## MIKLÓS BARABÁS INNOVATION ON THE PERIPHERY OF EUROPE

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## **Abstract**

Painter Miklós Barabás (1810-1898) is generally regarded as a highly prolific portraitist whose role in the cultural history of nineteenth-century Hungary is irrefutable, but whose art reflects a somewhat academic and outdated approach. However, as an artist who took a strong and continuous interest in perspective, optics, and photography, he was something of a pioneer in emerging ideas and approaches to the roles of art in an arguably somewhat peripheral part of Europe. Parallel to his substantial output of official depictions of people of influence, Barabás showed an intense curiosity in photography and alternative theories of perspective throughout his long career. In this article, I touch on a few examples of his interest in the question of perspective, which was relatively innovative for the time.

**Keywords**: Miklós Barabás, optics, panorama, perspective, photography, stereoscope

This paper focuses on the Hungarian painter Miklós Barabás, whose fairly long artistic oeuvre is known mainly for the thousands of portraits that he made of members of the Hungarian aristocracy, the emerging intellectual elite and other notable figures of nineteenth-century Hungary. His significance as a cultural phenomenon often overshadows the role that he played in the development of Hungarian painting in the traditional sense: while it is through his portraits that Hungarians have likeness of major figures of literature and an important era of political reform, he is often regarded as someone who worked in an old-fashioned, conservative style and who, in some of his works, even showed a lack of sufficient anatomical and compositional understanding, knowledge that one could and should have acquired through formal education at an art academy. As a child prodigy of meager financial means, Barabás never had the opportunity to pursue academic training. He did, however, aspire to be regarded as an academic painter and he attempted to elaborate on theoretical guestions concerning the fine arts, for example in 1859, when he wrote his acceptance speech to the Hungarian Academy of Sciences. He was the first painter to be accepted to the Academy, and his speech was on various alternative theories of perspective. He spoke, for instance, on curvilinear perspective,1 referring to the ideas found in the writings of Johann Erdmann Hummel and a series of articles written by William Gawin Herdmann, George Heald, Samuel Huggins, and William Doeg published between 1849 and 1852 in the English Art Journal. He also touched on Sir Charles Wheatstone's Contributions to the Physiology of Vision: On Some Remarkable, and Hitherto

*Unobserved Phenomena of Binocular Vision.* These ideas signal what Jonathan Crary describes as the shift from the geometrical optics of the seventeenth and eighteenth centuries to the physiological optics of the nineteenth century.<sup>2</sup>

<sup>1)</sup> Barabás, M. (1860). A festészeti távlattanról (On Painterly Perspective), Akadémia Értesítő, III, 116-150.

<sup>2)</sup> Crary, J. (1990). Techniques of the Observer. On Vision and Modernity in the Nineteenth Century. MIT Press, Cambridge, Mass, 16.

In a photograph made around 1863, he is seen together with his pupil Mihály Kovács at a small table as he instructs the younger painter, who is constructing something with a compass [Figure 1]. His 3/4-length, life-size oil self-portrait from 1862 also includes the motif of the compass, which is found on the table, alongside other painter's tools. The compass, of course, refers to mathematics and calculations, which in turn refers to perspective, the inclusion of which was one of the reasons painting came to be regarded as one of the Liberal Arts in the guattrocento.3 It seems that Barabás's life and oeuvre revolved around an opposition: with no formal academic training, he aspired to be an academic painter. He did so partly by studying the treatises that he acquired during his travels in Western Europe.4 He was elected a member of an Academy - an Academy of Sciences, as there was no other academy in Hungary at the time - and ultimately, he worked in a fairly academic style. That he was defined by these contrasting positions offers a clue as to why he struggled with certain discrepancies between what he personally observed and what he believed the art academies of Western Europe proclaimed. To cite one example, he defended the art of photography against his younger peers, claiming that it had inherent artistic potential.5

Two photographs, both made in 1863, depict artists who were initially painters but who took up photography in the early 1860s. Indeed, each of these images was done in the respective studios of the two artists. József Borsos (1821–1883) presents himself as a slightly romantic artist, looking into the distance while deep in thought in a humble and somewhat cluttered environment. Barabás, on the other hand, appears in a composition that is much more representative in its details of his social status. He is standing upright as an acknowledged member of middle class society in front of heavy drapery. The large folder containing his sketches, which is on the floor next to his desk, is a symbol of his status as an academic artist who has become part of the institutional world of art [Figure 2].

So what was it that led Barabás to question his faith in academic theorems? I argue that certain experiences and experiments he undertook at various times of his life examined the supremacy and primacy of principles upheld by the academies. These experiments, such as his panorama sketch of Bucharest in 1832 and his photographic experiments in the early 1860s (including stereo photographs and photographs of adjacent viewpoints in order to provide a wide angle view), all tie

into an entirely different story of the art of Miklós Barabás, as do his ideas on perspective, which challenged the irrefutable nature of the linear perspective system, voiced in a lecture delivered in 1859. It is these isolated experiments on the periphery of Europe that I would like to elaborate on in this paper.

In 1831 and 1832. Miklós Barabás lived in the Romanian capital of Bucharest. Here, he worked mainly as a portraitist, but he also engaged in an unusual experiment. From a relatively high point in the city, in the garden of the cathedral, Barabás sketched a series of seven landscapes. These sketches are numbered, but even without the numbering, the sequence of the individual sheets is obvious. Together, they provide a 360-degree panorama of the city. Compared with a regular landscape, which typically has one or two vantage points, a 360 degree panorama essentially has an infinite number of vantage points. Connecting the straight lines of one sheet with those of another - such as the fence in the foreground - can therefore prove to be difficult. The lines are very lightly drawn, but it is clear from the curvature in the foreground that these sketches were made with the help of a camera obscura, as the distortions (the curvatures) were later corrected to form straight lines [Figure 3]. Only one of the individual sheets was

<sup>3)</sup> See among others, Westfall, C. W. (1969), Painting and the Liberal Arts; Alberti's View, Journal of the History of Ideas, 30(4), 487-506.

<sup>4)</sup> Barabás refers to the following publications, among others: Johann Erdmann Hummel: Die Freie Perspective von J, E. Hummel. I. Teil. Berlin 1833, II. Teil Berlin 1842, Johannes Heinrich Lambert: Perspective afranchie de l'embarras de plan geometric. Zürich 1759. 1763. 1834., Leonardo da Vinci: Trattati della pittura. Rome, 1817., Andrea Pozzo: Prospettiva de' pittori e architetti d'Andrea Pozzo. Rome, 1700., Johann Maria von Quaglio: Practische Ausleitung zur Perspective. München 1823., Guido Schreiber: Malerische Perspective von Guido Schreiber. Karlsruhe, Herder 1854., C.F.C. Steiner: Sachsen Weimarscher Baurath. Weimar 1853., Jean Thomas Thibault: Application de la perspective linéare aux arts du dessin. Paris 1827. Jacques-Nicolas Paillot de Montabert: Traité complet de la peinture. Paris, 1829; Madam Jarry de Mancy: Traité de Perspective linéaire simplifiée. Paris, 1832; J-B. Gratry. (1855) Cours de Perspective linéaire à l'usage des Artistes, des Peintures, des Architectes. Bruxelles.

<sup>5)</sup> Barabás, M. (1863). Válasz Székely Bertalan Festészet és fényképelés c. írására (Response to Bertalan Székely's Article Entitled Painting and Photography). Koszorú, 612-616.

<sup>3.</sup> Miklós Barabás: Panorama of Bucharest, sketch, no. 3, pencil on paper, c.1832.

finished, i.e. painted with thick gouache. Otherwise, the project as a whole remained a series of sketches. Nevertheless, the discrepancies arising from the act of placing the sheets together in order to form a continuous view — discrepancies which raise questions concerning perspective — continued to occupy Barabás. For example, in his 1859 lecture, he mentions a commission that he received for making a panorama that called for 8 viewpoints, each 45 degrees wide. Although he never completed the commission, he suggested that in order to compensate for the perspective distortions, he believed that twice as many views should be made and that each view should be only 22-23 degrees wide.

In this same lecture, Barabás set out to defend the relevance of perspective. He referred to works by Leonardo, Pozzo, and Thibault, among others, but he also touched on relatively recent, alternative ideas about perspective, which generally questioned the usefulness and truthfulness of the one-point perspective used since the Renaissance. Barabás mentions, for example, the curvilinear perspective of William Gawin Herdman and Johann Erdmann Hummel, and he meanders into the territory of optics by giving a relatively long description of the stereoscopic findings of Sir Charles Wheatstone, concluding that the "great masters, working on the basis of sense, make use of the main results of vision with both eyes. In other words, they advise that one must paint the main object clearly and precisely as the meeting point of the two beams of vision."

In 1862. Barabás opened a photo studio in Pest, which he operated until 1864. The following passage is from a letter that he wrote during this time: "Yesterday I again went to (...) calculate the photograph. But alas I found that there is no distance from which the entire building can be photographed. To merge several photographs is difficult because of the perspective lines (...) I also made a few photographs in my vineyard. With about five photographs, I arrived at a view of about a 94-degree wide. It is possible to do this when the subject is one like this but not when the subject is defined by straight horizontal lines..."7 He is referring, of course, to the way in which, if the photographs show vegetation (for instance), then the adjustments and alignments between neighboring views can be easily smoothed over but not so in the case of a building. He even illustrated the problem of aligning and adjusting with a guick sketch in the letter. As far as I know, none of the five photographs he mentioned in the letter have survived, but there are two examples of two photographs taken of his garden in Buda pasted on cardboard in order to give a wider angle. He used the same two photographs for both examples, but he aligned them differently. In one case, he aligned the top of the photographs, while in the other version, he aligned the straight line of the roof of the house [Figure 4]. Essentially, he was grappling with the same difficulty that he confronted when creating the Bucharest panorama more than 30 years earlier.

As mentioned above, Barabás began his 1859 lecture by upholding the academic principles of perspective, but also by touching on new ideas on the subject mostly arising from the discoveries of optical distortions and Wheatstone's insights. Uncharacteristically, he even notes somewhere in the middle of his speech that there is no "one true theory of perspective". His photographic experiments a few years later provided pragmatic illustrations of these ideas. Stereo photography offers a good example of this. He wrote on the theory of stereo photography in his lecture, emphasizing the importance of maintaining the correct distance between the focal points of the two images and the difficulty of producing a convincing three-dimensional effect when the object depicted is smaller than the distance between the eyes.8 A few years later, he experimented with stereo photography in his own photo studio. In his notebook containing photographic recipes, he wrote the following passage in the early 1860s: "(...) we did an experiment with Harz collodion. The first experiment lasted 4 minutes, and it was overexposed. The second was 1 minute, and the same thing happened. The third trial lasted 30 seconds and worked well. The experiment went as follows: we positioned the stereoscope camera and after 30 seconds in the sunlight, we took it into the dark room and placed the glass in a tray of distilled water. We took it out after a short while, developed it and fixed it with potassium cyanide."

In Barabás's entire photographic oeuvre, which consists of around 300 photographs (the majority of which are carte-devisite portraits), I know of only two stereo images. Both images depict members of his family. One is an outdoor scene and shows his son on the porch of their summer villa in Buda. The other stereo photograph was done in the studio and shows his two future son-in-laws. The furnishings are familiar, and comparable with the carte-de-visites made in his studio [Figures 5, 6]. This image was later tinted – something that can decrease the stereo effect if not done skillfully. Otherwise, this piece is also notable within the oeuvre as it is the only photograph which has the element of humor. In both cases, the

<sup>6)</sup> Barabás, M. (1860). A festészeti távlattanról (On Painterly Perspective). Akadémia Értesítő, III, 146.

<sup>7)</sup> A letter from Miklós Barabás to János Pompéry, unpublished manuscript, National Széchényi Library, Budapest, Hungary.

<sup>8)</sup> Barabás, M. (1860), A festészeti távlattanról (On Painterly Perspective), Akadémia Értesítő, III, 147-149,

<sup>9)</sup> The vast majority of these photographs are in the artist's bequest. Some were found in the holdings of the Hungarian National Museum, the Budapest History Museum, the Hungarian Museum of Photography, as well as in private collections.

focus is on the middle ground, despite the illusionistic painted backdrop behind the double portrait and the open door in the outdoor image. Except for the frame made of leaves in the foreground, there is nothing which leads our gaze toward the middle or the background.

Of course, it would be surprising if an artist who was primarily preoccupied with portraiture had only begun experimenting with photography in the early 1860s. Recently discovered documents suggest that Barabás became interested in the daguerreotype and not just as a potential subject, as a surviving daguerreotype of him [Figure 7] and another two of his daughters illustrates, but as a technique that he could use to create images of people. A recently discovered manuscript in Barabás's handwriting provides a description of how to make daguerreotypes, and a letter from an English friend, John Cunliffee-Pickersgill, dated to July 1843, also provides proof of his interest in this technique. I quote the latter: "You seem to be enjoying Paris to the utmost. At the same time I am pleased to observe that you are making your visit useful to you - I wonder whether Daguerrotypering will take in Pesth (sic) - I am almost sorry that you are going to undertake it, it appears

almost beneath the notice of so good an artist". Barabás's first-hand contact with photography therefore occurred long before he opened his studio in 1862, and this suggests that the questions he raised in his 1859 lecture concerning the theory might not have preceded his experimentation with the new media, but rather, that they followed it. In an article written in 1863, Barabás defended the art of photography against Bertalan Székely (1835–1910), a highly regarded painter of the younger generation. His claim was that the camera, like human vision, produces distortions and a painter should reckon with and even emulate these distortions, painting certain

parts in a more precise, crisper manner and other areas – corresponding to the peripheral vision – in a less distinct mode.

As we have seen, questions on optical and perspective distortions were of central interest to Barabás. I would go so far as to suggest that they shaped his understanding of how the role or function of art should be defined. In a long essay written in 1865 which also claimed to be on perspective, he wrote the following about the vaults of the Karlskirche in Vienna and the Saint Nicholas church in Prague: "(...) here reality and art nicely merge into one (...)".10 In the frescoes of Johann Michael Rottmayr and Johann Lucas Kracker, the actual architectural elements consisting of the faux architectural elements painted in grisaille and the painted illusionistic figural frescoes all melt into one from a distance, and it was undoubtedly this that caught his attention.

The compositional technique, borrowed from painting, of using landscape backgrounds for portraits goes back to the very beginning of photography. Daguerreotypists in German cities, such as Hamburg and Berlin, were known for depictions with illusionistic painted backgrounds. <sup>11</sup> In England, as Denis Pellerin's lecture *The Stereoscope: Claudet's "General Panorama of the World"* showed, <sup>12</sup> Antoine Claudet patented the composition

type in the early 1840s. However, in contrast with painted portraits in which everything is painted, i.e. done in the same medium, in the case of photographs the media were mingled and the two-dimensional painted backgrounds merged with the real-life three-dimensional models into one two-dimensional image only through the act of being photographed.

In Barabás' carte-de-visite photographs, several distinctive painted illusionistic landscapes were used as backdrops. The models are positioned in these imaginary landscapes, walking with their parasols and walking sticks. Like the inside of a nineteenth-century rotund where panoramic images were put on display and the ground was covered so as to provide a similar terrain to that of the painted foreground of the panorama, real and artificial plants were spread on the ground. This method was widely used among carte-de-visite photographers, 13 but Barabás sometimes seemed to go one step further in striving to create an illusion of a grand open space inside his photographic studio. In an image of his daughter, for example, at the bottom of a painted illusionistic staircase was a painted vase on the one side and a much larger, three-dimensional, presumably plaster vase on the other side of the stairs, thus creating a mixing of media similar to the mix in Rottmayr's

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<sup>10)</sup> Miklós Barabás. (1867). Mennyire nélkülözhetetlen a távlat tudománya a festészeknek (How Indispensable is the Science of Perspective for Painters), In: *OMKT Évkönyve* (Annual of the National Art Association) 1865/66, Budapest, pp. 132-158.

<sup>11)</sup> Peters, U. (1979). Stilgeschichte der Fotografie in Deutschland 1839-1900. DuMont Buchverlag Köln, 81-87.

<sup>12)</sup> Stereo and Immersive Media Conference. Universidade Lusófona de Humanidades e Tecnologias, Sociedade Nacional de Belas Artes. 28th 29th and 30th June 2018, Lisbon

<sup>13)</sup> We have knowledge of several patents pertaining to constructions which made switching between different painted landscapes easily possible in photo studios. For example "Background Arrangements" (1888) by G.W. Morgan was advertised in *The Photographic News*, XXXII, 92. Alvin C. Caswell's version (which included a winter, a summer scene, a lakeside view, etc.) was advertised in *The American Annual of Photography and Photographic Times* (Almanac for 1892, Volume 6, Advertising section, p. 104.).

and Kracker's Baroque frescoes [Figure 8]. To use Barabás's words, "here reality and art nicely merge into one."

In my analysis, my aim was to show how Miklós Barabás's understanding of the role of art as something which provided an illusion of reality and that also merged with reality was strongly influenced by his experiments with photography and the panorama genre, as well as his theoretical examinations of perspective and optics. He recognized distortions both in the mechanics of the camera and the human eye, but he believed that these distortions should not necessarily be corrected, but rather that they should be used as an advantage by painters and photographers alike.

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