

The silent film could thus dive into the depths—it was given the possibility of presenting a passionate life-and-death struggle almost exclusively by close-ups of faces.

Dreyer's film *Jeanne d'Arc* provided a convincing example of this in the powerful, lengthy, moving scene of the Maid's examination. Fifty men are sitting in the same place all the time in this scene. Several hundred feet of film show nothing but big close-ups of heads, of faces. We move in the spiritual dimension of facial expression alone. We neither see nor feel the space in which the scene is in reality enacted. Here no riders gallop, no boxers exchange blows. Fierce passions, thoughts, emotions, convictions battle here, but their struggle is not in space. Nevertheless this series of duels between looks and frowns, duels in which eyes clash instead of swords, can hold the attention of an audience for ninety minutes without flagging. We can follow every attack and riposte of these duels on the faces of the combatants; the play of their features indicates every strategem, every sudden onslaught. The silent film has here brought an attempt to present a drama of the spirit closer to realization than any stage play has ever been able to do. . . .

1945

RUDOLF ARNHEIM

From Film as Art

Film and Reality

Film resembles painting, music, literature, and the dance in this respect—it is a medium that may, but need not, be used to produce artistic results. Colored picture post cards, for instance, are not art and are not intended to be. Neither are a military march, a true confessions story, or a strip tease. And the movies are not necessarily film art.

There are still many educated people who stoutly deny the possibility that film might be art. They say, in effect: "Film cannot be art, for it does nothing but reproduce reality mechanically." Those who defend this point of view are reasoning from the analogy of painting. In painting, the way from reality to the picture lies via the artist's eye and nervous system, his hand and, finally, the brush that puts strokes on canvas. The process is not mechanical as that of photography, in which the light rays reflected from the object are collected by a system of lenses and are then directed onto a sensitive plate where they produce chemical changes. Does this state of affairs justify our denying photography and film a place in the temple of the Muses?

It is worth while to refute thoroughly and systematically the charge that photography and film are only mechanical reproductions and that they therefore have no connection with art—for this is an excellent method of getting to understand the nature of film art.

With this end in view, the basic elements of the film medium will be examined separately and compared with the corresponding characteristics of what we perceive "in reality." It will be seen how fundamentally different the two kinds of image are; and that it is just these differences that provide film with its artistic resources. We shall thus come at the same time to understand the working principles of film art.

THE PROJECTION OF SOLIDS UPON A PLANE SURFACE

Let us consider the visual reality of some definite object such as a cube. If this cube is standing on a table in front of me, its position determines whether I can realize its shape properly. If I see, for example, merely the four sides of a square, I have no means of knowing that a cube is before me, I see only a square surface. The human eye, and equally the photographic lens, acts from a particular position and from there can take in only such portions of the field of vision as are not hidden by things in front. As the cube is now placed, five of its faces are screened by the

sixth, and therefore this last only is visible. But since this face might equally well conceal something quite different—since it might be the base of a pyramid or one side of a sheet of paper, for instance—our view of the cube has not been selected characteristically.

We have, therefore, already established one important principle: If I wish to photograph a cube, it is not enough for me to bring the object within range of my camera. It is rather a question of my position relative to the object, or of where I placed it. The aspect chosen above gives very little information as to the shape of the cube. One, however, that reveals three surfaces of the cube and their relation to one another, shows enough to make it fairly unmistakable what the object is supposed to be. Since our field of vision is full of solid objects, but our eye (like the camera) sees this field from only one station point at any given moment, and since the eye can perceive the rays of light that are reflected from the object only by projecting them onto a plane surface—the retina—the reproduction of even a perfectly simple object is not a mechanical process but can be set about well or badly.

The second aspect gives a much truer picture of the cube than the first. The reason for this is that the second shows more than the first—three faces instead of only one. As a rule, however, truth does not depend on quantity. If it were merely a matter of finding which aspect shows the greatest amount of surface, the best point of view could be arrived at by purely mechanical calculation. There is no formula to help one choose the most characteristic aspect: it is a question of feeling. Whether a particular person is “more himself” in profile than full face, whether the palm or the outside of the hand is more expressive, whether a particular mountain is better taken from the north or the west cannot be ascertained mathematically—they are matters of delicate sensibility.

Thus, as a preliminary, people who contemptuously refer to the camera as an automatic recording machine must be made to realize that even in the simplest photographic reproduction of a perfectly simple object, a feeling for its nature is required which is quite beyond any mechanical operation. We shall see later, by the way, that in artistic photography and film, those aspects that best show the characteristics of a particular object are not by any means always chosen; others are often selected deliberately for the sake of achieving specific effects.

REDUCTION OF DEPTH

How do our eyes succeed in giving us three-dimensional impressions even though the flat retinae can receive only two-dimensional images? Depth perception relies mainly on the distance between the two eyes, which makes for two slightly different images. The fusion of these two pictures into one image gives the three-dimensional impression. As is well known, the same principle is used in the stereoscope, for which two photographs are taken at once, about the same distance apart as the human eyes. This process cannot be used for film without recourse to awkward devices, such as colored spectacles, when more than one person is to watch the projection. For a single spectator it would be easy to make a stereoscopic film. It would only mean taking two simultaneous shots of the same

incident a couple of inches apart and then showing one of them to each eye. For display to a larger number of spectators, however, the problem of stereoscopic film has not yet been solved satisfactorily—and hence the sense of depth in film pictures is extraordinarily small. The movement of people or objects from front to back makes a certain depth evident—but it is only necessary to glance into a stereoscope, which makes everything stand out most realistically, to recognize how flat the film picture is. This is another example of the fundamental difference between visual reality and film.

The effect of film is neither absolutely two-dimensional nor absolutely three-dimensional, but something between. Film pictures are at once plane and solid. In Ruttmann's film *Berlin* there is a scene of two subway trains passing each other in opposite directions. The shot is taken looking down from above onto the two trains. Anyone watching this scene realizes, first of all, that one train is coming toward him and the other going away from him (three-dimensional image). He will then also see that one is moving from the lower margin of the screen toward the upper and the other from the upper toward the lower (plane image). This second impression results from the projection of the three-dimensional movement onto the screen surface, which, of course, gives different directions of motion.

The obliteration of the three-dimensional impression has as a second result a stronger accentuation of perspective overlapping. In real life or in a stereoscope, overlapping is accepted as due merely to the accidental arrangement of objects, but very marked cuts result from superimpositions in a plane image. If man is holding up a newspaper so that one corner comes across his face, this corner seems almost to have been cut out of his face, so sharp are the edges. Moreover, when the three-dimensional impression is lost, other phenomena, known to psychologists as the constancies of size and shape, disappear. Physically, the image thrown onto the retina of the eye by any object in the field of vision diminishes in proportion to the square of the distance. If an object a yard distant is moved away another yard, the area of the image on the retina is diminished to one-quarter of that of the first image. Every photographic plate reacts similarly. Hence in a photograph of someone sitting with his feet stretched out far in front of him the subject comes out with enormous feet and much too small a head. Curiously enough, however, we do not in real life get impressions to accord with the images on the retina. If a man is standing three feet away and another equally tall six feet away, the area of the image of the second does not appear to be only a quarter of that of the first. Nor if a man stretches out his hand toward one does it look disproportionately large. One sees the two men as equal in size and the hand as normal. This phenomenon is known as the constancy of size. It is impossible for most people—excepting those accustomed to drawing and painting, that is, artificially trained—to see according to the image on the retina. This fact, incidentally, is one of the reasons the average person has trouble copying things “correctly.” Now an essential for the functioning of the constancy of size is a clear three-dimensional impression; it works excellently in a stereoscope with an ordinary photograph, but hardly at all in a film picture. Thus, in a film picture, if one man is twice as far from the camera as another, the one in front looks very considerably the taller and broader.

It is the same with the constancy of shape. The retinal image of a table top is like the photograph of it; the front edge, being nearer to the spectator, appears much wider than the back; the rectangular surface becomes a trapezoid in the image. As far as the average person is concerned, however, this again does not hold good in practice: he sees the surface as rectangular and draws it that way too. Thus the perspective changes taking place in any object that extends in depth are not observed but are compensated unconsciously. That is what is meant by the constancy of form. In a film picture it is hardly operative at all—a table top, especially if it is near the camera, looks very wide in front and very narrow at the back.

These phenomena, as a matter of fact, are due not only to the reduction of three-dimensionality but also to the unreality of the film picture altogether—an unreality due just as much to the absence of color, the delimitation of the screen, and so forth. The result of all this is that sizes and shapes do not appear on the screen in their true proportions but distorted in perspective. . . .

ABSENCE OF THE NONVISUAL WORLD OF THE SENSES

As regards the other senses: No one who went unprejudiced to watch a silent film missed the noises which would have been heard if the same events had been taking place in real life. No one missed the sound of walking feet, nor the rustling of leaves, nor the ticking of a clock. The lack of such sounds (speech, of course, is also one of them) was hardly ever apparent, although they would have been missed with a desperate shock in real life. People took the silence of the movies for granted because they never quite lost the feeling that what they saw was after all only pictures. This feeling alone, however, would not be sufficient to prevent the lack of sound being felt as an unpleasant violation of the illusion. That this did not happen is again connected with what was explained above: that in order to get a full impression it is not necessary for it to be complete in the naturalistic sense. All kinds of things may be left out which would be present in real life, so long as what is shown contains the essentials. Only after one has known talkies is the lack of sound conspicuous in a silent film. But that proves nothing and is not an argument against the potentialities of silent film, even since the introduction of sound.

It is much the same with the sense of smell. There may be people who if they see a Roman Catholic service on the screen imagine that they can smell incense; but no one will miss the stimulus. Sensations of smell, equilibrium, or touch are, of course, never conveyed in a film through direct stimuli, but are suggested indirectly through sight. Thence arises the important rule that it is improper to make films of occurrences whose central features cannot be expressed visually. Of course a revolver shot might occur as the central point of a silent film; a clever director could afford to dispense with the actual noise of the shot. It is enough for the spectator to see the revolver being fired and possibly to see the wounded man fall. In Josef von Sternberg's *The Docks of New York* a shot is very cleverly made visible by the sudden rising of a flock of scared birds.

The Making of a Film

It has been shown above that the images we receive of the physical world differ from those on the movie screen. This was done in order to refute the assertion that film is nothing but the feeble mechanical reproduction of real life. The analysis has furnished us with the data from which we can hope to derive now the principles of film art.

By its very nature, of course, the motion picture tends to satisfy the desire for faithful reports about curious, characteristic, exciting things going on in this world of ours. The first sensation provided by film in its early music-hall days was to depict everyday things in a lifelike fashion on the screen. People were greatly thrilled by the sight of a locomotive approaching at top speed or the emperor in person riding down *Unter den Linden*. In those days, the pleasure given by film derived almost entirely from the subject matter. A film art developed only gradually when the movie makers began consciously or unconsciously to cultivate the peculiar possibilities of cinematographic technique and to apply them toward the creation of artistic productions. To what extent the use of these means of expression affects the large audiences remains a moot question. Certainly box-office success depends even now much more on what is shown than on whether it is shown artistically.

The film producer himself is influenced by the strong resemblance of his photographic material to reality. As distinguished from the tools of the sculptor and the painter, which by themselves produce nothing resembling nature, the camera starts to turn and a likeness of the real world results mechanically. There is serious danger that the filmmaker will rest content with such shapeless reproduction. In order that the film artist may create a work of art it is important that he consciously stress the peculiarities of his medium. This, however, should be done in such a manner that the character of the objects represented should not thereby be destroyed but rather strengthened, concentrated, and interpreted.

Our next task will be to bring examples to show how the various peculiarities of film material can be, and have been, used to achieve artistic effects.

ARTISTIC USE OF PROJECTIONS UPON A PLANE SURFACE

In an earlier section I showed what conditions arise from the fact that in a photographic representation three-dimensional bodies and spaces are projected on a two-dimensional plane, that is, the surface of the picture. It was first demonstrated that an object can be reproduced characteristically or otherwise according to what view of it is chosen. When film art was in its infancy, nobody paid much attention to the subtleties of these problems. The camera was stationed well in front of the people to be photographed in order that their faces and movements might be easily seen. If a house was to be shown, the cameraman placed himself straight in front of it at such a distance that nothing would be left out of the picture. It was only gradually that the particular effects that can be achieved by means of perspective projection were realized.

In Chaplin's film *The Immigrant* the opening scene shows a boat rolling horribly and all the passengers being seasick. They stagger to the side of the ship pressing their hands to their mouths. Then comes the first shot of Charlie Chaplin: he is seen hanging over the side with his back to the audience, his head well down, his legs kicking wildly—everyone thinks the poor devil is paying his toll to the sea. Suddenly Charlie pulls himself up, turns round and shows that he has hooked a large fish with his walking stick. The effect of surprise is achieved by making use of the fact that the spectator will be looking at the situation from a certain definite position. The idea underlying the scene is no longer "a man is doing such and such a thing, for example, he is fishing or being sick," but "a man is doing this and that, and at the same time the spectator is watching him from a particular station point." The element of surprise exists only when the scene is watched from one particular position. If the scene had been taken from the waterside, the audience would have realized at once that Charlie was not being sick but was fishing; and hence the wrong idea would not have first been implanted. The invention is no longer concerned merely with the subject matter but is cinematographic inasmuch as a definite feature of film technique is being used as a means to secure an effect.

ARTISTIC UTILIZATION OF REDUCED DEPTH

Every object reproduced in film appears solid and at the same time flat. This fact contributes greatly to the impressive results achieved by the clever shots discussed in the last section. The worm's-eye view of a man appears as such a great distortion of nature because the depth effect is reduced. The same view looked at in a stereoscope seems much less distorted. The contrast between the vast bulk of the trunk and the disproportionately small head is much less forcible when it is perceived as being due to foreshortening. But if there is only a slight feeling of space and if the three-dimensional volume of the pictured object is flattened out, a huge body and a little head are seen.

The purely formal qualities of the picture come into prominence only because of the lack of depth. Every good film shot is satisfying in a purely formal sense as a linear composition. The lines are harmoniously disposed with reference to one another as well as to the margins. The distribution of light and shade in the shot is evenly balanced. Only because the spatial effect is so slight, the spectator's attention is drawn to the two-dimensional pattern of lines and shadow masses. These, after all, are actually the components of three-dimensional bodies and become elements of the surface composition only through being projected onto a plane. It has already been mentioned above how the skirt of a dancer seen through a pane of glass seemed to open and close like the petals of a flower. This is an entirely antifunctional effect in that it is not a normally characteristic feature of the skirt as a material object. The curious expansion and contraction of the edge of the skirt results only when it is looked at from one particular viewpoint and then projected upon a flat surface. It would be less noticeable in a stereoscopic view. Only when the feeling of depth is reduced does the up-and-down movement of the skirt give

the effect of being an in-and-out movement. It is one of the most important formal qualities of film that every object that is reproduced appears simultaneously in two entirely different frames of reference, namely, the two-dimensional and the three-dimensional, and that as one identical object it fulfills two different functions in the two contexts.

The reduction of depth serves, moreover, to emphasize the perspective superposition of objects. In a strongly stereoscopic picture of the manner in which these various objects are placed relative to one another does not impose itself any more than it does in real life. The concealing of certain parts of the various objects by others that come in front seems chance and unimportant. Indeed, the position of the camera in a stereoscopic picture seems itself to be a matter of indifference inasmuch as it is obvious that there is a three-dimensional space which may just as easily, and at the next moment probably will, be looked at from another point of view. If, however, the effect of depth is almost negligible, the perspective is conspicuous and compelling. What is visible and what is hidden strike one as being definitely intentional; one is forced to seek for a reason to be clear in one's own mind as to why the objects are arranged in this particular way and not in some other. There is no leeway between the objects: they are like flat surfaces stuck over one another, and seem almost to lie in the same plane.

Thus the lack of depth brings a very welcome element of unreality into the film picture. Formal qualities, such as the compositional and evocative significance of particular superimpositions, acquire the power to force themselves on the attention of the spectator. A shot like that described above where half of the girl's full face is cut off by the dark silhouette of the man's head, would possess only a fraction of its effectiveness if there were a strong feeling of space. In order to achieve the striking effect it is essential that the division across the face shall not seem accidental but intentional. The two faces must seem to be practically in one plane, with no leeway between them to show that they might easily be moved into different relative positions.

The fact that the lack of depth perception also leads to the almost total disappearance of the phenomena which the psychologist calls the "constancies" of size and form has already been discussed. The film artist takes advantage of their absence to produce remarkable effects. Everyone has seen a railway engine rushing on the scene in a film. It seems to be coming straight at the audience. The effect is most vivid because the dynamic power of the forward-rushing movement is enhanced by another source of dynamics that has no inherent connection with the object itself, that is, with the locomotive, but depends on the position of the spectator, or—in other words—of the camera. The nearer the engine comes the larger it appears, the dark mass on the screen spreads in every direction at tremendous pace (a dynamic dilation toward the margins of the screen), and the actual objective movement of the engine is strengthened by this dilation. Thus the apparent alteration in the size of an object which in reality remains the same size enhances its actual activity, and thus helps the film artist to interpret the impact of that activity visually. . . .

ARTISTIC USE OF THE ABSENCE OF NONVISUAL SENSE EXPERIENCES

People who did not understand anything of the art of film used to cite silence as one of its most serious drawbacks. These people regard the introduction of sound as an improvement or completion of silent film. This opinion is just as senseless as if the invention of three-dimensional oil painting were hailed as an advance on the hitherto known principles of painting.

From its very silence film received the impetus as well as the power to achieve excellent artistic effects. Charles Chaplin wrote somewhere that in all his films there was not a single scene where he "spoke," that is, moved his lips. Hundreds of the most various situations in human relationships are shown in his films, and yet he did not feel the need to make use of such an ordinary faculty as speech. And nobody has missed it. The spoken word in Chaplin's films is as rule replaced by pantomime. He does not say that he is pleased that some pretty girls are coming to see him, but performs the silent dance, in which two bread rolls stuck on forks act as dancing feet on the table (*The Gold Rush*). He does not argue, he fights. He avows his love by smiling, swaying his shoulders, and moving his hat. When he is in the pulpit he does not preach in words, but acts the story of David and Goliath (*The Pilgrim*). When he is sorry for a poor girl, he stuffs money into her handbag. He shows renunciation by simply walking away (finale of *The Circus*). The incredible visual concreteness of every one of his scenes makes for a great part of Chaplin's art; and this should not be forgotten when it is said—as is often done and of course not without foundation—that his films are not really "filmic" (because his camera serves mainly as a recording machine).

Mention has already been made of the scene from Sternberg's *The Docks of New York* in which a revolver shot is illustrated by the rising of a flock of birds. Such an effect is not just a contrivance on the part of a director to deal with the evil of silence by using an indirect visual method of explaining to the audience that there has been a bang. On the contrary, a positive artistic effect results from the paraphrase. Such indirect representation of an event in a material that is strange to it, or giving not the action itself but only its consequences, is a favorite method in all art. To take an example at random: when Francesca da Rimini tells how she fell in love with the man with whom she was in the habit of reading, and only says "We read no more that day," Dante thereby indicates indirectly, simply by giving the consequences, that on this day they kissed each other. And this indirectness is shockingly impressive.

In the same way, the rising of the birds is particularly effective, and probably more so than if the actual sound of the pistol shot were heard. And then another factor comes in: the spectator does not simply *infer* that a shot has been fired, but he actually *sees* something of the quality of the noise—the suddenness, the abruptness of the rising birds, give visually the exact quality that the shot possesses acoustically. In Jacques Feyder's *Les Nouveaux Messieurs* a political meeting becomes very uproarious, and in order to calm the rising emotions Suzanne puts a coin into a mechanical piano. Immediately the hall is lit up by hundreds

of electric bulbs, and now the music chimes in with the agitative speech. The music is not heard: it is a silent film. But Feyder shows the audience excitedly listening to the speaker; and suddenly the faces soften and relax; all the heads begin quite gently to sway in time to the music. The rhythm grows more pronounced until at last the spirit of the dance has seized them all; and they swing their bodies gaily from side to side as if to an unheard word of command. The speaker has to give way to the music. Much more clearly than if the music were actually heard, this shows the power that suddenly unites all these discontented people, puts them into the same merry mood; and indicates as well the character of the music itself, its sway and rhythm. What is particularly noteworthy in such a scene is not merely how easily and cleverly the director makes visible something that is not visual, but by so doing, actually strengthens its effect. If the music were really heard, the spectator might simply realize that music was sounding, but by this indirect method, the particular point, the important part of this music—its rhythm, its power to unite and "move" men—is conspicuously brought out. Only these special attributes of the music are given, and appear as the music itself. Similarly the fact that a pistol shot is sudden, explosive, startling, becomes doubly impressive by transposition into the visible, because only these particular attributes and not the shot itself are given. Thus silent film derives definite artistic potentialities from its silence. What it wishes particularly to emphasize in an audible occurrence is transposed into something visual; and thus instead of giving the occurrence "itself," it gives only some of its telling characteristics, and thereby shapes and interprets it.

Owing to its insubstantiality silent film does not in any way give the effect of being dumb pantomime. Its silence is not noticed, unless the action happens to culminate in something acoustic for which nothing can be substituted, and which is therefore felt as missing—or unless one is accustomed to sound film. Because of sound film, in the future it will be possible only with great difficulty to show speech in a silent way. Yet this is a most effective artistic device. For if a man is heard speaking, his gestures and facial expression only appear as an accompaniment to underline the sense of what is said. But if one does not hear what is said, the meaning becomes indirectly clear and is artistically interpreted by muscles of the face, of the limbs, of the body. The emotional quality of the conversation is made obvious with a clarity and definiteness which are hardly possible in the medium of actual speech. Moreover, the divergence between reality and dumb show gives the actor and his director plenty of leeway for artistic invention. (The creative power of the artist can only come into play where reality and the medium of representation do not coincide.)

Dialogue in silent film is not simply the visible part of a real spoken dialogue. If a real dialogue is shown without the sound, the spectator will often fail to grasp what it is all about; he will find the facial expression and the gestures unintelligible. In silent film, the lips are no longer word-forming physical organs but a means of visual expression—the distortion of an excited mouth or the fast chatter of lips are not mere by-products of talking; they are communications in their own right. Silent laughter is often more effective than if the sound is actually heard.

The gaping of the open mouth gives a vivid, highly artistic interpretation of the phenomenon "laughter." If, however, the sound is also heard, the opening of the mouth appears obvious and its value as a means of expression is almost entirely lost. This opportunity of the silent film was once used by the Russians in a most unusual and effective manner. A shot of a soldier who had gone mad in the course of a battle and was laughing hideously with his mouth wide open was joined with a shot of the body of a soldier who had died of poison gas, and whose mouth was fixed in death in a ghastly, rigid grin.

The absence of the spoken word concentrates the spectator's attention more closely on the visible aspect of behavior, and thus the whole event draws particular interest to itself. Hence it is that very ordinary shots are often so impressive in silent films—such as a documentary shot of an itinerant hawker crying his wares with grandiose gestures. If his words could be heard the effect of the gestures would not be half as great, and the whole episode might attract very little attention. If, however, the words are omitted, the spectator surrenders entirely to the expressive power of the gestures. Thus by merely robbing the real event of something—the sound—the appeal of such an episode is greatly heightened. . . .

1933

JEAN-LOUIS BAUDRY

Ideological Effects of the Basic Cinematographic Apparatus

At the end of *The Interpretation of Dreams*, when he seeks to integrate dream elaboration and its particular "economy" with the psyche as a whole, Freud assigns to the latter an optical model: "Let us simply imagine the instrument which serves in psychic productions as a sort of complicated microscope or camera." But Freud does not seem to hold strongly to this optical model, which, as Derrida has pointed out,¹ brings out the shortcomings of graphic representation in the area earlier covered by his work on dreams. Moreover, he will later abandon the optical model in favor of a writing instrument, the "mystic writing pad." Nonetheless, this optical choice seems to prolong the tradition of Western science, whose birth coincides exactly with the development of the optical apparatus which will have as a consequence the decentering of the human universe, the end of geocentrism (Galileo).

But also, and paradoxically, the optical apparatus camera obscura will serve in the same period to elaborate in pictorial work a new mode of representation, *perspectiva artificialis*. This system, recentering or at least displacing the center (which settles itself in the eye), will ensure the setting up of the "subject"² as the active center and origin of meaning. One could doubtless question the privileged position which optical instruments seem to occupy on the line of intersection of science and ideological productions. Does the technical nature of optical instruments, directly attached to scientific practice, serve to conceal not only their use in ideological products but also the ideological effects which they may themselves provoke? Their scientific base would ensure them a sort of neutrality and help to avoid their being questioned.

But already a question: if we are to take account of the imperfections of these instruments, their limitations, by what criteria may these be defined? If, for example, one can speak of a restricted depth of field as a limitation, doesn't this term itself depend on a particular conception of reality for which such a limitation would not exist? Contemporary media are particularly in question here, to the extent that instrumentation plays a more and more important role in them and that their distribution is more and more extensive. It is strange (but is it so strange?) that emphasis has been placed almost exclusively on their influence, on the effects that they have as finished products, their content, the field of the signified if you like; the

¹See on this subject Derrida's work "La Scène de l'écriture" in *L'Écriture et la différence* (Paris: Seuil, 1967).

²[The term "subject" is used by Baudry and others to mean not the topic of discourse—though this is clearly involved—but rather the perceiving and ordering self, as in our term "subjective"—TRANS.]