Examining the materiality of the photographic medium

Matei BEJENARU
Professor PhD
"George Enescu" National University of Arts Iași
ROMANIA[1]

Abstract: This article analyzes a series of artistic projects whose focus is the study of the materiality of the photographic medium within contemporary visual arts. More than two decades after the digital "revolution", the relevance of this type of artistic research lies in the analysis of analogue photographic language and medium as part of a post-conceptual approach. The artistic projects have examined the nature of photographic print, slide and visual projection. The photographic images used are pretexts for medial analysis, they should not be interpreted in isolation, but in the context in which they are presented. In this sense, artistic interest was guided towards the subject of representation, at the expense of the representation of the subject. For projects analyzing the nature of the photographic slide, multi-channel slide projections were used to amplify the visual perception. In the case of the photographic print, its objective dimension was emphasized by resorting to installation-type exhibition solutions. In the study of the projection process, a photographic object was designed and made with the function of obscuring a part of the light flow and creating the illusion of three-dimensionality by superimposing two projections.

Keywords: materiality of photography, projection, slide, print, medial archaeology.

1. Introduction

This article presents my own artistic research begun in 2018, concerned with the materiality of the photographic medium as a result of a long-term, consistent interest in medial linguistic analysis through the development of contemporary concepts and work methods using analogue photographic technologies. The research materialized in several personal exhibitions: *Diapozitiv* (*Slide*; Switchlab Space, Bucharest, 2020), *Print* (Artep Gallery, Iași, 2021), *Proiecție (Projection;* apARTe Gallery Iași) and *Diapozitiv_02*

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[1] mateibejenaru@yahoo.com

(*Slide_02*; Borderline Art Space Iași, 2023). The exhibitions were curated by the critic and art historian Cristian Nae.

2. About the photographic object

The most significant change in the production, circulation and consumption of photographic images was the digital revolution, which began in the '80s and continues to this day[2]. One of the consequences of this transition was the dematerialization of the digital image, that simply becomes information taking visual form as soon as it is accessed online or offline. This fundamental paradigm shift has been heavily analyzed and theorized, and many of the lingering questions regarding the status of photography today concern the status of the photographic object. A photograph must be viewed not only as a two-dimensional image but as a three-dimensional object as well, or, to put it another way, we can have an interest for the representation of a subject, the photograph as an image, respectively for the subject of the representation, the photograph as an object.

Re-analyzing the status of the photographic object is a consequence of the current photographic condition, when "the photographic medium is subject to the pressures of its disappearance and transformation into a photographic condition, event or idea"[3]. The return to the materiality of the medium and the appearance of object-based photographic practices should not be understood only as a reaction to the crisis caused by the "death" of the analogue image, but also as interest in the linguistic analysis of the medium (vocabulary, grammar, morphology, syntax) as part from a conceptual discourse. Thus, starting from the '80s, during the breakthrough of postmodernism in the visual arts, more and more contemporary artistic practices investigate artistic media, both from the point of view of identity and of their fusion. A relevant example is the artistic practice of British artist Tacita Dean who studies the medium of analogue cinematographic film, in a time when cinematographic film is on its way to extinction. Her monumental anamorphic projection on 35mm film entitled *Film*, displayed at London's Tate Modern in 2011, is an investigation into the production of film image through chemical and mechanical methods, while its rhythm achieved thanks to montage generates a visual poem.

From the perspective of reading images and constructing meanings, not just the photograph as an image holds meaning, but also its materiality, as well

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[2] Steve Anchell, Bill Troop (1998), *The Film Developing Cookbook*, Focal Press.
 In the book's introduction, Bill Troop states that beginning in 1982, major companies producing photo materials, such as Kodak, began hiring electronic and IT engineers to research and implement the digital platform.
[3] Sandra Plummer, Harriet Riches and Duncan Wooldridge (2011), *Photography's New Materiality*, in "Photoworks" Magazine, Great Britain, no.18.

as the forms of presentation and uses of the photography. In this sense, Elizabeth Edwards and Janice Hart state that "there is a need to conceptually break the dominance of image content and look at the physical attributes of photography that influence content through the arrangement and design of the visual information"[4]. These attributes are also related to the function of photography as social object.

The term *the photographic*, *le photographique,* was introduced by Rosalind Krauss through a series of texts[5] published in the early '80s containing critical analyses of the photographic medium, its historical relations with other visual media in the modern period, as well as the discursive spaces of photography. According to Rosalind Krauss, the photographic is defined as a set of attributes of the analyzed medium that creates the basis of a critical space, by means of which the photographic process is creatively redefined.

Fig. 1 Tacita Dean, *Film*, anamorphic projection on 35mm film, approximate size 7x13m, Tate Modern London, 2011

Personal artistic projects have in view a multiple analysis of the photographic medium from a historical perspective, from that of the functions of representation, respectively materiality. The archaeological dimension of bringing to the fore technological platforms from the past, such as the

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[4] Elizabeth Edwards, Janice Hart (2004), *Photographs, Objects, Histories. On the Materiality of Images*, Routledge, London, p. 2.
[5] Rosalind Krauss (2013), *Le photographique. Pour une theorie des ecarts*, Editions Macula, Paris, p. 51.

photographic slide, consists in attempting to give photographic language a contemporary reinterpretation. The limits of photographic representation are conditioned by the technology used and the thinking space in which we associate ideas with images. As I stated before, the photographic object is researched in terms of materiality, of its intrinsic properties that can, in turn, generate artistic meaning.

The interest in the technical photographic platforms of the past should not be explained by nostalgia, but by the exploration of photographic media with contemporary analytical means, in view of building a discourse open to new territories of the visual imaginary. The techniques used are not means of production and dissemination of images, but a cultural attitude[6]. According to art historian Michel Poivert, "the abandonment of historical continuities and the reactivation of past technologies are ways to give new life to photography within a new regime, where the image is on a par with the medium"[7]. The latter is an organic part of the photography, representing the rediscovered body of the new image, different from the digital, nomadic and dematerialized one.

3. The projects *Slide* (2020), *Slide_02* (2023) and *Print* (2021)

The central element of the two projects is the photographic slide understood as a sculptural object. By the chemical treatment of light-sensitive film, we finally obtain a positive image, whether black and white or in color, consisting of several layers of coating with metallic silver impregnated - in the case of color images - with red, green and blue pigments. All these layers are applied on a transparent base, usually cellulose triacetate.

Before conceptually analyzing the projects, I will make some clarifications regarding the photographic process of making the slides. Unlike color or black and white negative films, slides have higher color saturation and higher contrast, so a lower dynamic range. This is why, in order to have details in the light and dark areas, the subjects photographed must have low contrast and the light exposure must be extremely accurate. The development of color slides is done according to the E6 method patented by Kodak, which involves a first development that is important for obtaining the final image, a chemical inversion followed by a color development, then bleaching, fixation, washing and stabilization[8]. Some of the reactions mentioned above require to strictly maintain a working temperature of 38 degrees Celsius, with a maximum deviation of 0.2 degrees Celsius, in order to avoid chromatic deviations in the image.

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[6] Michel Poivert (2022), *Contre-culture dans la photographie contemporaine*, Les Editions Textuel, Paris, p. 92.

[7] *Ibidem*.

[8] Retrieved from https://imaging.kodakalaris.com/sites/default/files/files/resources/j83.pdf

All the images in the project were made in my personal laboratory as part of the artistic practice. The process of making slides is complex, it requires knowledge of photographic chemistry and, last but not least, is laborious and slow. Acknowledging this fact was part of the project's approach based on a significant artistic commitment. This fact distinguishes analogue photography practice from digital photography, where the selection process of a number of images taken more quickly and viewed almost in real time takes precedence.

Both projects analyzed involved multi-channel looping slide projections. In the *Slide* project, publicly exhibited at the Switchlab space in Bucharest in 2020, we had a synchronous projection of medium format 6x6cm slides on two channels, respectively a loop projection of a 16mm cinematographic film. The exhibition was conceived as an installation at the center of which was the photographic device composed of projection equipment and screen. The large size of the projections, approximately 2.7x5.4 m, highlighted the quality and visual expressiveness of the images and made a connection between the spectators' body and the artistic work, similar to the connection one has while contemplating large historical paintings. An important part in the installation was played by the sound of the slide projectors, conceived as a stand-alone experimental sound piece that amplifies, through rhythm and repetitiveness, a certain ecstatic-emotional tension when viewing the photographic images. In the case of *Slide_02*, exhibited at the Borderline Art Space gallery in Iasi in 2023, we opted for a looping slide projection on three channels using medium format 6x7cm projectors with high illumination power (6000 lumens), the size of the three projections summed up being 2x7 m.
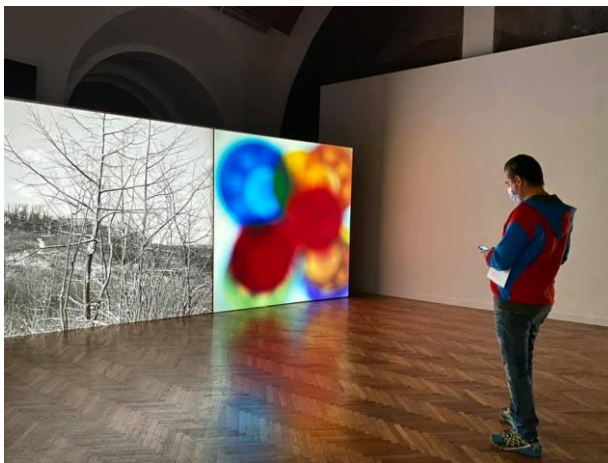

Fig. 2 Matei Bejenaru, *Slide*, looping slide projection on 2 channels, 2,7x5,4 m, Switchlab Bucharest, 2020, curator: Cristian Nae

The multi-channel slide projection solution was chosen to enhance the viewer's visual experience by invading space with the images projected. Historical references can be found at the conceptual artists of the '60s who, through experimental films, emancipated themselves from the classical cinematic code and the conventions of painting that implied the existence of a two-dimensional, unique image – window which projected the viewer into the visual universe proposed by the artist. Referring to video art, artist and media theorist Peter Weibel stated that "video artists of the '90s pursued the deconstruction of the cinematic code in a controlled and less subjective manner, applying strategies that in turn are methodical and closer to social themes than those of the '60s"[9]. Not accidentally, the project's artistic references are from the '60s and '90s, when the photographic slide was widely used by visual artists.
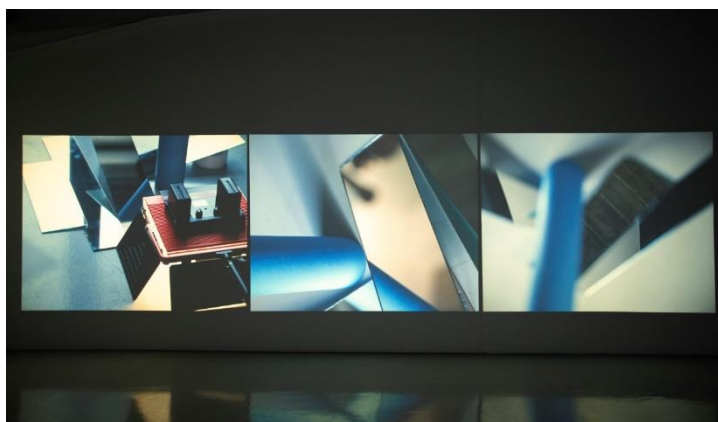

Fig. 3 Matei Bejenaru, *Slide_02*, looping slide projection on 3 channels, 2x7m
Borderline Art Space Gallery, Iași, 2023, curator: Cristian Nae

The narratives in the slide projections are fragmented, there is no logical thread of action converging towards a climax and a *denouement*. The visual diptychs and, respectively, triptychs were grouped into thematic modules that are presented in a series. Because the displaying time of the images is equal, a visual rhythm is created that substitutes classical montage, being supported by the sound environment of the slide projectors. If in the project *Slide* the images show the photographic technique, the photographic process, the emotional experience of working in nature understood as the reality to be represented, in *Slide_02* the photographic leitmotif in the triptychs is the relativization of the station point and testing the limits of recording chromatic information on film,

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[9] Ursula Frohne (ed.) (1999), *Video Cult/ures: Multimediale Installationen der 90er Jahre*, DuMont Buchverlag, Köln, the article of Peter Weibel, *Narrated Projection and New Forms of Narration in the Video Art of the Nineties*, p. 26.

from maximum saturation to infinitesimal chromatic transients. The last module of both projects is similar and displays abstract images whose function is to visually render the ability of photographic emulsions to record color information. The subjects in the images are mere pretexts for the aforementioned artistic intentions, but some of them, judged separately from the context of the projection, are visual quotations from the history of the photographic image, the feeling of the sublime in landscape photography or the compositional rigor in formalist interwar photography. Through their size, expressiveness and chromatics, the images projected were designed to create an immersive, intensely emotional experience for the viewer, which cannot be found in digital projections.

Fig. 4 Matei Bejenaru, *Slide_02*, looping slide projection on 3 channels, 2x7m, Borderline Art Space Gallery, Iași, 2023, curator: Cristian Nae

The analogue photographic print has been the subject of artistic research since 2021. As in the case of the slide, the photographic print is understood in its double condition: an image that stands for a certain reality and a conceptual sculptural object, which is the end product of a rather complex chemical processing procedure of a paper base on which a light-sensitive layer has been applied. In the case of the Argentine print, fiber based photographic paper with a barium sulphate coating (fiber based Baryta paper) was used, which was developed and toned in selenium in my laboratory. The technique of the Argentine print has established itself since the late nineteenth century as the longest-lived and most used technique for producing analogue images. In the twentieth century, generations of photographers, from documentary filmmakers, photojournalists and commercial photographers to artists have created a

significant culture of the Argentine print made in the darkroom. Photography artists such as Edward Weston, Ansel Adams or photojournalists like Eugene Smith had a decisive role in the development of the artistic print culture, the *fine art print*, as a museum-worthy work of art.

Another technique experimented with in the project *Print* was *platinum palladium*, based on the platinum printing technique first patented by the Brit William Willis in 1873. In addition to the aesthetic quality of the image due to the rich range of grays and good tonal separation in light and dark areas, *platinum palladium* prints have a very good archival stability. The making process is slow and laborious and is based on a lot of manuality, because the emulsion is prepared and stretched with a brush on paper – and this highlights a procedural and performative dimension of artistic practice. In order to give a more transparent reading key to the viewer, we chose an installation-type exhibition in order to raise awareness on the object dimension of the print.

Similar to the projects involving slides, images are a pretext for analyzing the elements of photographic language associated with print: tonal separation, dynamic range, general contrast and micro-contrast, chromatics. Most of the photographs were taken at a cast iron foundry, precisely in order to emphasize materiality; the metal structures photographed took shape on the print paper by using coatings with metallic silver, platinum or palladium. During the exhibition, the installation formula was part of the artistic concept of the project, focusing on the objectuality of the prints and the spatial relations between them.

Fig. 5 Matei Bejenaru, *Print*, detail from the installation, Artep Iași Gallery, 2021, curator: Cristian Nae

4. The *Projection* exhibition (2022)

Projection consists in reproducing a slide on a screen with the help of a light beam. Since the projection itself is immaterial, an accumulation of shadows and lights visible on the screen, I focused my research on the material devices that make it possible to visualize the image, the slide projector and the screen. Analyzing the photographic device, I creatively introduced a new element called a photographic instrument that had the function of shutting out a portion of the projection in order to project a new image in that area. Studying the evolution of science and technology in the seventeenth and eighteenth centuries, prior to the appearance of photography, I noticed the development of technical objects built on the basis of knowledge of the laws of mechanics. The historian of science Domenico Bertononi Meli identified two types of instruments that emerged in the seventeenth century: philosophical objects, such as the microscope, the telescope, the barometer, thermometer and mathematical objects, especially measuring instruments[10].

Studying the geometry of the image projections, I identified the possibility of building a "mathematical instrument" that acts as a shutter, according to the same principle as cameras. The photographic device for projection involves geometric calculations that result in the shape and spatial positioning of this device. By superimposing two slide projections, I found a spatial perception of the composite image due to the shadow cast by the shutter. As in the other projects studied, the images in the photographs are pretexts for studying the visual vocabulary, with a special interest in the chromatic fidelity of the subject's reproduction. The images in the small projection representing a hand and an object of study refer to the idea of rational investigation of a subject.

Image on the left-hand side: the photographic device is turned off at the APARTE gallery in Iași during the exhibition *Projection* in 2022. The "mathematical instrument" created acts as a shutter screen that facilitates the overlapping of multiple slide projections.
Image on the right-hand side: The photographic device is in function.

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[10] Domenico Bertoloni Meli (2006), *Thinking with Objects. The transformation of Mechanics in the Seventeenth Century*, John Hopkins University Press, Baltimore, p. 3.

5. Conclusions

The artistic research focusing on the materiality of the photographic medium was achieved by creating artistic projects dedicated to certain photographic elements or processes such as slide, print or projection. The interest in such a subject is justified by the attempt to reanalyze the identity of the photographic media through specific technological platforms. Studies on the materiality of photography increased along with the beginning of photographic archives digitization in the '90s, when museographers and curators attempted to give an answer to the revalorization of photo artifacts post scanning, be they negatives or prints. Once the "digital shock" was overcome in the late 2000s, interest in reevaluating photo image production methods and platforms emerged in an artistic context. Last but not least, I was guided by the desire to apply contemporary concepts such as medial archaeology and linguistic analysis of the medium through work methods specific to analogue photography. A constant challenge in developing the projects I presented was to define artistry and creativity without falling into didacticism or hermeticism. I found the answer gradually, as I progressed with my work and defined more clearly the theoretical research framework in the linguistic and medial area. This led me to a major paradigm shift, that is shifting interest from the representation of a subject to the subject of representation. In this manner, the images became pretexts for the aforementioned analyses. Taken out of context, some of them can be assigned new meaning and be interpreted through the lens of the history of photography, which, I consider, makes the project not too dry or unseductive for the viewer. But those images brought back into context return to the original function for which they were made, which is to orient the viewer to have a closer look at the potential and limits of photography in representing reality and visual communication.

Bibliography

Anchell, Steve, Troop, Bill (1998). *The Film Developing Cookbook*, Focal Press

Edwards, Elizabeth, Hart, Janice (2004). *Photographs, Objects, Histories. On the Materiality of Images*, Routledge, London

Frohne, Ursula (ed.) (1999). *Video Cult/ures: Multimediale Installationen der 90er Jahre*, DuMont Buchverlag, Köln

Krauss, Rosalind (2013). *Le photographique. Pour une théorie des écarts*, Editions Macula, Paris

Meli, Bertoloni Domenico. *Thinking with Objects. The transformation of Mechanics in the Seventeenth Century*, John Hopkins University Press, Baltimore, 2006

Poivert, Michel (2022). *Contre-culture dans la photographie contemporaine*, Les Editions Textuel, Paris