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Analytical photography as a new tool for the representations of reality

Dmitry Karpov *, Yuriy Kryuchkov

National Research Tomsk Polytechnic University, Lenin Avenue 30, 634050 Tomsk, Russia

Abstract

In this article, the authors examine the history and the fundamental problems of photography as an edge between art and technology. Photography is emphasized as a mean to an objective representation of reality, and according to that it is differentiated on the basis of its functions and a vector of development in socially important context is offered. The authors introduce the notion of analytical photography as a mean of analytical research such fields as anthropology, sociology, journalism, urban design, as well as in those areas where the solution of a research task is based on visual information.

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1. Introduction

We live in the epoch where information takes unexpected forms. In Berlin there is a building, called Marie-Elisabeth-Lüders-Haus, which is a part of architectural complex Band des Bundes (Federal Stripe). Name of the complex is due to its location on a bend of the River Spree. This architectural concept is the result of an open international competition on urban design ideas which was conducted in 1992/93 in order to create a complex of governmental buildings. Formation of a new image of Berlin is a major challenge since the management of the city is back to German government after the fall of the Wall (Naraelle Hohensee, 2010). And while some of the post-war city parts gradually changed through the use and development of the theory of Critical Reconstruction and some other innovative solutions in architecture, the governmental quarter is shaping due to thought-in-detail modern architecture.

Each building of the Federal Stripe carries its particular function and is connected to the other, as in the visual sense, and in infrastructure. The concept of the architects has primarily social significance. This huge government

* Dmitry Karpov. Tel.: +49-174-24-77778
E-mail address: hardrijam@gmail.com

complex in the heart of Berlin aims to be not just functional, but must carry the story and the idea to show the current state of society, as well as symbolically linking East and West Berlin because of its design and location (Claire Colomb, 2011). Marie-Elisabeth-Lüders-Haus includes a library of legal documentation, the third largest in the world after Tokyo and Washington, and a few meeting rooms for the parliamentary discussions. Notable is the location of the object, it is directly placed where the Berlin Wall was in the past, and a piece of the wall is on the first floor of the building right in the hall (author's note: not in the center of the room but to the side), as a reminder of the city's past. It is not just a piece of the Berlin Wall that is the reminder, but the building itself as a whole. In social networks, there is a saying about this building, defining it as a "legacy of concrete, which will never let Berlin to forget its past". This is a piece of information that in unexpected way captured in the form of an architectural object. Strong and complex geometry, a reference to the past, is the opposition to the super symmetric Germanics of Hitler's architects. Bare concrete is the basic material of the Marie-Elisabeth Lüders-Haus. Neat, clean, textured, yet simple and cold concrete, by its very existence the building reminds us about the other architecture, the architecture that was not taking into account resources and the number of human lives spent for the sake of its large scale projects and exquisite facades. The simplicity of the materials used in the construction of the Federal Stripe in general also contains the dull atmosphere of socialist architecture of the postwar period. But there is a "bright side" of the building, which balances.

Clean green glass, halls opened for light, and no fences around the complex. Anyone and everyone can sit down on the standing out facade of the building and silently observe the work of a giant governmental apparatus. Or go down the large concrete steps to the water surface of the river. All this represents the new Germany. It is an open architecture and open society. Balance between errors of the past and confidence in the power of each individual, and in his future. This is not a message that all the bad things are left behind, and that from now on only bright and sensible ideas will flourish. But this is a static picture of a dynamic ensemble of buildings, narrating to us the history of human civilization, on example of one city, one nation and one century.

Honore de Balzac once said that architecture is the reflection of morals. An interesting and accurate observation. The state of society as a whole is very well reflected in its architecture. And to understand the people of the society it is enough to pay attention to where they live and work. But can any person read the information hidden in the lines, material, and volume even if not of the whole complex of the Federal Stripe, but at least in the building Marie-Elisabeth-Lüders-Haus? Is it possible to transfer the foregoing narrative using photographs? Can we see what is seen or understood by others? And if so, is it possible to transfer through the photograph the experience, what has been done and understood by other people?

Finding an answer to these questions will take more than a decade. We will try to make the first steps towards assessing the "visual turn", happening in front of our eyes.

2. The form or the content

The invention of photography in the early 19th century was the beginning of realization of the people's dream of objective representation of reality. With the introduction of photography into newspapers' and magazines' articles, materials began to look more realistic than pure text. As Ansel Adams, one of the most influential photographers of the last century, said: "Not everybody trusts paintings but people believe photographs" (Anneloes van Gaalen, 2013). Inevitable questions have been raised about whether photographs are able to transfer the atmosphere, mood, etc., rather than a simple transfer of documentary sense. And is it possible to say, with a reasonable degree of certainty, that photograph arouses in person a sense of authenticity, meaningfulness, originality of the moment captured within it? Researchers in the field of theoretical understanding of "ontology of photography", which in turn is only one of the areas within philosophy of photography, are trying to find the answer to these question for the past century. The search is so complex that the term "ontology of photography" has constantly been changed, the content has been added. Developing its ideas from the simplest interpretation of photographs as documentary copies, reflections of reality, through the ideas of photographs as a part of

supplementing reality, to understanding that a photograph itself is the sole and unique, especially given reality, with hidden potential. One of the first who at the beginning of the last century spoke about the phenomenon of photography that can not be ignored was an American philosopher and writer George Santayana. By recognizing the pragmatic function of photography as a new technical mean by which humanity reproduces its experience, he “discovered” a new stage, expanding the horizons of philosophical understanding of photography: “... to be perfect, they [photographers] have to transform their subject for meeting with preconceived interests of the audience. However, camera does not have a human prejudices, it is not capable of selective attention or to pulse imagination: it seriously does its serious work.” (Santayana G., 1905). We can say that these words were prophetic, though in those years the attitude towards photography was scornful as it was just “coping nature”.

Gradually the attitude towards photography became even more ambiguous. Dependence of photographs on the context and on the elements presented in them (author’s note: the presence of a flag or a company logo on a photograph can greatly change the interpretation), as well as the development of image processing, provided the opportunity for different interpretations of the photographs and of the information imprinted on them. It has been suggested that what makes photograph a piece of art at the same time deprives its objectivity. Here is an example. Outstanding physicist Walter Lewin at the end of his lecture on the art of the first quarter of the twentieth century said a very important idea about the difference between art and science. In the most general form the idea is following: science can be right or wrong, but these two categories have nothing to do with art. Art can be good or bad, but it can not be wrong. In contrast to science, art can not be tested, verified. Another clear example of the thesis of the subjectivity of the art and its relation to photography: a well-known photographer and artist Man Ray called the photography “the lowest form of art”. It is difficult to define more precisely the position of the photography in the art’s world. Photography is at the intersection of technology and art, one might even say at the junction of registering reality and visual sculpture of this reality. As a sculptor, photographer cuts from the visual world that what he believes is superfluous. This complicated interpretation of photographs places it on borderline, but at the same time, thanks to an increase in the market of photographic equipment and simplicity of human perception of visual information, photography is becoming more and more widespread mean of creativity. But then again, art can not be true, it can be either good or bad, and the quantity rarely delivers quality.

Art, anyway, is based on a personal interpretation / vision of the artist and on stimulation of the audience to seek their own. That is we underline again: art is subjective. It is necessary to quote another classic of photography, Walker Evans, who gave a rather critical assessment of documentary photography as an art object: “Documentary is a very sophisticated and misleading word. And not really clear. [...] The term should be documentary style. [...] You see, a document has use, whereas art is really useless. Therefore art is never a document, though it certainly can adopt that style” (Leslie Katz, 1971) (author’s note: saying “useless” Evans means the absence of practical use but not the absence of meaning).

Based on this statement we can assume that the goal of the photographer divided into two components, such as the creation of a work of art and the creation of a document, can show the first step in understanding the principles of socially-important photographs. This “step” was made in 1977 by Susan Sontag in her book “On Photography”. A new understanding and a new interpretation are handed in one short paragraph: “... nowadays we are inclined to ascribe to the real objects a quality of an image. Images turned their weapons against the reality, from the copies they have become defining reality models. This leads to the fact that the theory of photography expands to the social theory” (Sontag S., 1978). It is in the aspect of photography as a representation of social and informational reality it seems to us necessary to consider the types of photos that are taking place in the media. Conventional division into types, in our opinion, is dictated by the need to structure the experience gained in the philosophy of photography.

The first type we call conditionally “art” type. It carries many elements of art, such as artistic use of composition, colour schemes, easy or deliberately difficult readability, cropping, etc.

The second type of photos we call “event” type. It is built generally around the event and the information within the frame. It is focused on the information rather than on to its artistic representation. Undoubtedly such

images usually contain a large amount of information, but are difficult to “read” by an audience. It is known that the representation of textual information in the format infographics is much more efficient to read. Artistic techniques in photography allow us easier perception, although the image loses some information in the process because of favourability towards aesthetic features.

3. New opportunities

We live in the era of information. Information surrounds us, affects us, changes us, creates and destroys our understanding of the world, by giving the opportunity to learn it from different sides. The place of photography in this “brave new world” is difficult to clearly define. And although photography is the lowest form of art, it permeates our society in all spheres. As an universal and affordable carrier of “easily digestible” visual information, photographs have great potential to document and analyze social, political, cultural, anthropological processes. Strive of photography to become a full part of the art world does not prevent it to perform its technical and research tasks, provided that it is a conscious decision of the photographer, which in this case becomes an anthropologist with a camera. The task of the photographer remains purely anthropological, that is the study of what are the humans essence in various spheres of life. But the tools and research subjects are focused on visualization. Development of photographic equipment gives more and more tools to work with. Only recently has the appearance of a line of mirror less cameras from Fuji created new standards of compact and professional cameras and now Polaroid announces the release of its new product, called Cube. A miniature action camera with wide features includes the ability to be attached to any metallic surface.

Advanced image processing techniques are constantly under development. Techniques such as Optical Flow has long been used in the assessment of dynamic processes, such as city traffic, through series of photographs. Various automatic algorithms allow literally pull out the information from photographs that is not accessible otherwise. In addition, there are also new shooting techniques. And established techniques are becoming easier to implement. Just a couple of weeks ago, developers of Instagram application, which itself is remarkable, released a new product called Hyper lapse. The application for a one-click-of-the-button time-lapse photography has a sophisticated algorithm of image stabilization. When you need to demonstrate a dynamic process it is difficult to find something more suitable than this technique. More important is that modern media is no longer tied to a paper format, and more frequently accessed on the Internet. It sets a precedent for use not single shots in the paper while transferring the information in the text format, but for balancing the information between visual and text, for its easier perception. The capabilities of modern programming languages allow you to create applications for audience itself to work with visual data, increasing the interactivity of the article. In fact, the final product we can imagine the material with which people work independently, analyzing it and leaving their opinions in articles, collectively working on it. Their work, in turn, becomes the object of study of sociologists, political scientists, and cultural studies. But it all starts with the work performed by an anthropologist with a camera, programming skills, advanced skills for image processing, and for presentation of information. And this we call analytical photography. Techniques of classical photography, in our opinion, will still be applied in the future to create better visually-readable photographs. But the focus should stay on the subject of research and the content of the pictures, rather than on their form. After all, as Ansel Adams once said: “There is nothing worse than a sharp image of a fuzzy concept” (Anneloes van Gaalen, 2013).

4. Conclusion

The growth of information volume in the modern world challenges researchers, both with new opportunities and new problems that must be overcome in the while processing the data. The information capacity of the image and its relatively easier perception compared to a text format makes it one of the most promising media.

Nevertheless the idea of photography as a region on the border between technology and art complicates and hinders its effective development as socially-important tool.

One of the ways is to create a new genre of photography with clear, scientifically formulated goals, objectives, methods, and topics. This will not only give new ideas for interdisciplinary research, but also will help to solve many of the problems that now exist in such genres as reportage and documentary photography. It is necessary to clarify the boundary between the technical and artistic photography, but without prejudice to the artistic component.

We put forward a thesis on the development of analytical photography, which certainly requires further study, but it has the potential to become one of the vectors of research in the philosophy of photography, as well as independent research tool in areas such as visual anthropology, digital anthropology, ethnography, sociology, social engineering, journalism, urban design theory, as well as in those areas where the objectives of study are based on the visual information of photographic kind. Using a variety of advances in information technology, visual anthropology, photojournalism, computational photography, image processing and infographics, will be the driving force in the development of this area.

In the future works we plan to develop a detailed methodology and demonstrate the capabilities and potential of analytical photography.

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