

## THE ARTIST IN THE TECHNOLOGICAL SOCIETY

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This article was specially written in response to an invitation from THE STRUCTURIST. Jacques Ellul is author of *The Technological Society* (1964); and *Propaganda: The Formation of Men's Attitudes* (1966), both published by Alfred Knopf. It was Aldous Huxley who first called attention to Ellul's writing six years ago when he singled out the original French edition of *The Technological Society—La Technique* published in 1954—as one of the most important books written on this subject. Jacques Ellul is associated with the University of Bordeaux as Professor of History and Contemporary Sociology. This article was translated from the original French by Roger Clark who is Professor of French at the University of Saskatchewan.

In discussing the vast question of "Art and Technology",<sup>1</sup> we will consider one aspect, that of the artist's position within the technological society. (It is equally possible to examine the technological aspects of art, the influence of artistic discoveries on the evolution of technology and the transformation of art by technological conditions, all of which are problems that can be seen in their permanent or "eternal" aspect, or historically within a certain framework of phenomena, or again sociologically in the modern world as related to a society that can be called technological.) We will further limit the subject in two ways: we will concern ourselves here only with the creative artist working with plastic forms, leaving aside the novelist, poet and musician. We will also look only at his position, and not at his function in this society.

It is true that during the early development of modern technology the artist did not feel particularly concerned with this phenomenon and continued to act as though the world around him was not changing. Francastel writes quite correctly: "In the first phase of his technological experience, man asks science for more powerful methods to work with. He does not attempt to draw from his new strength a fresh understanding of the external world. He is the same man, only more powerful. That is why there is at first no new style . . . artists continue to depict a previous universe in which the new qualities of technological awareness are not expressed. It is only logical therefore that there should arise

the conflict over decorative or structural style which dominates the enormous artistic production of today."<sup>2</sup>

It is clear from the outset that the artist can be described as enjoying an infinitely greater freedom when he knows how to use the methods of modern technology. This freedom establishes itself in every field of activity as, for example, in the use of methods where the painter, the sculptor or the architect possess technological means which go beyond anything their predecessors could have dreamed of. Since new methods are continually being sought, precisely because of technology, the artist can invent freely without fearing that it will be impossible to fulfil his plans. Developments in technology give him an extraordinary control over his material, material which now offers no obstacle and no difficulty.

It is no longer necessary to use trickery or complicated methods to overcome the obstacle of stone or weight: the machine frees the sculptor and the architect from all that is impossible, and technology puts new materials at his disposal. If he does not manage to adapt traditional materials to his concept he can turn to artificial materials, which being isomorphic, neutral and without specific character, will be perfectly plastic and malleable. Thus, the artist finds himself completely free in his conceptions. He knows that the means make him the master of the way his idea is carried out, however daring, unexpected, or demanding it might be. Art will never again consist of a set way of using those materials which are peculiar to it. Thus there is a double transformation.<sup>3</sup> First of all the artist derives from technology what may be termed an active conception of the material; in other words the material becomes, of its own accord, an element of art. The material is in itself a work of art as is the space enclosed by the material, and the space which surrounds it. The material may, in spite of the artist, become a sort of force which emphasizes the surrounding space. The architect frees himself from the wall in order to create a building, the important aspect of which is the communication between an exterior and an interior space which will be brought to life by light. Similarly, the sculptor hollows out the solid mass and ends up with a simple tracery of linear form.

The second transformation is that in the technological world the artist can create his material. He is no longer tied to a limited fundamental which precedes all his activity. He receives from technology the means which allow him to completely impose his will. Thus, because of this double transformation, he no longer knows any exterior limits. His creation is entirely within himself and he can create whatever he wishes, whatever he thinks of, or whatever he invents. At any rate, he knows that it can be carried out.

But at the same time, technology brings him another dimension of possibilities: the artist discovers a universe in motion. This is not only the banal truth that everything passes away, for indeed the work of art as an affirmation of eternal values could largely be a protest against this trend towards destruction. Under the influence of modern technology, it has emerged that everything in the external world consists of movement, that material is in itself energy and speed, that the very essence of life is change, and all this plays a part in familiar objects which are all characterized by speed. The artist is therefore thrust into a world which he can now see only as movement and in which he must participate by integrating speed into his work. But if this movement is to be used by the artist, it must be conceived of, wished for and organized as rhythm. Friedmann has clearly shown<sup>4</sup> that, for mechanization, rhythm was essential and that setting out from this, the notion of rhythm gradually imposed itself on our entire society. The artist has also received this message. The importance of rhythm in modern music is well known, but now the plastic arts have become rhythmic arts. Here, once again, the artist's freedom proclaims itself by an extraordinary possibility, that of disassociating himself from the object as seen "at first sight" by conceiving and expressing it in the reality of its evolution. Technological apparatus has taught the artist to see the world around him in a different way, whether it be through the microscope or the cinematographic close-up. Suddenly we are aware of a structure, a relationship of forms, and the importance of a detail, all of which impress themselves on us and compel us to reconstruct a different universe. This discovery applies also to colour.

We have understood that colour was not only what we were made to see through a traditional and ultimately acquired way of seeing things, through the education of our eye, but also that colour "creates distance of its own accord: that it gives depth without any assistance from qualities acquired by shade . . .". In this way the artist finds himself with yet more freedom.

We have just mentioned a key phrase: "a traditional and acquired way of seeing things". Psycho-sociology tells us in fact that we see the world around us through forms and images which are presented to us through tradition, and we obey them without at all realizing the difference between what we see and what is.<sup>5</sup> One of the major effects of technology is precisely the questioning of all traditions in all spheres of activity. Technology (not necessarily that which is directly, or otherwise, related to art) creates a society which is no longer based on the traditional images. It upsets our universe of images, of traditional constructions and of inherited teachings.

Things happen at this point whether we want them to or not: technology upsets the universe of our senses and, consequently, the universe of our minds. We can no longer turn to values belonging to the past, nor to any way of judging the manner in which things are done, nor to any way of seeing things which may be traditional. We can no longer maintain a style which matches a world which has been destroyed. Of course, our laziness or our fear impels us to continually reproduce those things which we have inherited. We try to preserve the landmarks of a society which has gone by but this becomes more and more impossible, and brings about a failure to adapt. The architect can no longer consider the house as in the 18th century, nor can the sculptor see forms as in the 13th century. Both have rid themselves of those conceptions which obscured thought and sight. They must see a new world with a new eye; they must agree to create without relying on permanent values or according to unchanging processes. Hence again, the destruction of traditions in every sphere, as a result of the impact of technology, means that new forms and a new aesthetic have to be invented. That is why there is so much talk about aesthetics today!

Both the aspects of change and freedom given to the artist by technology direct the artist back towards himself. He is no longer tied to the object, nor to the aesthetic tradition, nor to the "way of seeing things" of his ancestors, just as he is not tied to the material nor to a fixed artistic technology. He must find the answer within himself. He must really invent. In other words he must really be a poet. The discussion of artistic creation, provoked by technology, is infinitely more radical than it ever was; in neither the 12th nor the 15th century did the artist know such possibilities or such a complete lack of direction.

All that we have just said brings us back to the freedom of the artist today. But it is a freedom which he cannot avoid, and which consequently places him in a difficult situation. For the artist has never before been faced with such problems. Going back to what we wrote earlier, the first of these problems came precisely from the loss of traditions. In the past, the artist, caught in a network of ethical and social traditions which were directly transposed into a particular aesthetic style, had landmarks to guide him. He obeyed a collection of rules and forms which restricted his possibilities, but at the same time allowed him to apply his genius to one or another particular aspect. Tradition gave him a basis from which to start; rules allowed him to try out the strength of his creative ability. So he had springboards as well as obstacles. The technological civilization has destroyed the traditional ethics as well as social control and slowly evolving aesthetic forms. We would say that it has thrust the artist into freedom, but a freedom which is essentially composed of emptiness. The artist can do whatever he wishes but, no longer being in a traditional environment, he cannot avoid the anguish of an absence of continuity. He is obliged to start again at the beginning because everything has been called into question by the impact of technology. It is no mere chance that the primitive arts are being sought out or that the value of the most ancient forms is being rediscovered. A lesson is looked for from those who, likewise, had to set out from nothing, who looked at the world with a clear eye, who looked for an aesthetic expression in these early beginnings. The artist today is obliged to find a new be-

ginning for we are, in fact, in a situation like that of primitive man who found himself at grips with a nature which was unknown to him. Today we are at grips with a phenomenon which is just as universal but which has replaced nature: technological civilization, which we are not yet used to. A start has to be made.

Another problem which the artist comes up against seems to contradict what I have said above. Because of technological possibilities the artist finds himself facing an overwhelming knowledge of all that has been created previously in the world. Malraux's theory in the *Imaginary Museum*<sup>7</sup> is well known and is certainly correct. Through photographic reproduction (now being replaced by much improved processes) the artist is put in touch with all the works of the past and also with all the works of non-Western civilizations. Moreover, the possibility of reaching countries which are well protected by natural barriers has meant that the works which were formerly scattered could be brought back and grouped together in our museums (not imaginary ones!). Now the artist lives in a world where everything seems to have been invented and expressed, where all volumes, all colours, and all trends, figurative and non-figurative, functional and non-functional, expressionist and symbolic, realist and surrealist, everything has already been exhausted. Although the artist is no longer part of an evolving tradition, he is enclosed in a world that is overcrowded with works which haunt him. These works are without any relationship to one another and their variety gradually closes all paths to the artist unless he rejects all that has been done.

Until the 18th century the artist knew very little and so found it possible to express what he thought and felt in a direct way. Moreover, since art was anonymous, nobody worried particularly if the artist's imagination failed to produce something absolutely new. But now the influence of the technological society familiarizes us with recurrent novelty and demands inventiveness which is continually surprising and unexpected. The public quickly grows tired, and Picasso or Le Corbusier seem merely ancestors. The artist *must* create new things in the midst of a crowded museum where everything has already been done.

Furthermore, he finds himself in contact with works which are removed from their framework and their environment. They are works "in themselves", for they have not only lost all significance except their aesthetic one, but they are taken out of their context, and that is true whether it is a work shut up in a museum or a work that has not been moved. For even when the artist, like anybody else, profits from the means of communication which technology puts at his disposal to go and see Angkor or the Parthenon, no longer is it the *Temple of Angkor* or of Athens, the heart of a civilization, which he finds. It is an aesthetic object, the remains of the past and, according to Le Lannou: "When one travels to go and see a monument or a picture, that is not what the crowd is looking for, but it is a Myth that is going to be found."<sup>8</sup> These then are works which can not really inspire the artist's creativity, but rather tend to discourage it. When Poussin went to Rome he saw a relatively small number of works, but he knew them perfectly. They were in their environment and they permeated his thoughts and his artistic sensibility. He had no need of an encyclopedic knowledge. This lesson was enough for him to assert himself in relation to it and to become what he was. Today nobody can have more than a rapidly acquired and superficial knowledge and no long meditation on one aesthetic object is possible, for around us we see thousands of them. We cannot avoid the attraction of these thousands, for the mere fact that we know of their existence forces us to feel remorse or fear: "Maybe in this rare object which I have not yet seen, I would finally have found the starting point, the source, or the evocation of what I am trying to express".

Thus, cut off on one side from his traditions and, on the other, overwhelmed by an aesthetic world which is too rich, the artist, because of technology, finds himself in the worst type of situation in which to make proper use of that freedom which we said earlier technology had provided him with. The first step, therefore, must be an intellectual one. To get out of his difficult position, the artist must begin by forming a theory of what should, or can, be done. As shown by Franca Selva, there is a relationship between scientific theories and their technological applications on one hand, and the re-

search carried out by painters, sculptors and architects on the other. When Chevreul<sup>9</sup> analyses light, "introducing an entirely new concept of colours, as a result of which an industry such as that of manufacturing colours, is changed both in its possibilities and in its principles", a small group of artists take upon themselves the job of changing the basic perceptions of painting. These are the Impressionists. The artist also faces the intellectual problems brought about by a new awareness of the space, speed and internal structure of material objects. An entire doctrine is propounded concerning the work of art which becomes an object having a special nature, "a sort of half-way point which is neither the model, nor the image appearing in the mind of the artist, nor the image as it is at the end of his work, nor the image as conceived by each spectator". There is, in the work of art, a borderline of indetermination, and this is the area to be worked on successively by all the various theories, making the work a sort of montage, which is artificial, and "an association of figurative values, of needs and activities, dear to the minds of men belonging to a particular era". This reflection on what the work of art *must* be takes several forms and leads to works which burst forth in all directions, all of which have, however, the double characteristic of not being immediately accessible to the masses, and of becoming quickly worn out. The only solution for the artist in this technological world is to create a doctrine simply in order to find a solution. This doctrine, however, can only give birth to a limited number of works, all of which have a terribly intellectual character and will quickly lose their value and be outdated. The artist then must continue to think, to artificially invent an aesthetic path to follow and to improve on the preceding theory. Thus, an art is produced which is radically isolated from the masses because it has become purely intellectual. The theories become more and more complicated. The artists write in a jargon and resort to semantic juggling which finally takes the place of aesthetic creation itself. Ultimately, they end up speaking vaguely about what an art object should be and come up with an untouched pebble or a board simply painted blue. But in doing this, the artist becomes more

and more a technologist of art, a specialist acting for the serious motives of a technological type of efficiency and, like any technologist whose work is unknown to the non-specialist, completely beyond the reach of the public.

Thus the artist is carried away by the technological society. But there is a great distinction to be made between what he produces and what is produced by the technologist, in the ordinary sense of the word. Generally, a product of technology has some practical purpose for the common individual, which at first sight is not apparent but which becomes so after very little explanation or use. On the contrary, the aesthetic product has no purpose (unless it is functional, a point we shall come back to), and the person using it searches in vain for a value or a meaning in an object which remains foreign to him and entirely inaccessible. The technologist, by being faithful to his technology, remains in contact with the masses even if his technology is very complicated, for the product has a clear and immediate use for man. The artist, on the other hand, caught in this intellectualizing stream of art and going more and more deeply into the various possible technologies, is cut off from the masses for that very reason. The question put by the ignorant man, scorned by the specialists when he asks upon seeing a modern painting, "What does it represent?" or on hearing a piece of modern music, "What does it mean?", is a real question, for it implies that for this man's life, this sort of art has no meaning. Art becomes the business of a small closed circle of men who, in a vague way, go deeper into specialized concepts and technologies.

However contradictory or strange it might appear, this alienation comes about in proportion to the extent to which Art and Technology have become separated from each other. For centuries the two were not considered separately.<sup>10</sup> In the so-called popular arts there was a close relationship between the object put to many technological uses, and its aesthetic factor which was closely connected with its function. Today art has been separated from technology in spite of the efforts of architects and town-planners, about whom we shall say more later. Art has become *Art* and an opposition has been set up between freedom and beauty on one hand, seen in their purest state, and as practised

by a few individuals for a minute clientèle and, on the other, automated mass production of solely utilitarian objects to serve the general public. Art seems removed from the masses and from everyday reality, but art also lacks the energy of the masses and the solid substructure of daily existence. Until now mass production has brought to the working class, and to the majority of the middle class, only material benefits. In most cases this huge amount of utilitarian objects is made up also of objects which are short-lived. If art has tried to integrate motion, objects produced by technology are themselves caught up in continual movement; in other words, they are made for short use only and are soon rejected because they are worn out whereas, until now at least, the claim of the object of art was that it lasted and was possibly eternal. "The work of art will be beautiful if it is cut out of the marble that yields least to man's effort, if it is torn out of the desire for a perfection, which is as hard and indestructible as a diamond." Mass production, on the other hand, puts out a huge quantity of meaningless objects (even if they are not "ugly") but which, for the time being, are indispensable. It can be said that whereas in the past money was used to purchase beautiful things (but having a simple beauty in everyday use such as a beautiful piece of furniture, or clothing, or a family house built in traditional style but with perfect balance), today it is used to purchase machines. For the masses, the motorcycle replaces the hand-carved chest; for the middle class, the car replaces silverware. "Mass production is the opposite of art because an impersonal automation is used to make interchangeable objects—art is eliminated from mass production because art is the result of an act in which man tries to impose his mark on nature. Wherever a man has really been present, the object which he has created bears the mark of art. On the other hand, modern industry no longer cuts, but molds its products in a nameless material which it designates in fact as plastic and in which it is possible to imprint any sort of design in order to hide the nonentity of the material."<sup>11</sup> The everyday object produced by technology no longer has anything to do with art, which is the presence of man himself in his work. Thus we arrive at an increasingly excel-

lent art which is more detached, non-functional and self-sufficient. "Work in wood, in stone or in metal becomes the monopoly of artists who work to brighten the privileged moments of a privileged clientèle, the common people having the right only to a reproduction, in other words to a copy."

This leads us to the last step in this process. If the artist wishes to recapture an audience, he must "belong to his time". But then he will find himself caught between the two jaws of a vice created by our society's technology — on one side the utilitarian, on the other the superfluous.

Let us examine this last point. Technology has introduced into society the principle of efficiency, the importance of usefulness, in the material sense of the word. The only serious and important activities are those which produce results which move in the direction of "progress" whether measured in money, in power or in comfort. All that does not contribute to this progress is considered superficial if it is not useful or efficient. Ever since the 19th century, art in general has been placed in this category. Art for the bourgeois and for the technologist is something superficial, the sign of luxury and of relaxation. Art occupies the same realm as distraction and pleasure. On one side there are the important activities, those in which a career may be found and to which it is worth devoting one's efforts, and then there are the activities of the "entertainers", the sculptors, painters and musicians . . . One need only think of the violent conflict in the 19th century between the "bourgeois" and the "artists", and the scandalized refusal of all families to see their sons set out on the path of aesthetic creation. Art is valued as a sign of social success. The rich man buys pictures, has a house built by a famous architect; this contributes to social prestige. Art is worthwhile as a distraction. People go to the theatre or to a concert to find relaxation after serious things have made them tired. This expresses in a very positive way the total separation between the immediate and active life which creates the values and forms of a society dominated by the principles of efficiency stemming from technology, and artistic creation which is not of this world, and which adds pleasure and dreams to reality. Art, then,

belongs simply to the world of spectacle, and so the masses are apart from creation. They are passive and look on from the outside, receiving a message which has no serious meaning. They remain outside the aesthetic world because they have no part in its creation. This, as we have already stated, is something belonging to the specialist and we have tried to show precisely how technology automatically led the artist into becoming a technologist himself. The majority of individuals are increasingly unaware of the meaning of a work of art because it is not a part of their preoccupations, nor of the practical life of men. At the same time, the freedom given the artist by technology leads him to perpetually refine an original project having nothing in common with the basic tendencies of the common man, which are naturally considered without value from the aesthetic point of view. This is in fact true from the moment that the technological society, enveloping the masses, limits men to purely technological activities, negating the vital creative impulse towards new forms and values. It is in this area that the exciting new research of A. Molès into permutational art is to be found in which he tries to use the resources of technology to create objects which are both purely technological and yet are entirely unexpected, original, and new, trying to evoke meaning and to make the spectator a participant through his discovery. But as yet this art is merely something non-functional linked with technology.

If the creative artist wishes to escape from the role of entertainer, of maker of useless luxury objects, he must enter the world of technology itself and submit to utilitarianism. This is the constant swing between Art for Art's sake and functional art, with the pendulum-like motion which results in the bourgeois baroque style of 1900 as opposed to the functional style of 1920, which in turn comes back to the surrealist baroque style, etc. . . . This dilemma, however, is a false one. It is true that a work of art is ugly if it is not adapted to its function, but then the first question is: what is its function? Certainly aeroplanes, dams and bridges are the real works of art of our society, because their forms are true and there is nothing superfluous or absurd about them, but their beauty deteriorates very quickly because their very function

tion is purely temporary. That is why functional things can only give birth to works of art which are both non-human and collective because their function corresponds only to the most superficial needs of man, and because man's private life cannot be reduced to the carrying out of a function. Functional housing is always as ugly as can be. In any case, when the artist tries to enter the sphere of technology in order to integrate art into the universe of men it implies that, for his part, he is bowing to the law of technology. Otherwise all he can do is to *add* a little supplementary touch of useless "fantasy" to the technological work which has already been completed according to its own laws. This is the aesthetic touch. Thus in a prefabricated apartment block some panels are coloured blue, others red, simply to break up the monotonous horror, while the elevator is painted red and the corridors black and white . . . all of which is more pretence because, basically and essentially, the work is designed for the task it is to perform. "The width of this entranceway is estimated according to the number of people who go through it at peak hours" (the architect Wogenski). Style is completely subordinated to the demands and rules of technology. As Francastel says, "The idea of subordinating style to the demanding logic of technology must take the place of the idea of reconciling historical styles with modern materials."<sup>12</sup> To the extent to which the contemporary style of life is decided by the technologists, the work of art can no longer be anything but the business of artists who incorporate the principles formulated by technology into forms which are simply determined by technological necessities. "Technology ceases to be a means of carrying something out, it imposes rigid laws on the architect," said the architect Van de Velde. Thus we are led to rationalism, for it is the technological type of requirements which dictate the structure and character of a work of art. "Every form must follow a logical system particular to the building and its function."<sup>13</sup> So we are placed in a technological world in which the artist has no other function than to carry out what a variety of convergent and coordinated technological requirements demand. Since, however, a pretence of artistic creation must not be lost, a way around the problem is found in long ex-

planations. Thus in a completely functional building, a "mobile" is placed in the entrance hall and the architect explains that "this is the point at which the building is born and from there space develops in a harmonic growth", etc. It is similarly explained that the "architectural space must act on man so as to begin a dialogue at the level of his senses", but this dialogue never does begin because it has all been calculated to work on the sub-conscious. For example, talking about the same achievement, the architect says "the corridors have one white wall and one black wall so as to upset the balance of space, and also to produce a visual shock." Maybe these are phenomena that really occur, but man is unaware of their effectiveness, and consequently, even if he is placed (again, passively like an object) in an aesthetic space, it is not at the level of his conscious mind and there can be neither dialogue nor participation.

Thus the domination of art by technology is established, implying the integration of the artist into the technological world, his acceptance of the place and function assigned to him, in the guise of a greater freedom which is being offered to him. This is the freedom we mentioned at the beginning, a freedom which is merely artificial, and which ultimately comes down to explanations, and which the artist is forced to use in order to demonstrate just how his work is, *in spite of everything*, a work of art!

#### FOOTNOTES

1. Although the English word "technique" is used in *The Technological Society* (Knopf, 1964), a translation of Jacques Ellul's *La Technique* (1954), we are taking the liberty of using the term "technology" with the meaning originally given it by the author: the search for methods which are both rational and coordinated in their total effectiveness in all spheres of human activity. (R. Clark, translator).
2. Francastel: *Art et Technique*, 1958.
3. *Ibid.*: p. 216 ff.
4. Friedmann: *Problemes Humaine du Machinisme Industriel*, 1946.
5. c.f. the very strange experiment by Stoetzel (*Psychologie sociale*) comparing the artistic ways of representing various movements of the horse, in every school of painting since the Greeks, with photographic images of the animal: not one could be described as accurate.
6. Concerning this, see my book: *The Technological Society*.
7. Andre Malraux: *Le Musee imaginaire de la sculpture mondiale*. (3 vols.) Paris 1952-54. (Translator's note).
8. Le Lannou: *La Fin d'une Symbiose*, "Le Monde", 1961.
9. Eugene Chevreul (1786-1889)—French chemist. Author of *De la Loi du Contraste Simultane des Couleurs*, first published in 1839. (Translator's note).
10. for what follows see: Charbonneau, *Le Paradoxe de la culture* (1965).
11. *Ibid.*
12. Francastel: *op. cit.*
13. J. Michel: *La Reussite Architecturale*, "Le Monde", Jan. 1966.