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Comment

SCIENCE CENTRES AROUND THE WORLD SEE UNREST FOR ART AND SCIENCE IN SOCIETY

Somewhere between art and science

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ABSTRACT: There is a fundamental difference between artists, who use science as an object of social examination, and artists, who believe that science represents a component of their expressive style. The idea that different ideological manipulations of the Art&Science concept can cause a distorted view on this fascinating and at the same time controversial relation is becoming clear. In our projects we use different technological and scientific applications; to us technology is an integral part of our artistic expression. The scientific and analytical approach that we use when we investigate and solve various operations within our projects, indicates that our system is based on collective and systematic work and it allows us to understand better the different problems and relations of contemporary society. Art has always played an important role in the system of the communication of ideas and feelings in a tight connection with contemporary society. No wonder that the artist today uses the methods and technologies of modern and sophisticated devices. We are all users of new technologies, developed with the help of scientific discoveries in order to satisfy our needs. Anyway the belief that society borrowed research in the field of science and technology in order to survive is incorrect.

The gathering and the formation of the BridA group took place in the Venice Academy of Arts, where we began with similar starting-points and then concentrated mainly on some aspects, linked with the origin of fine arts. Although the classical Academy mainly provided knowledge about painting and sculpture, which are the dynamics of the surface and the harmonious distribution of the elements on this surface, we were essentially interested in the process, which leads through the production and self-criticism to the shaping of the artistic work. Our artistic works started to gain the shape of the reflections of the artistic process and they were similar to elementary compounds with a precisely defined order, which contained all the features for the development of artistic interpretations.

Of course, at a certain point the analysis of the origin of the artistic work needed to be as objective as possible, so that we could control the changes in the process and measure them up to the point when we decided that the artistic interpretation was worth the creation of a new artistic product. This fresh and different approach in the planning and construction of the artistic process offered us stimulating results, especially in the artistic form. The analyses became more difficult and complex, since we started to use scientific methods for the treatment and the analysis of the data. Thus we led the project Modux 2005 into scientific waters, a decision confirmed by the invitation to present and show the project in the gallery of the Slovene National Scientific Institute Jožef Stefan. This was our first official contact with the scientific environment and at the same time it was an opportunity to cooperate with the scientific world. We soon discovered the opportunities and the new horizons offered by science, but we were especially interested in the analogies, which were easily applicable in arts. We were fascinated by the analytical processes in research and scientific experiments.

Our contacts with scientists and scientific centres were mainly based on the research of links in the analytical processes. We analyzed the process of the development of an artistic work by systematically including the modules, which allowed the analysis itself, in the process. The modules need to contain the opportunity to gather and record the data and their analysis. With the help of scientific centres we were able to experiment and develop different logical solutions, which allowed us to carry out an analytical approach towards the artistic applications. The Modux Project awoke great interest in both the artistic and scientific fields. The invitations to visit the universities, such as the University of Maine in the USA

in 2005 and the visits paid in various centres, such as the ZKM in Karlsruhe in 2006 - 2007 or the Ars Electronica Linz in 2008 gave us the opportunity to develop the project up to the current complexity and refinement. The scientific experiences acquired by working in cooperation with engineers, scientists and artists, offered us a view on new horizons and challenges. The project, Modux 3.0, was carried out in cooperation with the centre for the new media and technologies ZKM Karlsruhe and the Modern Gallery of Ljubljana in the framework of the triennial of the Slovene contemporary arts; it supported the development of the arts product in the real world with the interaction of the public and in connection with two geographically distant places. The concept of the project was based on the research of the artistic form, whereas the use of a sophisticated technology for the transfer and processing of data offered us unlimited applications. In this way, with the help of science and technology, our projects entered new dimensions, which were no more physically defined, but developed in a sort of information ecosystem. The logical consequences of the introduction in an interdisciplinary space are the doubts and the questions of the sceptics and the critics, who on the one side speak in favour of the authenticity of the artistic evidence, and on the other side they defend the dogmatic role of science. The history and the improper use of specific notions contributed to the development of wrong interpretations. On the basis of our experience we may say that we have always been surprised by the openness of the scientific spirit and we are discovering day by day that scepticism is the fruit of determinate political or ideological conflicts, linked to the interests of some individuals.

If we go back to the theme that links science and art in our projects, we find out that this system, which unites the analytical and the subjective interpretation, allows us to approach each real problem, be it scientific or artistic. Similarly, by comparing the results we will find analogies, as this is a data gathering and a calculation based on probability equations, which enable us to forecast the results and to give evidence with the repetitions of experiments. If we analyse the whole artistic process only from the analytical and logical perspective, the result may be interesting only from the sociological point of view. For us this approach meant something else; segments of logical analysis in the process of ideas' shaping enabled us to follow closely some processes and ended up with completely different results.

The artistic work was therefore built with segments of objective and rational approaches and with elements of subjective and intuitive choice. For example we used the Fourier transform for the visualisation of the data with the programme code and for their subjective application in the artistic composition. All this enabled us to change completely the approach to the development of the artistic work and reach the idea of the final product. In this situation we could programme only the process, which did not allow us to visualize the final shape of the artistic work. The objective was met, as the only possible result was the compromise between the logical and the irrational. From the scientific point of view this experiment is not very important, as the process cannot be repeated and it has no analytical value. From the artistic point of view the experiment is a dramatic change in the process and in the evaluation of the notions, with which the artist develops and builds the information to be mediated to the outer world. The reached effect is a paradox from all the possible viewpoints, as it appears in the creation process as a shock, which destroys the harmony of the composition of ideas and feelings, combined by the artist in a pure biological way to reach the final composition as well as to create an artistic product at the end of the logical process. Our intervention prevents the artist from reaching his goal, as it constantly creates a short contact, which leads the artist to an uncertain situation where he is forced to redefine his role.

The artistic practice used in the past, which was linked to science and technology, was almost always a magical reflection of the achievements in these fields. It rarely made good use of the mentioned fields as a tool for the production of art. The link between the different branches was therefore only apparent. We may say that it developed only on the level of notions without links, which would make up a structure and constructively intervene in art.

Our scientific and artistic approach does not allow a harmonic fusion of different views, but tries to use contrasts and disharmonies to change what is fixed in the social consciousness as scientific and artistic. We find out that these are mere definitions, which are anchored in our subconscious, they are a kind of compulsory truth and they make a free entrance in the interdisciplinary cooperation impossible.

Having a scientific approach, even if such an approach, which is in line with our acquired knowledge in this field, means that also art can have a part in the structure, which responds to empirical understanding of the result. If we briefly summarise one of the proceedings, used for the elaboration of the landscape picture on a classical surface, we may make clear how these two fields do meet in the process of the development of a classical artistic work. In contrast with the classical approach to the elaboration of a

landscape picture, where the painter puts its painting equipment in a certain point and represents the landscape on the painting canvas, we put our measuring tools in a certain point and measured a wide spectrum of data with standardized devices. We gained data results, which grasped information, such as the strength of light and sound, the temperature, humidity, the speed of the wind, the exact location, etc. These data were analysed and divided into groups, then the groups were transformed into simple artistic patterns, with forms that were a precise reflection of the gathered data. In order to achieve an efficacious artistic product we conceded to ourselves to change the colours on the basis of an artistic assessment and to rotate the patterns, which were then transferred on the canvas. The result was of course a pure abstract painting, where patterns of interpreted colours were intertwined with measured sizes, presented in the forms of the patterns. Thus the empirical method enabled us to reach completely different images of an artistic painting of a landscape. The principal artistic dilemma and the value of such a work is the degree of reality offered by the work, even if the naked eye cannot see it.

In the different development phases of our artistic experiments the methods and the spheres of science had a great influence from the point of view of the observation of the artistic process. The project Modux 3.4, which was presented at the international festival Ars Electronica 2008, was based on the comparison between different systems of movement from micro-parts to a macro-world, which includes also the movement of men. With an integrated programme code we made possible the sketching of dynamic structures, which on the one hand illustrated the chaotic movement of the organisms, and on the other hand illustrated extremely interesting compositions. Also in art, just like in science, this is possible, even if the conditions of the research consistently change in the single fields. We only need to change the conditions in the process and carefully follow the results. For example, in the nanofield the proportion of the size is completely different, the gravitation and its influence play a different role if compared to the effects we are used to. For this reason we witness different processes, such as the self-assembling, and structures, which prefer defined forms. The atomic physics have its laws and tools, great speed inside the accelerators, which enable high-energy events and experiments. All those are motivations for new researches in art, all these are processes, which can create and solve numerous issues, which stem from art and similarly from science and its methods.

Consciousness and knowledge of science and technology are important also for those artistic works, which intertwine the opportunities at the conceptual level and ask the observer to perceive the artistic value with his/her comprehension and understanding. These are invisible events or situations, which may become more perceivable with the help of science. We can strengthen the force of perception of this kind of artistic products. Of course, this is not necessary, but in the formation of such a work it may contribute to a better analysis and above all to the consciousness of the artistic value.

Our most recent project, the Information Accelerator 1.1, 2009, is a complex integrated unity, concentrated on the process supporting the artistic event, which does not hide the ideas from the scientific universe. It creates the conditions for greatnesses, which are in contrast with small atomic parts, and represents data, manipulates them and transforms this information in a sound-visual trace. We are still devoted to the artistic form as a result of the experiment, even if our creative energy is mainly oriented towards the process, which feeds this form. Once more we tried to use the elements, which enabled the programming of the operation in the artistic structure and thus hindered the defined message, which could be understood by the artistic setting.

In this project we declined one's own selection of the data, as we are not interested in their origin. Information comes from different bases and systems. We are interested in the process of transformation and in the synthesis of the information in a physical greatness. We are interested in the moment in which the artistic idea is transformed by the process of the data conversion and gains artistic value.

Translated by Luisa Vigini

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The Slovene artistic collective BridA / Jurij Pavlica, Sendi Mango, Tom Kerševan – was created in 1996, when its members were studying at the Venice Academy. Since then the BridA has developed a series of top-level artistic projects at an international level. It questions the artistic contents and researches the contemporary society with the help of art and science. Even if the members have a strong academic basis, they deny the auto referential views of the theorists of the new Europe. Eight year later the

Borderpass project travels the world eight times: from Venice to New York, back to Europe in Dresden and then in Australia. In October 2006 the collective cooperates with the ZKM Zentrum fur Kunst und Mediatechnologie in Karlsruhe, where it develops the project Modux. In February 2007, after being invited by the European commissioner for science and technology Janez Potočnik, the BridA collective presents its projects in Brussels within the framework of the initiative for the support of science and technology. In June 2008 the collective takes part in the artistic residence in Fondazione Ratti Como. In September 2008 it exhibits its project Modux 3.4 at the Ars Electronica festival in Linz.

Up to now no artist of the collective wanted to work as an independent subject. The work in a group, with the signs of an enterprise or of an organisational system, is for them a greater challenge. The artistic production of BridA is based on videos, graphic arts, painting, photography and multimedia installations. The continuous passage from the two-dimensional artistic surface in a tri-dimensional space is reversible and alternating. It is similar to a journey, where the road is more important than the destination. For BridA the search for the path and the process of creation is more important than the final product. The processes of research and technological application are part of the artistic creation and are oriented in an artistic production, which acts as an independent body and can be self-updated and self-completed. The BridA combines technology and artistic thought. This kind of investigation and knowledge of the machine technology is in itself an artistic process. E-mail: brida@siol.net.

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