

# To Envision

Technical images are envisioned surfaces. When we look at a photograph with a magnifying glass, we see grains. When we get close to the television screen, we see points. It is true that the photograph is a chemical image and the television an electronic one and that we are dealing with different ways of structuring particles. But the basic construction of particle elements is the same. As long as there are still images that rely on chemistry (presumably not much longer), the way the problem of envisioning presents itself technically (and so also perceptually) in surfaces will be different from the way it presents itself in electronic images. The point is that all technical images have the same basic character: on close inspection, they all prove to be envisioned surfaces computed from particles.

One really does have to observe closely to see this. At first glance, technical images appear to be surfaces. Observing takes more than just looking, which explains why we have insight into hardly any of the many things we see. Technical images seem to be surfaces as a result of our laziness about close observation. This contradiction between looking and observing, between “superficial reading” and “close reading,” raises the familiar issue of the distance between the observer and the observed. I will try to show here that technical images are completely different from other objects that make up the objective world around us in terms of the way this issue presents itself.

The wooden table I am using to write this text is, on close observation, a swarm of particles and, for the most part, empty space. Its robust wholeness is an illusion. If my typewriter were to

fall through the tabletop, it would be an extremely improbable occurrence but in no sense a miracle. For this reason, I can bracket all awareness of the granular structure out of my writing and rely on my table's solidity. In the case of the table, the theory follows from practice; that is, the theoretical scientists who have calculated the quantitative structure of my table entered the picture much later and had nothing to do with my table's manufacture.

Yesterday I saw Mozart's opera *Così fan tutte* on television. On closer observation, I saw traces of electrons in the cathode ray tube. I cannot bracket out my knowledge of the granular structure of the visible image as I could with the table, however, for I owe this image to the theoretical scientists. They alone made yesterday's *Così fan tutte* possible. What I actually experienced as beauty yesterday required the calculations and computations of a close reading of the particulate universe. The theory precedes the practice of *Così fan tutte*, and without the theory, there can be no practice.

The examples of the table and the video image of *Così fan tutte* allow us to formulate what is meant here by the concept of "envision." It is meaningless to claim that the table's solidity is illusory, for it is actually solid, and its particulate composition would only become obvious after this solidity had been subjected to a series of abstractions. On the other hand, one could rightly claim that yesterday, I hallucinated a Mozart opera. For what I saw yesterday followed from a series of concretizations (calculations and computations) of abstract particles, and that is the reason I had a concrete experience yesterday. It was concrete because it had been visualized for me out of abstractions. *Envision*, then, should refer to the capacity to step from the particle universe back into the concrete. I therefore suggest that the power to envision first appeared when technical images were invented. Only since we have had photographs, films, television, videos, and computer screens have we been able to understand what it means to envision.

A closer look at technical images shows that they are not images at all but rather symptoms of chemical or electronic processes. A

photograph shows a chemist how specific molecules of silver compound have reacted to specific photons. A television image shows a physicist the paths specific electrons have taken in a tube. Read in this way, technical images are objective depictions of events in the particle universe. They make these processes visible, just as a Wilson chamber makes the trace of a particle visible. The objectivity of this visibility does present certain familiar problems for the theory of perception, however. For since the particle can only be seen when specific instruments (media) are in use, such as sensitive surfaces, cathode ray tubes, or Wilson chambers, the question whether these instruments themselves affect the phenomenon they seek to make visible becomes a problem.

Technical images are only images at all if they are seen superficially. To be images, they require that the viewer keep his distance. Had a physicist looked closely at yesterday's television image, *Cosi fan tutte*, he would have seen traces of electrons in the cathode ray tube. What the physicist's profound insight would have brought to light is the obdurate banality of the particle universe. I, on the other hand, having looked only superficially, have actually seen *Cosi van tutte*. Shall we praise superficiality, praise the power to visualize, condemn deep insight? "Art is better than truth"?

Incidentally, the theoretical scientists, these people of deep insight, did not actually produce yesterday's image but only made it possible. Technicians and envisioners made it, and they are superficial people. They pressed various buttons and, in so doing, unleashed processes into which they needed no deep insight, and so made it possible for me, pressing just as mindlessly on my buttons, to see *Cosi fan tutte*. What was going on in the various black boxes that linked me to the envisioners is a question for those with deep insight. If we are asking about the power to envision, we must let the black box remain—cybernetically—black.

That is to say, the inquiry into visualization has a strange (and new) mistrust of deep explanation, resulting in a strange (and new) contempt for depth as such. Scientific explanations and the technologies

that follow from them are essential to the power to visualize, and yet they have become uninteresting. For the explanations arrive at banalities. It is the concrete experience, the adventure, the information that the visualization communicates that is interesting. The explanation is abstract; it is the visualization that is concrete. This is exactly what is new in the emerging power to visualize, what is new about the consciousness that is dawning: scientific discourse and technical progress are seen as essential but no longer interesting in themselves, and we seek adventure elsewhere, in visual constructs.

The inquiry into visualization therefore needs to be transferred from the gesture of the one who presses the buttons to the consciousness of the envisioner, as I tried to do with regard to writing with a typewriter. And there we found that the gesture of pressing buttons is the same in both cases but that envisioning requires a different consciousness. For this is about opaque apparatuses, not transparent machines. Envisioners don't stand over apparatuses the way a writer stands over a typewriter; they stand right in among them, with them, surrounded by them. They are bound much more tightly to the apparatus than a writer to the machine. Envisioning is far more functional than writing texts. It is a programmed procedure. When I write, I write past the machine toward the text. When I envision technical images, I build from the inside of the apparatus.

This condition depends on two factors. First, envisioners press buttons that set events into motion that they cannot grasp, understand, or conceive. Second, the images they visualize are produced not by them but by the apparatus, and, in fact, automatically. In contrast to writers, envisioners have no need for deep insight into what they are doing. By means of the apparatus, they are freed from the pressure for depth and may devote their full attention to constructing images. A writer must concern himself with the structure of a text: for letters; for the rules governing the order in which the letters must appear (orthography, grammar, logic); and

for the phonetic, rhythmic, and musical aspects of the text. A large part of his creative, informative achievement consists of his handling of these structures. With the envisioner, it's completely different: he controls an automatic apparatus that brackets all of that out for him so that he is able to concentrate completely on the surface to be envisioned. His criteria as he pushes buttons are therefore superficial in two senses of the word: they have no connection to the more profound craft of constructing an image, and they have no concern with anything beyond the surface to be produced.

The envisioner's superficiality, to which the apparatus has condemned him and for which the apparatus has freed him, unleashes a wholly unanticipated power of invention. Images appear as no one before could ever have dreamed they would. And the photographs, films, and television and video images that surround us at present are only a premonition of what envisioning power will be able to do in the future. Only when we focus on computer-synthesized images, images of the nearly impossible because ungraspable, unimaginable, and incomprehensible, can we start even to suspect what sort of hallucinatory power is at hand.

Envisioners press buttons to inform, in the strictest sense of that word, namely, to make something improbable out of possibilities. They press buttons to seduce the automatic apparatus into making something that is improbable within its program. They press buttons to coax improbable things from the whirring particle universe that the apparatus is calculating. And this improbable world of envisioning power surrounds the whirring particle universe like a skin, giving it a meaning. The power to envision is the power that sets out to make concrete sense of the abstract and absurd universe into which we are falling.

This reflection permits us to define the position of the new consciousness, the power to envision. Envisioners stand at the most extreme edge of abstraction ever reached, in a dimensionless universe, and they offer us the possibility of again experiencing the world and our lives in it as concrete. Only through photographs,

films, television, video images, and, in the future, above all, through computer-synthesized images are we able to turn back to concrete experience, recognition, value, and action and away from the world of abstraction from which these things have vanished.

Given what has just been said with respect to envisioning, the current cultural revolution can be summarized roughly as follows. We are the first generation to command the power to envision in the strict sense of the word, and all vision, imagination, and fictions of the past must pale in comparison to our images. We are about to reach a level of consciousness in which the search for deep coherence, explanation, enumeration, narration, and calculation, in short, and historical, scientific, and textually linear thinking is being surpassed by a new, visionary, superficial mode of thinking. This is why we no longer see any sense in trying to distinguish between something illusionary and something nonillusionary, between fiction and reality. The abstract particle universe from which we are emerging has shown us that anything that is not illusory is not anything. This is why we must abandon such categories as true-false, real-artificial, or real-apparent in favor of such categories as concrete-abstract. The power to envision is the power of drawing the concrete out of the abstract.

Perception theory, ethics and aesthetics, and even our very sense of being alive are in crisis. We live in an illusory world of technical images, and we increasingly experience, recognize, evaluate, and act as a function of these images. We owe these images to a technology that came from scientific theories, theories that show us ineluctably that "in reality," everything is a swarm of points in a state of decay, a yawning emptiness. The science and the technology that developed from it, these triumphs of Western civilization, have, on one hand, eroded the objective world around us into nothingness and, on the other, bathed us in a world of illusion. And so it looks as though our historical development in the West has reached a final stage that does not look significantly different from a Buddhist worldview: a veil of Maya surrounds the yawning nothingness of nirvana. From

this standpoint, the powerful stream of Western history is about to empty into the ocean of the timeless Orient.

There is considerable evidence that such a suicidal view of Western society is justified. And yet this view largely overlooks what is significant in the current cultural revolution. That is, the visionary power that we are beginning to use and that we owe to technical images makes us capable of calculating and computing the whirring nothingness around us. Therefore our illusions are not things we should abandon to fall into nirvana but rather are quite the opposite, our answer to the yawning nothingness that threatens us. The veil of technical images that surrounds us, as similar as it may appear to an Oriental veil, challenges us to an engagement neatly opposed to the Oriental. Our veil is not to be torn but rather woven more and more closely. The following chapters are dedicated to looking at this increasingly dense mesh.