

## **REITH LECTURES 1960: Art and Anarchy**

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### **Lecture 5: The Mechanization of Art**

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It might be thought that an artistic performance and a mechanical event cannot possibly have anything in common. An artistic performance is a creative act, unique and unrepeatable, whereas it is of the very essence of a mechanical event that it can be repeated, and often is. To say that a creative artist would not incline to repeat himself exactly is an understatement: he is incapable of doing so. If two paintings ascribed to a great master look identical, it is more than likely that at least one of them is a copy by another hand. The rule is as valid in the study of art as it is in the study of handwriting. A man's signature varies because he writes spontaneously. If two signatures are exactly the same, one of them is suspected of being forged.

There are anecdotes about Mozart which illustrate the point rather well in music, even though they may be legendary. It is said that Mozart was sometimes asked for copies of his compositions, particularly those which he had extemporized, because listeners were anxious to secure their preservation, preferably in his own hand; but when Mozart obliged a friend by, making a copy, it was found that he had continued to compose in the act of writing so that all sorts of spirited little variations were unexpectedly introduced. It is said that this happened even when he copied from a finished script. He seemed incapable of rewriting the music mechanically: he was inadvertently rephrasing it. The act of copying an old piece of music turned into a new musical invention.

#### **An Old Belief**

If mechanical repetition is thus regarded as the direct opposite of the creative act, there would seem to be some excuse for holding fast to the old belief that art is degraded by mechanization. I call it an old belief because it antedates our age by at least 500 years. The invention of printing, for example, and the use of woodcuts for the illustration of books, filled the Duke of Urbino, the famous Federigo da Montefeltro, with such dismay that he would not permit a printed book to enter his library. For him the act of reading a classical text—and he was an enthusiastic student of ancient literature—was desecrated by the contemplation of a printed page. Words that were beautifully written by a scribe seemed to address his eye and mind in a personal way which was obliterated by mechanical type; and a manuscript illuminated by hand-painted miniatures gave him a pleasure which no woodcut could equal.

It would be easy to dismiss this attitude as sheer snobbery, the kind of preciousness that is sometimes found among modern collectors who have turned Veblen's principle of conspicuous waste into a policy of sound investment. They would not deign to look at—let alone buy—one of Renoir's splendidly coloured lithographs, or a superb etching by Manet, because these objects are not unique. What can be the pleasure and the purpose of possessing a work of art if dozens of other people possess it as well?

That an ingredient of that sort of vanity may have entered into the Duke of Urbino's disdain of printing, I would not deny: but there is more to it than that. The first printed books were made to look like manuscripts, they were designed to give the same satisfaction, and were even doctored up by hand-painted initials, or by coloured washes imposed on the woodcuts, or by being printed specially on vellum, to satisfy the kind of fastidious taste which the Duke of Urbino had cultivated. He cannot therefore be entirely blamed for having regarded this new manufacture as an impertinent and vulgar cheat.

It is one of the recurrent features in the mechanization of any art that its first appearance looks like fake, because it models itself on an unmechanized or less mechanized art. Before the film had found its own idiom, it looked like degraded theatre, just as television now often looks like degraded film. Thus, when Ruskin spoke of what he called 'vile manufacture', he did not mean to distinguish between vile and honourable manufacture. All manufacture seemed to him vile because it was the opposite of honourable craftsmanship, in which the artisan controlled his work by his own hand, whereas in manufacture the production was surrendered to a machine, an automaton which mimicked and falsified living craftsmanship and thus was nothing but its cheap, deceptive double.

### **Small Shapes Transposed to a Huge Scale**

There is no denying that there are aspects of mechanization which justify Ruskin's opinion. In the creation of monumental sculpture, for example, artists often confine their work to a small model and entrust the enlargement to a mechanical instrument which, point by point, transposes the small shapes to a huge scale. Thus the shapes are treated as if they were indifferent to size, although every perceptive artist knows that they are not. The machine cannot introduce the necessary modulations by itself, they ought to be adjusted by the artist's sensibility, but he has resigned that important function for the convenience of an automatism, which makes monumental sculpture look vacant.

The reverse problem arises with medals or coins. Here it is convenient to make the model on a scale that is larger than the final object, and to entrust the reduction of size again to a machine, as if minute sculpture did not require different modelling from sculpture of a larger size. As a result, our coins and medals look, on the whole, as vacant as our public monuments.

Whenever a machine is thus allowed to impose its own habits on the artist, it replaces a creative act of discernment by an automatic process of repetition. The effect is familiar from prefabricated buildings, or buildings which embody prefabricated parts. In the monotony of certain ready-made windows, for example, architecture is victimized by mechanics. I hasten to add that these dreary cases speak not against mechanization as such, but only against bad and inflexible mechanization, an unimaginative use of machinery which the creative modern architects have triumphantly overcome. Entering as they do into the spirit of a mechanized process, with the same intimacy as the manual craftsman felt for the tool in his hand, they project their imagination into every part of the mechanism, and thus render mechanization itself expressive. In such cases we do not have a 'mechanization of

art', but on the contrary an artistic use of mechanics; and if this ideal relationship of mechanical instrument to art were universal, I could stop my talk at this very moment.

### **Borrowed Rhetoric**

But we know too well that even these modern achievements are travestied by 'vile manufacture'. The streamlined constructions required for aeroplanes and racing cars are transferred to cars not intended for such speeds which, however, want to suggest efficiency by borrowed rhetoric. Thus the stream-lined taxicab is built so low that we must double ourselves up in order to get in or out of it. The beautiful and comfortable chairs invented by Mies van der Rohe are parodied in the mass-produced, streamlined chair constructed according to a technological idea of being seated and hence allowing no one to sit as he pleases. The streamlined knife, fork, and spoon are likely to interfere with the act of eating by making us needlessly conscious of it. The false rhetoric of mechanization persistently obliges us to look sharp. We thus reverse the effect of those antimacassars which obliged even Ruskin to look comfortable.

It would be tempting to dismiss the false rhetoric of mechanization as a passing fashion which need not be taken too seriously, were it not that many cities are already disfigured by fake-modern buildings, which will stand for a long time. In modern architectural designing, it requires exceptional powers of imagination and resistance not to let any part of the machinery usurp a function that belongs to the architect himself. The temptation to let the machine have its way is greater than ever, just because new machinery calls for a new architectural imagination. Perhaps that helps to explain why modern buildings are either superb or miserable. The tension is too great to allow for decent mediocrity. In that respect modern architecture is indeed like an aeroplane or a racing car. The only alternative to perfection is calamity.

Thus there is a great deal of truth left in Ruskin's theory that whenever an artist delegates part of his own function to an ancillary machine, 'vile manufacture' is likely to result. An eloquent demonstration of this rule today is to be found in the mechanical re-facing of ancient buildings. They need to be refaced, and there can be no doubt that modern building processes are different from the ancient. Hence every stage of the re-facing would seem to require an act of architectural reinterpretation, comparable to the kind of reflection that guides a literary editor when he tries to convey the sense of an ancient and ill-preserved text in a modern version. Replacements cannot be made mechanically. No modern machinery can produce the exact double of an old façade. Where such mechanical repetitions have been attempted, they look like replicas or facsimiles. One day they may be studied as classic examples of the innocent kind of self-delusion that characterizes a mechanical age.

The same reflections might be extended to the so-called 'scientific' cleaning of pictures. Much picture-cleaning has been done conscientiously, for there are many conscientious restorers; but in such cases the process must always be guided by an awareness that the restorer is interpreting the picture at every moment. The danger enters when the restorer thinks that he can reduce the burden of interpretation by delegating the major part of it to chemical processes which will remove superimposed layers of paint and varnish and lay bare the artist's unadulterated work. The belief that a painting of the fifteenth century can be returned with scientific certainty to its

pristine state is of course a chemical as well as an historical absurdity. Restoration remains an adventure.

That these adventures are often pursued today in a reckless spirit, and on a much larger scale than should be necessary, is due to a scientific as well as an aesthetic fashion. The notion that every old picture must be cleaned resembles certain outdated medical fashions which made it obligatory at one time for every person to have his appendix removed. In the cleaning of pictures these operations are encouraged by a desire for freshness at any cost, even if it entails fragmentation. After a picture has been decomposed, the painting is 'honestly' left in a half-raw state—an artificial ruin or, to put it more charitably, a carefully prepared scientific specimen.

In many modern museums the technical departments are assuming a predominant importance. And—what is perhaps not fully realized—the day may come when their treatment of pictures will be datable to the year. The historian of art will recognize the style of cleaning as easily as he recognizes the style of over-painting: for no one can jump over his own shadow.

By a strange paradox certain pictures, after they have been excessively cleaned in the hope of returning the paint to a supreme freshness, begin to look like mechanical reproductions which tend to harden and arrest the effect of a painting. It is not impossible that the satisfaction aroused by paintings reduced to that state is connected with the fact that our vision has increasingly been trained on photographs and other reproductions, which tend to over-define an image in one direction by fixing it to a mechanical scale.

That our vision of art has been transformed by photography is obvious. Our eyes have been sharpened to those particular features in painting and sculpture which are brought out effectively by a camera. Nor is it the spectator alone whose vision has been transformed by these mechanical inventions. It applies to the creative artist as well. We can see the growth of a pictorial and sculptural imagination which is positively attuned to photographic transposition. Certain modern paintings and sculptures are photogenic to a surprising degree: they seem to find a kind of fulfilment in photographic dramatization. One often wonders whether the ultimate hope of a painter or sculptor today, apart from having his works accessible in a museum, would not be to see them diffused in photographs and comprehensive picture books.

We have heard much of the 'museum without walls'. What is optimistically called by that name is in fact a museum on paper—a paper-world of art in which the epic oratory of André Malraux assures us that all art is composed in one single key, and that huge monuments and small coins have the same plastic eloquence if transferred to the scale of the printed page. Although it is a hard word to use for his fascinating books, they show traces of mechanization: their production is typical of an outlook on art which neutralizes plastic differences by photographic and verbal simplification. The noble faith that all art is one becomes indistinguishable from the fallacy that all art is the same.

If mechanical diffusion has transformed our outlook on the visual arts, the same influence is at least equally forceful in music, but before discussing this difficult subject I should perhaps make clear that the word 'repetition' covers here a much

wider range of activities, some of which—like the repeated performances of a symphony by different orchestras and conductors—lie outside of what I mean to discuss. They are not mechanized repetitions; on the contrary, the work is spontaneously re-created in the imagination of the performers, who partake vicariously in the creative act. Hence no performance of that kind can be literally repeated. It is as unique as the composer's own creative moment. However, thanks to the progress of mechanization we can record a performance, and then play the record again and again. This particular sensation is new to our age, and it has decisively shaped our musical perception.

Originally, the gramophone record produced an echo of the live performance, with all the idiosyncrasies which that performance may have had. It served as a substitute for a concert, removed by one degree from the real event. For that reason musicians and music lovers inclined at first to despise the substitute, with much the same vigour as the Duke of Urbino displayed in his resentment of printing. However, recording—like printing—developed its own style: it became an idiom with a particular grammar. Certain idiosyncrasies of phrasing, for example, which may be startling and impressive in the concert hall, can grate when they are heard too often. Recording therefore tended to even them out, aiming instead at a technical perfection which would allow for constantly repeated hearing. There can be no doubt that, ever since, the style and quality of performances have changed, not only for the purposes of recording, but retro-actively in live performances as well. The level of technical proficiency in concerts today is far higher, and more even, than in any former age. The playing has become attuned to recording. And one wonders whether composition has not become attuned to it as well.

The situation reminds me of a historic occasion in Washington when the newly founded National Gallery of Art was opened by President Roosevelt in 1941. He was expected to address the assembled company, and many who had often heard him speak so effectively over the radio, were curious to see in what manner he would address an audience face to face. They found that he did not address them at all. The speech was broadcast, and from the first the President's mind was concentrated on the microphone before him. It was a graceful speech addressed to the world outside, while those in his immediate presence were like eavesdroppers, listening in on a performance not intended for them. No doubt, those listening to the broadcast assumed that they were getting only a reflex of his speech, a sort of echo, but they were mistaken: what seemed like an echo was the substance.

In the field of art, this curious reversal seems to me one of the fundamental dangers of mechanization. The medium of diffusion tends to take precedence over the direct experience of the object, and in the end the object itself is sometimes conceived with this purpose in view. We are given the shadow for the thing, and in the end we live among shadows, and not only believe that things are made for the sake of their shadows, but find that this is actually the case. Novels are written in the hope that they will be filmed, sculptures are produced in the expectation that they will yield good photographs. That Picasso has consciously adjusted his palette to the crude requirements of the colour print I would not say, but his paintings suffer remarkably little in this singularly hard form of reproduction. It is not impossible that some of his raw grandeur is prized for that reason, while an artist like Braque, who reproduces less vividly because his tonality is subtler, correspondingly recedes in the general

consciousness. Colour photographs and colour prints, have, indeed, fostered a rawness of vision in art which should be resisted at any cost. At the present moment, the best black-and-white photograph is like a good piano transcription of an orchestral score, whereas the colour print, with rare exceptions, is like a reduced orchestra with the instruments out of tune.

There would be no harm in any of this if we knew what we were doing. Leaving colour prints aside, I would not suggest that we tear up all photographs, or break all gramophone records; so that we may return to art as a thing in itself. These mechanical transpositions are like translations, harmful only if we mistake them for the original text; but when the original is difficult, elusive or complex, we are grateful for the help of one—or preferably more than one—translation, and we grasp them eagerly when the original is out of reach. Some modern music would not be heard at all if it were not for recording, but this is a far from satisfactory state, because the composer needs direct contact with an audience.

To rest content with mechanization is therefore unreasonable, as unreasonable as that curious phobia of it which J. B. S. Haldane described correctly. He said that there has been no mechanical invention, from fire to flying, which has not been greeted as an insult to some god. Ruskin's polemic against mechanization remains valid to a large extent. One needs only to compare the eloquence of a geometrical illustration designed by Leonardo, or painted by Barbari, with its counterpart in a modern textbook on geometry to see how much mathematical instruction itself has lost by driving the artist out of this field and replacing him by the mechanic. On the other hand, the power of art to absorb mechanics was underestimated by Ruskin. He feared that whenever an art delegates part of its function to an ancillary craft, it is in danger of losing its authenticity. Ideally, on that theory, the composer should be his own singer, the poet a bard, the architect his own builder, mason, and bricklayer. It is true that some of the arts still survive in that happy state. The painter has not yet delegated his brush, nor the draughtsman his pencil, and there are even sculptors who have not delegated their chisels. And yet, some of the creative expansions of art—in architecture, music, and drama—could never have taken place at all if the artist had always remained his own instrument, or the only authentic instrument of his art. The justified fear of mechanization tends to blind us to the positive function which machinery and substitution can play in artistic growth.

To my mind, one of the most paradoxical and amusing of anti-mechanical protestations lies buried in a famous American autobiography, *The Education of Henry Adams*, in which that belated offspring of the Adams family, who stylized himself as a conceited Bostonian, took a few steps of his own, in the year 1900, to inaugurate the twentieth century. He went to Paris and visited the World Exhibition, where he stood, bemused and bewildered, before the forty-foot dynamos in the Great Hall, in which the newest engines were displayed. He understood little about engineering and, perhaps for that reason, viewed its progress with misgiving. He reflected that, since 1893, 'the automobile had become a nightmare . . . almost as destructive as the electric tram which was only ten years older, and threatening to become as terrible as the locomotive steam-engine itself'. To regain his balance, Adams withdrew to the cathedrals of Chartres and Amiens. Here, worshipping at the shrine of the Virgin, he meditated on the fate of those who were worshipping at the shrine of the dynamo. Adams was the kind of man who feels that on a memorable

occasion it is important to make a memorable statement. Although he did not agree with Gibbon's evaluation of the Gothic style, he envied Gibbon for having dismissed all Gothic cathedrals in one single sentence by saying: 'I darted a contemptuous look on the stately monuments of superstition'. Adams longed to dart just such a look at the stately monuments of engineering, but for that he was too shrewd; he knew that these forces had to be reckoned with, and although he distrusted them intensely, he prided himself on being a good judge of forces. He therefore composed for his autobiography, under the year 1900, a chapter entitled 'The Dynamo and the Virgin'. In it he contrasted the modern powers of steam and electricity with the force exerted by medieval faith. 'All the steam in the world', he writes, 'could not, like the Virgin, build Chartres'.

It is worth analyzing this memorable remark. According to it, the Virgin built Chartres. This is clearly a metaphor, and presumably it means that faith in the Virgin inspired the building of the cathedral. But Chartres was not built by faith alone. Like other French Gothic cathedrals, it was built by carefully calculated engineering. The master-builders who constructed ribbed vaults and flying buttresses would have been much displeased with an admirer of their work who discounted their mathematical and mechanical ingenuity. The antithesis between modern engineering and medieval spirituality is one of those facile and fallacious disjunctions by which we get trapped when we regard art as naturally opposed to mechanization. On the side of art, Adams disregarded the mechanical energies that had been harnessed to produce an admirable building, while on the side of mechanics; he considered the energies in the raw, unrelated to any purposes which they might subserve. Thus we get a fine antithesis between mechanization and spirit, produced by mental omissions on both sides.