
The Museum in the 21st Century and Information Media

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The main tasks of an art museum are the storing of art works and providing their absolute accessibility to any audience. This second task is a central problem and, even theoretically, the solution has still to be found. To solve this problem we can use the information approach, which is based on the following rules:

- Art influence is realized by means of information transmission.
- Art influence is estimated by the quantity of aesthetic or art information transmitted in art communications.
- Transmission of information is carried out by a material medium (for fine art this medium is a structural or multi-layered surface with complex characteristics of reflection, refraction and absorption of light; the five senses do not register any other interaction except registration of the reflected light by the eye's retina).

Weight of Art's Publicity

Aesthetic or art information is put in the constant memory. Depth and strength of memorizing is obviously connected with the time of art influence. This temporary factor has given the basis to introduce the concept of "the spread of musical matter" (Abraham Moles: *The Information Theory and Aesthetic Perception* ¹). This "spread" is equal to the number of the listeners' hours of listening.

Let us introduce an analogous information criteria for the estimation of public importance of an art's kind.

"Weight of art's publicity" is equal to the number of hours spent on it, times the number of viewers/ readers/ listeners. Then "weight of art's publicity" could be used as certain information criteria. According to Moles, the "weight of music" has multiplied one hundred times during the first half of the 20th century. The spreading of modern audio records and the means of their reproduction allows us to assume that "weight of music" is multiplied again one hundred times in the second half of the century; that gives ten thousand times for the whole century.

"Weight of literature's publicity" has increased no less dynamically. Increase in the quantity of library holdings has been dramatic, the mass production of books has multiplied several hundred times. The total increase of "the weight" is approximately ten thousand times for the whole century.

As regards "the publicity of fine art," let us consider, for example, the leading art museums of Leningrad, St. Petersburg. Exhibition space of the Hermitage and the State Russian Museum has widened little in the post-revolution period. Although many new museums and galleries have appeared, their total area is still small in comparison to that of the Hermitage and the Russian Museum. Of course, the number of visitors has risen. Let us say that the increase is equal to 20 (it is obviously an overestimation). Nevertheless, even with such indicators it appears that the rate of increase of "weight of fine art" is a hundred times less than the rates of "literary and musical publicity" increase.

Importance of an art's kind can be represented proportionally to public field sizes, in which influence of this kind is appreciable. Small weight of

traditional fine art makes us reflect on its role in modern culture.

Information Media, Encoding and Development of Art

Bernstein, the well-known Russian expert on the theory of art, has discovered an interesting information principle. Information and its various mediums are inseparable in spatial art; they are as one. At the same time in temporary arts (literature or music, for example) the information could be freely transferred to another medium².

Let us pay attention to this major principle and state that two types of information media are found in art communication: universal medium (freely replaced without information loss) and unique medium (when information and its medium are indivisible).

Here is the question now - are there two independent types of art or is there a common law for development of any art form? Let us look at development of the temporary kinds of art.

Secular literature was born in the late Middle Ages in the form of manuscript books (a unique medium). The confirmation of literature as the leading form of art in modern times is connected with a grandiose technical innovation - the printing press of Guttenberg. The appearance of the printed book means the exchange of a unique (manuscript) medium to a universal one. A primitive printing press permitted the copying of literature. Technological perfection of book printing has ensured the steady growth of mass literature and defined literature's leading place in the last century's culture.

One can observe a similar situation in the history of symphonic and opera music. Music presented in the author's performance in the beginning (for example, minstrel - unique medium). The heyday of symphonic music is connected with the discovery of graphic record of notes - of a new system of information recording. This system has permitted the wide reproduction of music at public concerts and opera performances. However music still remains an elitist kind of art, that is accessible only to a selected public. The appearance of new media, the means of recording and the reproduction of sound has resulted in the global success of music. Technological revolution - records, cassettes, radio and TV translations, CDs - made the twentieth century the true century of music.

This steady tendency for the development of both literature and music allows us to put forward the following hypothesis: the universal medium of information is replaced by a unique one in the development process of any kind of art.

The direct consequences of universal media appearance is the solving of the most urgent problem of the correct multiplication of the original. The result is an adequate reproduction of the original in mass editions of literature and music: a word is equal to a word, a note is equal to a note.

Development of art is accompanied by two information processes. An external process is a move to a more universal medium, an internal one is the perfection of the coding system.

Painting and Information Problems

Can we find laws which can be seen in the development of temporary arts, in the spatial fine art? Or do spatial arts live by other laws?

Let's consider a history of the modern day European painting. The appearance of painting is a transition from a fresco to a picture, a separation

of the image from the temple wall and the transferring of it onto board or canvas. That is, the appearance of painting is defined by a new medium of information according to general laws. The rise of painting in 19th century coincides with the time of the next stage of technological acceleration, of active progress in chemistry and the appearance of new paints. Obviously, it is possible to present these processes as perfection and, as a complication of the coding system.

However, more than a century (after discoveries by impressionists and Cezanne) the system of coding in painting has practically not been changed. Visual code complication was finished by transition to closed esoteric language of abstract painting.

There were undertaken attempts to find the universal medium, to solve the problem of multiplication in the field of fine art. Reproduction of pictures has been well-known for a long time and is introduced quite widely. However, until now qualitative duplicating was out of the question. A reproduction gives the very remote representation of the richness and intensity of the original visual image.

The absence of adequate reproduction and as a consequence, the huge value of the original, gives birth naturally to many falsifications from imitations of low-type to criminal counterfeits. The problem of the authenticity of Van Gogh's paintings is quite serious.

So, it is possible to ascertain that the development of the coding system in painting has been proceeding in a narrow framework and has not created the right conditions for the appearance of the universal information medium.

Art of the Past or the Future?

Technologically non-validated development of painting is the evidence of a deep absence of social claim on it. Only 10-15 years ago reality showed that painting is an

archaic kind of art and more modern informative visual arts (cinema, video) are superseding this art.

However, the situation has resolutely changed in the last few years. The modern techniques of recording digital images offer a wide choice of magnetic and magneto-optical media and this choice extends with each year. The problem of the universal medium of the information was unexpectedly solved.

If we choose as the image's main characteristics size, texture or colour, it is possible to note remarkable progress. Millions of gradations of brightness and colour already allow us to come nearer to the original.

It is necessary to solve the problem of the "emulation" of real perception that the electronic image has become equivalent to a canvas or sculpture. There are some ways to this major purpose (in particular, exact reproduction of the original): increase of the sizes of the screen, use of a holographic principle, creation of the image on the retina of the eye with the help of optics and software. Probably, all variants and their combinations will be tested. However, perhaps the last one is the most perceptive, its advantage is in an integrated approach. For example, questions of real scale and three-dimensional vision find the solution in this case simultaneously.

The process of technology will allow us to reproduce the real sizes and smallest details of the texture and will solve the problem of the reproduction of the art object (physical space of art work in a virtual reality) - a problem of adequate duplication in fine art.

The rates of progress promise that time is already close when the expert will be unable to distinguish the electronic image from the real one and everyone will be able to see absolute "reality" in Michaelangelo's *The Last Judgment*.

The influence of Michaelangelo or Velásquez is not mystical, their "aura" arises in the flows of light reflected by the canvas. A reproduction does not

convey the force of the original for a lot of the reasons. The serious meaning has the connection of the visual cerebral cortex with other departments of the brain, the visual perception with kinetic sensation, with the sixth sensation - the sensation of gravitation. The secret is simple - a copy of low grade is not capable of including these small but important correlations. The high-quality reproduction of the images will exhaust the need for counterfeits and will stop a flow of imitations of low quality.

The material value of the original will be dissolved, apparently, under the conditions of information freedom just as, probably, the property right to the image. Such a right to Rembrandt's *Night Watch*, Homer's *Odyssey* or Newton's law of gravity is justified in equal measure.

Well, what about a museum, what about a proprietor of art works? The universal media of the image will make the riches of galleries and museums as accessible as a book, audio or videocassette, and will essentially change the role of a museum and its place in culture. The museum will find an essentially new role besides the natural function of archives and the reliable storehouse of the invaluable originals.

It is necessary today to connect hopes for fine art revival, for increasing its influence in culture not with exposition spaces expansion nor traditional exhibition activities, although they are certainly useful and necessary. But, first of all, these hopes can connect with an active use of the advanced information technologies in the field of creation, processing, storage and reproduction of the images.

However, only the development of global networks create conditions for solving, not theoretically, but practically the basic task, that a real museum cannot necessarily solve, just as global networks can ensure absolute and complete accessibility to art works. An art work will come to the spectator by means of the universal

spreading of these networks and inclusion of museum-banks in the Internet.

The museum of the 21st century will turn from a place of ritual pilgrimage to the centre of management of electronic images bases.

And only then hopes will come true - the hopes, that painting is not the art of the past, but of the future, of the time when human consciousness will find the ability to read out confidently the integrity of the static information of fine art.

- 1 Moles À. *The Information Theory and the Aesthetic Perception.* - Moscow: World, 1966.
- 2 Bernstein B. *To the disputes about the specificity of spatial arts.* Soviet Art Critics, 23, pp. 276-296. - Moscow: The Soviet artist, 1988.

