

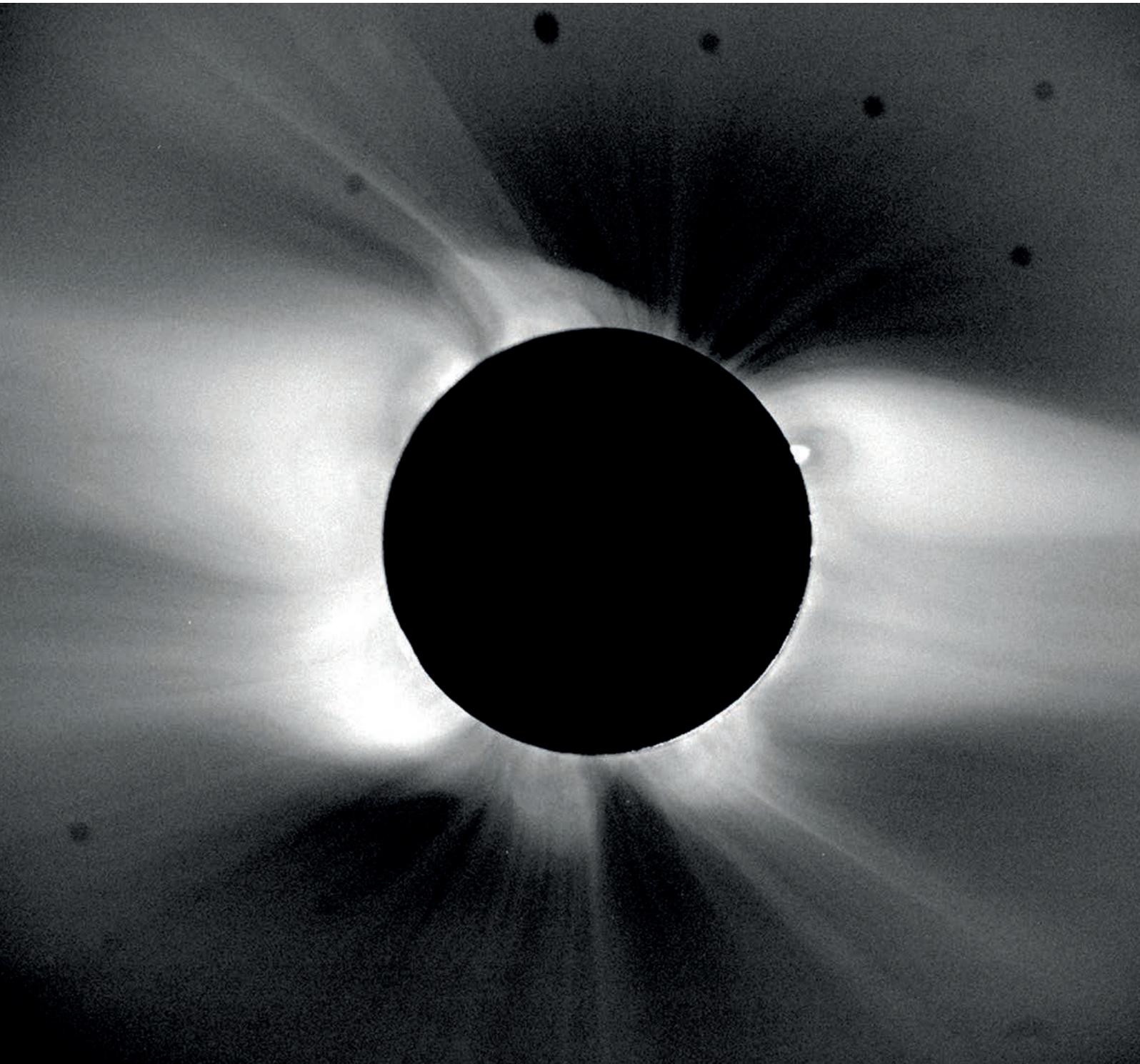
# UMĚNÍ 3 ART

LXX

2022

ČASOPIS ÚSTAVU DĚJIN UMĚNÍ  
AKADEMIE VĚD ČESKÉ REPUBLIKY

JOURNAL OF THE INSTITUTE OF ART HISTORY  
CZECH ACADEMY OF SCIENCES



EDITOVANÉ ČÍSLO O FOTOGRAFII A VĚDĚ / SPECIAL ISSUE ON PHOTOGRAPHY IN SCIENCE  
 EDITORKY / EDITORS: BARBORA KUNDRAČÍKOVÁ, FEDORA PARKMANN

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Photo © Katarína Poliačiková

NADIJA BERNARD KOVALCHUK – SORBONNE UNIVERSITÉ PARIS / MUSEUM OF KHARKIV, SCHOOL OF PHOTOGRAPHY

## Scientific Imagery Re-Coded: The Appropriation of Scientific Photography Aesthetics in The Late Soviet Non-Official ‘Creative’ Photography – The Case of Oleg Maliovaný

The relation that Soviet official photography maintained from the end of the 1950s to the mid-1970s with the scientific world was extremely strong. While Stalin’s Great Break (1928–1931) had transmitted a negative image of professors as suspicious, unjustly privileged bearers of theoretical, abstract and ‘impractical’ knowledge from an outdated, pre-revolutionary world, during the Thaw, scientists, physicians in particular, were placed on a pedestal, as new heroes of the present day.<sup>1</sup> While in 1956, the Twentieth Congress of the Communist Party and the denouncement of Stalin’s personality cult by Khrushchev brought to Soviet society a sense of confusion, and the loss of ideals and support, the presumed scientific ideals of honesty, objectivity, and universalism acquired the status of a new ethic, and science itself became a new public cult.<sup>2</sup> According to the journalists and writers Pyotr Vail and Alexander Genis ‘*Science seemed to be the long-awaited lever that would turn Soviet society over and transform it into a utopia, built, obviously, on the basis of hard knowledge.*’<sup>3</sup> Even if during the following decade, in the 1970s, hard science no longer succeeded in fulfilling the role of a universal remedy for all of Soviet society’s ills, it retained undeniable social prestige, and scientific progress kept its status as a national priority.

The official discourse on photography was also included in the transmission of this myth about science. Scientists, scientific institutions, and evidence of technical progress were praised as particularly noble and worthy subjects for both professional press photographers and amateurs. In 1958, *Sovietskoye Foto*, the sole specialized photo magazine in the USSR, reported that ‘*the Twentieth Congress of the Communist Party of the Soviet Union set exceptionally important tasks regarding the development of our industry, technical progress, and improvement of the production organization, as well as in the field of construction. Apparently, amateur photographers should focus their attention primarily on these problems.*’<sup>4</sup>

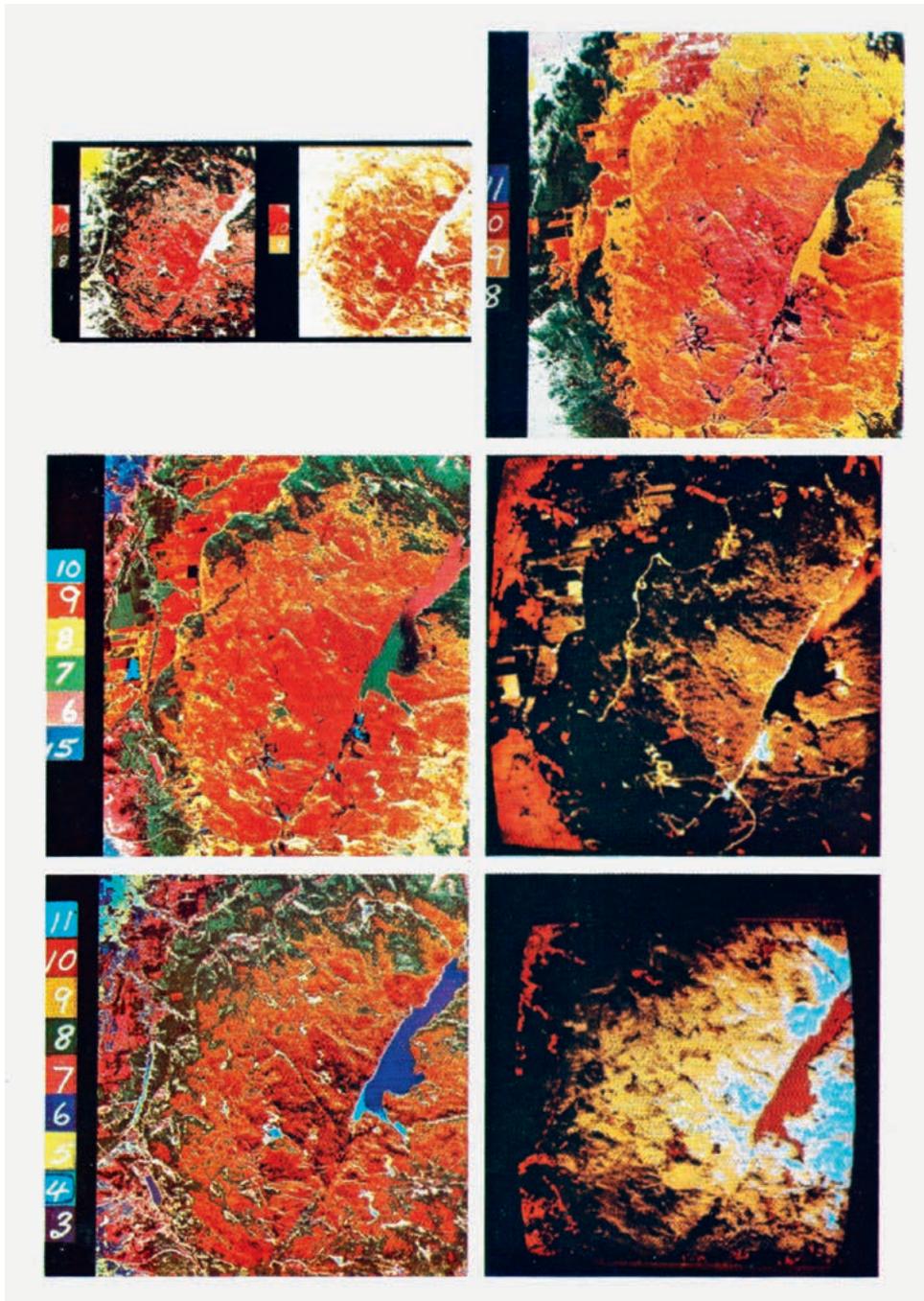
One of the most emblematic pictures that successfully met this demand was a *Duel* taken by press photographer Vsevolod Tarassevitch as a part of a series dedicated to Moscow State University (1963). The photograph depicts a physicist pondering the laws of the universe. Exhibited as part of the blockbuster exhibition ‘The Seven-year

Plan in Action 1963’, the photo was featured on the cover of the state propaganda magazine *USSR* and was repeatedly reprinted by domestic illustrated magazines in the following years.

Illustrated magazines not only spread heroic images of scientists but also offered DIY instructions for making potentially interesting images for science, allowing the symbolic self-identification of photo amateurs with the new heroes;<sup>5</sup> they also kept their audience informed about achievements in scientific photography in general<sup>6</sup> and national photography in particular.<sup>7</sup>

Fine art photography (*khudozhestvennaya fotografiya*) flourished in this period, due to growth in the photo club movement as well as developments in the photography and printing industry. The links it maintained with scientific imagery sometimes went beyond the mere relationship between representation and information. While the official discourse on photography continued to spread the ideological dogma of the photographic medium’s absolute transparency, its objective and reliable proof value, inherited from Stalin’s photo culture,<sup>8</sup> both scientific imagery and fine art photography considered a photographic image through several modifiable parameters and characteristics. Both sought to increase the expressiveness of the photographic image using special procedures and interventions. Thus, the development of new photographic materials and procedures for scientific research directly benefitted fine art photography as well. The work of Kharkiv photographer Oleg Maliovaný is a case in point.

Between 1969 and 1975, he produced a series of photographs treated in colour equidensity, a technique that had been primarily developed for the scientific needs of photometry. This article considers how the colour equidensity technique became a fruitful tool providing Maliovaný with a space of liberty going beyond the dogmas of the official photography. Colour equidensity allowed him to make a shift from science to science-fiction, and from allegedly objective knowledge to assumed subjective imaging. Raising the question of the fairness and integrity of the scientific representation of reality in photography, he underscored its unavoidable aspect of randomness and misconception.



1 / Eric Nielsen, *Agfacontour Film for Interpretation*, 1972  
 Reproduction: Photogrammetric Engineering XXXVIII, 1972

### Color Equidensity, From Scientific Photometry Procedure to Laborious Creative Method

Equidensitometry is a method of data processing where the original black-and-white image is transformed in such a way that areas of the same density become immediately visible. These zones of equal density are called equidensities. Equidensities can be coded either by raster, which results in monochrome raster equidensities, or in colour, which gives coloured equidensities. The application of colour allows coding through the hues conventionally chosen and applied in areas of the same

photographic density.<sup>9</sup> The purpose of this tone-separation process is to facilitate the interpretation of the photographic image and compensate for the limited abilities of the human eye, which can only distinguish several shades of grey, while coloured equidensity can highlight about fifty.

From the beginning of the 1950s onwards this method of photometry based on the principle of the Sabattier effect was consistently popularized by the employees of the Institute of Optics and Spectroscopy at the Academy of Sciences of the German Democratic Republic, Ernst Lau and Wolfgang Krug.<sup>10</sup> In the book *Application of Scientific*

2 / Nina Bronnikova, **Photometry of the Bennet Comet (1969) by the Equidensity Method**, 1969  
 Reproduction: Астрометрия и астрофизика VII, 1973

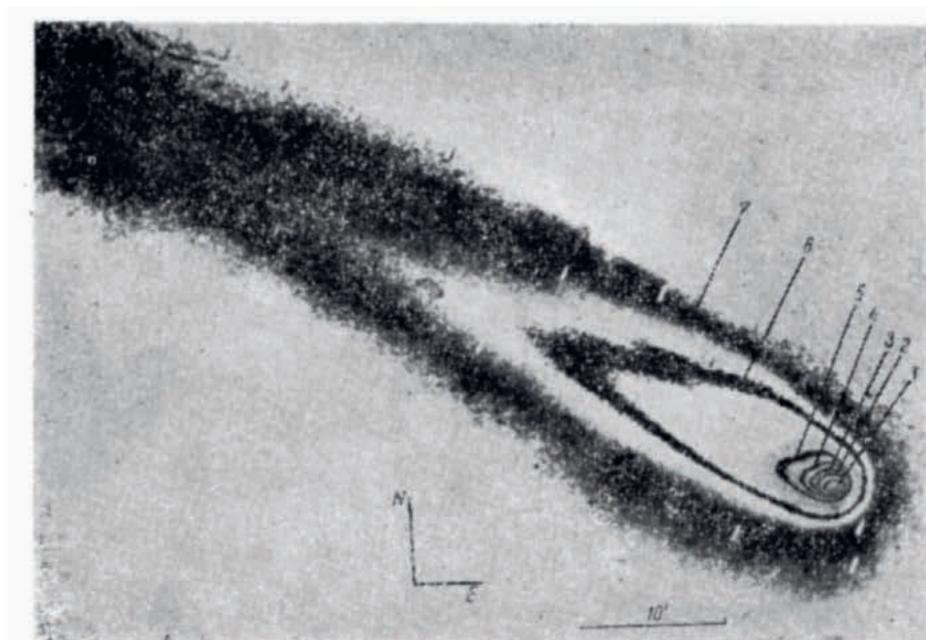


Рис. 6. Пл. 9150, апр. 10.0007, эксп. 15 мин.

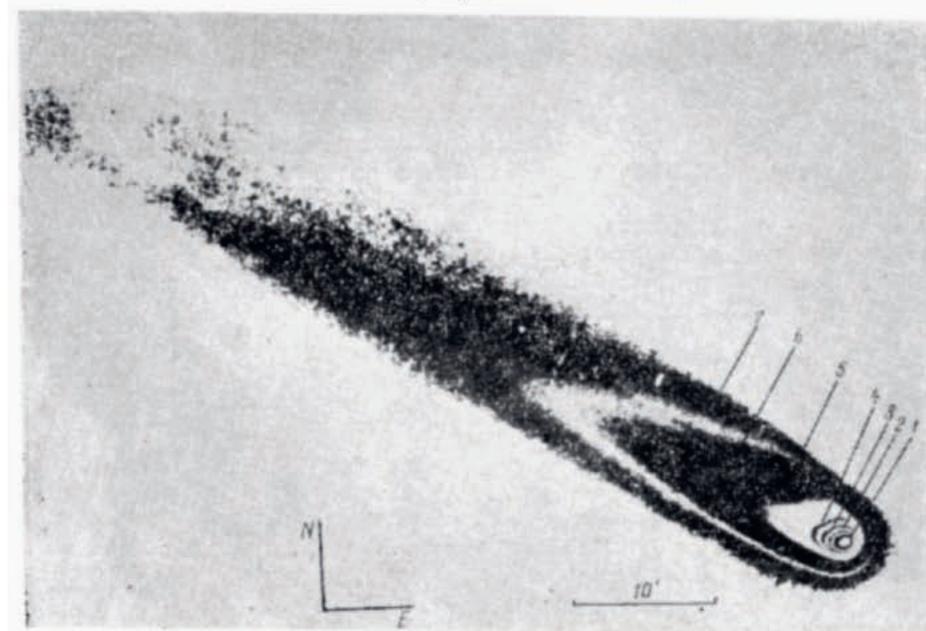


Рис. 7. Пл. 9151, апр. 10.0211, эксп. 10 мин.

*Photography* published in 1972, Wolfgang Krug and Hans-Günter Weide show cases of the successful application of the method in scientific fields such as astrophysics, spectroscopy, radiology, dosimetry, and chemistry.<sup>11</sup> Starting from 1966, equidensitometry was practiced on a regular basis at the Astronomical Observatory of Pulkovo, the main observatory of the Academy of Sciences of the USSR.<sup>12</sup> [2] In 1970, the employees of the observatory in Pulkovo underlined that equidensitometry based on the Sabattier effect, proposed by Lau and Krug, had been significantly disseminated, writing that *'the equidensitometric method allows to quickly and easily build an equidensity system that*

*reveals the photometric structure of an object'*.<sup>13</sup> The objects of such photometry in Pulkovo were basically nebulas and comets, and the obtained equidensitogrammes were always monochrome. Mykola Yevsyukov from the Astronomy Department of Kharkiv University also employed the equidensity method to map the optical properties of the Moon's surface.<sup>14</sup> The method was used to reduce the topographic pattern in lunar photographs, resulting in linear, graphic, and monochrome images.

At the same time, several Western scientific institutions made use of colour equidensities to reinforce the accuracy of interpretations of black-

and-white images.<sup>15</sup> [1] The purposeful attribution of specific colours to determine optical density allowed the effective, visible-to-the-naked-eye differentiation of the shades of the grey-stepped wedge. Krug Wolfgang and Weide Hans-Günter remark that the human eye perceives better the differences of hues within the same colour than the differences in brightness in a black-and-white image. Another advantage of using colour in equidensitometry is the preserving of the complete information contained in the image, in particular, the texture of the photographed surface. When the eye moves from one density interval to another, only the colour changes, while in monochrome raster equidensities the texture of the surface is mostly absent.

In 1970 the West German company Agfa-Gevaert introduced a new black-and-white copying film, which revolutionized the process of equidensity creation. If previously the process of fabricating an equidensity required the difficult-to-control Sabattier effect, or the time-consuming fabrication of numerous intermediate negatives, 'Agfacontour Professional' reduced the whole procedure to only one step. Now it was enough to copy the original negative on Agfacontour film to obtain the image separated into areas of equidensity. As there is a straight-line relationship between log exposure and the density of the original that will print on Agfacontour film, the desired position of the equidensity could be obtained by the exposure level during the copying process.<sup>16</sup>

However, neither scientists nor photographers in the Soviet Union had stable access to this Western-produced material. For instance, in 1973 an employee of the Pulkovo Observatory, Nina Bronnikova, published an article describing the photometry of Comet Bennett using the equidensity method. The process used was still based on the former complex procedure of involving the fabrication and juxtaposition of numerous intermediate negatives [2].<sup>17</sup>

Nevertheless, the Soviet audience was familiar with Agfacontour. The mouthpiece of official photography, *Sovietskoye Foto* magazine, published in its seventh issue of 1971, several photos of lunar volcanic craters divided into equidensities with the use of Agfacontour. These images were featured as part of an article about an exhibition of photographic and cinema technologies titled 'Intercamera-71' held in Prague, where Agfacontour was one of the prize-winners. Describing the obvious advantages and insisting on the effectiveness of this film for scientific research, the article mentions only in passing its attractiveness for fine art photography.<sup>18</sup> At the same time, conscious of the attractiveness and eccentric visual effect produced by this film, in 1970 the Agfa Publication Department of Agfa-Gevaert printed a booklet entirely devoted to the advantages of this film for fine art photography, emphasizing, however, that the film 'is chiefly used in the scientific field where it greatly simplifies many measuring methods'.<sup>19</sup>

Because there was no stable access to this Western-made material and the production of colour equidensities was expensive and time-consuming, this method did not conquer Soviet science. By contrast, one of the most prominent and original uses of the equidensity technique was found in creative and laborious experiments of Kharkiv-based photographer Oleg Maliovary who came from the ranks of the amateur photography movement. In the mid-1960s, with the active support of the state, this leisure activity received a new lease of life, after the elimination of the first, post-revolutionary popular photography movement during the 1930s. Far from the Western photographic industry model constructed on the 'you press the button, we do the rest' promise, the Soviet amateur photography practice remained a largely skill-based handicraft.

Despite the 'consumer turn' of Khrushchev's policy, the supply of consumer goods and services did not meet the population's demand, neither quantitatively nor qualitatively. The content of most illustrated magazines, the circulation of which increased rapidly between the 1960s and 1980s, was devoted to instructions, designs, and tips on how to make, repair, improve, and personalize necessary things. The motorist magazine *Za Rulëm* [Behind the Wheel] taught car owners the necessary skills to avoid a trip to the mechanic, of which there were far too few to meet people's needs. Radio magazine showed radio owners basic maintenance methods. *Rabotnitsa* [Working Woman] and *Krestianka* [Peasant Woman] contained an appendix with DIY instructions for making fashionable clothes and contemporary home goods. The Soviet materiality, where 'any given thing could become anything else' was 'flexible', and the Soviet man was, *a priori*, a creative man born to conquer space and transform matter.<sup>20</sup> To fulfil several social roles, the automobilist, the homemaker, the amateur engineer, the Soviet subject — they were all required to master several skills and possess certain applied knowledge.

The practice of photography was no exception to this rule. Amateur photographers in the USSR were supposed to master the entire process of producing photographic images, from pressing the button to developing photos in improvised homemade laboratories. People who aspired to a more advanced or even professional photographic practice had to master complex chemical and technical processes, prepare their own photographic developers, and be able to find convenient substitutes for scarce materials. As professional photographic education was almost non-existent in the Soviet Union, it is hardly surprising that people engaged in photography usually held an engineering degree.

Like other Soviet magazines, *Sovietskoye Foto* partly functioned for various amateur activities, not so much by providing the reader with information about photography news from the world, but more by offering instructions and tips for improving the technical quality of photographs. However, unlike analogous technical

magazines, *Sovietskoye Foto* openly served as an ideological mouthpiece on photography<sup>21</sup>, which explains its failure to fulfil the role of 'desire machine' led by such magazines as *Katera i Iakhty*, a journal for amateur boat and yacht builders, or *Modelis-Konstruktor*, a journal for amateur engineering and model design, presumably exempted from ideological and political meaning.<sup>22</sup>

Articles published in *Sovietskoye Foto* during the 1960s and 1970s allow an understanding of the main value assigned to photography by the official aesthetic theory, that was precisely its documentary nature, the connection with reality and the reliability of the photographic testimony. Press photography was considered the ultimate expression of this value, which brought it to the forefront of photographic practices. In an article on reportage photography published in *Sovietskoye Foto* in 1967, the art historian I. Sokolov claimed: 'A photo for the press and, above all, for newspapers is an objective and faithful reflection of reality; it is an accurate and the most complete record of real facts [...]. Specific characteristics of such an image is the documentary character, the absolute authenticity of the fact, event, or phenomenon represented, which eliminates any doubt about the authenticity of the photographic image.'<sup>23</sup>

In opposition to the recurring appeals of the authors writing for this magazine to 'be faithful to the reality of life', Oleg Maliovan, from the mid-1960s onwards, sought to sever the link between photography and its referent, emphasizing the constructed, manageable, and subjective nature of the photographic image. To this end, he appropriated and developed the equidensity technique in the series of works he created between 1969 and 1975.

### Between Scylla and Charybdis of Disregard and Censorship

Oleg Maliovan (born in 1945, in Rubtsovsk, former USSR), like most amateur photographers in Kharkiv at that time, pursued an engineering education. After graduating from Kharkiv Polytechnic Institute, he started working in his degree field as a metal scientist at a design Institute Stankinprom. However, and despite the lack of a photographer's position at Soviet project institutes' professions grid, two years later he became the head of that institute's colour photography lab, although he continued to be referred to as an 'engineer' in official documentation. Such a radical change in his career field was not accidental, as ever since he was a student Oleg Maliovan had worked as a photojournalist for the *Leninskie Kadry* university paper. Indeed, from a very young age his life had been inseparably connected in different ways with photography. He worked on illustrations for the Prapor publishing house, created portfolios for artists wishing to join the National Union of Artists of Ukraine, and worked during several decades as a photographer for the Institute of Soil Sciences. Still, Maliovan gained the greatest recognition in his

native city and beyond through his fine art photography from the 1970s. Even though during working hours he performed mostly technical, protocol work, Maliovan meticulously cultivated the vivid image of a 'photo-artist', which became a model for many photographers of the city dreaming of expressing themselves through fine art photography.<sup>24</sup>

'Photoartist' [*fotokhudozhnyk*] is a well-implanted term into the Soviet art history discourse. It structured the system of Soviet photography aesthetics and determined its fundamental hierarchy and the dominating logic of Manichaean oppositions. The publications of Sergei Morozov, one of the most influential Soviet photography theorists, are crucial for understanding the attitude of official criticism towards the fine art photography.

In 1985 Sergei Morozov published, the results of his long-term work, the monograph *Tvorcheskaya fotografia* ([Creative Photography], Moscow). In his book Morozov constructs the history of photography through the concept of social development, according to the doctrine of historical materialism. In a linear and teleological manner, from the very beginning of its history, photography had to struggle hard to reach its accomplished state in socialist realist photojournalism.<sup>25</sup> On the way to realizing this historical mission, photographers oscillated between two opposite poles: 'the photography of life' and 'pictorial photography'. It can be noted that the transhistorical array of positive, synonymic, and descriptive terms of the former includes 'snapshot', 'the truth of life', 'authenticity', 'non-staged reality', 'realistic devices', spontaneous, documentary, and candid photography. The latter array consists of interchangeable signifiers like 'photography artists', 'impressionism in photography', 'pictorialism', 'the old school', creating a new reality, photo graphics, metaphorical form creation, experimental, laboratory, and fantastic photography. In Morozov's analysis, everything that the second pole deserves is condescension verging into explicit hostility. The adjectives *artistic* and *evocative* have a positive connotation in Morozov's analysis exclusively applied to 'life photography'. That was the common attitude of official aesthetics advocates, inherited from the previous period, which continued to characterize the whole field of post-Stalinist Soviet photography. In this system, a photojournalist, occupying the highest level in the hierarchy of photography practices, differs from a photo-artist not only in the creative methods and attitude towards reality. The viewpoint of a photojournalist is more socially aware and thus is objectively correct, 'right' from the historical perspective, which the critic tirelessly 'proves' throughout the essay on the history of photography.

However, even though 'fine art photography' did not suit the official method of socialist realism, starting from Khrushchev's time its practitioners were rarely pursued, and photographs were not eradicated from public spaces,

exhibitions, albums, or illustrated magazines. If, during the Thaw, the State strengthened its control of artistic processes,<sup>26</sup> its system of censorship was also marked by inconsistencies and contradictions.<sup>27</sup> Practiced mostly by photo enthusiasts, 'fine art photography', a synonym of casual and innocent entertainment as opposed to the seriousness of photojournalism, was allowed to exist on the periphery of that field. The weakest and most harmless works, strongly lacking bold compositional or narrative choices, occasionally appeared on the pages of *Sovietskoye Foto*. Commonly featuring natural, urban, or industrial landscapes, these works, in which the focus was shifted from the object of the images to their formal and expressive qualities, were easily hijacked by the official information channel. The reason for these publications hardly lies in the pluralism and artistic freedom of state media. In contrast, the ingenious use of photographic techniques, optics, chemical substances, films and paper, original methods of photography development and printing that fitted late-Soviet technocentricity and do-it-yourself culture can explain this fact.

Without any doubt, Maliovaný's art photography practice was consonant with this struggle, on the one hand, to overcome shortages of and problems with photo equipment, and, on the other hand, to increase the brightness, expressiveness, and attractiveness of photographic images with handy tools. Maliovaný's colleague Jury Rupin in his *Photographer's Diary*, recollects first and foremost Maliovaný's mastery of various special photography methods: '*Oleg Maliovaný [...] influenced me a lot in this sense. By that time, he was already a rather well-known photographer and probably the only one who had managed to master the extremely complicated process of colour photography. He was especially fond of all sorts of technical 'tricks', as he called them, which left a lasting impression on everyone with their originality and unusual brightness of colour. Each new work he brought to the photo club never failed to evoke admiration.*'<sup>28</sup>

Even if Maliovaný received his first official recognition in the form of publication in *Sovietskoye Foto* for 'direct' and untreated female portraits,<sup>29</sup> he considered as his initial personal success to be works connected with the methods of conquering and transforming photo material. These photos constitute a row of individual pieces that were not collected in a distinct series, but clustered in groups according to the principle of laboratory processing: monochrome (pseudo-) solarizations and posterizations. As in other series made by Oleg Maliovaný during the 1970s ('Equidensities', 'Superimpositions', 'Collages'), the applied technique constitutes a unifying, generic, distinctive feature. For the most part, these early monochrome works were individual (*Liza*, 1960; *A Portrait in Posterization*, 1970; *Liza-Zoom*, 1967) or double portraits (*August*, 1971; *Thirst*, 1971). In the latter, the compositional choice always intended to defamiliarize the photographed people, who suddenly acquire certain features of hideousness.

### Emancipating Colour Through Equidensities

Both the professional and general public in Kharkiv were seized not only by the photographic effects created with special techniques, but also by the colour photography of Maliovaný. In the second half of the 1960s and during the 1970s, black-and-white photography predominated in both family albums and illustrated magazines in the Soviet Union. The lack of colour photo materials and laborious manufacturing processes resulted in a dearth of photographers practicing in colour as well.<sup>30</sup> As with other special photographic techniques, the mastery of colour itself was a challenge. It required a desire to transform the poor material, to subjugate it to the photographer's will.

The colour equidensities that Maliovaný realized during the 1970s impressed audiences with the vividness and contrast that was missing in 'direct' colour photography. The incredible public success of equidensities was confirmed by the fact that Maliovaný was able to sell equidensities to private people, which photographers ordinarily were unable to do. More than just a colour photograph, the equidensity technique allowed Maliovaný to achieve vibrant colour images, while giving the photographer more freedom and control over the resulting colour effect.

According to Maliovaný, he discovered the equidensity formula in the mid-1960s, in a Western magazine specialized in fine art photography.<sup>31</sup> Later, at the end of the 1960s, he visited an exhibition in Moscow where, for the first time, he encountered aerial photographs, treated with the equidensity technique. His astonishment at the brilliance and colourfulness of these large-format photos, printed on inaccessible foreign photographic materials, pushed Maliovaný to search for ways to reproduce this effect. Subsequently, he developed a keen interest in this process and introduced it into his regular practice.

Although laborious and time-consuming, colour equidensity technique captivated Maliovaný with the freedom it offered to the photographer, as it liberated him from the constraints of objects' real hues, allowing the deliberate assignment of chosen colours to areas of the same density of the photographic image. However, the very first experiments made in 1969 did not result in immediate success. Achieving absolute freedom of choice, the photographer confronted the problem of finding the right balance of hues' definition and the settling of the composition's general colour harmony. Meetings and exchanges with a friend, professor of colour science at Kharkiv Civil Engineering Institute, Volodymyr Kravets', were a key element of this process. While Maliovaný helped Kravets' to illustrate his doctoral thesis with colour photographs, the former shared with the photographer his study of paintings' colours in art history. As a result of this collaboration, Maliovaný determined an almost mathematical method of colour attribution and relations, based on the colour wheel.

Maliovaný claims that he was the only Soviet photographer who applied the equidensity technique in fine art photography. However, in terms of visual characteristics, equidensities are comparable to another special photographic technique, colour posterization, referred to as 'isopolychromy' in the Soviet Union. Both techniques are based on the tone-separation process and on arbitrary colour attribution in some areas of the image. Invented in 1957 by a Lithuanian, Povilas Karpavičius (1909–1986), this method, employed extensively at that time by Latvian photographer Jānis Gailītis, is just as complex and time-consuming as that of colour equidensities. Only advanced photographers mastering the subtleties of the photographic process managed to create isopolychromes. Maliovaný experimented with this technique as well, but it did not produce satisfactory results. The photographer considered the colours that appeared on isopolychromes to be muted, stunted, insufficiently bright and saturated. By contrast, the equidensity technique allowed him to obtain a pure colour without nuances in a precise area delimited by the photographer.

Despite the undeniable authority of photojournalism in the official Soviet discourse, the demonstration of technical virtuosity and mastery of colour were sufficiently solid arguments for illustrated magazines, albums, books, and other official printed issues to accept images treated with the colour posterization technique. They made their appearance as early as 1967 on the pages of *Sovietskoye Foto*.<sup>32</sup> Several equidensities by Oleg Maliovaný also found official acceptance from the authorities and were even welcomed by them. For instance, the equidensity *Old Tallinn* (1975) was published at least twice, first on the back cover of the eighth issue of *Sovietskoye Foto* in 1976, and, second, in the catalogue of the 'Interpress photo 77' exhibition. [3] In 1976, Maliovaný won an all-union television photography contest in which he presented the equidensity *Sage* (1975–1976), representing a portrait in yellow, rose, and violet of an ape. Four other equidensities displayed urban landscapes.

However, only a few of Maliovaný's equidensities met with official recognition. Basically, only images of beautiful architecture in the old quarters of the Baltic countries' cities, composed according to the classical rules of pictorial composition, were within the comfort zone of Soviet censors. At the same time, most of Maliovaný's equidensities were totally excluded from official spaces.

### The Kharkiv School of Photography and the 'Blow Theory'

Oleg Maliovaný was not an isolated experimenter in Kharkiv at that time. In 1971, he began associating with a group of photographers in Kharkiv who rebelled against repetitive and 'redundant', as Vilem Flusser would define it,<sup>33</sup> forms of official photography. Trained in the amateur photography environment, they gathered under the name

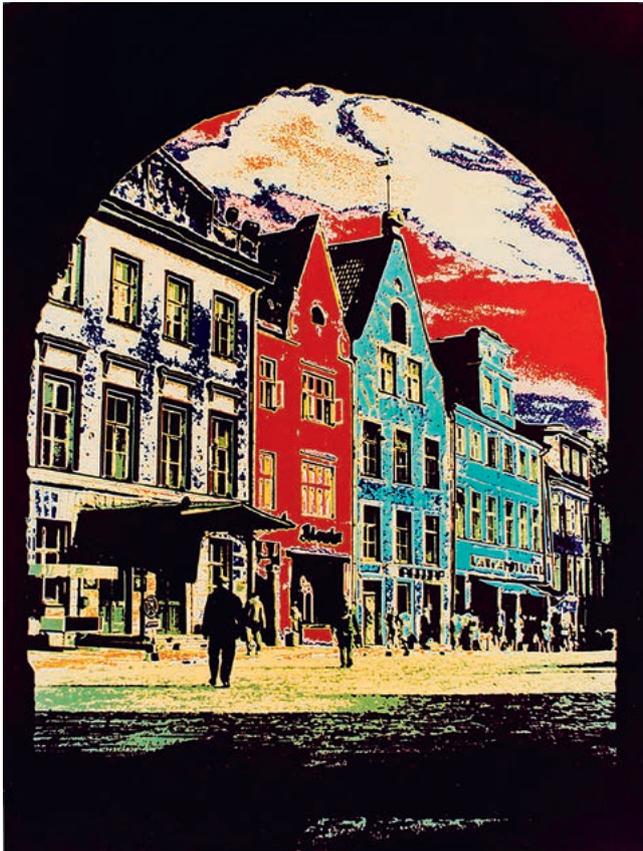
of the 'Vremia' ('Time' in Russian) group, within one of the innumerable amateur photography clubs that began to open throughout the Soviet Union at the beginning of the 1960s. This group laid the foundation of the large-scale photographic movement subsequently called the 'Kharkiv School of Photography', defining photographic principles, methods, and values, that the subsequent generations of photographers active in Kharkiv from the 1980s through the 2010s would share.<sup>34</sup>

Resisting the doctrines, dogmas, and prohibitions of official photography, its members developed the 'blow theory', which they used to appreciate the value of photography. According to this theory, a good photograph should affect the viewer like a 'blow in the face'. Each member of the Vremia group, including the now-famous Boris Mikhailov, had their own means of making this 'blow' happen.

The photograph could, first, destabilize the viewer because of its subtle nature and technique, and relation to the represented object or situation. Starting in 1974, Oleksandr Suprun, Oleg Maliovaný's friend and colleague, started creating images using a technique that made his work instantly recognizable: hyperrealist photocollage. In 1975 he made a collage titled *Spring in the Forest. Lilies of the Valley*, where hundreds of lilies unnaturally flood the forest ground. The collage brought Suprun public recognition as well as a multitude of prizes, diplomas, and medals from the International Federation of Photographic Art (FIAP). What particularly appealed to the public in this image was its enigmatic character, its incomprehensible, at first glance, nature, the troubled relationships of the scale of the objects, the disturbing and invasive beauty of nature.

All Oleg Maliovaný's photographic work, in particular his equidensities, share this same aspiration to make the supposedly simple, familiar, and transparent photographic image strange and unfamiliar. This programme resonates with and refers directly to the method of 'defamiliarization' ('estrangement'), the key concept in the historical avant-garde at the beginning of the twentieth century in the Russian Empire and the Soviet Union, formulated and defined by the literary theorist and writer Viktor Shklovsky. The method of 'estrangement' in art, which, according to Shklovsky, 'makes perception long and "laborious"' as 'The perceptual process in art has a purpose all its own and ought to be extended to the fullest', results in an awakening of readers' (viewers') consciousness, to the renewal of the sensation of life.<sup>35</sup> This notion coincides perfectly with the search for a psychological effect on the spectator that the Vremia group formulated as the blow theory. If the members of the Vremia group used this theory as a criterion for evaluating photography as art, Viktor Shklovsky postulated the method of 'defamiliarization' as the goal of all art.

In equidensities, Maliovaný achieves this effect, of course, by applying non-mimetic colours and setting their unnatural, contrasting relationships. In addition,



3 / Oleg Maliovan, *Old Tallinn*, 1975 (print 2017)

color equidensity technique, author's digital reproduction, 40 × 30,3 cm  
Borys and Tetiana Gryniiov Collection,  
Kyiv/Kharkiv

Photo: Borys and Tetiana Gryniiov Collection

the author's quest to embody a certain idea of fragile beauty transmitted by female body shapes. The use of the body as a metaphor is emphasized by the titles of these photographs evoking abstract concepts. While some of his works containing representations of nudity obtained the highest distinctions in salons organized by FIAP, they were totally excluded from any official distribution circuits in the Soviet Union.

### Challenging the Social Progress Dogma: The Photography of Warning

In the cloudless realm of the confident, smiling and athletic builders of communism, on which the normative official Soviet visual culture stood, there was no place for despondency, fear, hunched or unfit bodies. It is hardly surprising that Maliovan's works featuring deliberately sinister deformed human figures were ignored and criticized by authorities. The title of one female portrait in the colour equidensity technique, *Phantom* (1974), suggests that the disturbing impression that some of these images emanate is fully intentional. [5] The equidensity *Nude Trio* (1973) was included in one of the unofficial traveling exhibitions between photography clubs, whose purpose was to discuss photographs and to collect opinions and reviews from colleagues in other cities. The row of photographs (conventionally called a 'collection') was accompanied on this journey by a book of critiques. Upon the photos arrival, the receiving photoclub organized a private exhibition of these photographs, which were subsequently dispatched to the next club. Upon the arrival of the 'collection' back to Kharkiv from this tour, called 'Ukrainian Ring', Maliovan, astonished and amused, discovered the following note about *Nude Trio*: 'It seems that the author represented three frozen dead bodies that have started to decompose.' [6]

This aesthetics of ugliness marked the work of several representatives of the Kharkiv School of Photography whose intentions and objectives, though, diverged. Thus, in an effort to renew the language of documentary photography, Boris Mikhailov sought to capture and show the layers of life absent from any photographic representation, both from official press photography and from tolerated fine art photography.<sup>37</sup> Conversely, much of Maliovan's works, including his collages and equidensities, are characterized by a sense of imminent danger and catastrophe.

The official discourse glorified hard sciences as the universal and omnipotent foundation of an ideal society, and the conquest of nature and technical progress were conceived as desirable and irreversible steps

the lack of shades results in spatial flatness, while in several equidensities space is, on the contrary, elaborated, as a result of adding photocollage (*No!-1*, *No!-2*). In *The Age of Beauty*, realised in 1972, this effect is emphasized by compositions of entangled bodies that create images of hybrid, humanoid creatures. [4]

Challenging and tackling both legally established and broadly presumed prohibitions on photography comprise another method of 'blow theory'. If 'formalism' – meaning the interest granted by the artist to the formal and aesthetic aspects of the image more than to its content – was part of the attitudes criticized, but tolerated by Soviet authorities, certain objects were strictly prohibited. Three taboos known to all Soviet photographers included capturing sensitive infrastructure objects, such as military installations or railway stations, the production of images that could denigrate the Soviet system, and any representation of nudity, which, potentially, could be considered to be pornography and judged criminally.<sup>36</sup>

Maliovan's photographic works were characterized by the frequent use of nudity, which caused, in 1976, an unofficial but effective ban on a tour of his photographs abroad. Outlawed and stigmatized like pornography in the Soviet Union, the image of the naked woman is used most often by Maliovan as a metaphor or a symbol. In both his collages and his equidensities, naked bodies are metaphors for defenceless humanity, and also reflect



4 / Oleg Maliovanov, *The Age of Beauty*, 1972

color equidensity technique, author's digital reproduction, 40 × 29.4 cm  
Borys and Tetiana Gryniiov Collection, Kyiv/Kharkiv  
Photo: Borys and Tetiana Gryniiov Collection

Montage (a technique of creating images with the use of optic manipulation in a lab), as well as collage (a technique in which glue and scissors are involved), was regularly present in various works by Maliovanov. Between 1976 and 1978, he created several works in which collage became the primary technical principle. While the above-mentioned practice of combining a human figure with a potentially hostile environment had appeared already in his early 'Tanya' series, it became fundamental in his 1976–1978 collages.

In 1976, the main news on the Kharkiv photography scene was the 'Gravitation' series of photocollages newly created by Oleg Maliovanov. The action of these images takes place in a fictional apocalyptic place where rampant storms rage and landscapes change from desert to rocky or cosmic. Despite all their ambitions, humans of the nuclear and space-flight era turned out to still be bent to submission by the puzzling forces of the universe. While the Soviet mythology was built on the opposition of humans and nature, where the latter is always the object that the shock-worker needs to harness, Oleg Maliovanov introduces the theme of human vulnerability and lack of control, yet, at the same time, permanent responsibility for affecting the environment.

The absence of social optimism and the desire to overstep the standardized visual language brings Maliovanov's photographic work closer to the new Soviet science fiction or 'literature of warning', a transient yet powerful phenomenon in late-Soviet culture, which emerged between 1958 and 1962.<sup>38</sup> Indeed, the generation that found the new basic concept of the world's structure in hard science was fascinated with both science and science fiction. Beginning in the 1960s, the Soviet book industry actively translated Western science fiction writers, such as Ray Bradbury, Isaac Azimov, and Clifford Simak. The number of publications classified as 'science fiction' in the Soviet Union increased by ten times between 1959 and 1965.<sup>39</sup> Oleg Maliovanov's father, who was the head of a workshop at the Kharkiv Tractor Plant and an amateur artist in his free time, cultivated his son's love of science fiction. From an early age, the future photographer could find in his family library almost any sci-fi book or publication available at that time. The artist recalls reading novels by Clifford Simak and Polish writer Stanislaw Lem. However, starting in 1959, the year that historian of literature Leonid Heller considers to be 'crucial', an important movement for freedom from dogmas and clichés began in Soviet science fiction as well.<sup>40</sup>

Masterfully dodging the imperative of the 'joyful grin' of socialist realism, some Soviet writers, such as

towards such a society. However, the reality severely challenged this mythologeme. The persistent smog in Kharkiv caused by urban air pollution from industrial production, the gradual drying up of the Aral Sea, other environmental catastrophes, and the constant threat of the Cold War escalating into a nuclear war were always in the background in 1970s Kharkiv. From this perspective, compositions representing a situation of imminent danger, one of the most frequently recurring themes in Maliovanov's photographs, become meaningful.

In the equidensities *No!-1* (1969) [7] and *No!-2* (1974) [8] the author imagines a new world in which flattened two-dimensional space is built not with lines, shapes, and volumes but with the interrelation of contrasts between the most unnatural, Fauvist colour stains. The obvious foreignness of the female body, the pushing-aside gesture of her palms, opened to the viewer, and her vulnerable nakedness enhance the drama already announced by the loud colours. This anxious, even ominous tone as well as the constant presence of something unknown and potentially threatening in the fabric of reality contrasts with the optimistic tone of official Soviet photography no less than the fascination with the beauty of a naked female body. The heterogeneity of the image here is linked to the use of optic montage, which allowed the author to imprint the female body in the foreground.

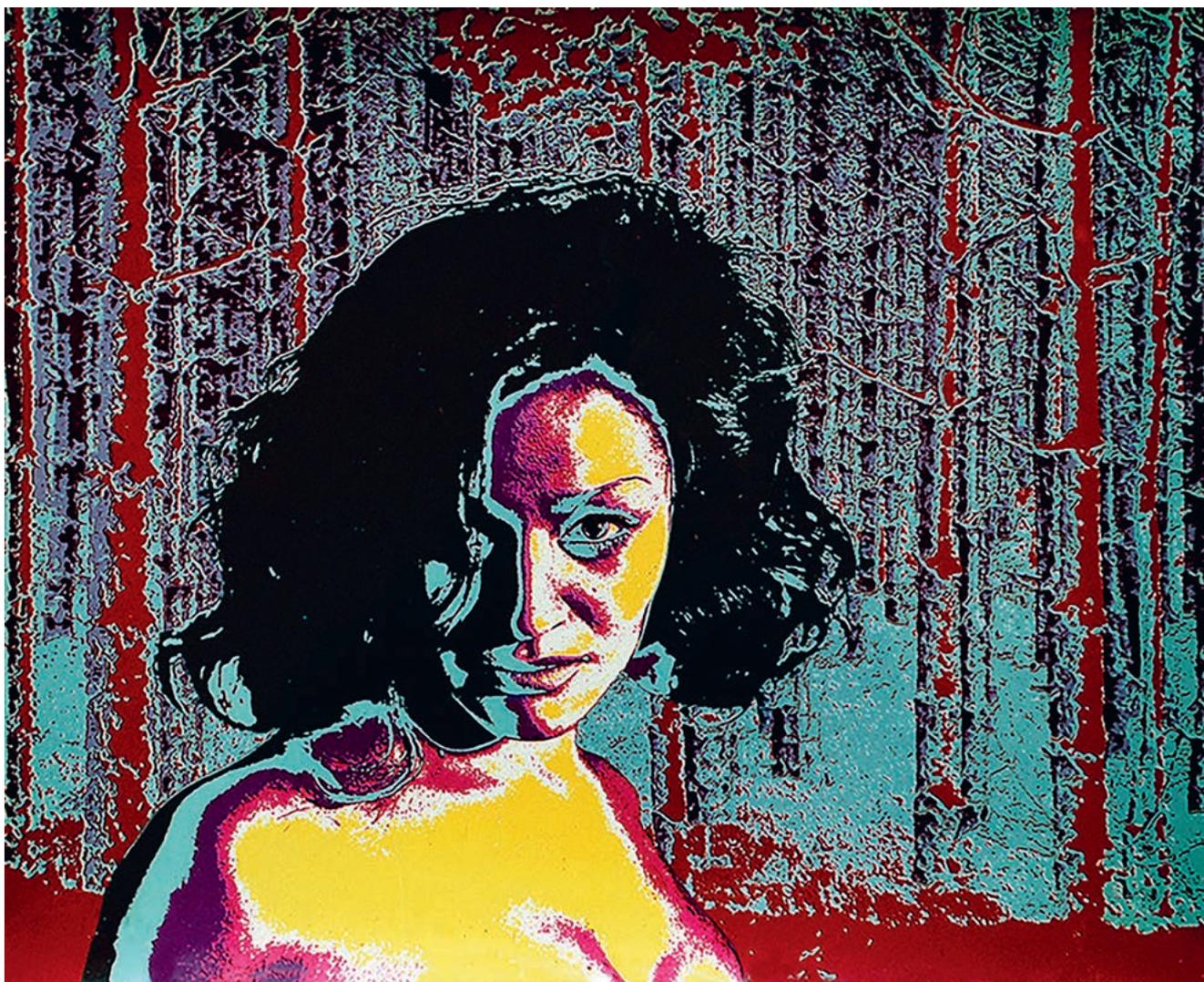
the brothers Strugatsky, Ilya Varshavsky, Olga Larionova, Volodymyr Savchenko, and Ariadna Gromova, laid the foundations for a new direction in Soviet sci-fi literature. This new literature created authentic examples of comic essays and even explicit social satire. It rejected the explanatory role of the author, a compulsory topic at the time, bringing to literature a new psychological and reflexive time, different from the linear time of progress as defined by historical materialism. Some of them pointed out the discrepancy between technical and social development. The new science fiction suggested to Soviet readers the rejection of the conventionality of ideological language, and the freedom to ask questions that cannot be answered in a definitive way.

Oleg Maliovaný's use of space as a metaphor for an unknown, but irrevocable, looming danger

is comparable to the conception of space in Arkady and Boris Strugatsky's novels. In the *Snail on the Slope* (1968), considered by Leonid Heller to be 'summation of the searches that were conducted by science fiction writers in the 1960s' [...] the point to which all the lines of the power field of the new science fiction lead',<sup>41</sup> the action takes place in a mystical, unexplained, threatening forest, inhabited by powerful, sinister creatures. When Maliovaný places the protagonists of his montages, collages, and equidensities against a backdrop of woods, deserted cities, and planets, these sites function exactly as the vengeful and inscrutable universe of Strugatsky's 'forest'.

Another important point of intersection between Oleg Maliovaný's creative work and the new science fiction lies in their common attitude towards their creative fields' hierarchies. Like science fiction authors,

5 / **Oleg Maliovaný, Phantom**, 1974 (print 2016)  
color equidensity technique, author's digital reproduction, 29.5 × 35.3 cm  
Borys and Tetiana Gryniiov Collection, Kyiv/Kharkiv  
Photo: Borys and Tetiana Gryniiov Collection



fine art photographers adopted the lowest positions in their fields' hierarchies, and the channels in which their works circulated were usually far from the mainstream: peripheral and youth-targeted magazines for the former and club exchanges and photo exhibitions for the latter.<sup>42</sup> As it turned out, this 'low' status worked to the benefit of both, allowing them to have a certain extent of freedom. Not engaged in any central institutes creating ideological propaganda, fine art photographers and sci-fi authors experienced far less control, and the assessment criteria of their works were vague.

### Conclusion. Equidensities: From Factual Examination to Reality Makeover

Even in the socially and economically privileged field of human activity that the world of science in the Soviet Union was, Western-made photo materials, namely, Agfacontour film, which considerably simplified the process of equidensity production, were inaccessible. Despite the significant development of the printing and photographic industries during the Khrushchev era, the scarcity and poor quality of Soviet-made colour photo materials made the technique of colour equidensities, theoretically practical for the purposes of photometry in such disciplines as astrophysics, spectroscopy, radiology, dosimetry, and chemistry, impossible in practice.

On the other hand, Oleg Maliovaný's equidensities represent a remarkable example of the appropriation of a scientific method by fine art photography. This laborious and time-consuming technique met the specific

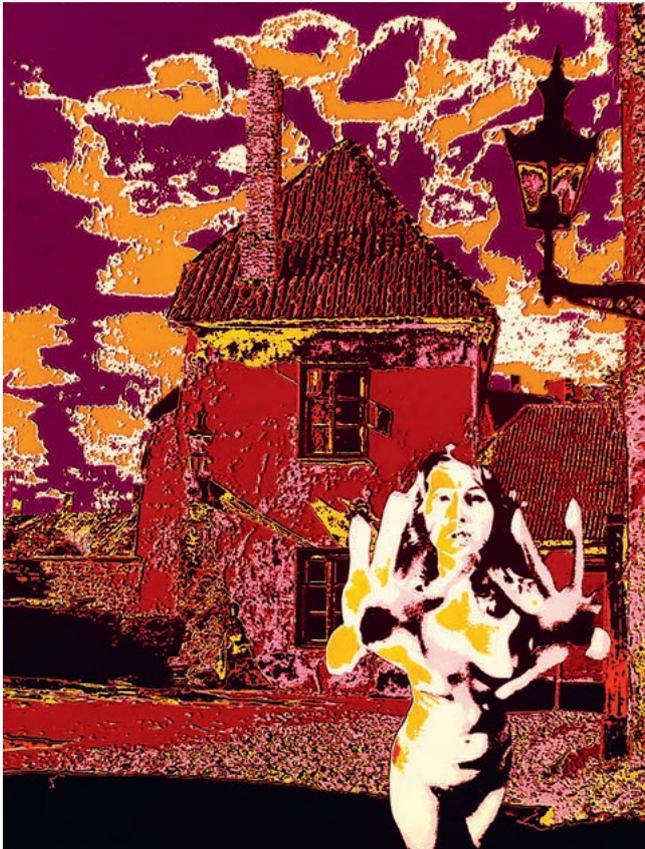
and actual needs of his photographic practice. Providing the photographer with the possibility to manipulate colours without regard for the actual tint of the represented objects, equidensities impressed audiences with their vividness of colours, as well as their eccentricity.

Various Soviet institutions, such as the specialized photo magazine or photo clubs, were receptive to the effects of colours that experiments with equidensities proposed. However, Oleg Maliovaný's practice surpassed the limits of official aesthetics. Using a noble technique, in the sense that it would serve the needs of science, he diverted its use to create images that were impressive but disturbing.

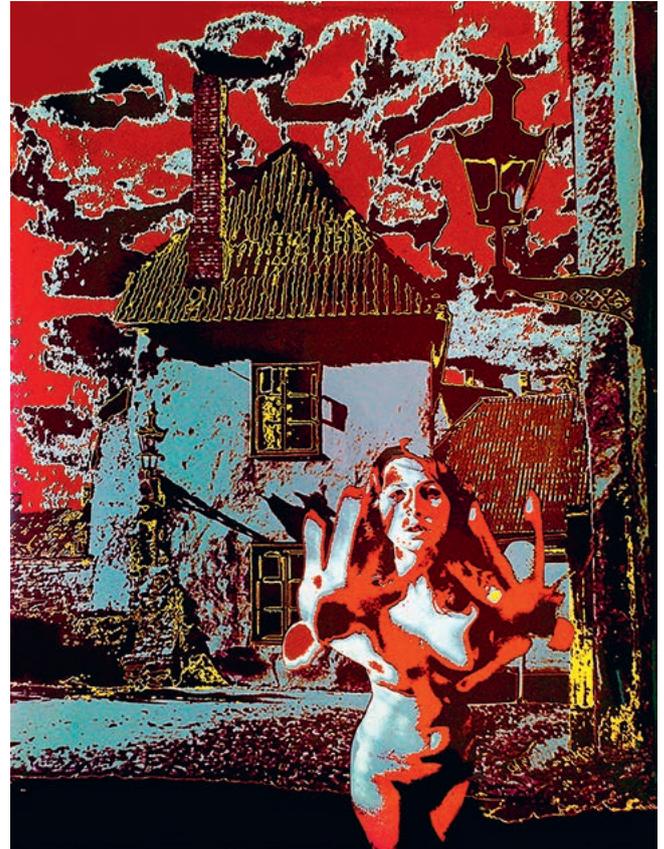
The anthropologist Alexei Yurchak defined the growing importance of the ritualized reproduction of forms of authoritarian discourse as the most important feature of the late socialism.<sup>43</sup> The whole late-Soviet culture was ruled, according to him, by the 'performative shift', where the importance of the performative dimension of authoritarian discourse is growing, while the constative meanings of these discursive forms became increasingly unimportant, opening to new, unpredictable meanings. Reproduction of several compulsory ritualized and speech acts created a possibility, in this situation, to gain the relative freedom to experiment. Taking advantage of a privileged social status obtained due to the mastery of complex photography techniques, Oleg Maliovaný confronted and undermined the doctrine of the photographic medium's transparency and the photography-as-imprint-of-reality dogma by emphasizing the constructed character and manipulated nature of photography. Using technical and material facilities provided on a free basis by the state at his institute's laboratory and photo club, he subverted the system by performing work, unforeseen by his post description. While the equidensity method would be used in science with the aim of obtaining more information on the represented object, Oleg Maliovaný employed this technique to misinform on the subject matter of the photograph. Being part of the complex dialectic of relations with the late-Soviet authoritarian discourse, the appropriation of the scientific method of equidensities enabled Maliovaný to challenge the myth of scientific omnipotence and the infallibility of technological progress, creating imagined worlds, about human weakness and fragility, that would convey to his audience a warning and inconvenient message about the limit of human knowledge, and disputability of social progress.



6 / Oleg Maliovaný, *Nudity Trio*, 1973  
color equidensity technique, author's digital reproduction 36.3 × 28.8 cm  
Borys and Tetiana Gryniiov Collection, Kyiv/Kharkiv  
Photo: Borys and Tetiana Gryniiov Collection



7 / **Oleg Maliovanov, No!-1**, 1969 (print 1970)  
gelatin silver print, color equidensity technique, 49.4 × 29.6 cm  
Borys and Tetiana Gryniiov Collection, Kyiv/Kharkiv  
Photo: Borys and Tetiana Gryniiov Collection



8 / **Oleg Maliovanov, No!-2**, 1974  
color equidensity technique, author's digital reproduction  
Borys and Tetiana Gryniiov Collection, Kyiv/Kharkiv  
Photo: Borys and Tetiana Gryniiov Collection

## NOTES

1 On the evolution of the image of the scientist in Soviet cinema, see Anna Zudina, 'Наука и образ ученого в советском кино (1928–1986 годы)' [Science and the Image of the Scientist in Soviet Cinema (1928–1986)], *Общественные науки и современность*, No. 5, 2011, pp. 167–176.

2 See Pyotr Vail and Alexander Genis, *60-е. Мир советского человека* [The 1960s: The World of the Soviet Person], Moscow 1998, pp. 100–106.

3 Vail and Genis (note 2), p. 100.

4 *Советское Фото*, No. 1, 1958, p. 21.

5 Bronislav Bagildinsky, 'Фотографируйте солнечное затмение' [Take Pictures of the Solar Eclipse], *Советское фото*, No. 1, 1961, p. 33.

6 'Новые фотографии луны' [New Photos of the Moon], *Наука и жизнь*, No. 9, 1964, p. 15.

7 Nikolay Kirillov, 'Успехи научной фотографии' [Advances in Scientific Photography], *Советское фото*, No. 8, 1969, p. 29.

8 Rosalinde Sartori, 'Фотокультура II или "верное видение"' [Photoculture II or 'Correct Vision'], in Hans Günther and Sabina Hansgen (eds), *Советская власть и медиа* [Soviet Power and Media], St. Petersburg 2006, pp. 145–163.

9 "Équidensité", "Équidensité à Trames", "Équidensité Colorée", "Équidensitométrie", in *Therminologie de Télédétection et Photogrammétrie Français-Anglais*, Paris 1997, pp. 135–136.

10 Wolfgang Krug and Ernst Lau, 'Die Äquidensitometrie, Ein Neues Meßverfahren Für Wissenschaft Und Technik', *Feingerätetechnik I*,

1952, No. 9, pp. 391–94. — Wolfgang Krug, 'Die Anwendung Des Äquidensitenverfahrens in Der Feinmeßtechnik', *Feingerätetechnik III*, No. 9, 1954, pp. 387–90. — Wolfgang Krug and Ernst Lau, *Die Äquidensitometrie, Grundlagen, Verfahren und Anwendungsgebiete*, Berlin 1957. — Ernst Lau and Wolfgang Krug, *Equidensitometry: Methods of Two-dimensional Photometry, Principles and Fields of Applications*, London and New York, 1968.

11 Wolfgang Krug and Hans-Gunter Weide, *Wissenschaftliche Photographie in Der Anwendung*, Leipzig 1972.

12 I. I. Breido and T. P. Chebotareva, 'Эквиденситометрический метод, основанный на фотографическом эффекте Сабатье, и его применение к фотометрии туманностей и комет' [The Equidensity Method Based on the Sabattier Photographic Effect and Its Application to the Photometry of Nebulae and Comets], *Известия главной астрономической обсерватории в Пулково IV*, 1966, No. 24, pp. 159–72. — I. I. Breido and N. [ina] M. Bronnikova, 'Фотометрия комет 1939 I Козика, 1939 III Ахмарова-Юрлова-Хасселя, 1957 III Аренда-Ролана, 1957 V Мркоса методом эквиденсит' [Photometry of the Comets Kosik (1939 I), Jurloff-Achmaroff-Hassel (1939 III), Arend-Roland (1957 III) and Mrkos (1957 V) by the Equidensity Method], *Астрометрия и астрофизика*, No. 11, 1970, pp. 59–76. — Nina Bronnikova, 'Фотометрия кометы Беннета (1969) методом эквиденсит' [Photometry of the Comet Bennett (1969) by the Equidensity Method], *Астрометрия и астрофизика*, No. 18, 1973, pp. 84–94.

13 Breido and Bronnikova (note 12), p. 75.

14 Mykola Yevsyukov, 'О колориметрической структуре лунных морей' [Colourimetric Structure of the Lunar Maria], *Астрономический журнал* L, 1973, No. 6, pp. 1274–1279.

15 Krug and Weide (note 11).

16 Eric Nielsen, 'Agfacontour Film for Interpretation', *Photogrammetric Engineering* XXXVIII, 1972, No. 11, p. 1100.

17 Bronnikova, 'Photometry of Comet Bennett' (note 15).

18 "Интеркамера-71" ['Intercamera-71'], *Советское фото*, No. 7, 1971, pp. 25–26.

19 *Agfacontour Professional in Photographics*, Leverkusen 1970, p. 7.

20 For late-Soviet do-it-yourself culture, see Alexey Golubev and Olga Smolyak, 'Making Selves through Making Things: Soviet Do-It-Yourself Culture and Practices of Late Soviet Subjectivation', *Cahiers Du Monde Russe: Russie — Empire Russe — Union Soviétique et États Indépendants* II, 2013, No. 54/3–4, pp. 517–541, <http://journals.openedition.org/monderusse/7964>, 4. 3. 2022.

21 Oleg Maliovary and several of his Kharkiv colleagues claim that *Sovietskoye Foto* was considered by them to be a retrograde, vapid, propagandistic magazine. Evgeniy Pavlov recalls: 'At some point, the ideological one-sidedness of *Sovietskoye foto* led me to the decision to unsubscribe from this only specialized publication.' See Nadiia Bernard-Kovalchuk, 'Евгений Павлов: со временем привыкаешь к тому, что в фотографии материал тоже имеет свою волю' [Evgeniy Pavlov: Over Time You Get Used to the Fact that the Material in Photography Also Has Its Own Will], *MOKSOP*, <https://www.moksop.org/evhenyy-pavlov-so-vremenem-pryv-kaesh-k-tomu-chto-v-fotografyy-materyal-tozhe-ymeet-svoiu-voliu/>, 7. 9. 2020.

22 Golubev and Smolyak (note 20), p. 530.

23 I. Sokolov, 'О содержании репортажного снимка' [On the Content of Photojournalism], *Советское фото*, No. 7, 1967, p. 28.

24 Misha Pedan, a Kharkiv photographer that emerged on Kharkiv's photographic scene in the 1980s, testifies: 'in the beginning of the 1980s, a cafe with a very weird name "Buchenwald" appeared [...]. The atmosphere there was creative, and some exhibitions were held. Once there was an exhibition of Oleg Maliovary's works [...]. He used to come to that cafe with that shaggy hair of his, and there was the vivid look of an artist about him, not just of a photographer that simply took everyone's photos with his camera.' See Nadiia Bernard-Kovalchuk, 'Misha Pedan: All The Fears at The End Of The Soviet Era Were Connected With The Fact That It Was Unclear Where The Danger Was Coming From', *MOKSOP*, <https://www.moksop.org/en/misha-pedan-all-the-fears-at-the-end-of-the-soviet-era-were-connected-with-the-fact-that-it-was-unclear-where-the-danger-was-coming-from/>, 20. 6. 2022.

25 The critic emphasizes the major axes that guide the history of photography to the necessary and only right path: 'The creative work of three photographers, three personalities, — a Russian, Maksim Dmitriev, an American, Alfred Stieglitz and a Frenchman, Eugene Atget — in our point of view is what characterizes the turn of photography towards the truth of life on the cusp of centuries'. See Sergey Morozov, *Творческая фотография* [Creative Photography], Moscow 1986 (2d edition), p. 117. He also complains about the short-sightedness of photography critics from the 1840s through the 1860s: 'The aesthetics was far from the artistic value of documentation or authenticity inherent to the nature of photography'. See *ibidem*, p. 30. However, it is important to note that the 'creative method of socialist realism', according to Morozov, could be used not only in 'direct' photography: 'Working with any photography method, Soviet photographers go beyond the principles of socialist realist aesthetics. They

find the standardized in the life of the society [...], note something new that, if expressed in a visual image, shows the life of our people in the progressive advance towards communism.' See *ibidem*, p. 250.

26 For an analysis of the 'Manege affair', which occurred in 1962, when the first secretary of the Communist Party harshly criticized the abstract works exhibited at the Moscow Manege, see Vail and Genis (note 2), pp. 190–198.

27 Tatyana Goryayeva, *Политическая цензура в СССР: 1917–1991* [Political Censorship in the USSR: 1917–1991], Moscow 2009. — Yekaterina Vakulina, 'Власть и медиа. Визуальная революция шестидесятых' [Power and the Media: The Visual Revolution of the 1960s], *Cahiers Du Monde Russe. Russie — Empire Russe — Union Soviétique et États Indépendants*, No. 56/2–3, 2015, pp. 429–465.

28 Juri Rupin, 'Дневник фотографа' [Photographer's Diary], [http://samlib.ru/r/rupin\\_j\\_k/dnevnik\\_fotografa-2.shtml](http://samlib.ru/r/rupin_j_k/dnevnik_fotografa-2.shtml), 20. 6. 2022.

29 A. Baron, 'Широкая палитра' [Broad Palette], *Советское фото*, No. 6, 1972, pp. 14–16.

30 According to Maliovary, there were only two people in the whole city of Kharkiv who were printing colour photography in the late 1960s, including Maliovary himself. From the author's numerous interviews conducted between 2018 and 2021 with Oleg Maliovary.

31 It is noteworthy that the term *Western* refers in this context exclusively to Eastern Europe socialist countries, members of the Warsaw Pact, as periodicals from capitalist countries were almost inaccessible to Soviet readers, especially those living in provincial cities like Kharkiv.

32 Kazimierz Chobanyuk, *Spring*. From 'The Four Seasons' cycle. Colour posterization. Printed on the back cover of *Sovietskoye Foto* (*Советское фото*, No. 7, 1967).

33 'Redundant' photographs, 'similar to those one has seen before', that 'carry no new information' as opposed to 'informative', 'unexplored', 'improbable' images, created by experimental photographers are discussed by Vilém Flusser in his major essay *Towards a Philosophy of Photography* (Göttingen 1983).

34 About the Kharkiv School of Photography, see Nadiia Bernard-Kovalchuk, *Харківська школа фотографії: гра проти апарату* [Kharkiv School of Photography: Playing against the Apparatus], Kharkiv 2020.

35 Viktor Shklovsky, 'Art as Device', in Viktor Shklovsky, *Theory of Prose*, Elmwood Park 1990, p. 6.

36 Gilda Williams, *Boris Mikhailov*, Paris 2001, s.p.

37 See, for example, 'Yesterday's Sandwich' series (the late 1960s — late 1970s), 'Salt Lake' (1986); and others.

38 Leonid Heller, *De la science-fiction soviétique : par delà le dogme, un univers*, Lausanne 1979, p. 80.

39 *Ibidem*, p. 65.

40 In 1959 critics from the *Literaturnaya Gazeta* came down in favour of the novel *Andromeda: A Space-Age Tale* by Ivan Yefremov. The same year, the debate started by Ilya Ehrenburg's 'Answer to a Letter' displayed the commitment of Soviet youth to science in the search for answers to questions about the structure of the world. See Heller (note 38), p. 68–69.

41 *Ibidem*, p. 177.

42 Some of the fundamental works of Soviet science fiction by the Strugatsky brothers were first published in periodicals: *Tale of the Troika* (1968) was published in *The Angara*, in Irkutsk, and *Snail on the Slope* first appeared in *Baikal* magazine, in Ulan-Ude.

43 Alexei Yurchak, *Everything Was Forever, Until It Was No More: The Last Soviet Generation*, Princeton 2005.