

FROM FILM TO INTERACTIVE ART. TRANSFORMATIONS IN MEDIA ARTS

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The following essay is an introduction to the history of twentieth century media arts, which outlines their transformations from film to interactive multimedia arts. My aim is not merely to analyze the process of substitution or complementation of the “old” media arts by newer ones, but also to focus on the persistence of the former, their reappearance in new technological contexts. I would like to make clear that the history of media arts involves an obvious interplay between textuality, technology and cultural institutions.

Cinema faced with the challenge of electronic technologies

The forms of filmmaking, the contexts in which contemporary film art functions, have undergone deep transformations. For cinema, the consequences of technological progress in the field of electronics and the increasingly frequent employment of new technologies in various areas of culture have been far-reaching and profound.

The tools used by filmmakers are changing, which in some cases (e.g. that of Peter Greenaway, David Larcher, or Zbig Rybczynski) has led to an advancement and consolidation of artistic attitudes and strategies which, although clearly present, were previously realized at the expense of enormous effort (Rybczynski) or were muted and sidetracked by the traditional properties of the film medium (Larcher, Greenaway). As regards many other film artists, one can observe certain sweeping transformations of their poetics and addressed issues. It is also easy to notice numerous innovations in the

areas of image presentation, editing, and narrative structure. Not only does state-of-the-art technology equip cinema with tools allowing for a better (easier, faster) realization of traditional film tasks, but it also initiates (or deepens) changes in film strategies, creating new conventions, transforming genres, contravening traditional relations between reality and its audiovisual representations. That, in turn, leads to a formation of new recipient attitudes, transcending both the identification-projection model and the distancing conventions of Brechtian cinema. Modern electronic technologies are profoundly affecting the ontological structures of traditional cinema and film.

What is more, cinema is beginning to function in new communication channels. If televising films was responsible for transforming the extant models of recipient response to a cinematic work and for introducing the first changes in film poetics, then the invention of the VCR contributed immensely to developing these changes, especially in the field of response mechanisms. Nonetheless, the genuine revolution is occurring at present, with the dissemination of DVD; its effects will have been felt even more strongly with the appearance of films which will make full use of the navigational, interactive qualities of the computer medium. It is interactivity, above all, which will play a major role in the future development of motion picture arts.

Today, film, for a long time the sole art endowed with the attribute of the moving image, must seek its identity in an unusual situation. Namely, it has become one of the many media for which the motion picture, combined with sound, forms the basis of communication. It must therefore make choices which will define its place in the complex, varied group of (multi)media arts.

At this point, one could risk the hypothesis that in the near future the heretofore heterogeneous (despite its internal diversity) evolutionary process of the cinema will diverge into at least two separate currents: one attempting to cultivate traditional principles and forms (new technologies being used merely to enhance or refresh the existing conventions) and another, comprising interactive cinema, obliterating current conventions and offering the recipient a strikingly different type of experience. Another possible differentiation, overlapping with the abovementioned one, will involve a development of interpersonal relations within the group of recipients in the case of films

presented in public spaces and will strengthen intrapersonal communication, where the reception turns into an intimate, individual interaction with the filmic hypertext. Both tendencies are already represented by examples both numerous (especially with regard to the first trend) and valuable.

The *sine qua non* for understanding this process is the analysis of the very phenomenon of interactivity. Such an analysis ought to be more than a reflection on the strictly phenomenal dimensions of interactivity, its variants, its artistic applications and their prehistory, the structure of individual interactive works and the first emergent poetics; it should also delineate the methodological context and justify the choice. It is hardly necessary nowadays to emphasize the importance of the choice of language used to describe the object of study.

Cinema – film – the new media

All (multi)media that have followed after cinema are a result of the development in electronic technologies, which are currently becoming the main factor behind the transformations in audiovisual culture and art, and which are consequently – because audiovisuality plays a major role in the world of today – the primary source of transformations in culture as a whole. The so-called digital revolution is transforming nearly all areas of human activity. Therefore, it is also responsible for transforming the domain of art and for creating new fields of artistic practice, in addition to transforming its traditional variants, some of which boast a history dating back thousands of years.

As a result of the developments in information-communication technologies and the emergence of electronic (multi)media, the situation of film/cinema¹ – the first form of

¹ For the purposes of this study, the term ‘cinema’ will denote, in keeping with the established tradition (owing to its heterogeneity and internal diversity, however, each reference to it inevitably becomes an interpretation, a choice of a variant) its basic apparatus and its dispositive (these two interconnected instances of cinema will henceforth be termed ‘apparatus in a general sense’), whereas the term ‘film’ will apply to the textual-artistic aspect. The basic apparatus is the sum total of devices, techniques and operations used in producing a film and creating its subject, and – in its broader meaning – an array of contexts that are connected with

moving image media art – is changing to an extent which far outweighs the intensity of all its previous transformations, which consisted mainly in the additions of sound or color, or perhaps modifications in image parameters or aural standards. Those past transformations did not violate the basic determinants of the cinematic apparatus, but rather enriched it by adding several new qualities and modifying certain existing ones. In contrast, the current changes in cinema/film are profound and fundamental; most importantly, they occur in several distinct dimensions.

Firstly, cinema itself is changing, assuming an entirely new shape: we are witnessing the birth and development of electronic cinema and film. The first and most immense impact of this transformative process seems to be sustained by the textual-artistic aspect. Image structures, editing codes and narrative discourse systems are acquiring a form largely defined by electronic technologies and techniques. Simultaneously, while the analogue diegetic systems – the result of the reproductive representing machinery, which is the cornerstone of the traditional cinematic apparatus² – are being replaced by digital simulations, a product of synthesis technologies, we witness changes in the ontology of the film text, the diegetic structure and the epistemological function of the cinema. Instead of the image of the world, electronic cinema offers the image-as-world. In consequence, considering the gravity of this transformation, it may seriously influence the character of the dispositive, including the course and the qualitative organization of perception (even if the basic apparatus in electronic cinema does not undergo particularly significant changes). Nevertheless, for the film's dispositive and perception to attain a new character, to accomplish the "unreality effect" or perhaps the "new reality effect" produced by simulation, its appeal must be stronger than that of the traditional function of cinema, i.e. creating an impression of reality. This, however, is not the case as far as most of the electronic cinema is concerned, from which one might infer that many qualities ascribed directly to the cinematic apparatus in fact derive from

them, i.e. social, cultural, ideological, economic, etc. The dispositive, on the other hand, comprises the mechanisms, processes (technical as well as psychological), their arrangements and contexts which jointly constitute the projection and perception of the film. Together they form the institution of cinema; cf. Baudry, 1970; Comolli, 1971-72; Heath, 1981; Kuntzel, 1976.

² The principal effect of which is the blurring of the distance from reality in order to conceal its being constructed rather than presented or reproduced.

textual processes or relations invoked individually (in particular films or film types) between the apparatus in a general sense and the textual instance³.

More and more frequently, cinema employs video means (electronic means), perfecting the possibilities of editing and – most importantly thus far – expanding the domain of audiovisual effects. This latter application of new technologies grossly enhances the aesthetics of film (chiefly the visual aspect), which accounts for the attention given them by countless filmmakers. These elements combined serve to move film towards the dispositive of television. Counter to this migration, however, many of the aforementioned artists who eagerly employ electronic means in their work (e.g. Peter Greenaway) believe that despite the emergence of the new forms of presenting film works, the best way to exhibit them is a cinema screening. According to Greenaway, electronic means were supposed merely to refresh and expand film art's possibilities of expression, to create new forms of shaping the image. The cinematic dispositive, however, should remain intact as far as possible.

Combining images of photographic nature with those generated by electronic means within the confines of a single film work brings results which extend well beyond the domain of film poetics. After all, the two forms of imaging are fundamentally different. A photographic image is an analogon of the reality that precedes it, whereas an electronically generated image is free of such restrictions: the reality presented may just as well emerge simultaneously with the image. In actual fact, a complete reversal of the relation described earlier may occur, with reality acting as an analogon to the image. When the two image types, the photographic and the digital, appear alongside each other, the upshot is an upsetting of the relation between reality and its representation as well as between fiction and the systems constructing it. The relations between reality and fiction are also affected thereby. Not only do digital synthesis and photographic film differ in their ontology, but they are also subject to different metaphysics.

Secondly, as mentioned above, the context in which cinema functions is undergoing change. Film (and indirectly its assigned apparatus) enters the domain of the television

³ Another aspect of this situation is a certain virtualization of reality, which appears to be the long term effect of the media worlds' existence and their influence on the perception of reality.

program, the videotape, the laser disc, or – in response to our requirements – it reaches the television screen (display), integrated with a multimedia computer, via a fiber-optic telephone line. The consequences of entangling film in dispositives alien to it extend beyond the simple effects resulting from a transfer into new dimensions and require a separate analysis of each case type. The properties of the dispositives integrated in this way are mutually influential, leading to modifications and often – ultimately – merging to form intermedial, hybrid dispositive structures (e.g. a video projection). The frequency with which these processes occur, as well as the range of their influence, is responsible for the contemporary (multi)media being dominated by the intermediality syndrome. The deep structure of the multimedia – the basic contemporary form (and institution) of communication – is essentially an intermedial system, which, in further consequence, gives the (multi)media phenomena the character of a dynamic palimpsest.

The abovementioned functioning of film and, consequently, also of cinema, in new contexts leads to even further changes, which transcend the borders of substantial and ontological transformations. They certainly do not remain confined to the limits of film poetics, but instead reach towards film structure as a medium, transforming the methods of reception in addition to offering new forms of experience and comprehension. The previous paragraph emphasized the processes of the media dispositive integration, and the subsequent emergence of hybrid structures; as a consequence of this gravitating towards hybridity, the cinematic dispositive – if one attempts to grasp its peculiarity and realize it in extracinematic perception – reveals numerous fissures and deformations. In this transformed situation in which the cinematic apparatus is now functioning, also the films themselves are experienced differently; similarly, the new situation influences the textual orders.

The new audiovisual media, developing parallel to cinema/film and entering into various relations with it, affect its structures and forms, as has been said above, but also undergo transformations themselves. As a result of this interference, film transcends its borders, appearing in video realizations, various forms of virtual reality and computer games. The preceding paragraphs focused on the transformations of the cinematic dispositive, resulting from its intrusion into other dispositives; however, we ought to remember that film textuality has proliferated beyond the domain of cinema. Artistic

realizations belonging to the domain of video art, or the diverse multimedia art, as well as popular computer games, draw on the resources of cinema. The film-specific codes of image construction, editing, narration, dramaturgy, character development and plot structuring constitute the basic articulation system of (multi)media audiovisuality.

Thirdly, the development of interactive computer technologies calls into existence various forms of interactive cinema/film, spiritually rooted in the theory and distancing practices of Brechtian cinema, but divergent from it both on the level of actually created structures and in the character of the demands imposed on the recipient. The basic apparatus of interactive cinema and its dispositive differ immensely even from the unconventional varieties of the traditional cinematic apparatus.

What must be strongly emphasized at this point is the fact that 'interactive cinema' is essentially a term comprising an array of discrete varieties, which often differ radically. The mainspring of this differentiation is the invariance of the dispositive, conditioned by the abundance of interfaces⁴ and the profusion of applicable techniques. This diversity means that interactive cinema retains close intermedial relations with installation art, CD-ROM/DVD art and computer games.

Progress in the field of interactive technologies of virtual reality (VR) creates a prospect of further, profound transformations in the structure of film experience, allowing the recipient/user (now frequently termed 'interactor' or 'visitor') to immerse himself or herself interactively⁵ in the telematic (i.e. creating an illusion of bodily presence in remote locations) virtual world of the work. The basic attributes of VR apart from real-time interactivity, i.e. immersivity and telematicity, expand certain vital properties of the cinematic apparatus; thus, virtual reality – enhanced by the textual qualities of film –

⁴ This term is understood here as a channel of dialogic communication between the recipient/interactor and the artifact, as the device enabling interaction. The basic function of an interface is the creation of communication possibilities between parties employing different languages.

⁵ The immersion of the senses means that the subject assumes – within limits defined by the engaged senses – the internal (diegetic) point of view.

potentially becomes the most crucial continuation of cinema in the field of the multimedia.

Fourthly, and finally, the Internet – by introducing networks into VR technologies – creates new directions of development for the potential net-based form of interactive, virtual cinema. The principal aim seems to be to establish the possibility of a telematic, multi-user participation in the virtual world thus conjured, which would turn all recipients into active, reciprocally interactive film characters. Today, such a vision seems to belong more in the cyberpunk novel⁶ than in the domain of serious research. It must be observed, nonetheless, that though multimedia technologies are still in their infancy, the rapid pace of their development can let us assume that what we regard as merely potential nowadays – a futurological project – may actually be realized sooner than expected. Making predictions in this field, as long as it is based on a correct analysis of the development possibilities available to the multimedia apparatus, an analysis conducted in the context of its history, is not entirely unfounded. The joint research project of British Telecom, Illuminations Television and the University of Nottingham, known as “Inhabited Television” and conducted under the supervision of John Wyver, which combined television broadcast with virtual reality, allowing the viewers to telematically inhabit the bodies of the characters participating in the events that occur in one particular virtual time-space, may be considered as the first attempt at merging television, the Internet, cinema and virtual reality into one coherent whole⁷.

⁶ Parenthetically speaking, contemporary researchers of cyberculture regard cyberpunk novels as a highly legitimate source of information concerning postmodernism and the social transformations occurring as a result of the emergence of new information-communication technologies. An extreme opinion in the matter is held by Doug Kellner, who contends that cyberpunk fiction offers far more insight into postmodern processes than the work of cultural critics such as Jean Baudrillard (Kellner, 1995). A more balanced view is that of Mike Davis, who argues that William Gibson’s novels and short stories are excellent examples of science fiction functioning as a prefiguration of social theory (Davis, 1992).

⁷ In the preface to the presentation of *Out of this World* (the first, prototypical realization employing the “Inhabited Television” technology, performed in The Green Room Gallery, Manchester, on the 6th and 7th of September, 1998, as part of the 9th International Symposium of

Let me conclude this fragment of the discussion at hand with the following remark. All the processes detailed above contribute to a severe detachment of film (and predominantly cinema) from its previous, “unexpanded” structure. Traditional cinema is losing its former, dominant position in the landscape of contemporary audiovisuality. At the same time, scattered in a diaspora of sorts, the properties of cinema and film not only persist, but are even developing, practically unperturbed. In consequence, we are currently facing not so much the final obliteration of cinema and film, but rather an ever more likely possibility of its further dispersion and dissolution among the plethora of the media increasingly remote from it, the forms marked by less and less similarity. Cinema – the source of audiovisual art – is slowly ceasing to be its goal, losing the autonomy of defining and delineating its paradigm. Nevertheless, cinema is still active in shaping new forms of audiovisual arts.

Television and the video

As stated above, television and other new electronic (multi)media – entering the domain of the moving image, previously occupied exclusively by cinema – carry their own distinct ontology and logic of structural organization, in addition to inspiring new recipient behavior. The range of these innovations depends on the particular medium, since they manifest themselves in various aspects of the work and vary according to the situation in which the reception occurs; likewise, the transformations in different media are often incomparable. The video, or computer-generated animation, while introducing a new ontology into the domain of audiovisuality, retains the domination of the work’s structure over the process of reception that is characteristic for film, whereas the art of interactive multimedia overturns this hierarchy, offering entirely new methods of organizing the process of artistic communication.

Television and the video share the ontology of the image. The remaining aspects of the two, such as the dispositive, bear a limited resemblance to each other (their possession

Electronic Arts), John Wyver himself remarked that the event was tantamount to the birth of a new medium.

of common features alongside the qualities that are decidedly dissimilar results in the entire system's attaining a different character in each instance). The image serves different purposes in the two media: in the case of the video, it is "within reach", and touch unexpectedly becomes the sense of fundamental importance. The video is a medium of intimacy, of close contact, encouraging intrapersonal communication. As far as television is concerned, the substance of the image and sound, as well as their ontic structure, serves the function of transmitting (transferring between remote points) audiovisual information concerning events occurring in distant locations but made manifest in real time, or of presenting previously prepared programs. Telepresence – the basic quality of television as a medium of communication – is becoming one of the crucial qualities (i.e. categories) of electronic art. A television presentation (transmission) of a film transforms the medium into a sort of home cinema (tele-cinema).

The emergence and development of the video has influenced the situation of the cinema theatre more than that of film as such: the most fundamental changes offered by the video, as a new medium of cinema/film, concern the dispositive, while the least important transformations have occurred in the area of film textuality. The range of innovations introduced by the video proves to be much broader when one considers the reception process rather than the structure of the work and the poetics of film. The invention of the videotape introduced new possibilities of the reception occurring in private space, at home, in circumstances far removed from the classical cinematic reception, and yet entirely different from the standard television-watching (i.e. viewing a film included in the program). In the case of the video, the cinematic spectacle – the presentation of the film – has been replaced by a process which might be described as 'reading' the film. The condition of the viewer in the cinema has been compared to that of a person immersed in a dream; this, among other things, accounts for the specificity of the cinematic processes of identification-projection. In contrast, the reception in domestic circumstances is characterized by dispersed attention, observed already by Walter Benjamin. As a result, the consciousness of someone watching a film on a video display is far less dominated by the cinematic world and the magic of participation than if he were viewing the same film during a cinema projection.

The liberation of the viewer from the sway of the cinema screen is facilitated by the susceptibility of tape-recorded film to various kinds of manipulation: stopping, fast-forwarding, playing the film in slow motion or rewinding it. The recipient has therefore acquired a means of influencing the course of his experience ('living' the film). Thus, the structure of a film viewed with recourse to the video dispositive loses – within the limits of the recipient's experience – its finality and inviolability (although the finality of the film's shape is still invariably inscribed into its definition).

This property of the video dispositive is perhaps what makes it essentially different from the cinema. Seen from this perspective, video art appears as yet another stage in a transformation process tending towards interactive art. As has been said above, the reception of film has transmogrified into reading, a linear (yet irregular in its course), multifunctional process of perception and comprehension.

Similarly to the past, when, after valiant efforts seeking to negate the new medium, cinema finally acknowledged television as an alternative method of disseminating film production, parallel to cinema distribution, it has now accepted the video as yet another cinematic medium (a film medium, to be precise). The expansion of the domain in which film functions has caused a peculiar split (stratification) in video textuality, leading to the appearance both of genuine video realizations (effected by means of this medium) and the transfer of cinema films onto videotape. It is here that one can trace the origins of the process which has ultimately led to the blurring of the borders between the two media (i.e. between a film work and a video work). In addition, it is worth emphasizing the consequences of the invention of the video projector: with its help, video realizations may be shown to large audiences, in spacious rooms, in the conditions resembling a cinema séance (involving screening rather than emission). Although the image quality in video projections is still far removed from cinema standards, perfectly credible promises of eliminating this obstacle are currently being made. In this way, among others, the cinematic system is attempting to absorb the video and make it the future of cinema. As stated above, this type of intermedial connections is encountered very frequently in the contemporary world.

Interactivity – deconstruction – cyberculture

Placing computer technologies at the disposal of motion picture arts has created entirely new possibilities. Moreover, if we assume that the essence of each art form is defined by its distinctive features (or a system of features), then computer art begins a new chapter in the history of artistic culture⁸.

Interactivity – appearing in its very rudimentary form in the case of the video, or perhaps appearing merely as proto-interactivity, a possibility of recipient behavior, motivated not so much by the work's structure as by the manifold needs of the viewer (including extra-aesthetic ones) – may acquire its full-fledged form in computer art. This means that interactivity is becoming the internal principle of the work, and the recipient – if s/he is willing to concretize it – must undertake actions which will result in forming the object of his or her perception. Interactivity in art, understood as a dialogue of sorts, communication between the interactor and the artifact⁹, occurring in real time and

⁸ Despite an ontological perspective distinct from cinema and the video, computer animation, restricted as it is – similarly to the video – to producing moving images, remains part of the previous epoch, merely enhancing the expressive means characteristic for the two aforementioned media. This hypothesis was confirmed very forcibly, though perhaps unwittingly, by Yvonne Spielman in her paper entitled *Is there an Avant Garde in Digital Art?*, presented during the 9th International Symposium on Electronic Art, Liverpool-Manchester 1998. The attempt to isolate the defining qualities of digital arts by referencing exclusively the video and computer animation resulted in conclusions to the effect that there exists an aesthetic proximity (or even adjacency) between digital media arts and analogue media arts.

⁹ Artifact, in reference to interactive art, is here taken to mean the product of an artist's creative activity, a structural connection of selected elements (and aspects) of the dispositive and the interface. Seen from another perspective, the artifact is the structure of the hypertext, including the material constituting its basis: images, sounds, texts, i.e. the foundation of a work's textuality. Therefore, the artifact also fulfils the function of the work's context. The context-artifact is the product of an artist, who – instead of presenting the viewer with a traditional artwork, a meaningful object of interpretation and a source of aesthetic experience – creates a space for interaction; see Kluszczyński, 1997.

mutually influential, is becoming one of the essential features of contemporary culture¹⁰. Interaction calls into being a peculiar work of art – theoretically (and, with increasing frequency, also practically) unique in every instance of an individual, creative activity of the recipient-interactor. We are faced with a reversal of the ontological order of the elements constituting the process of artistic communication. What is created in the first place and as a result of the artist's activity is the context of the work and not the work itself (in the traditional sense). The artwork emerges afterwards, as the product of the recipient, created by him/her within the context delineated by the artist.

One may assume that both objects, i.e. the artifact and the work of art, connected by the interactor's receptive-creative actions, jointly constitute the final product of complex, multisubject artistic practices. Thus, the product acquires a processual character, becoming a complex communicative situation rather than a subject structure, while its organization may possess the character and order of a game (in the broad sense of the term). This final creation may be called – in keeping with tradition – a (broadly understood) work of art. Alternatively, it may, more adequately to the character of interactive art, be termed a field of interactive artistic communication. The situation also occasions the following question: to what extent, if any, is the process which has driven artistic practice towards its present state the peculiar apex of the tendencies leading towards the dematerialization of art, towards substituting the art object with a (hyper)text or a complex of (hyper)textual practices?

In the reflection on cyberculture and the assorted phenomena that constitute it (the most prominent among which is interactivity as such, as well as the interactive media arts), one may observe two radically opposing tendencies¹¹.

¹⁰ If 'interaction' is interpreted more generally and the notion of the artifact is not restricted to artistic references, interactivity appears as the crucial feature of all communication processes; communication, in turn, attains the status of the principal social relation. As a result, the social structure itself must be termed 'information society'; cf. e.g. Lyon, 1988; Jones, 1995.

¹¹ These tendencies are radically opposed on the theoretical plane, as different models. In research practice, however, elements belonging to both models may appear within the same program. This may stem from a lack of theoretical precision on the part of the particular author,

The first current draws together those who would like to consider interactive art in the context of earlier concepts of art and with reference to the basic categories that construct the traditional, modernist aesthetic paradigm. The principal dogmas of this system are representation, expression and the conviction that the artist-author dominates over both the artwork itself (the most characteristic view being that art equals whatever is designated as such by an artist) and its meaning (content), which is ultimately tantamount to the domination over the recipient and the perceptive-interpretative process. As a result of such an attitude towards interactive art, the experienced interaction is discussed not in terms of communication with the apparatus/artifact (or an artificial, intelligent system), but is seen as an intermediary interaction with the human (or humans) who made the work or its software. The communicative possibilities of such an interaction ought to be evaluated – according to Margaret Morse (1993) – according to the standards of human communication. This kind of attitude can be identified in countless remarks on the subject of interactive art, regardless of the language used by the authors and of the amount of the new terminology they employ (which is constructed and used primarily to point out and describe the new properties of the contemporary condition of art and culture). Very frequently the inventive, innovative character of these categories is annulled in an attempt to adapt them to the requirements of the traditional aesthetic paradigm.

The representatives of the other trend are characterized by a proclivity to overemphasize those aspects of the new artistic phenomena which transcend traditional canons and which tend towards their cancellation. According to these critics, the crucial feature of cyberart and cyberculture is the abandonment of the idea of representation. Such a view leads to a radical transformation of the role assigned to the artist, who – instead of creating, expressing and communicating content or meaning – becomes a designer of contexts in which the recipient is to construct his or her experiences, their references and meanings (Ascott, 1993).

or – a more likely possibility – from a paradigmatic instability of the contemporary reflection on art as a result of its remaining at the stage of fundamental transformations.

A significant philosophical-methodological context for a discussion of interactivity and interactive art, particularly useful in analyzing the above juxtaposition of the tendencies in cyberculture research, is provided by the deconstructivist philosophy of Jacques Derrida.

One of the principal assumptions in Derrida's theory is the claim that the logophonocentric attitude (logocentrism – a tendency towards meaning, sense; phonocentrism – the prevalence of spoken language over written text) as a method of approaching text, language, communication and interpretation, has thus far been the dominant – if not the only – mode in Western culture (Derrida, 1972). This stance is expressed in a conviction that the meaning of everything that exists was defined once and for all as presence (only what exists can be thought and expressed), and therefore remains eternally precedent and superior to any attempts at objectification/materialization (Derrida, 1967). Thus, an interpretation of a text is reduced to decoding the sense already present, differing from the text and essentially “extraneous” to it. The meaning dominates over the text and conditions it; the text functions merely as a neutral (more or less transparent) vehicle for the meaning prior to it.

Generally speaking, a classical logophonocentric interpretation reduces a given work, employing categories of representation and expression, in search for the work's ultimate truth or the intentions of the creator. Communication is therefore understood as conveying readymade meanings by various methods. The identity and presence of the subjects of the communication process (the author/sender and the recipient) are assumed before the communicative operation commences. The object of communication – the message and its meaning – cannot be established or modified during the communicative process. The notion of communication is inextricably linked to the function of representation and expression, since representational thinking precedes and governs communication, which merely transmits ideas, meanings and content. Thus, communication equals conveying what is already known.

The attitude towards interactive art which was presented above as constitutive for the first of the two tendencies is rooted in this above theory, which is here termed

'modernist'. Obviously, nowadays it seldom manifests itself in its extreme form; the majority of the theoreticians asserting their connection with the traditional aesthetic paradigm agree that the meaning offered to the recipient by an interactive work is largely modified in the course of the reception (the same researchers, however, are reluctant to accommodate the notion of meaning as a never-ending process). In their theories applying to interactive art, the domination of meaning over the work's relational (i.e. communicative) structure is not as pronounced as in more traditional artistic forms; their proponents draw the line at accepting meta-interactivity as a *sine qua non* of a work's artistic dimension¹². The interpretation of an artwork is also liberated from the supremacy of meaning established/communicated *a priori*, while the rigors of communication are considerably softened, producing what one is tempted to call open communication. The "softening" and "openness" notwithstanding, the essence of the phenomenon remains unchanged: according to the theoreticians of this tendency, the process of interactive artistic communication occurs predominantly in the shadow of the Author and his primal, fundamental presence. Not only does the authorial presence transform an object into art, but it also suffuses the work with meaning and value, defining – in a somewhat softened form – all aspects of the interaction.

Derrida's deconstructivism, on the other hand, appears as a methodological matrix for the type of reflection championed by the second tendency outlined above. This theory releases the artwork from all dependency (derivativeness) in relation to any communicated (aprioric) meaning: the work occupies the primary position. Attention is paid to its structure, the process of its formation. Understood in this way, the work of art requires a different type of reception – an "active interpretation", resembling a game, promoting a transformative activity oriented towards "non-finality", "non-ultimacy". The reading of the sense is replaced by a creational reception of the work, i.e. navigating through the artifact (hypertext). The work, therefore, as a communicative process, assumes the character of a game (the rules and the roles, nonetheless, need not be ultimately or explicitly defined). The epistemological function is here complemented by the auto-epistemological aspect, while comprehension assumes the form of co-participation. Creative reception – communication – is a process of creating meaning, a

¹² Interestingly enough, this notion is accepted by representatives of both tendencies.

significantly creative activity. Ultimately, both processes merge into one common syndrome.

Interactive media art appears to be the perfect example of the new, deconstructive, postmodernist, cybercultural understanding of an artwork and of artistic communication. Rejecting traditional dogmatism, it does not substitute it with a new scheme which petrifies the world of art. Derrida did not replace logocentric ideology with graphocentrism, but reduced the role of the author to one of the interpretative contexts; similarly, interactive art has demythologized the role of artist-as-demiurge, ascribing to him the function of context designer who prepares the ground for creative reception. Presently, the notion of the author is being replaced with the notion of dispersed authorship – the joint aim of the so-called artists and the so-called recipients. Seen from this angle, art is no longer a form of presenting a readymade, finalized and a priori given world. To construct art in cyberspace, according to Roy Ascott, is to construct reality, to design cyberspatial communication systems, which support our desire to strengthen human collaboration and interaction in an endless process of constructing the world (Ascott, 1993).

There is much adjacency between deconstructivist philosophy and the logic of interactive multimedia arts. One may infer that deconstructivism could become the methodological context for the research of interactive arts and cybernetic culture. Deconstructivist categories seem capable of grasping and enabling the analysis of all new features found in interactive multimedia arts. With their help, interactive communication may free itself from the traditionally understood notions of representation and expression, from the idea of meaning preceding communication, as well as from the modernist interpretations of concepts such as the author and the recipient. Interactive artistic communication could thus become a multidimensional, multiform, unceasing process in which values and meanings, as well as new realities, are created in cooperation.

Both strategies of comprehending interactive art, discussed above, ought to be perceived in terms of theoretical models. As models, they may indicate the most general properties of cyberculture and of the interactive media arts, as well as the most universal methods

and techniques of their interpretation. Nonetheless, the space delimited by these two polarized perspectives contains a plethora of notions, theories, actions and works. One can encounter there artists working in the area of interactive arts and concurrently believing their duty to be the expression of their own views and the shaping of human minds; one can also find critics and theoreticians who, by analogy, claim that every artwork (the interactive ones included), is exclusively (or primarily) an extension of the artist's imagination, sensitivity, knowledge and desires. However, there is no shortage of artists and researchers who contend that interactivity is tantamount to sharing the responsibility with the viewer and liberating the work of art from all its ties, including that to the artist.

It ought to be emphasized that the juxtaposition of the two models proposed above is not explicitly crypto-evaluative. We are faced with two different projects of introducing interactivity into the realm of culture; concerning their value, we may only state that the project allowing the recipients to act in a space characterized by reduced authorial restrictions, respects the internal logic of interactivity and leads to the emergence of "pure" interactive artifacts. Concurrently, we may observe that this is the only way which could lead the recipient towards a truly creative position, one that fulfills the expectations regarding interactive art. The other project, on the other hand, is an endeavor to situate interactivity in the context of the modernist theory of art and culture, with all its attendant categories and principles. In this case, nevertheless, the creativity of recipient behavior – perceived as broadly as it is customary with regard to interactive art – appears to be little more than wishful thinking. With reference to this type of interactive art (and this type only), one may concur with Mona Sarkis, who argues that the user of interactive artistic forms is not transformed into a creator, but rather resembles a puppet that executes a vision programmed by the artist/technician/software developer (Sarkis, 1993).

Interactive art – hypertext art

The new media (multimedia), functioning in accordance with the principle of interactivity, have therefore accomplished an interiorization of deconstructivist logic. As

a result, considerable shifts have occurred as regards the roles and the range of their respective competences. The artist-author ceases to be the sole creator not only of the work's meaning, but also its structure, its shape; the work is thus being co-created by the recipient in a process of interacting with the artifact. The artist's task is now the creation of this artifact: a system/context, in which the recipient/interactor constructs the object of his/her experience, as well as its meaning. The recipient is no longer merely an interpreter of ready meaning which awaits its comprehension, or a subject perceiving a finalized material artwork; it is on his/her activity and creativity that the structure of the renewed aesthetic experience hinges. Let us therefore restate that both the structure of the work and the evoked meanings are co-created by the recipient, who thus becomes a (co-)creator.

However, the interactive works currently created, like our entire culture, exist under the influence of both paradigms: the modernist and the postmodernist. As a consequence, and depending on which of the two is more prominent in a particular case, the resulting works are to a larger or smaller extent the artist/author's form of expression and (in an inverse proportion) the outcome of the recipient/(co-)creator's activity. Despite this duality of paradigmatic references and the resulting compromises, the influence of interactivity is broad enough for researchers to admit that the situation encourages the establishment of new research tools and their accompanying rules of application. Within the framework of this freshly designed research, particular attention would be paid to those features and ingredients of the new aesthetic situation which concern the relation between the individual participants of artistic communication, and to the questions of artwork analysis and interpretation.

Interactivity is the fundamental feature of the general process which leads to transformations both in the substantial and the semantic status of art. As mentioned above, the process occurs as a result of – among other things – separating the work from the artifact and the latter becoming hypertextual in character.

Regardless of the complexity of its internal organization, the text always offers a determined (linear) direction (route) of exploration. Above, this method of interpretation has been called 'reading'; its ultimate goal is the discovery of the work's

(text's) meaning and the revealing of its as yet hidden entirety. Conversely, hypertext – a multilevel, multielement structure – does not determine or privilege any direction of analysis or interpretation (i.e. comprehension). The journey through it is termed 'navigation' (cf. e.g. Barrett, 1989; Berk, Devlin, 1991; Bolter, 1991; Aarseth, 1997).

It is predominantly the structure of the hypertext – along with the material which fills it: the images, texts, sounds – which becomes the object of the artist's creative work (in addition to the interface and the elements connected with the genre of the realization). Hypertext in its entirety, however, is never the object of the recipient's perception or experience, but rather – as mentioned above – the context of this experience. The technical-constructional characteristics and the properties of the medium employed by the hypertext artist delineate the standard circumstances of reception, in which the hypertext user, repeatedly faced with the necessity of choice-making and actualizing the selected elements, exploits only a slight portion of the work's potential. The sum of these choices defines the work – the joint product of the artist (provider of material and choice rules) and the recipient (selector of material and creator of the work's structure).

It is tempting to risk the statement to the effect that interacting with a hypertext transforms it into a text, since the ultimate result is invariably a complete, finalized structure – the upshot of the recipient's selections. Such a statement, nonetheless, would be incorrect: the recipient/hypertext-user, who perceives the outcome of his/her interaction, i.e. the work, also experiences his/her own choices, as well as their contexts (the software, the interface, the spatial arrangement, etc.). When s/he considers the navigation concluded, and decides that the result is the final work, s/he also experiences (often consciously) the non-finality, non-ultimacy inscribed into the nature of interactive art.

It could therefore be argued, and much more validly, that if the work were to be equated with the text, then in the case of interactive art we are not dealing with a work of art at all. Consequently, we must decide whether hypertext ought to be treated as an artwork (albeit one whose entirety cannot be grasped in an aesthetic experience), or perhaps agree with the verdict that the work does not exist, or, finally, assume that interactive art invokes a new type of artwork: one which materializes exclusively during a receptive

(creative-receptive) interaction and is not identical with the result of the artist's creational actions. Moreover, it is not intersubjectively identical, seeing as each recipient experiences the unique outcome of his/her own interaction¹³.

One may also argue, as previously in this discussion, that the ultimate object of analysis is not the work itself, regardless of the definition, but the field of interactive artistic communication, where the work, along with other elements (the artist, the recipient/interactor, the artifact, the interface) becomes entangled in an intricate, multidimensional complex of communication processes.

In the domain of interactive art, which employs the structure of hypertext, the analytical-interpretative issues take an entirely different form. It is difficult to speak of analyzing a phenomenon that only exists during the process of reception, since one of the premises of analysis is a certain durability of the work under inspection, the repeatability of its experience, as well as the possibility of returning to the analyzed object. The same is true for interpretation; both procedures ought to be verifiable to a certain extent. What is more, both analysis and interpretation assume the immutability – even a limited one – of the examined object, the persistence of its meaning. None of these requirements can be met, however, by a consistently interactive work, as it endures only at the time of the interactive process. A subsequent activation of the hypertext, even performed by the same recipient/interactor, is bound to conjure a new work. Both the analysis and interpretation of an artwork thus understood must be parallel to the process of its reception, its (co-)creation; it must be identical with it. Reception, creation, analysis and interpretation become one and the same complex of processes, occurring in the field of artistic communication.

It is only natural, given the circumstances, to doubt the necessity and validity of analyzing and interpreting a work of interactive art. These procedures, understood traditionally, seek their justification in epistemological and educational needs. If the

¹³ Obviously, these remarks refer to a model work which would fully respect the logic of interactivity. In the case of a realization influenced by both paradigms – the modernist and the postmodernist – the situation is more complex. In order to describe it adequately, one would be forced to combine the research tools specific to each of the indicated perspectives.

knowledge produced by them is not intersubjectively verifiable, and its object is not intersubjectively available, the same analytical-interpretative actions lose their status of isolated, autonomous critical or scientific procedures. They might then be treated merely as a peculiar manifestation of the work's autotelicity, a symptom and proof of its internal meta-discourse, since the work appears in the process of its creative reception, or – to formulate this hypothesis more radically – the work is identical with its reception. Therefore, logically, it is identical with its interpretation.

What remains as the possible object of analysis is the aforementioned field of interactive artistic communication. These problems, however, shall be discussed elsewhere.

The number of interactive works produced today is increasing with inconceivable speed. The works do not represent only the two model attitudes discussed above, but we are faced with a multitude of realizations resulting from the concurrent influence of the two indicated paradigms. Interactivity is becoming the essential and most representative property of contemporary culture. Both of its models affected very seriously the artistic practice of the twentieth century's last decade and the beginning of a new one, and there is no reason to suppose that either will disappear in the foreseeable future, since contemporary culture is becoming increasingly more, rather than less, diverse.

What this amounts to is not merely the coterminous functioning of a wide spectrum of interactive works, but also their coexistence with the works belonging to the non-interactive and proto-interactive culture. Among the latter, one may encounter numerous qualities, notions and structures which prefigure interactive art and culture. From the contemporary perspective, we may even observe a certain *sui generis* logic in the development of forms, attitudes, concepts and theories which comprise the process leading from the neo-avant-garde (the happening, Conceptualism, Fluxus, etc.) towards the current paradigm of electronic, digital, interactive, multimedia culture.

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