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Synthetic Times

A. Past and Present Media Art

1. Anti-Illusion: Media Art in the 1960s and 1970

In 1969 an exhibition was held at the Whitney Museum of American Art with the significant title *Anti-Illusion: Procedures/Materials*, at which works of Andre, Asher, Benglis, Morris, Nauman, Reich, Ryman, Serra, Snow, Sonnier, Tuttle and others were shown. This exhibition summed up an important tendency of the neo-avant-garde, but especially of the media avant-garde (photo, film and video). The 1960s saw a paradigm change from illusion to anti-illusion. All the achievements of the avant-garde of the 1950s and 1960s drew on the development of materials of the particular medium and its dispositiv respectively apparatuses. The inner world of materials, from color to photographic paper, and the apparatus (from brush to camera) formed the directives for the development of processes. Processes of materials, whether of lead, felt, fat, oil colors, water, ice, air, fire, earth, etc., shaped the form and non-form of the picture or the sculpture. These processes of materials replaced the work of art as a product. From avant-garde music, Fluxus and happenings through Action Art, Body Art and Arte Povera to Land Art, Process Art and Conceptual Art, artists have been testing the possibilities and options of materials, in order to create from these their ephemeral works. This obsession with materials not only went along with a refusal of illustration and representation, but was in general characterized by the gesture of the Enlightenment and anti-illusion. Avant-garde film and the avant-garde of electronic arts in particular proceeded from the apparative conditions and materiality of film, from the conditions of perception, of projection, of the movie theater, the celluloid, etc., and developed from these “structural film”, “material film” and “expanded cinema” (Hollis Frampton, Tony Conrad, Paul Sharits, Steina and Woody Vasulka, Michael Snow, Peter Gidal, Peter Weibel, etc.). Avant-garde film and with it media art, formed, so to speak, the vanguard of this avant-garde of anti-illusion, and it also then gained entry into the classical art forms of painting and sculpture in the 1960s.

The 1960s thus formed a watershed between the epoch and practice of illusion and the epoch and practice of anti-illusion. In the 1970s, the art of anti-illusion came to an end in the public consciousness, for in the 1980s the painting of illusion ruled the roost. Under the pressure of the mass media, which had developed into the central site for the generation of illusion, the avant-garde favored all the more vehemently destruction, deconstruction and anti-illusion, the exit from the picture. With the return of figurative and expressive painting, illusion too returned to the realm of art. The reward was momentous: the mass media, being illusion media as well, passionately applauded to this new painting and covered this phenomenon excessively. The tabloids and illustrated magazines thanked art that they no longer were the sole players in the theater of illusion, and that the artist had shown himself to be a fellow actor on the same stage. Thus the art of the 20th century can be squeezed not only into the binary oppositions of figurative and abstract, material and non-material, representational and non-representational, but also into that of illusion and anti-illusion, in which the avant-garde defined itself as anti-illusionary.

2. Allusion: Media Art in the 1990s

It was the media artists of the 1960's and 1970's (avant-garde film and video art) who were mainly responsible for the anti-illusionary mentality, and after their bitter experience that the return of the art of illusion in the painting of the 1980s pushed them to the sidelines, marginalized them and in many cases even wiped them out, the younger generation of media artists of the 1990s learned their lesson. They no longer placed themselves in the anti-illusionary tradition of the media avant-garde, because they saw in this tradition the cause of the avant-garde's failure, but rather directly in that of mainstream illusion, for example of Hollywood films or music videos, which these artists then appropriated or deconstructed with the techniques which they took from the media avant-garde of the 1960s and 70s, like the slowing down or acceleration of shots etc. The names of Pipilotti Rist and Douglas Gordon may be named here for such tendencies. This tendency to illusion is the real cause of the narrative trend of the media art of the 1990s, of that triumph of the eye, which places itself at the service of the storyteller. Yet instances of resorting to the avant-garde as well as to forms of the mass entertainment industry are so numerous and mixed that it would be wrong simply to assign the younger generation to the realm of the dream

factory. Precisely through the mixture of practices of narration and illusion, as we know them from the mass media of film and television from psycho-dramas to talk shows, with the practices of anti-illusion and anti-narration, a new practice has in the best cases arisen, which we would like call “allusion”.

The media generation of the 1990s assumes that every viewer already has a library of visual experiences, fed by the mass media from films to billboards, stored in his head. On this visual conditioning their works draw directly or indirectly. They don't need to tell names, because the viewer knows who is meant. They need only briefly suggest topics, places, subjects, and the viewer knows what is being spoken of. Mere hints, explicit or symbolic, elliptical or concealed references, are sufficient to charge the images with meaning and significance. Little is mentioned explicitly, and the story is still comprehensible. This universe of multiple references is that of the famous post-modernism, from architecture to music, from art to film. Quentin Tarantino's *Pulp Fiction* (1994) is a classic example of these numerous references to the visual experience of the film-goer. The charm of these references is that they form a common set of assumptions possessed by both viewer and author. *Supposé* is the key word of the aesthetic of allusion. It is assumed, it is presupposed, that the viewer knows this and that.

An aesthetics of the “given”, which assumes and presupposes has become the central dogma of a whole visual culture. In the post-modern universe of allusion it is assumed of any viewer that he knows all the images, and the charm of the reaction lies in the reference to these images, in the deliberate disappointment of expectation, in the deliberate parallelity and conformity, or in the deliberate omissions and ellipses (see Pierre Huyghe's film *L'Ellipse*). This allusive technique permits the Scylla and Charybdis of illusion and anti-illusion, of narration and anti-narration, to be circumnavigated. The author can narrate, but through the allusive techniques (not naming names, of indirect references or of covered-up identities) he can also rupture the narrative. The author can illustrate figurative and concrete scenes, but through the allusive technique also lend them a degree of abstraction and unreality. The methods of allusion thus allow the artist to regulate the degree of narration and anti-narration, of figuration and abstraction. In this way it is possible to create works animated by an incredible pleasure in story-telling, by an excessive urge to jump into

the thick of a narrative plot, into the flesh of a story, and at the same time to make visible the bones of its structure and the grid of its script. The techniques of allusion permit stories about the state of the world – for example, by Gillian Wearing, Sam Taylor-Wood, Aernout Mik – that at the same time continue the anti-illusionary and conceptual tendency of the media avant-garde.

3. Scripted Method: Contemporary Media Art

Contemporary media artists show the mass media as a part of the world and as a part of the eye and of the camera with which the world is viewed. The allusive eye tells of the media and of the world, and its artists tell of the world in other ways than do the mass media. These are dismayed views and dismayed images into the global illusion of neo-liberalism. These are images of an art whose visual vocabulary has a high degree of complexity. This complexity is the core of allusion. The danger of anti-illusory art was simplicity and tautology. The dangers of allusory art are complexity and mannerism, but never the flight from the world or the flight from the viewer. The allusive technique of narration in the visual media signifies a further development of the literary plot and almost a break with it, with the literary structuring of a narrative. The visual narrative does not follow the arc and path of a verbal narrative. Nevertheless, the allusive narrative follows a script. It could be said that the media art of the 1990s up to the present follows a script, is scripted. It does not follow the plot of a story. A story is something other than a script. A script means rules or codes. There are today not only dress codes, but also codes of behavior; not only a code of honor, but above all codes of articulation. In the mass media, in politics, in TV news, we experience daily the subtleties and finesse of the code of articulation, how something is formulated. How something is said is more important than its content. The content is precisely how something is said and with what words. News is scripted, behavior is scripted, the world, especially politics, follows a script, an allusive script, where names are not mentioned, where references are indirect, where what is most important is not explicit, where information is concealed, where much is only assumed. This scripted world corresponds in art to the scripted method. An aesthesis of assumption is supposed to uncover a world of assumption respectively. The essence of allusive media art consists of offering the artist the possibility of rendering the script of the world recognizable through his own script. Ideally, the

allusive eye should make the script of the world visible. Ideally, the allusive narrative should counter this script, or create better, truer, profounder narratives about the world.

4. Re-enactment and Reference instead of Representation in actual Media Art

Contemporary Art is characterized by the fact that, after abstraction, which had neglected the reference to the object worlds, it did not establish a new concreteness but new references on aesthetic, scientific, economic and political systems. By using these systems as references they become reference systems. Reference systems thus replace reality. Art refers lately to reference systems and is therefore becoming a reference system itself. One can assume that art of the 20th century was influenced mainly by the reference system photography. We see that a technical medium is the primary source of reference when we want to follow up the old conflict of paradigms. Warhol's or Richter's paintings refer to photographs, in particular to photographs from art history books or the mass media. Even sculpture refers to photography. And contemporary video art refers – as Pop-Art in the 1960s – on popular references like Hollywood films, newscasts, quiz shows, reality TV, video clips, and is quite successful with this. The arts treat each other reciprocally as reference systems. For this reason all arts are becoming media. This is the greatest success of media art. Reality is perceived in the mirror of reference systems, mass media and media of arts. A special case is the segment of **acquiring** reality in **performing** as in re-enactment. This is the latest trend in media art. We all know that the real incidences, actions or data in text or images are passed on by history. In a critical and educational position we know, that verity and authenticity is lost by the transmission from the incident in its description, or in other words, by the transfer from reality to representation. History is a great amount of stories which are conducted by the interest of the narrators. History is a myth, fiction, illusion, simulation, construction, lie. When the images of history, which are saved and stored in photographs and films are retroced into action, the lies of representation are displayed as the truth of reality. Medial fiction is becoming authenticity because of retrocession. The conciliated with all its defects is becoming the truth of the immediate by the performance. Contemporary media art thinks that it could escape the complex world of media by stepping into the simple world of senses. By playing theatre as if it was

reality – and not expose reality as theatre – media art described simulation as reality, but without knowing, it is still is a prisoner of simulation and the media world. A complement to reality TV would be reality art. Re-enactment means to get back to an illusion which pretends to be reality.

B. Present and Future Media Art

1. *Techné - Epistemé*

In the *Nicomachean Ethics*, Aristotle (384-322 BC), son of a Macedonian doctor and teacher of Alexander the Great, made his well known distinction between *techné* (practical skills, craft and art) and *epistemé* (cognition, knowledge). Knowledge in its various forms (*epistemé*) comprised rhetoric, arithmetic, geometry, astronomy, dialectics, grammar and music theory. These were reserved for the community of free citizens. Technical knowledge (*techné*) was a matter for the unliberated, for wage labourers and craftsmen (*technites* or *banausos*).

Aristotle made no attempt to disguise his contempt of craftwork (*techné*). He regarded the status of craftsmen as one bordering on slavery. For this reason it was impossible to consider craftsmen as true citizens. Aristotle expounded the view that the sons of 'free' citizens should refrain from taking too great a part in useful activities which could drag them down to the level of the *banausos* because craftwork impeded the state of mind and common sense that free citizens required in order to exercise and apply virtue. In his opinion, the arts and crafts (*techné*) had a detrimental effect on the body's physical condition and robbed the mind of the respite it required for sound reasoning. Useful things ought to be taught only to the extent that they formed the basis for higher things. Music was to be listened to for pleasure by free adults, not to be played by them, for music-making had a hint of the lowly arts and crafts about it (*banauson*) and was therefore an undignified activity for a free man. In other words, society required people who would master a craft or trade (*techné*) as wage laborers or slaves, but only in the service of others – to help the latter experience pleasure, for example, or to allow them to carry out more sublime activities.

To understand this hierarchy of different forms of knowledge, it must be remembered that Aristotle was an advocate of class rule rather than democracy. In his opinion, the rule of an individual (the monarchy), the rule of a few (the aristocracy) or the rule of

the many (the polity) were superior organizations of government which served the common good. 'Misguided forms of government arise when tyranny replaces the monarchy, oligarchy the aristocracy and democracy the polity. For tyranny is an autocracy, an exclusive form of rule which is for the benefit of the sovereign, oligarchy a form of rule for the benefit of the rich and democracy one for the benefit of the poor. Yet no-one thinks of the benefit of all...' By proposing a mixture of polity and aristocracy, he attempted to neutralize the dangers of the two extremes (democracy and oligarchy). Hence Aristotle produced a commensurability of the aesthetic and social order. The hierarchy of the class society served as the foundation for the hierarchy of the arts and sciences. The sciences (*epistemé*) ranging from arithmetic to rhetoric were for free citizens. The arts (*techné*) ranging from architecture and agriculture to painting and sculpture were for the unliberated.

2. Artes liberales - Artes mechanicae

The Romans adopted Aristotle's distinction but added one significant shift to it. Instead of distinguishing between forms of knowledge and craft, between cognition and general knowledge or between the experts and the *banausos*, they now placed the Aristotelian distinction in the notion of the arts themselves. *Epistemé* and *techné* became *artes*. The distinction between *epistemé* and *techné* was replaced by the distinction between the *artes liberales* and the *artes mechanicae*. The forms of knowledge ranging from arithmetic to rhetoric became the *artes liberales*. The forms of craft that ranged from architecture to agriculture became the *artes mechanicae*. The commensurability of the aesthetic and social order continued to form the foundation of a hierarchy of the arts and artistic skills. What we know today as the sciences formed the *artes liberales* of the past.

In Roman times the study of the *artes liberales* formed the subject matter of a non-vocational higher education which befitted the free citizen. This is why we speak of the liberal arts for the free citizen. The seven liberal arts (grammar, dialectics, rhetoric, arithmetic, geometry, music theory and astronomy) also formed the curriculum of the monastic and convent schools, and, from the 13th century, of the universities. The *artes mechanicae* (architecture, painting, sculpture, agriculture) continued to be derided as *banausoi technai* or *artes vulgares et sordidae* for the unliberated, for wage labourers and slaves.

3. The Contest between the Arts

It was not until the emergence and rise of the middle classes or bourgeoisie that painting, architecture and sculpture were finally promoted to the ranks of the liberal arts (*artes liberales*). Around 1500, architecture, sculpture and painting had an equal share in the emancipation of the fine arts or *artes mechanicae* as they were known at the time. The term 'paragone' in art history refers to the 'contest between the arts' which developed in the modern age. Soon the debate on the order of precedence of the arts began. Above all, painting and sculpture found themselves in direct competition with each other, as we see firstly in the writings of Leonardo da Vinci, who argued explicitly in favor of painting. While painting advanced its merits in terms of its illusionist qualities, its inventiveness and the possibilities it held for imitating nature through the means of perspective and colour, sculpture referred to its multiple dimensionality, its haptic qualities and materiality. Painting, in the latter view, dealt merely with appearance, whereas sculpture actually embodied reality. The sculptor Turbolo expressed the argument most succinctly in a letter to Benedetto Varchi in the 16th century: 'A me mi pare la scultura sia la casa proprio, la pittura sia la bugia' (It seems to me that sculpture is how things actually are and that painting is a lie). Painting for its part derided sculpture as a dusty metier of the craftsman, which did not even come close to the intellectual achievement of painting. Thus painters used the old craftwork (*techné*) argument to disparage sculptors.

The old *artes liberales*, once the sciences, today have become painting, sculpture and architecture, and in place of the old *artes mechanicae* we now have applied art and media art. Theory and science used to form the arts of the free citizens. The 'mechanical' arts of the craftsman used to be the arts of the unliberated, the waged labourer and slave. This aesthetic division, which corresponds to the Greek segregation of the classes, has been translated into the value judgements we have of the 'arts' and the 'media arts' today. We devalue media artists by regarding them as mere exponents of technical reproducibility limited to the horizons of a machine and by assigning primacy to painting as an anthropomorphic principle and/or form of production.

The scant regard accorded to productive crafts and trades in ancient times is now directed at automation and the machine. The place of the mechanical arts has been

taken by the media. In principle, the difference between the *artes liberales* and the *artes mechanicae* resulted from the assumption that the one was regarded as an activity of the mind and the other as an activity of the body. The contempt felt for the work of the craftsman has been replaced by the contempt for machine- and media-generated production.

As a form of production generated by the human hand and guided by artistic intuition, painting nowadays has been assigned precedence over artworks which are produced or reproduced using technical means. Whereas original works of painting are in the service of the upper classes, the lower classes are fobbed off with photographic reproductions, prints and postcards, etc., of the famous originals. Even today, the ostracising of the *artes mechanicae* continues to be felt in the case of artworks produced with the aid of the electronic media.

A glance through contemporary books on art history reveals that the media arts continue to be held in contempt. Right up to today, they have been unable to shake off completely the stigma attached to their origins from being associated with the practices of the unliberated and with the mechanical arts.

Hence the liberation of the so-called lower orders can be gauged from the processes of transformation, which the arts themselves underwent. However, the lower orders owed their emancipation less to the arts than to the natural sciences and the spirit of the Enlightenment, which wanted to release people from two forces of violence, forces of social coercion, i.e. from the chains of disempowerment which had been forged by the nobility and the church, and from the power of nature. The natural sciences allied themselves with the mechanical arts (*techné*) in order to, with the help of instruments, devices, laboratories, technical skills, knowledge and expertise, discover the laws of nature and to speed up the development of mechanisms that could master the forces of nature. While one artistic movement such as Romanticism was opposed to the Enlightenment, others joined forces with it to improve *la condition humaine*. We are in a similar position once more today. The intention is for our fields of knowledge to be extended and driven forward through an alliance of the mechanical media arts with the natural sciences, and hence for platforms and practices of democratic processes to be created with the aid of new technologies and methods.

5. The Doctrine of the *Encyclopédie*

From 1751 to 1780 Denis Diderot and his collaborator Jean le Rond D'Alembert published the 35 volumes of the *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers*, the most significant editorial undertaking of the French Enlightenment, the 'opening chapter of the revolution' (Robespierre), which was officially condemned by Pope Clemens XIII after the publication of Volume 7. The cream of the French Enlightenment, Voltaire, Rousseau, Condorcet and Montesquieu, gave the *Encyclopédie* its anti-clerical and anti-absolutist character, the centrepiece of the democratic revolution.

D'Alembert (1717-1783) wrote the *Discours préliminaire de l'Encyclopédie* in 1751. He did so in the wake of Bacon, Newton and Locke. For him, mathematics and physics formed the foundation of all knowledge, including the theory of society. Neither religion nor biological organisms constituted a basis for models of community life; instead, the spheres of *ratio* – reason – and the natural sciences served as a foil for the spheres of politics and art.

But above all the *Encyclopédie* was the great service of Diderot, who focused his attention on the *arts mécaniciens*, the crafts, and on technology as the *langue des arts*. The sections Diderot wrote about the mechanical arts account for the largest part of the *Encyclopédie*. In his search for a systematic understanding of the mechanical arts he called for a debate on the arts and the integration of the mechanical arts into the liberal arts and sciences. Diderot wanted to abolish the distinction between the *artes liberales* and *artes mechanicae* as a device of class society; he wanted to change society by emancipating the mechanical arts. By improving the mechanical arts he wanted to improve the social status of the citizen. In his opinion, the distinction between the free and the mechanical arts had degraded mankind. He was all for extending the field of the social protagonists, for a wide distribution of knowledge and for the development of tools, machines, models and instruments in the interests of progress. He published the findings of his research in the *Encyclopédie* in order to bring about a social transformation. Above all, he pinned his hopes for changing and improving society on the dissemination of knowledge about the mechanical arts. Technology, he believed, would help to restructure society. So it was not from the arts of painting and sculpture that he expected to see substantial contributions to the development of a free society, but from the mechanical arts. Knowledge of the mechanical arts would lead to a rational and fair

society, just as we hope to find the same kind of society today in modern media arts and technologies such as the Internet. Experimental politics and experimental media art are supposed to support each other: in Diderot and in the agenda of the Enlightenment we find an interest in integrating the separate representational fields of science, art (the mechanical arts) and politics. The Enlightenment and Diderot regarded the mechanical arts, technology and science as the foundation for enlightened politics.

5. The Equality of Materials and Media

A 'culture of material' emerged in the 1920s, especially in Russia where it revolved around Vladimir Tatlin. Tatlin linked the application of pieces of wood and paper in the Cubist pictures of Braque and Picasso to the tradition of materials used in Russian icons. Kurt Schwitters and the Bauhaus movement added both abstraction as a language of form and new materials to the field of painting. Consequently, the manifestoes of the time called for the equality of all materials. This is why the most outstanding representatives of the avant-garde in the 1920s worked simultaneously as painters, sculptors, photographers, film-makers, designers and architects. They developed a visual language which could be applied in universal contexts from panel paintings to architecture or from a two-dimensional surface to a three-dimensional space. By doing so they laid the foundations for an end to the contest between the arts and to the start of equality among each of the artistic genres.

Hence the first phase of media art centered on achieving the same artistic recognition for the media of photography and film as was enjoyed by the traditional media of painting and sculpture. In particular, much of the work during this phase was directed at exploring the idiosyncratic media-specific (material immanent) worlds of the respective medium. In the case of photography at least, the battle for recognition as an artistic medium was won some 150 years after it had been invented. The same contest between the arts has also taken place with the new media of video and digital art, because media works are attracting more attention than ever before at major international exhibitions. So tentatively at least, we can speak of equality among all the media and genres.

6. The Post-Media Condition: The Script of Media

Just like the case of the old technical media of photography and film, the pivotal successes of the new technical media consisting of video and computer are not just that they launched new movements in art and created new media for expression but that they also exerted a decisive influence on historical media such as painting and sculpture. To this extent the new media were not only a new branch on the tree of art but actually transformed the tree of art itself. Here we have to distinguish between old technological media (photography and film) and new technological media (video and computers) on the one hand and the arts of painting and sculpture on the other. Until now, the latter were not considered to be media at all. Under the influence of the media, however, they came to be regarded as such, i.e. as non-technological old media. With the experiences of the new media we can afford to take a new look at the old media. With the practices of the new technological media we can also embark on a fresh evaluation of the practices of the old non-technological media. In fact we might even go so far as to say that the intrinsic success of the new media resides less in the fact that they have developed new forms and possibilities of art, but that they have enabled us to establish new approaches to the old media of art and above all have kept the latter alive by forcing them to undergo a process of radical transformation.

After photography, for example, emerged to rival the production of paintings which faithfully depict reality in line with our perceptions, and even had the audacity to promise - quite legitimately as it turned out - that what it depicted was far closer to reality, painting was eventually obliged to retreat from the representation of the world of objects after a 50-year long struggle and to concentrate on depicting its own idiosyncratic world (i.e. surface, form, colour and the properties of materials and technical devices from the frame to the canvas). Its triumph in doing so is evidenced in the abstract painting of the first half of the 20th century. The fact that painting went back once more to creating pictures of the world of objects in the second half of the century (from Pop Art to Photo-realism) was a development that referred directly to photography. If, in the world prior to photography, painting was based directly and immediately on representing the world of objects, then object-based painting after the invention of photography came to refer solely to the world of objects as it was depicted by photography, i.e. to object-based and figurative photography. But it is not just the experiences with film and photography, which have led to an exchange with

painting: digital 'Paint' programs and the experience of working directly on the computer and the screen have given an unmistakably fresh impetus to painting. Significantly enough, they have also kicked off a new form of computer-derived abstraction in painting. Yet it is not just the western program of visual images, which has changed through the influence of the technological media: the program of sculptures has obviously been transformed, too. We can recognize the dominating influence of computer algorithms and 3-D programs right down to the field of architecture. We could therefore be tempted to ask whether the effects of the new media on the old media have actually been more successful than the works of the new media themselves. The central *movens* and the central agendas of 20th century art: the crisis of representation, the dissolution of the traditional notion of artwork and the disappearance of the author – all these factors are due to the emergence of the new media. The radical turn towards the culture of reception, which occurred in the 20th century, the explosion of the visual in art and science, the *pictorial turn* (as well as the *performative turn*), are all consequences of the new media.

All of the artistic disciplines have been transformed by the media. The impact of the media is universal. The media paradigm embraces all of the arts. The computer's claim to be a universal machine, as Alan Turing called his computer model in 'On Computable Numbers', a paper he wrote in 1937, is being fulfilled by the media. Just as many scientists today dream of a computerized model of the universe, of a perfect presentation of the universe based on digital computations, artists today also dream of a computerized model of art, of a kind of art which can be completely created through digital computations. This computational way of thinking, the impacts and successes of which have already captured the entire world - for airports, factories, railway stations, shopping centers or hospitals, etc., would be helpless without computers or calculators - is now complemented by the parallel emergence of the "computational arts" (Heidegger) whose aim it also is to capture the entire world. And indeed, the impacts and successes of the computational arts, which we can observe follow precisely in the tradition we have just described: they, too, are transforming all of the practices and forms of art. The computer, as it were, can simulate not only all forms and laws of the universe, not only the natural laws; it can also simulate the laws of form, and the forms and laws of the world of art. Creativity itself is a transfer program, an algorithm. From literature to architecture, from art to music we are

beginning to see more and more computer-aided transfer programs and instructions, control mechanisms and guidelines for actions. The impact of the media is universal and for that reason all art is already post-media art. Moreover, the universal machine, the computer, claims to be able to simulate all of the media. Therefore all art is post-media art.

This post-media condition, however, does not render the idiosyncratic worlds in the world of devices or the intrinsic properties of the media world superfluous. On the contrary, the specificity and idiosyncratic worlds of the media are becoming increasingly differentiated. Total availability of specific media or of specific properties of the media, from painting to film, is only possible in the post-media condition. For example, the computer is better at simulating and defining a particular degree of granulation on a reel of 16mm film than a real film could ever achieve itself. The digital simulation of the notes of a flute sounds more like a flute than the notes a flute player could ever coax out of a real flute. Likewise, the computer is even better at simulating the flickering of the writing if there is a tattered perforation on the reel of film than reality itself, and the same goes for the notes of a prepared piano. It is only thanks to the post-media computer, the universal machine, that we can realize the abundance of possibilities, which resides in the specificity of the media.

Nowadays all of art practice keeps to the script of the media and the rules of the media. This notion of the media comprises not only the old and new technical media, from photography to computers, but also the old analogue media such as painting and sculpture, which have been transformed and influenced under the pressure of the technical media. This explains why we can rightly say that all of art practice keeps to the script of the media.

The art of the technical media, i.e. art, which has been produced with the aid of a device, constitutes the core of our media experience. This media experience has become the norm for all aesthetic experience. Hence in art there is no longer anything beyond the media. No-one can escape from the media. There is no longer any painting outside and beyond the media experience. There is no longer any sculpture outside and beyond the media experience. There is no longer any photography outside and beyond the media experience. It is precisely the photographers who submit photographs to the digital media and manipulate or enhance images on the computer screen which were originally taken by the camera

that provide the most convincing and astounding photographic portraits; they are the most convincing and quintessential of all photographers. The photography of model and miniature worlds is a kind of physical modelling, a digital simulation technique.

This post-media condition is defined by two phases:

1. the equivalence of the media and
2. the mixing of the media.

The first phase was about achieving equivalence of the media, about establishing the same artistic recognition for the New Media - photography, film, video, digital art - as has been enjoyed by the traditional media - painting and sculpture. During this phase all of the media, including painting and photography, made a special effort to explore the media-specific idiosyncratic worlds of the respective medium.

Painting has demonstrated the intrinsic value of paint, of flowing, dribbling and trickling. Photography has demonstrated its ability to portray objects realistically. Film has demonstrated its narrative capability. Video has demonstrated its critical subversion of the mass medium of television. Digital art has demonstrated its powers of imagination in virtual worlds.

As far its epistemological and artistic value is concerned, this phase is more or less over. Fortunately, media specificity and media criticality have prevailed absolutely and completely. The equivalence of the media, meaning its artistic equivalence and equal validity, has prevailed after successful attempt to chart the media-specific idiosyncratic worlds of the respective medium ranging from painting to video.

In an artistic and epistemological sense, the new second phase is about mixing the media-specific idiosyncratic worlds of the media.

Video, for example, triumphs with the narrative imagination of film by using multiple projections instead of one screen and telling a story from many perspectives at the same time rather than just from one perspective. With the availability of new large digital cameras and graphics programs, photography is inventing unseen, virtual worlds. Sculpture can consist of a photo or a video tape. An event captured in a photograph can be a sculpture, a text or a picture. The behaviour of an object and of a person captured on a video or in a photograph can be a sculpture. Language can be a sculpture. Language on LED screens can be a painting, a book and a sculpture.

Video and computer installations can be a piece of literature, architecture or a sculpture. Photography and video art, originally confined to two dimensions, receive spatial and sculptural dimensions in installations. Painting refers to photography or digital graphics programs and uses both. The graphics programs are called paint programs because they refer to painting. Film is proving to be increasingly dominant in a documentary realism which takes its critique of the mass media from video. The web supplies dialogues and texts for all of the media in its chat rooms. The entire reservoir of texts on the web can be used for the automatic control of texts, for the self-generative production of language worlds. But the web can also produce self-generative picture worlds and the texts on the web can serve as a foil for the script of actors in films and speakers in radio plays or for texts by poets or amateur writers. With Ipod everyone can make their own radio programme: podcasting instead of broadcasting. With videocasting everyone can make their own TV programme. VOIP (Voice Over Internet Protocol) and IPTV (Internet Protocol Television) provide materials for everyone to create their own textual, aural and visual installations using a choice of media such as photography, video or computer. The results can in turn be output as films, pieces of music or as architecture.

This mixing of the media has led to extraordinarily major innovations in each of the media and in art. Hence painting has come to life not by virtue of itself, but through its referencing of other media. Video lives from film, film lives from literature, and sculpture lives from photography and video. They all live from digital, technical innovations. The secret code behind all these forms of art is the binary code of the computer and the secret aesthetics consist of algorithmic rules and programs. Consequently, this state of current art practice is best referred to as the post-media condition, because no single medium is dominant any longer; instead, all of the different media influence and determine each other. The set of all media forms a universal self-contained medium. This is the post-media condition of the world of the media in the practice of the arts today.

The ultimate effect of all this is to emancipate the observer, visitor and user. In the post-media condition we experience the equality of the lay public, of the amateur, the philistine, the slave and the subject. The very terms 'user innovation' or 'consumer generated content' bear witness to the birth of a new kind of democratic art in which everyone can participate. The platform for this participation is the Internet, where

everyone can post his or her texts, photos or videos. For the first time in history there is an 'institution', a 'space' and a 'place' where the lay public can offer their works to others with the aid of media art, without the guardians of the criteria. Until now, of course, these were all censored. There were only museums and other state-owned or private control zones where only legitimised art was allowed to be exhibited. Now the way is finally clear for illegitimate art. The contest of the arts is over, but the contest returns to its origins, to the relations between theory, science and practise, art.

C. User Art

1. Object, Use, Instructions for Use

At the beginning of the twentieth century, modern art redefined the reference to reality, or rather, to representations of reality. Painting cut its ties with the reality of the object world; it became non-representational, abstract (Kasimir Malevich). On the other hand, the object banned from the picture re-entered art as a real object (Marcel Duchamp). In painting, representation of the object world was prohibited, but the reality of the object world was welcome. Sculptors, too, ceased representing the external world. The real object itself became sculpture.

The issue of the depicted object's practical value never came up as long as the object was only a picture. After all, the use of an object that was merely painted was, in reality, not possible. The question of use surfaced with the use of real objects in the art system. If a sculpture is formed from a real, everyday object, then this can also be used as such. With his industrial ready-mades, Duchamp negated the use of his objects. The reversed urinal was not to be used. Duchamp presented it as an aesthetic object. The surrealists also rejected the usability of their aesthetic objects in order to stage their pure symbolic function. Brancusi, on the contrary, saw his handmade sculptures as having a triple use function. A sculpture could also be a plinth for another sculpture or a stool to sit on. The stool, for its part, could be the podium for a sculpture as well as a sculpture itself, or a use object. The productivists around Alexander Rodtschenko also expanded the concept of sculpture in 1920 and produced chairs to be used at a Workers' Club.

Along with the use objects came also instructions for use. Without instructions, most objects are unusable. The instructions for use became instructions for how to act for

beholders, turning them into actors. Marcel Duchamp for example, provided exact instructions for how to look at a picture. With the usability of the aesthetic objects, the “user” also entered the picture. Later, the use object was even replaced by the instructions for use (instructions for how to act), which had always implicitly accompanied every object and every art object. In 1968, Franz Erhard Walther met this demand with his book *Objekte, benutzen*. The user took on a central role within the realm of art: the person who completes the artwork, so to speak. As clearly shown by Erwin Wurm’s expanded media concept of sculpture, the user, in dealing with the objects, brings about the existence and development of the art work. Following the beholders’ reevaluation as reflecting and creative subjects came their acceptance as actors. As Duchamp stated in 1957, “All in all, the creative act is not performed by the artist alone; the spectator brings the work in contact with the external world by deciphering and interpreting its inner qualification and thus adds his contribution to the creative act.”¹ The receiver is an integral component in the creative act. The viewer switches to become an artist; the consumer becomes producer.

2. New Music: Score and Performance

The culture of musician (interpreter), has meanwhile achieved a special position in music. We simply have to replace the term “spectator” with “interpreter” and the term “artist” with “composer”: “All in all, the creative act is not performed by the composer alone; the interpreter brings the work in contact with the external world by deciphering and interpreting its inner qualification and thus adds his contribution to the creative act.” The composer writes a score for piano, for example, but it is first the pianist who knows how to interpret and play this score that realizes the work. Composers write music. They write instructions for use for the piano, for example. The interpreter implements the instructions for use and produces the music. In this regard, the new music of the 1950s, (Pierre Boulez, John Cage), which attended to the problems of the score, in particular, and allowed the interpreter great freedom, provided further important roots for the origins of user art.

¹ Marcel Duchamp, “The Creative Act,” in: *Session on the Creative Act, Convention of the American Federation of Arts*, Houston, Texas, April 1957. <http://members.aol.com/mindwebart3/marcel.htm> (last visited 13 November 2007).

“In 1957 New Music was the Center of all Arts Movements and Germany was the Center of the New Music,” wrote Nam June Paik in 1999.² In fact, the participatory trends in art intensified in the 1950s with the freedom of the interpreter with regard to a score that was often aleatoric or which consisted of direct instructions. In 1960, the composer La Monte Young wrote *Composition #7*: “draw a straight line and follow it.” In 1962, Nam June Paik wrote in his instructions as music “Read-Music – Do it yourself – Answers to La Monte Young”: “See your right eye with your left eye.” Since Cage, the interpreter’s freedom within the instructions of the score, chance, and uncertainty, have been important themes in New Music. Paik transferred this composition technique from the world of sounds into the world of pictures. In this transfer, the audience stepped into the place of the musician as interpreter or participant: “As the next step toward more indeterminacy, I wanted to let the audience (or congregation, in this case) act and play itself,” wrote Paik in his essay “About the Exposition of Music” in *Décollage, No. 3*, 1962. His video sculpture *Participation TV* (1963) allowed the audience to change the pictures on a black and white television by means of a microphone and a signal amplifier—a key work for the subsequent decades of interactive media art. His work *Random Access* (1963) was composed of tape recorders glued to the wall. Beholders, or users, could walk along with a mobile sound head and thereby generate their own music. They became, so to speak, a pianist who navigated the soundtrack, and did their own composing. The birth of media art and its participative trends did, in fact, result from the spirit of the music being made around 1960.³

Action Art (Happening, Fluxus, Performance, and Event) was also influenced by musical problems in addition to sources from painting and literature. It was John Cage’s students who had the idea to transfer the score as instructions to the interpreter, to the audience. In the transfer of participatory principles from the acoustic to the visual arts, it was the audience that moved to the center, as protagonist of the artwork.

3. Action and Audience Participation

² Wulf Herzogenrath (ed.), *Nam June Paik – Fluxus/Video*, Kunsthalle Bremen, 1999, dedication page.

³ Wulf Herzogenrath, “Der ost-westliche Nomade,” op. cit., see footnote 1.

In 1959, fluxus artist George Brecht, a student of John Cage, discovered “Events,” which were made up of mainly binary instructions. The famous *18 Happenings in 6 Parts* (1959) from Allan Kaprow, from which the name Happening arose, listed “Instructions” for “a cast of participants.” In 1961, Yoko Ono began to formulate her performances as instructions to the audience. In *Cut Piece* (1964) she challenged the audience to come onto the stage and cut off her clothes. She transformed the art of instructions for the use of objects into the art of instructions for people.⁴ The Happening *YOU* (1964) by Wolf Vostell in Long Island, New York was a further example of replacing the art object by actions and instructions for how to act in action art. The “basic idea: to confront the participants, the audience, with the reasonability of life in a satire in the form of a rehearsal of chaos / it is not important what I think—but instead, what the audience takes with them from processes and my image of them” (Wolf Vostell).

Challenging the audience to participate in the creation of the artwork also played a major role in Nouveau Réalisme. With *Métamatics*, the drawing machine by Jean Tinguely from 1959, the audience could make their own drawings. In the exhibition *Feu à volonté* (1961), Niki de Saint Phalle invited the audience to pick up a weapon and shoot at her assemblages. Pierre Restany, Nouveau Réalisme theorist, demanded in a working paper from 1971 for the “Actions-Spectacles,” an “action conjuncturelle: a temporary action, any kind of intervention with the audience, that aims at initiating their participation in several stages (passive, playful, active, co-creating).”

Fluxus, Happening, Performance, and Nouveau Réalisme were not alone in discovering the participating beholder, co-player, and co-creator. As early as the 1950s, Kinetic art and Op-Art demanded the beholder’s participation in the construction of the artwork. “We want to stir the beholder’s interest, to free him, to loosen him. We want his participation. We want to put him in a situation that sets him

⁴ Cf. Jon Hendricks, *Yoko Ono: instructions for paintings by Yoko Ono May 24, 1962*, Budapest, Galeria56, 1993.

in motion and makes him his own master.”⁵ The beholder has to move to perceive the optical deceptions and phenomena of Op-Art. The beholder is able to activate and change kinetic objects and sculptures. The works enabled early forms of interactivity. *Arte Programmata* (1962, Umberto Eco), which arose in the milieu of Op-Art and Kinetic art, emphasized the role of chance within a predetermined program. Programmed sculptures and pictures emerged. Although these programs were not executed by computers; they were conceptual programs, manually and mechanically realized, they can still be considered key precursors to computer art. The term “algorithm” embraces the instructions and directions from the various genres of music and art. An algorithm is a strictly defined procedure, directions for how to act, with finite elements and a determined succession that tells a machine or a person what to do. The machine follows a succession of digits and executes a program; a person follows letters and symbols, whether for a cooking recipe, a musical score, or the rules of a game. The intuitive algorithms in the form of instructions for use and how to act became accepted in the arts parallel to the development of computers and machine language and their algorithmic procedures. The *Looppool 1.2* by Bastian Böttcher is an example of a user-oriented talking machine: a hyperpoetry cluster with thirty-two interwoven rhythm and text fragments ornamentally depicted on a graphic surface. Viewers can influence the course of the text by using the toggle button, putting together their own rap song without bringing the steady meter out of beat. Every user can become the author of a rap text.

4. Media Art and Audience Emancipation

Through participatory practices, various art movements transformed the beholder into a user actively involved in the construction of the artwork, its design, content, and behavior. This change in direction toward the receiver became even more radical through the technical recording and broadcasting media—photography, television, video, computer, and Internet. Photography, as a democratic medium that allows everyone to photograph, sabotaged painting as an aristocratic medium and thereby its cult of prominence. Beginning in 1971, Braco Dimitrijević made a star of the casual

⁵ GRAV (Groupe de Recherche d’Art Visuel: Horacio Garcia-Rossi, Julio Le Parc, François Morellet, Francisco Sobrino, Joël Stein, Yvaral) in “Stoppt die Kunst,” Manifest, 1965.

passerby, whom he met by chance at a certain time at a certain place, by eternalizing him or her on a huge banner in front of the building where they had met. In a series of further works, he erected memorials to average anonymous people by naming streets after them, hanging their portraits in front of museums, or presenting their names prominently on building façades. In 1972, Jochen Gerz staged a similar emancipation of the anonymous person as antidote to popular culture's and the art world's celebrity cults. He put up posters with the names of eight average people living on Rue Mouffetard in Paris, on the walls lining their own street. The audience participated not only in the production of the artwork, but the audience was also declared as the artwork, or the star. The audience became the content. This was also the case with the video work *Der Magische Spiegel* (1970) from the group telewissen, whereby normal people saw themselves for the first time on "television" (actually video) in a closed-circuit installation. Video and computer technology elevated the participatory options to interactivity in the 1980s and 1990s.

5. The Emancipated Consumer as Artist : The Visitor as User

Since 1960, the art world had anticipated and prepared for a change in consumer behavior. The artist handed over creativity to the beholder: giving him or her the rules of behavior. Interactive art works no longer exist autonomously, but only through their use by the receiver, the user. The artist changed from a hero to a service worker, the visitor from a passive consumer to a star. Today, millions of people exchange photos, texts, videos, and music on a daily basis through MySpace.com, Flickr.com, YouTube.com, and in virtual worlds, such as SecondLife.com and blogs. Emerging is a newly structured space for the creative expression of millions of people. Beuys already declared that "everyone is an artist" in 1970. Everyday, millions of people find online platforms for communication, creativity, and art, beyond the authority of publishers, museums, galleries, newspapers, radio, television, and Hollywood, which traditionally decided on the production and distribution of works. The user becomes the producer, perhaps even the artist. The field of the actor has expanded: with the consumer as activist, comes democratization of creativity and innovation. "User Innovation" and "Consumer Generated Content" influence not only the world of the mass media, but also the world of art. The future's "Creative Industries" will be the emancipated consumers and users. Art, too, will become a "democratized user-

centered innovation system.” A new, emancipated generation of producers-consumers has formed on the Internet. They are users who generate their own content and programs, exchange them amongst themselves, and distribute them freely online.

User art adopts these strategies for the art system. Visitors as users generate contents and programs in the museum; they exchange them amongst themselves, and distribute them freely online and in the museum. The museum and the classical artist are the providers, so to speak: they make the infrastructure available. The user, the emancipated consumer, delivers the content or is the content. Users are “prosumers” (pro/ducers and con/sumers).

Twentieth-century art was defined by the paradigm of photography. In the electronic world and its electronic media, the art of the twenty-first century will be defined by the paradigm of the user. We are witnesses to a new receiver and consumer culture that was heralded already in the twentieth century. Information and communication technologies open the doors for a century of emancipated consumers who will also dominate the art world.

Artists no longer have the monopoly on creativity. With the help of the Internet, the museum can develop to a communicative platform of creativity for all, independent of space and time.⁶

Following on the heels of participative and interactive media art, visitors as users now generate or compile the content in the museum. From consumers they become producers and program designers and thereby competitors for the historical media monopolists: television, radio, and newspapers. Exhibition visitors can act as artists, curators, and producers. The visitor is at the center of the exhibition as user, as emancipated consumer.

⁶ Michael Mangold, Peter Weibel, Julie Woletz (eds.), *Vom Betrachter zum Gestalter. Neue Medien in Museen – Strategien, Beispiele und Perspektiven für die Bildung*, Nomos, Baden Baden, 2007.