from Nature, and which Nature alone seemed to put out of reach. The human mind came to conceive perfect virtue and perfect health, power, assured abundance, freedom to go far, or, on the contrary, freedom to stay put in spite of natural changes, the ability to fulfil one's dreams, to fly, to escape the seasons (paradise pictured as eternal spring), to bring the body into subjection, not to die. . . . What opposed and resisted this Good were the servitudes of Nature, the animal necessity to kill in order to survive, disease, tyrannical instincts, death. Soon the more spiritually-minded among men were to think of God as akin to their Good: He was just, perfect, and immortal; his omnipotence was only thwarted by the demoniacal principle, which had now become assimilated to Nature. The God of Good could not be the author of Evil. Nature must therefore be the work of Another. This will be recognised as the Manichæan attitude which has invariably accompanied the ascent of *Good God* religions, and which have surreptitiously set up against them a "purified idealism," which is, in fact, a dualism. For man was henceforth pictured as a soul inside a body. He would never be free and never be

really good unless he could escape from the flesh, from matter, and from natural life, the dominion and creation of the Evil Demiurge. When asceticism, monachism, and angelism, in which matter, flesh, and Nature are despised, and which could but lead to the condemnation and renunciation of every kind of inventive effort.

Upon this same Nature—henceforth the subject of hostility by the “pure”—less spiritually-minded men were able freely to exercise their arts and guile. They made use of Nature as a soulless thing, a thing which they had to find how to use. This latter attitude, a repercussion of the former, was to be of service to modern technics by removing many of the scruples felt by its agents and users.

II. History

LET US now come down to the present century. Nature, now that every kind of magic has been expelled from it, is being domesticated by technics, and domesticated for the first time in history. Already man commands the means of subduing several aspects of Nature’s “inhumanity.” He is still far from having completed this subjugation, but he is already entitled to consider the completing of it as something attainable.

On the other hand, we discover that we are the very first contemporaries of the machine. Invented in the last century, the machine did not notably affect the daily life of the greatest number till the First World War. An infinitely small portion of human beings had up to then travelled by train, for example, and all trains from 1830 to 1900 doubtless carried fewer passengers than aircraft now do in a single year. The motor-car, the aeroplane, the subway, agricultural and household machines, domestic electricity, the telephone, and the wireless, made their entry into our lives only during the first third of this century.

Such are certainly the facts—generally speaking. But it would be wrong to believe that the peoples of the West ever sought or wanted what they are now getting as their due. What in general do men in the West

want? Health, higher pay, better protection against the unforeseen, to travel a little, to be unhampered in enjoying their own little hobby or eccentricity—and not “to subdue Nature!” To meet such modest desires, here are the incredible gifts of technics. Some of these fulfil our secret yearnings, but many of them correspond to nothing. Technics, having proffered them, has to get them taken up and to create a mass need of them. On the basis of these toys for grown-ups, serious and scientific economists have gone on to erect their systems of “laws,” which claim “to satisfy” needs that nobody has in the least experienced. The motor-car was not invented because men needed it; but the other way about: men have needed it because it was invented. *Its origin as a phantasm (in the strict psycho-analytic sense) is forgotten.*

Whence, then, have we got technics, if not in response to our material and utilitarian needs, which came into being only afterwards? The problem amounts to ascertaining how and why technics suddenly took on impetus at a particular moment of Western civilisation.

IT WOULD be vain to try to find the whys and wherefores of the inventive passion, which is of a poetic order (in the Greek sense of the term), and characteristic of men in general. But something unique occurred in Europe at the beginning of our technical age; science, at last set up on an autonomous and exact basis, encountered the alchemist’s dream which, having been driven by chemistry out of the domain of pure research, was turning to practical applications. And this in a social and political climate which had turned very favourable to the brutal undertakings of those who were dubbed “captains of industry.” There were thus three forces, two of them creative, and the last instrumental.

Mathematics, physics, and chemistry supplied the base of the major inventions of technics. But they did not of themselves organically lead to these inventions. To pass from the desire for disinterested knowledge to the idea of applying some of its results, men other than the best scientists were

needed; and also there had to be some other aim than that which directed the work of the scientists. We now know that what the alchemists wanted to do was not to make gold in order to enrich themselves, but to effect a great work of transfiguration of matter by man—man in his rôle of demiurge delegated by God.* And this connection between alchemists and chemists seems even less important from the standpoint of technics, than the relation of alchemists to the German pietists, and of the latter to the founders of numerous modern industries. Leonhard Euler, a pietist of Basle, was not only the greatest mathematician of his century, but also the inventor of the turbine.

The desire for transformative knowledge and the desire for contemplative knowledge are the two sources of technical advance, and they coalesce in the great myth of the modern age. The hero of Goethe's *Faust* is first of all an alchemist but he ends his human venture (conditioned by the three dominant notes of pure knowing, power, and salvation) in the rôle of an engineer creating a new country.

IT WOULD have been most surprising if natural avidity, the thirst for gain in its modern form which came to be called capitalism, had not seized upon these elements. But capitalism created nothing: it financed "progress" without paying royalties to its authors, and to the detriment of its workmen. Thus it was that the application of science to social life, fostered by a mystical doctrine which tended to the joint salvation of cosmos and human spirit, suddenly changed its sign and turned into a scourge by creating

* As regards what alchemy set itself to do spiritually, I can only refer to the works of C. G. Jung. In *Mensch und Technik* by Donald Brinkmann, will be found numerous examples showing the influence of "alchemical dreams" on inventions of the 18th and 19th centuries. Their genealogy goes back to Paracelsus, via Hieronymus Cardanus, Leibniz, Denis Papin, across the pietists of the 18th century, and issues in a pleiad of enquirers more or less "raving," whose *mysticism* was decisive for the greater part of the technical advance. Let us note on the other side that two of the great mystics of the period were mining engineers—Swedenborg and Novalis.

the proletariat, once the unrestrained ambitions of the Napoleons of industry had seized upon it without further scruple.

This profound paradox of the technical age arises from the fact that its gifts were not expected. Western society of the 19th century—caught unprepared by an event which astonished it marvellously, and of which it could not measure the coming amplitude—fell into a double mistake: it mistook the end of technics and it misunderstood how technics could be made use of. It was unable to foresee the appalling price it was bound to have to pay for the anarchical development of technology. The bait of enormous and swift profits and the temptation to power (not over Nature but over men) blinded this society to the means being employed. That lack of foresight, this false start, had to be dearly paid for—and is being paid for still—by the industrial proletariat, which has had to defray the "human costs" of the operation from the beginning.* As for those who derived a material profit from it, they paid a price less visible and tangible, for there is no measuring spiritual values, nor what a man loses by slaying them inside himself.

Historically, the paradox is brought home to us if we compare the realities with the corresponding states of mind in the 19th and 20th centuries. In the 19th century, the technical advance created among the common people an inhuman poverty, but in the great majority of middle-class élites an overflowing optimism. In the 20th century it has been the other way about. The masses have accepted technical progress and have made it an article of faith, whereas the élites view it with growing pessimism. The shift is eloquent.

In 1835, Andrew Ure, in the *Philosophy of Manufacture*, extolled the factories "which exceeded in number, in value, in utility, and in architectural nobility, the celebrated monuments of Asiatic, Egyptian, and Roman

* The Roman term of "proletarians," as applied to industrial workers, was introduced by Sismondi as early as 1819. Thirty years later Marx was able to say rightly that the modern forces of production made of the proletarians "the living counterpart of a dead mechanism."

despotism." But as early as 1846 Michelet heralded the pessimistic reaction:

What a humiliation to behold, beside the machine, man fallen so low! It is heart-rending to go over those marvellous houses in which iron and brass, dazzling and polished, seem to go of their own accord, seem to think and will, while man, weak and pale, is the humble servant of the steel giants. . . . I admired sadly; it was impossible to avoid noticing at the same time the men's pitiful faces, the withering girls, the children twisted and puffy.

The European middle classes were unaware of all this in the 19th century, as under Hitler they did not know about the concentration camps. Yet the number of proletarians who died of poverty around their factories during the whole of the last century no doubt exceeds the number of persons killed in Nazi concentration camps, if not the number of dead in Kolyma and other places of "re-education."

In the 20th century, this situation has been reversed. American and Scandinavian workers have the product of their work delivered to their door: motor-cars, wireless, frigidaire, tinned food, television. They renew acquaintance with Nature at the weekend, or else in their paid holidays. They imagine, further, that "the irresistible movement of history" is more and more on their side. Meanwhile, the cultivated middle class, its conscience pricked a hundred years late by the social crimes of its grandfathers; influenced by reading the best thinkers and a thousand bad ones; terrified moreover, by the H-bomb, takes a sorry view of "technical progress." We have witnessed in the last fifty years the development of an attitude which recalls Manichæism, even though the values are reversed: it is no longer Nature that stands for evil, it is man's handiwork, inexorable technics, personified and mythologised, which now rule over us and empty us of our humanity.

III. Back to the Axis

UNLIKE Buddhism and Manichæism, Christian orthodoxy does not condemn the tangible world of Nature. The doctrine of the Incarnation is enough to forbid that.

Nature has been subjected to corruption, not of its own will, but on account of sin (Romans, VIII, 18-24), and is to be redeemed by means of redeemed man. It follows that man's efforts to subject Nature to the human will and to human wants would be good if they proceeded from the divine effort at work in man, bad if they proceeded from human pride. Evil is not in things but in man. It is bound up with our freedom. It belongs to our human situation, as the obverse belongs to the reverse. How then can technics, created by man, acquire an independent existence? Its evil comes from our fault, and its good is part of our effort to attain salvation. Those writers to-day who, as regards technical progress, nevertheless adopt a neo-Manichæan position, are actuated by two motivations which need to be distinguished.

1. The Christian idea, that evil is in man and that Nature is innocent, makes them fear that technics will increase the human capacity to do evil rather than good, and at the same time throw man out of step with the rhythms of Nature considered only in their regulating aspect. Human pessimism is here conjoined to naturalist optimism.

2. The idea of Evil is projected afresh, not upon Nature, but upon a personified Technics and its products, like the Bomb, which are thus endowed with a kind of intrinsic capacity to harm man. This is a return to magic.

The twin confusion appears to me to account for the most obvious mistakes perpetrated by the "anti-moderns" I referred to.

The Mistake about the Bomb. I wrote on the morrow of Hiroshima:*

The Bomb is not at all dangerous. It is a thing. What is horribly dangerous is man. He it was who made the Bomb and who gets ready to use it. To control the Bomb is absurd. Committees are appointed to restrain it! It is as if I were to hurl myself at a chair to stop it from going to break a Chinese vase. If the Bomb is left alone, it will do nothing, plainly. It will stay quiet in its crate. So please let us hear no more tales. What we need to control is man.

The Mistake about the Telephone. "Enslavement" to the telephone is one of the clichés of our time. But the telephone never

* *The Last Trump* (New York, 1946).

did anything of its own accord, and it is invariably *somebody* who calls you by means of this speaking-trumpet. If you run to answer, irritated by the noise, it is you who expected something which you wanted not to miss. So you are only your own slave.

The Mistake about the Fine Car. That man, they say, is the slave of his car. See what trouble he takes with it. He travels on its account, he is ruining himself for it, and some day, on its account, he will kill himself. Yet somebody else is doing the same for the woman he desires, or for a work of art, or for his drug. The tyranny is exerted by our passions, not by technics on their own.

The Mistake about Standardisation of Work. We are told over and over again from both Left and Right that assembly line work de-humanises men, and that we are living in a soul-less world of uniformity and mass-production. Here is the serious feature of the matter: not the feeling of being part of "a soul-less world" but the fact that men are now no more than "the living counterparts of a dead mechanism." Now, for this the dead mechanism cannot be to blame. It is not the machine that turns a man into a slave. It is a certain behaviour which other men impose on a workman, not so much to facilitate his handling of his machine, as to ensure that he shall keep up with it for the sake of a standard output. It is the output that man is then the slave of, whatever economic system demands it, capitalist or communist. Taylor thought of a workman as a human machine that could be completely timed. His system, not the machine, is what enslaves man. But Taylor created his system according to materialistic notions of man which were the product of the century of enlightenment. Blame these notions, not technics.

The Mistake about Inventions. Leonardo's "Flying Man" was going to drop snow on sweltering cities in summer; the aeroplane drops other things. Einstein's brilliant discoveries have culminated in the atom bomb; a curse on invention! But what are people trying to say? Is it imagined that some invention could be employed *only* for good? Such an invention would be the work of the Devil:

it would deprive man of his freedom, which God has willed for him.

IV. The Real Problem

THE great complaint of the 20th century against technics would have been justified a hundred years earlier: against the vile and unhealthy factory, workmen might well have said through the mouth of a poet of the time:

*The air of our workshops is rotting our lungs,
And we die with our gaze fixed on woodland and dale.*

To-day the progress of technics restores the country to townspeople, manual and office and professional workers alike. Technics have done more to draw men near to Nature than have the back-to-Nature theories which condemn technics. It was the Middle Ages which were remote from Nature; they were afraid of it.* The classical age thought it improper. Romanticism looked upon it with stirred feelings, but did not bathe in it physically. Fondness for sun-bathing on the beach has been contemporaneous with the motor-car.

Technics in their infancy created the industrial proletariat, but it is technics alone that can rescue the proletariat from its situation and from the hideous setting of its present existence. What abolished slavery in Europe was not scholasticism, but the improvement of agricultural technology—in particular, the harnessing of horses by means of a rigid headstall. The proletariat will not be emancipated thanks to our protests against assembly-line work, but thanks to the replacement of servile workers by robots. The factory without workers, shortly to be achieved, will solve the problem of "the workman, slave of the machine."

But once the pseudo-problems are set aside—and the working class "emancipated" not by Communists but unambiguously by tech-

* The only "pleasant" descriptions of Nature in medieval poetry and painting are of orchards. The rest is terror.

nics—two great and very real problems will confront mankind in the West. One, a danger: technocracy. The other, a bewildering promise: leisure.

TECHNOCRACY:—A man who loses his sense of the final ends for which he is alive is bound to begin talking about “the tyranny of technics.” It is only then that technics become a genuine danger; not indeed technics themselves but the man who talks that way. Ernst Jünger has clearly seen that technics incline us to a nihilist morality, their motto being that of an action “without why or wherefore,” without human cause and without human purpose.

Repudiating the great alchemist dream, one often reduced technics to the sole and immediate motives of profit, well-being, and military force. Deprived of long-term objectives, they can only come within the compass of current morals, and of the abstract or customary rules of those morals. But individual morality remains without hold upon them—private profit depends more and more on the public economy; well-being, on the average standard of living of a nation. And “the needs of national defence” determine science itself, the source of inventions. The only morality henceforth powerful enough to regulate the technical element would therefore be social morality, which it falls to the great states to define.

To overlook the final ends of human life must then land us in technocracy, which is the government of means over ends. And morality, when determined by states, leads to totalitarian dictatorships. (God is replaced by Society, and—the state being the sole representative of Society—there is no recourse or appeal from its decisions.) Evolution in the direction of closed societies seems to us all the more inevitable in that it is going on under our very eyes—has been going on for nearly half a century. It has been seen above how technics contribute to this not of themselves, but by a certain use which man makes of technics. Whence the idea, current among the élites, that a little more technics can only

produce a little more state socialism and an equally little less liberty.

In truth, state socialism is not to be arrested; but it is possible to foster technics till decisive successes produce a new situation. If to-morrow technics can pay the masses in leisure on a more generous scale than it has ever paid shareholders in dividends, the technocrat will still be in command of the means, but his prestige will vanish to the precise extent that leisure and its content become a vital and exciting problem. Thereupon the “serious” will change sides. He whose job is to run a colossal factory without workmen will reign sovereign over absence. The famous “technical exigencies” will no longer concern anybody but him. What will he be able to suggest to human beings made free for new forms of work and of creativeness?

The present task appears to me to be far less the applying of a moral brake to technics than accelerating technics strongly, to the point at which nothing will any longer obstruct us from at last reaping the human benefits.

LEISURE:—Is this cure of the technical disease by technics itself a utopia? Let us first see to what extent it has already been carried out.

The average standard of living in Europe rose, we are told, from 1 to 15 between 1800 and 1950. (More closely, it is stated to be ten times higher in 1954 than in 1880.) These figures, I confess, do not much persuade me. The very idea of “an average standard of living” is not very clear, and grows even less clear when multiplied. (What does the word “living” mean if we are told that we live ten or fifteen times better than our ancestors did?) But here is something perfectly clear: from 1890 to 1954 the working week in the cotton and wool trades dropped from 65 to 40 hours, the working year for railwaymen from 3,900 hours to 2,000 hours; and production steadily increased.

Leisure thus assumes the guise of a sub-product of technics. And yet, was this sub-

product not one of the underlying intents of technical invention to begin with? And, becoming ever more abundant, will it not one day soon look like the real aim of the undertaking? This supposes, of course, that a certain saturation point of natural needs will be reached. Technics have added to the number of men whose needs they have increased. It may seem as though the more they are developed, the more the prospect recedes of satisfying the human needs which they are pushing forward. Will the donkey ever catch up with the carrot it has been running after for a century and a half?

In fact, the distance between the means of technics and one of their possible aims—leisure—has diminished by a third during that time. A second aim is to ensure that the subsistence of mankind, which is growing by 70,000 souls a day; and this second aim has seemed to recede as the West grows clearly conscious of the lot of the great Asian masses, both under-nourished and uncontrollably prolific. But the fact that there has been this new piece of awareness fixes finally for technics one properly human objective. It is now the means—which remain to be found—that will have to be adapted to the *recognised* purpose, not the other way round, as previously.

These means still waiting to be found we already possess in principle—nuclear energy, chlorella, photo-synthesis, plans on a world-wide scale. Twenty to thirty years hence, according to some experts, a third of the population of the planet—then much greater in number—will be enough, working four hours a week, for satisfying (far better than to-day) all our “material” needs—food and transportation, housing, hygiene, and pleasure. I readily see the merely theoretical aspect of these figures: that they assume a socialised distribution of mass-produced goods in great abundance at a very low price; that the development of Africa, Asia, and the polar regions will provide fresh “occasions for work”; and finally that atomic warfare may ruin everything before the egg is hatched. But the egg is there, bearing its germ and our future—that future which we must be ready to look squarely in the face.

V. *The Serious Thing in Life*

IT IS said: What will the masses do if, thanks to technics, they are indeed suddenly set free to such an extent? I have no idea. Was anybody more clear in about 1830 concerning what technics were going to produce? Our duty this time is to see the problems squarely instead of repressing them because they make us dizzy.

We are on the threshold of an era *in which culture will be the serious thing in life*. (It always was, but now we shall see it.) Hitherto, it was work which filled the essence of our days, and upon which our fate depended: pay, food, and lodging. If technics to-morrow—as they can—allow society to meet these elementary requirements at a very low price, “the empty time” of leisure* will become the real time of our daily lives. The question: “What shall I make of my life?” will no longer be repressed by the reply—several thousand years old—“Earn it!”

I have no intention of now depicting some utopia which might amuse our descendants. Everything may change radically and very soon, not so much owing to material factors which I may have overlooked, or cannot foresee, as on account of *our free decisions*. (The invention of the wheel is not what counts in itself; it is indeed the use to which a people decided to put the wheel; chariots and wagons in the West, toys and ornaments among the Aztecs.) One certain thing is that technical progress is going to take an unprecedented leap, producing a situation in which our real wishes, our real orientations, and our real opinions will be manifest transparently, and will be followed by almost immediate effects. Such wishes and orientations I may try to forecast on the basis of our present disposition.

*The *Encyclopédie* of 1765 defines leisure as “the empty time” (*le temps vuide*). It assumes accordingly that work is real time, full time. It is this hierarchy of values that has held sway down to our day. It partly explains why trade unions are opposed to the creation of leisure by technics, e.g., by automation; for they picture leisure as the “empty time” known as unemployment. That leisure should be the actual goal of the machine age is a suggestion they will not yet entertain.

Released from material work, a man of the West at once turns to travel, sport, games, and eroticism. The French experiment with paid holidays has shown this on a small scale, but over too short a time for the sequel to be distinguishable. A rather longer trial is furnished by the inhabitants of the Arctic circle—Sweden and Norway—who are condemned to leisure during the six months of their winter. They take up culture. Now it happens that the West has increased tenfold or a hundredfold during this century the instruments and means of culture. More books than ever are published, and dirt cheap. Libraries and cultural centres are becoming general. The whole of the world's painting can now come on to our walls in the form of reproductions that "take you in"; the whole of music is delivered to the home by means of wireless and records; and state schooling is happily duplicated by hundreds of works of popularisation which enable the people of the West for the first time in history to take a general review of their own civilisation. This is to say that we are already increasing the occasions for understanding our lives better—and also for misunderstanding the masterpieces better.

AS FOR the quality, creativeness, or relative noxiousness of this invasion of culture, nobody can foretell anything. I am content to say that everything is leading to it for both better and worse. In other words, everything is leading to a religious age. For culture, when all is said and done, is but a different prism of the religious sense upon those activities of ours called creative, from pure mathematics to pottery, and from metaphysics to carving furniture. That is how it is that technics to-morrow will bring us back, practically, like science, to the religious options. And I cannot imagine any drug strong enough to divert the human race away from them.

I know well that the most intense religious life has long meant *askēsis* and renunciation—in the West as in the East. In fact, it is—and should be—especially accession to truth,

and means do not matter. *Askēsis* was actually an effort to resist technics in their primitive form, as mysticism was a movement to go beyond (or to withdraw ahead of) the formulated dogma; but both leaned on the object of their renunciation and depended closely on it. The *askēsis* of to-morrow may have difficulty in taking the form of a return to Nature since technics are what will make this return possible by producing leisure. And as for mysticism, it presupposes above all an exact knowledge of dogma. "Mysticism in the savage state"—to use the expression Claudel coined to describe the case of Rimbaud—flourishes thanks simply to the scattered reflections of the dogma and the liturgy over the culture with which it is impregnated. That is why knowledge of the dogmas and of the fundamental options of our religions will be to-morrow the first pre-condition of the heresies and gnosis that are destined to appear. Otherwise these would but repeat the old, which did not vanish without reason, or else resurrect doctrines the creative style of which has had its day.* I do not say that they will forego these mistakes. But I notice that over a public hitherto utterly ignorant of that order of realities, culture is diffusing a certain curiosity which will not be stopped short. Television and wireless deliver the world to your home, and the solemn spectacles organised by art or by sport are preparing both masses and individual for unexpected liturgies.

Many shallow minds imagine man as a kind of balloon who asks only to be "lifted" as soon as he is set free from daily cares. The proof that he is nothing of the kind is that our greatest mystics lived in the worst possible physical conditions. Technics can do nothing for the spirit, any more than lack of well-being has brought about anything against the spirit. I say only that we may be cast into an era where religious questions will be *more serious* than material questions, economic "laws," the backwash of politics, the cinema, or art itself are to-day.

* Our orientalist sects sometimes suggest somebody who might invent a machine for climbing stairs instead of taking the lift.

LETTER FROM BUCHAREST

Art by the Square Yard

BUCHAREST to-day is full of foreign "cultural" delegations. Daily, outside the big hotels, The Athénée and The Lido, fleets of Russian-made limousines are drawn up. Into these vehicles—after heavy meals accompanied by much clinking of glasses and exchange of amenities—step groups of Italian writers, British scientists, Syrian astronomers, and French composers. They are driven on tours of State Publishing establishments, Palaces of Culture, and Writers' Rest homes. They listen to Rumanian music and hear talks on Rumanian literature. Some give lectures themselves. An Oxford scientist spoke in Bucharest on "Forest Fires before the Appearance of Man"; and the Italians made many speeches in Constanza about Ovid, who died there two thousand years before. The Rumanian government is anxious to see foreigners to-day, preferably in delegations. But even to a member of the press like myself, they also allow complete freedom of movement. I was able to visit Constanza on the Black Sea, Sinaia, Brasov, and the cities of Transylvania. I was shadowed, perhaps by as many as four agents at once (one of whom I caught red-handed); but no attempt was made to interfere with me when I spoke to people on the street, in trams, cafés, and trains.

For the first two days, my contacts were official. President Groza himself spoke to a British delegation, which I was accompanying. The note of friendliness in his address was mixed with self-congratulation. He explained how he and his colleagues had brought Culture into the hands of the people, redistributed land on a popular basis, opened schools, established cheap restaurants for the needy, and so on. "In Rumania to-day," he said, "there are no luxury goods in the shops. But smoke rises from our factory chimneys. Everyone is plainly dressed. But there are no unemployed on our streets. The old corrupt politics of before the war which benefited only the rich are over..."

Some of what he said is undoubtedly true. Rumanian public life before the war was as corrupt as any in Europe. And there is no doubt that the working classes were miserable. For hiring, dismissal, sick-leave, holidays, health, the workers were subject to the caprice of powerful owners. Industrialists, if they were clever, could do what they liked. Unfortunately, the claims of the President to have corrected all this are not accepted by the people themselves. From the conversations I had with them, they even gave the impression that they preferred the good old "corrupt days." They said bluntly that President Groza was a liar, and his government the cruellest that had ever existed in Rumania. They told hair-raising stories of Russian troops, of the *Siguranța* or Secret Police, and of how they and their friends had served long terms of hard labour on the Danube-Black Sea canal, after being sentenced without trial. To check these stories was impossible, but dozens of them confirmed one another. They were the stories of desperate, frightened people who took the risk of being seen talking to me (they said) if I would "tell the West."

One at least of President Groza's statements I was able to confirm with my own eyes. There is no luxury in Rumania to-day. The goods in the shop windows of the principal streets, such as Calea Victoria, must repel all but the most determined or famished of customers. They are thrown in pell-mell, with grubby price tickets attached. A small restaurant like Capsa, where the officers used to dine before the war, has had the decorations ripped from the walls, to remove any vestiges of the hated Western or French *chic*. And the women of Bucharest, who once rivalled the Parisians in elegance and fashion, are drab and listless. The same can be said for the buildings. What we call "maintenance" in connection with a house does not exist; the paint-work outside is blistered and peeling, the cornices crumble and fall.