

Peter Weibel

INTERVIEWED BY MASAKI FUJIHATA (2005)

1.164-176

INCREASING APPARATIVITY

Media art started with the advent of photography. At the time, however, no one used the term media art; they only spoke of photography, and likewise when film and video first emerged, they were referred to as film and video, not as media arts. With the development of photography, film, and video, however, people gradually became increasingly aware of the role of machines, of apparatus, in the creation of these arts. Generally we now refer to any art produced with the aid of an apparatus as media art, whether that apparatus is the photo, film, or video camera, or, finally, the computer. We do make a distinction between photography and film, which we call old media, and what is now known as "new media" — that is, digital media, computer-based media. But all media arts, both old and new, belong to a larger category that we sometimes also designate as technological media.

These technological media are technological in two senses: technology, in the form of machines, is required to both produce them and to receive or perceive them. In other words, you need a film camera to produce a moving image and a film projector to see the image. The object in itself — the film — does not reveal much; in the case of digital media, it may reveal nothing.

The major distinction within the technical media between new media and old media is the degree to which machines are necessary. With photography, you need an apparatus, a camera, to take the photo, but looking at a photo is similar to looking at a painting. You do not need a machine to look at photography. The point is, the newer the media, the more machines are needed for production and reception.

It is important to note, however, that even painting and sculpture, which we tend to regard as non-technological arts — that is, arts created by hand — employ numerous tools that are indispensable in their creation. Before the appearance of the technological arts and the resulting change in awareness, we tended to ignore or devalue the role of apparatus in these arts because of the importance of the human hand in their creation, but apparatus were nevertheless crucial, in the form of tools such as paint brushes, hammers, chisels, and so forth. Still, only when the tool or apparatus reached the degree of prominence that it did in photography, which is inconceivable without the camera, did we begin to speak of media and photography as a medium. Eventually, this new way of looking at art made us aware that all arts are media, and now we speak of the medium of painting and the medium of sculpture just as we speak of the medium of video or film. We are now living in a post-media age, in which every expressive mode has become a medium.

Metaphorically speaking, art can be described as a tree, and the new media — computers and so forth — are a new branch that has suddenly sprouted on the tree. At first it seemed like a strange, even abnormal growth; it wasn't green, and it appeared artificial with its flashing neon lights and sounds. But in fact the new media is just a new branch of the classical tree of art.

At the same time, the new branch has also changed the tree. It no longer looks like it once did, which is why we can no longer look

at an older branch, such as the art of painting, as we did a century ago. Newer branches such as photography and computer-based media art force us to look at painting differently. The painters of today are strongly influenced by photography. Gerhard Richter is a good example. A wonderful postmodern painter like David Reed has learned from computer graphic programs, from their tools, their brush. When contemporary artists paint, they are influenced by film, by computer programs, by Flash programs, by graphic arts programs, and so forth. As a result, even the practices of such older media as painting are changing under the influence of the new media. We can see, then that all art is a kind of media, differing only in the degree of technicality, the degree of what I call *apparativity*, or how much apparatus is needed. There is less *apparativity* in painting, than in virtual environments, which require enormous *apparativity*.

RUPTURE VERSUS CONTINUITY

To those living during the period of the emergence of the highly technological media, the media requiring a high degree of *apparativity*, there seemed to be a vast rupture between the old, less technological arts and the newer, more technological arts. That apparent rupture — though in fact it was only apparent — came with photography and the twentieth-century machine. When photography was first invented, it was often said that a photograph was a picture made by a machine. The exposure time of some of the earliest photographs was as long as eight hours, so the photographer placed the machine in front of the object and came back in eight hours. This led to the idea that the machine makes the picture by itself, that photography happens automatically. In fact, in 1900 Kodak used to say: "You press the button, we do the rest."

At the time, that was a very threatening idea: that art could

be created by a machine. It seemed to place the artist's role and the conventional idea about how a painting is created, how any artwork is created, in jeopardy. The prevailing notion was that painting was the unmediated expression of the artist's soul. Of course this was not true, since the material quality of paint and canvas is what makes a painting a painting. We might even say that the paint does the painting — a fact that is especially clear in, for example, the work of Jackson Pollack. But at the time, the essentially romantic idea of the sovereign artist of classical Renaissance painting held sway (even though very few Renaissance masters painted an entire canvas, which was almost always the team effort of a large painting studio), and the prospect of a machine producing art, as in the case of the camera, threatened this notion and seemed to represent a dangerous rupture with the traditions of classical art. The reaction was to make a distinction between media such as photography and painting for ideological reasons, denigrating the former as automatic art that could not be worthwhile or meaningful since it was not created by human beings.

Let's return to the idea of the individual artist versus collaborative art, which I mentioned in passing above. The devaluation of the single hand, the sole and sovereign artistic genius, was also threatened by photography. In fact, as I said earlier, most painters of the classical period employed a team of assistants helping them, in effect collaborating with them. Nevertheless, only the master signed the painting, and the accepted notion was that he did it alone, that it was not a collective production. Admittedly, painters like Gauguin did paint alone, but Rubens, for example, and many other great masters had a workshop, a team, though the finished work was signed by the master alone.

Ignoring for a moment the fiction in many cases of the individual artist, let's compare this kind of painting to filmmaking. When you

make a movie with hundreds of people, you cannot say it is the work of a single individual. In addition to the director and author, who may or may not be the same, there are cameramen, actors, technicians — cinema is a collective experience and a collective creation. This became the second distinguishing feature of media art: not only was it produced automatically by machines but it was a collective creation. This was another ideological judgment against the new media — that it was somehow of lesser value because it was not the personal expression of a single gifted individual. The new media raised the question of authorship, further threatening the old idea of artistic sovereignty.

But when we look closely at the newer media, without the ideological blinders of the past century, we see that the artists of the new media are simply unfolding and developing ideas and themes that have been part of classic art. To return to the tree metaphor, they are a branch, not another tree altogether. There may be an apparent break on ideological grounds, but the evolution of the art itself displays remarkable continuity. Let me give you an example.

For example, let's say an artist suddenly realizes that he can combine sculpture and a machine. He makes a wire. He places a mechanism underneath it and rotates the wire. Suddenly he has a sculpture in motion — kinetic art. Naum Gabo, the Russian constructivist, was the first to do this in the 1920s and he even called it kinetic construction because he constructed the iron wire and attached it to a clock mechanism to rotate it. When the wire is rotated, we suddenly see a cylinder — an illusion created by the wire's motion, which is too fast for the eye to detect, resulting in the visual experience of a cylinder. At the time this was even called "virtual volume" — decades before the coining of the term virtual reality. A few decades later, in the 1950s, Jean Tinguely also made works he called virtual volumes.

Nor is there any genuine rupture between these developments in the 1920s and 1950s and the computer-based virtual reality of the present. The difference is primarily in degree of apparativity: the earlier virtual reality was machine based, while ours is digital-based virtual reality. For example, in the kinetic sculptures by Tinguely, you always have to press a button. That makes the sculpture shake, and then it starts to throw water or colors or colors on a screen, making a painting. The aspects of virtual reality were all there, but they were mechanical; now they are digital. The only rupture is a break in tools, the shift from a mechanical tool to a digital tool. The idea is the same.

For example, in participatory art, art that requires the participation of the viewer, there is a continuity between a figure like Tinguely and the digital art of today, also characterized by increasing apparativity. With one of Tinguely's machines, the viewer's participation was restricted to pressing a button. But with digital art, viewer participation is more complex, and the role of the observer's participation has become much larger — the participant is very busy, very engaged, very active. So again, while the degree of complexity is increasing, in a certain sense we are developing, we are unfolding ideas of classical art.

Incidentally, viewer participation can actually be traced all the way back to the classical period, to perspective. The viewer must stand at a certain point for the object to appear in perspective. When the viewer moves, the object goes out of perspective. Perspective is dependent on the observer. But the viewer didn't need a tool or an apparatus to perceive perspective; it was a mental operation. Now we have developed the interface, so we can go further, creating multiple senses of perspective. If the viewer looks in one direction, the object looks one way; when the viewer moves ahead, the perspective of the object changes. The idea is the same, it's just that

we now have the technology to unfold it, to articulate it in a more complex fashion. What we have done is develop the technology of participation to a much more complex level. Standing in front of a painting is no technology; pressing a button is low technology; an interface is high technology, high *apparativity*.

Some contemporary art critics complain that in spite of the complex *apparativity* of works of new media, the concepts behind them are not new, and thus they are inferior to works in the old media. This is ridiculous. The same people accept, even expect, a high degree of *apparativity* in every other aspect of their lives, but would deny it to art. Think of how highly evolved our medical technology, scientific technology, and even our entertainment technology are. But art, for some reason, should stay exactly as it always has been; art should be made by hand. This is demeaning to art: everything else in our lives should advance, but art should still be made by hand and only be looked at with the naked eye.

Why should art be an experience not of the level of our time? Why should art still be daubing on a cave wall? Artists have the same right to use the complex tools, machines, and methods of the rest of our civilization, or art will not survive and remain a part of the modern world. To oppose *apparativity* in art means to exclude art from the modern world. To say art is atavistic, an old-fashion activity, restricted to the hands, the emotions, the naked eye, is a very dangerous point of view

THEORY AS A CONSTRUCTIVE FORCE

Another thing that critics complain about is that contemporary art lacks theory. There are two aspects to theory. First, there is theory as integral to the art, theory as part of the artwork. If you do not understand the theory behind a Duchamp object — for example, a urinal — it appears to be very simple, even stupid. You see a urinal,

but what does it mean? You see a bicycle on a pedestal. In that sense, Duchamp's theory is an integral part of his objects, necessary to give them meaning. It is the existence of this integrated theory that makes the urinal more than an ordinary urinal, more than what you see. You cannot judge such art without knowledge, without theory.

The danger in contemporary art, however, is not that we fail to appreciate art because we don't understand its integral theory, but rather the opposite: the idea that theory can make anything into a good artwork. In that sense, theory has become a market strategy. The artist decides he or she needs a treatise by a famous writer or philosopher that explains to the world why his or her artwork is good, why it has value. So like everything else in capitalism, even theory has become a commodity — a means to add value to and sell a work of art.

But we do not need theories that simply validate what the market has already determined. If the market says that Gerhard Richter is a great painter, or Andy Warhol is the greatest artist of the twentieth century, we have no need for a theory that says the same thing. The market is already operating successfully without any theory. A theory must discover something that the market has not. The only justification for art theory today (though not at the time of Duchamp) is to explain something that the market does not understand. This is my belief. It is possible, of course, that the galaxy of artists identified by the market and a constructive theory may overlap in some cases, but the function of a theory should not be to simply legitimize the market's choices.

Theory must be constructive. It must discover artists not identified by the market. I approach this process of discovery with two questions in mind, with a methodology that is in fact very close to artistic practice: has this artist identified a new problem, has he, in the language of mathematical set theory, entered a new

problem field; or has he given us a new solution in an old problem, an old problem field. This is simultaneously an inherently artistic approach and a mathematical approach, a form of problem solving. I am myself an expert in set theory, so when somebody writes a paper about set theory, I can say, "This is nothing new" or "This is something new." The same is true if you are an art expert. You must be very knowledgeable, you need an archive of ideas, because only when you have such an archive, such a memory, are you able to identify new ideas, better ideas, new fields of problems, and new solutions. When you have no history, no memory, no experience, you cannot make an accurate judgment. Hackneyed things will appear good to you because you do not know they have been done before by other artists. This is what I mean by constructive theory. It has nothing to do with the market. As I said earlier, it is a form of creative problem solving.

A RETURN TO EXPERTISE

The most provocative aspect of the new media is that it represents a return to expertise. A work such as one of Duchamp's ready-mades — a urinal in an art gallery — or a monochrome painting, has a large body of ideas behind it, a complex theory integral to the work, but as pure technique it is simple. A ready-made is by definition ready-made; the artist does not produce anything. Rodchenko did not need great artistic craft or expertise to paint his red paintings of the 1920s. One of the commonplace criticisms of modern art is that anyone can do it. This is, in fact, true. Not anyone can *conceive* of the work, but just about anyone can *execute* it. Anyone can make Rodchenko's monochrome red painting, anyone can make a monochrome blue painting like those of Yves Klein. As Joseph Beuys said, "Everybody is an artist now."

As a result, people have grown accustomed to the idea that

art can be made without expertise, craft, specialized knowledge, or technique. But this is only true of modern art, and of a specific subset of modern art, and now we are leaving modern art, we are going beyond modern art and returning to expertise. This is the new challenge. You cannot make digital art without knowledge of the methods and technological expertise. The artist himself may not have the expertise, but somebody must have it, which is why many digital artists work with programmers. In this way, we are seeing a return of expertise, a return of technique, a return of craft. This represents a rejection of at least part of the ideology of modern art — though not of the art prior to modern art. Renaissance painters, for example, had to be accomplished experts in the craft of painting. Constructing perspective was extremely difficult, and painters such as Velazquez and Tintoretto required tremendous expertise to achieve what they did.

Suddenly with the emergence of Impressionism, this concern for craft and expertise was rejected. This is why there was such uproar when the first Impressionist works were shown, as a matter of fact. Impressionism heralded a breakdown of expertise, a breakdown of craft. But with the emergence of digital media, artists require a vast knowledge of tools and methods, and we are seeing a regeneration, a return of expertise. This is all a part of the need to go beyond modern art.

New art always stands on the back of the art that came before. It destroys its predecessors. There is even a book about Cézanne called *The Destruction of Perspective*. It was Cézanne who said, "I can master perspective, but I choose to destroy it. I make my own rules." And now we can say the same: it is time to destroy Cézanne, destroy Picasso, destroy Kandinsky. We need to make our own rules. It is important to be modern, really modern, not reactionary or backward looking. To be reactionary is to attempt to return to

or restore the past. We must not do this, we must not make art of low *apparativity*; we need even more *apparativity*. Modern society is media-based, machine-based, and information-based. And these are the tools we should use to produce art. To be reactionary is a kind of mannerism, a betrayal of the very foundations of art.

Media artists who go back to painting are betraying art. They are saying that there is something wrong with media art and that we need to return to painting. Video artists such as Bill Viola, depicting extreme emotions, expressions of grief and pain, are being reactionary, turning video back into painting. Unfortunately, this trend has enjoyed success, with the result that we are now facing a very critical moment in the art world: will we pursue these reactionary tendencies in video, or will artists become true media artists working in the conditions of the present, without repeating old patterns?

Unfortunately, most museum people, most curators seem to prefer media works that imitate old paintings. Therefore, new work is marginalized, true media work is marginalized, and, relegated to the margins, these artists do not gain the attention they need to inspire followers. Young artists imitate the successful artists — the artists who make money, have many exhibitions, are famous, are in the Tate Modern.

As a result of this Diaspora of truly original talent, a reactionary trend is prevailing. Artists are even starting to tell stories again, to make psychological works of art! We are actually seeing media artists depicting psychological problems — something that literature left behind decades ago, with the *Nouvelle Romain* and Samuel Beckett. We have no psychological novels anymore, no psychological paintings, but now media artists are returning to telling stories, video is devolving to that primitive state, becoming like commercial cinema.

EVOLVING MODES OF PERCEPTION AND MUSEUMS

Another very interesting new problem is the increased amount of time that the viewer must commit to viewing media art, as compared, for example, to a painting or sculpture. The typical museum visitor might spend, say, five seconds in front of a painting, but a work of media art may require a minimum of five minutes of attention. This is a problem that cannot be solved immediately; it will require time and the evolution of our consciousness and behavior patterns. For thousands of years, the image has been defined as a form of space, because an image is a two-dimensional thing. But now the image is a moving image. It is the cinema. The image is becoming time, it is becoming like music, "the art of time." People accept sitting in a concert for two hours because everybody knows when you go to hear a symphony, you cannot begin chatting after three minutes. But we have not yet developed this consciousness about media art. We have two thousand years of tradition and habitual behavior that regard the image as a part of space, and the evolutionary shift will take many, many years. When it comes, people will accept the idea that they have to sit down in front of installation as if it were a piece of music.

Museums need to change to promote and, eventually, accommodate this new development in the transformation of the image from a function of space to a function of time. The original shape of the museum is a kind of passage, in which the viewer sees one image at a time, in a sequence. But now we have transcended such simple sequences in our daily lives. We multitask, we like to say. Children, for example, tend to be involved to varying degrees with televisions, radios, books, computers, and toys, all at the same time. Our houses have all of these appliances, these apparatus, and they are often in use simultaneously. The museum will have to become a home, in which the viewer does several things at the

same time: you read a book, you watch TV, you surf the web, you interact with family members. The museum will have to abandon its boxes that isolate viewers and allow them to see and do only one thing at a time. The artists will have to relinquish this control mechanism, too. Artists want the attention of viewers exclusively focused on their work, without any interference from other sensory data. But that is no longer possible. Such dictatorship by the artist is over. We need to leave behind the closed, isolated boxes in favor of open space, where people can engage in a kind of multitasking, multisensory perception. We must follow the audience, or the audience will not follow us.

Pierre Boulez

INTERVIEWED BY
PHILIPPE PARRENO
AND HANS-ULRICH OBRIST

PHILIPPE PARRENO: At what point did you intuitively sense, as a composer, that you needed to invent your own production tools? Jaron Lanier, who invented virtual reality, which has become the great metaphor we're all familiar with, is a musician. He only really came up with virtual reality, in the beginning, by imagining that he was creating a musical instrument. In a certain way, you were the first to initiate this kind of practice. So, at what point did such intuitions make themselves felt?

PIERRE BOULEZ: I started thinking about this kind of thing after 1948, because Pierre Schaeffer had asked me to help him with some recordings, he wanted a certain number of chords so that he could play around with them. He had set up his little studio in the rue de l'Université. To see how these practices developed — this was the real beginning. I had been part of his *musique concrète* group in 1951 and 1952. I realized pretty swiftly that it was really just tinkering, supposedly poetic; but, in the end, with the poetic, I find people cover up a lot more than they uncover or discover — with that kind of poetics, anyhow. It got to the point where I opted out. After that, in 1958, through Stockhausen, I got in touch with the Studio for Electronic Music