

A Multigraph from Montreal

by Irwin Reichstein

Some time ago I acquired an extraordinary "real photo" postcard which showed five images of the same individual in a bowler hat, seemingly engaged in a card game. The reverse of the card had the imprint of "Funland Multigraph, 316 St. Lawrence Blvd., Montreal." The rather surreal quality of the image, my interest in Montreal photographers and curiosity for how it was made led me to explore various aspects of this unusual photograph.



Fig. 1. Multigraph by Funland, Montreal of a man in a bowler hat playing cards.



Fig. 2. Reverse of Funland multigraph.

Given the information on the reverse, dating the image and getting some information on the maker of the postcard involved a straightforward search of Lovell's City Directories for Montreal. In the 1910/11 and 1911/12 directories the "Frindland Cinematograph" was listed at 316 St. Lawrence Blvd, located between Dorchester St. (now Rene Levesque) and St. Catherine St. Its proprietor was one J. Hirschberg. In the 1912/13 directory, the name of the establishment was changed to Funland, still under the same proprietor. Funland remained at the same address for about three years. Interestingly Mr. Hirschberg is also listed as selling dry goods at

the same address so it must have been a multipurpose establishment. In 1915/16 the establishment moved a short distance away to 322 St. Lawrence Blvd. and is listed over the next few years as the Funland Arcade or the Funland Penny Arcade. It remained at the same location until 1935 although the street number changed from 322 to 1206 St. Lawrence, in a general street renumbering that was done in 1927 or 1928. The multigraph, therefore, dates to Funland's period at 316 St. Lawrence Blvd., sometime between 1912 and 1916.

How were these images made and where did the process arise? During the nineteenth century there was a fondness for novel photographic effects. Early trick photographs of chess or card games in which a single individual takes the role of both players are not uncommon and probably go back to the early history of photography. One of the best Canadian exponents of this genre was Hannah Maynard (1834-1918) of Victoria B.C. In one of her many photographs of this kind she is seen in four separate poses taking on various roles in a tea party at which she is the only participant.¹ The techniques for producing these effects most often involved multiple exposures on different parts of the same photographic plate using specially modified cameras and plate holders. Though not immediately apparent, multigraphs, were created simply using a pair of mirrors and not a modified plate holder or other mechanical means.

The nineteenth century also saw a large proliferation of photographic and popular-science journals and books. This large range of publications dealt with all aspects of photography from chemistry to marketing but also gave tips on creating the latest novelties. Information was freely and quickly exchanged, both with and without permission. Articles were pirated and adapted in short order. As we shall see, the history of the multigraph vividly illustrates this rapid flow of information. Because of the sheer quantity of such journals and books published on both sides of the Atlantic, not to mention their current rarity, it is impossible to be sure that all pieces of the multigraph story have been found. Nevertheless, I believe, a relatively coherent, though possibly incomplete picture emerges.

The first published account of the multigraph that I have found was in the October, 1893 issue of an American journal called *The Popular Science News*.² In a single paragraph the journal describes a “curious application to photography” made by “a photographer of Atlantic City, N.J., Mr. Shaw, who produces a photograph at a single exposure which gives five different images of the same person in different positions. This is accomplished by placing the sitter between two mirrors placed at an angle of 45 degs. to each other. The double reflection between these mirrors produces four images of the person placed in front of them, the principle being the same as that of the ordinary kaleidoscope.” It goes on to say that “the result is curious and interesting, and, it has been suggested, would be useful in identifying criminals.”

The only photographer by that name in Atlantic City was James B. Shaw who had a gallery at the Boardwalk and New York Ave. which was also called Shaw’s Spectrotype Photographic Gallery.³ Atlantic City, being a resort community with a large influx of visitors, it is not surprising that photographers would be looking for photographic novelty.

It should be noted that the angle given in the article is an error, as an angle of 45 degrees would produce not five, but seven images. Also, the multigraph reproduced (Fig. 3) shows the subject posed facing the camera, producing a relatively awkward arrangement.

This article was reprinted verbatim (with credit) just a few weeks later in the Oct. 20, 1893 issue of *The Photographic Times*⁴ edited by Walter E. Woodbury, an important writer on photography. The figure along with the erroneous angle of 45 degrees was faithfully reproduced as well.

The news quickly crossed the Atlantic and in March of the following year, the French popular science journal, *La Science Illustrée*,⁵ ran a short item clearly based on the article in *Popular Science News*. Alerting the reader to a “very amusing fantasy of an American photographer, M(onsieur) Shaw, I believe” it briefly describes the process, perpetuating the incorrect angle of 45 degrees. With a sly dig at the Americans, the author notes that one could get “sixty portraits in five poses for the price of twelve portraits in a single pose. It’s very American and very imaginative.” The note finishes by asking if “this amusing use of mirrors” could be used for serious scientific applications such as anthropo-photography. The multigraph illustrated was a redrawn version of fig.3 but with an elegant lady as subject.

In June, 1894 the *Photographic Times*, published,⁶ without any comment, a multigraph by L.H. Doremus, of Patterson N.J., entitled *All Five The Same* (Fig 4). It was noteworthy for several reasons. It was a half-tone photographic reproduction rather than a graphic, it was a vignette and the line of the mirror was removed which indicated that effort was made to produce a “serious” portrait.

Most dramatically, the subject was posed from behind. This pose probably did not come naturally to portrait photographers but it produces the most dramatic overall arrangement and became the most common pose used for multigraphs.

Some months later, the multigraph was described in the *Scientific American* issue of October 6, 1894.⁷ The technique for producing a “multiphotograph” is described in detail in a short article of just a few paragraphs with technical diagrams which are a model of clarity and angles which are correct. This article was certainly one of the most influential in the subsequent history of the process and accordingly, one cannot do better than to quote it in its entirety. The three technical illustrations from the original article (Figs 5-7) are also included here.

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Fig. 3. The first published multigraph found to date by J.B. Shaw of Atlantic City, N.J. from *The Popular Science News*.



L. H. Doremus, Photo.

Fig. 4. The earliest halftone reproduction of a multigraph found to date by L.H. Doremus from the *Photographic Times*, June 1, 1894.

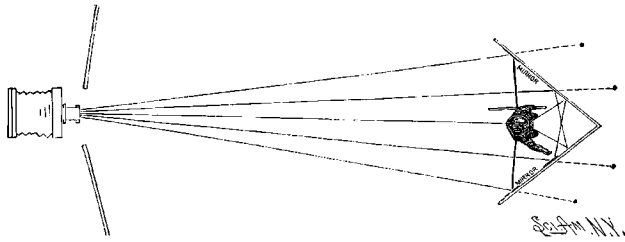


Fig. 5. Scientific American figure reproduced from *Photographic Amusements*. The centre ray goes from the subject to camera without reflection; the ray above it reflects twice and the top ray reflects only once.

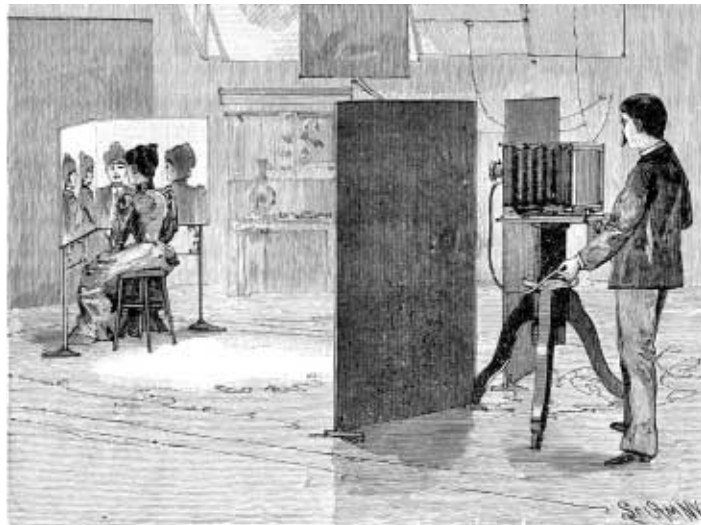


Fig. 6. Scientific American figure reproduced from *Photographic Amusements* showing studio setup for multiphotography.

A very pretty system of photography enabling us to see ourselves as others see us, and affording opportunity for much range in the art of posing is the multiphotograph. If an image is placed in front of two mirrors inclined to each other at an angle of 90 degrees, three images will be produced in the mirror; at 60 degrees, five images will be produced; and at 45 degrees seven images; and if the mirrors are parallel, theoretically an infinite number of images will result.



Fig. 7. Scientific American figure reproduced from *Photographic Amusements* showing full length arrangement of mirrors.

In front of the face are two mirrors, set at the desired angle to each other, their inner edges touching. In the case illustrated these mirrors are inclined at an angle of 72 degrees. Four images are produced. The exposure is made, and on the developed negative appear not only the back view of the subject, but also the four reflected images in profile and different three-quarter positions. The courses taken by the rays of light

are determined by the law that the angle of incidence is equal to the angle of reflection. In the diagram we have traced the rays of light on their course from subject to mirror and back to the camera, giving a good idea of the relation of the images to the subject and of the five images to the focal plane, the virtual position of the images being further from the instrument than is the subject proper.

The gallery equipment for this class of work is shown in one of the views, while the appearance presented by a full length figure with the aid of the mirrors is shown in another cut. A very interesting illustration of what can be done by this process is presented by the reproduction of a photograph actually taken, where the interesting expression and marked characteristics of the face serve to bring into strong prominence the utility of this process for representing the human face.

It is obvious that simple as the process and idea appear, it might have many uses in the study of other forms of nature.

As indicated in the article a multigraph of a lady in a bonnet was also included as a fourth illustration.

It is worth noting for clarification that the *Scientific American* article gives a somewhat simplified explanation. In fact a simple experiment with two mirrors shows that the number of reflected images remains the same over a wide range of angles, the actual choice of angle depending on how spread out one wishes the reflections to be. As the angle of the mirrors is decreased from 180 degrees, one gets two clear reflections or three images on the photograph in the range of roughly 170 to 95 degrees. Four reflections or five images on the photograph is achieved for mirror angles of approximately 85 down to 65 degrees. The value of 72 degrees noted in the article is in roughly in the middle of that range and gives a pleasing separation of the direct image and the four reflections. Figure 5 shows that with decreasing angle, additional images are caused by a greater number of internal reflections between the mirrors. The precise angles also depend somewhat on the distance of the object from the mirrors. These effects are shown in Fig. 8 in a composite multigraph made by the author. An actual studio arrangement is shown in a tintype in Fig 9.

An edited copy of the *Scientific American* article was printed with neither credit nor diagrams less than two weeks later in England in *Photography, The Journal of the Amateur, the Professional and the Trade*⁸ and the article was reprinted verbatim, with credit, in *The St. Louis and Canadian Photographer*, in their November issue.⁹ Strangely, however, though it was a very popular trade journal, the technical diagrams were not reproduced, although, the resulting multigraph of the lady in the bonnet was.

In France, *La Science Illustrée*, in response to requests by its readers, revisited the process in late November.¹⁰ Two of

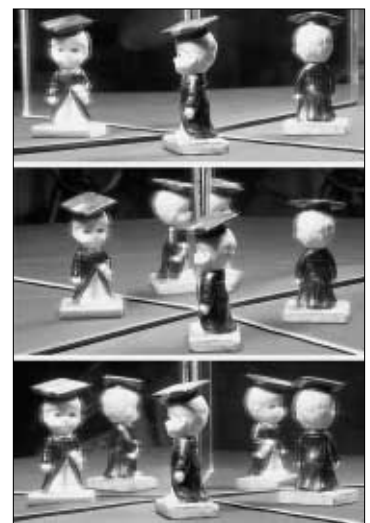


Fig. 8. The top shows mirrors at angle of 95 degrees with three images, the middle shows the emergence of five images at mirror angle of 87.5 degrees and the bottom shows five images at 75 degrees. Multigraphs by author.

the *Scientific American* figures (Fig. 4 and 5) were now used, slightly modified but without credit. Also, correct angles for the mirrors were now given along with a more thorough discussion of the studio setup.

A more negative view of the process was expressed in another important commercial journal, *Wilson's Photographic Magazine*, the successor to *The Philadelphia Photographer*, in the issue of February, 1895.¹¹ Saying that a "sensational article" had appeared in the local paper describing "the photo-multigraph," the magazine, speculated that "the idea was doubtless caught from a passenger elevator. Anyone having been lifted in such a vehicle which was lined with mirrors must have discovered the effect of the photo-multigraph." The article then dismissed the process, stating that "the effect is rather ridiculous" and that it would be better to use the product of one of their advertisers, the "Diller and Clay Holder" to achieve multiple poses on the same plate.

In April, 1895, the *Photographic Times* revisited the issue for the third time in a lead article entitled *The Mirror and the Camera*.¹² The article began with a lengthy diatribe about the lack of innovation in the photographic profession. "The majority...rarely read the photographic magazines, and, consequently know nothing of the many novel ideas and processes that are constantly being published and which they might easily turn to profitable account." It goes on to relate that "quite recently a method of photographing a person in several different positions at one and the same time has been worked by a few professional photographers, and they have not lost money by the action. The idea caught on at once, not only with the general public but manufacturers and others utilizing it for commercial purposes. For instance a ladies' bonnet is photographed; with one exposure and one plate five different views of the bonnet as worn are made and ladies are able to see the effect from all points of view."



Fig. 9. Tintype multigraph of around 1900 giving a clear view of the mirror arrangement. The pose with subject seated sideways gives a reflection of the full face. Courtesy of a Virginia

The article then explained the process using, with credit, the three technical diagrams reproduced from *Scientific American* and revisited their own earlier suggestion that "the prison authorities should certainly adopt it for photographing criminals." The illustration was a vignette "multigraph photo" of a gentleman by Hartley of Chicago very similar to the earlier multigraph they had published by Doremus.

About a year later, in 1896, the editor of the *The Photographic Times* Walter E. Woodbury, used a modified

version of the article in a book called *Photographic Amusements*.¹³ The influence of the book in North America can be gauged by the fact that it underwent eleven editions in over forty years. The last edition was issued in 1937,¹⁴ under the editorship of Frank R. Fraprie who was a prolific author on photographic subjects. The book illustrated techniques for

producing a wide range of photographic novelties culled, as the author notes in the introduction, from a variety of American and European photographic books and journals. The very first section of the book was a reworking of the article from *The Photographic Times*. It re-used the title *The Mirror and the Camera* and again made use of the information from the *Scientific American* article as well as all the technical diagrams from that magazine.

In addition to describing the multigraph process, the book discussed its value in portraiture:

The use of an ordinary mirror in portrait work has enabled photographers to produce very pleasing results. There is often a very striking difference between the full and side views of a person's face, and by means of such a combination as this, one is enabled to secure a perfect representation of both at the same time. In making reflection portraits it has often been noted that the reflection has a more pleasing effect than the direct portrait. The reason of this is that it is softer, and the facial blemishes are not so distinctly brought out. There is naturally a slight loss of detail, but this is by no means a drawback.

Interestingly, the earlier suggestion of *The Photographic Times* that the process should be used to photograph criminals was changed to a statement that "in France it is used for photographing criminals, and thus obtaining a number of different portraits with one exposure." This statement was included in editions of the book as late as 1931 and in fact in *Cassell's Encyclopaedia of Photography* of 1911, there is a very short entry for the process under "multiple photography," extracted from the book which states that the process was at one time popular in America and still used in France for photographing criminals.

As we have indicated, *Photographic Amusements* was in press for over 40 years and the 1931 edition speaks of the revival of the process.

This particular kind of multiple photography is now being revived and is becoming increasingly popular as a money-making scheme at resorts of all kinds, especially at the beaches in the summer where the urge to have pictures taken is always strongly felt and where new ideas are always in great demand. Many enterprising beach photographers are now making postcard photographs which present five different aspects of the same person which look just as though there were five people seated around a table. Without actually giving away the secret, the photographer explains that, like many of Houdini's stunts, "it is done with mirrors". Like most of Houdini's illusions, it is popular and very profitable.

This new "Five-in-One" outfit may be had at a price which puts it easily within the reach of all photographers who cater to the holiday resort trade. People on a holiday will readily part with a dollar and a half or two dollars for a half dozen of these unusual five-in-one portraits and at such a price the profit is well worth while. The installation is simple and the manipulation of the negative and print after the exposure has been made is no different from that of other postcard portraits. The operation presents no difficulties whatever. And people like it.

Multigraphs were, of course, also being produced in Europe and for reasons other than keeping track of criminals (Fig 10). We have mentioned the articles in *La Science Illustrée* but there were other European journals keeping track of these developments as well. Indeed, European books on photographic amusements, predated the Woodbury book by a number of years and we shall review some of the key ones. However, it appears that, as in North America, multigraphs were not included in such books before the 1893-1894 period discussed above.¹⁵

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Les Récréations Photographiques,¹⁶ published in France in 1891, has a section on multiple images but these are produced by mechanical means. There is also a very short section on “photographie multiple” in which two parallel mirrors produce an infinite set of reflections. The multigraph is not discussed at all, though their item on parallel mirrors was appropriated some years later in the 1895 *Photographic Times* article *The Mirror and the Camera* and thus also found its way into *Photographic Amusements*. Similarly, in Germany, a book entitled *Photographischer Zeitvertreib*,¹⁷ which was also published in translation in England as *Photographic Pastimes*¹⁸ in 1891 had no reference to mirror photography until later editions.

The multigraph does indeed appear in European books published after the 1893-94 period. In France, *La Photographie Recreative et Fantaisiste*¹⁹ published in 1904, discussed the multigraph in detail, though the material is clearly taken from the American journals. The technical diagrams and one multigraph were reproduced from *Scientific American*. The Doremus multigraph (Fig 4) was used as well with credit given to the *Photographic Times*. In Germany *Photographischer Zeitvertreib* underwent a number of editions (as well as a name change) well into the first couple of decades of the twentieth century and certainly by the 1912 edition,²⁰ but likely earlier, the multigraph is discussed and illustrated.

Accordingly, at present, the earliest credit for the invention of the process that I have found goes to Mr. Shaw of Atlantic City, New Jersey somewhat before October, 1893 and all subsequent reports of the process seem to follow directly from this original report. Given the large numbers of photographic publications on both continents, however, one should be very cautious about making a definitive statement. In any case the period 1893-1894 was when the process was made widely known to commercial and amateur photographers.

In the review of the literature, there were a large number of names attached to the process and a brief summary is in order. *Scientific American* called the process multiphotography and the result a multiphotograph. *The Photographic Times* used the same name for the process but called the result a multigraph photo. *Photographic Amusements* also termed the results a multiphotograph and in later editions simply a mirror-photograph. By the last edition in 1937, the name was dropped altogether and the illustrated example was described as “multiphotography of...” *Wilson’s Photographic Magazine* called them photo-multigraphs. I have seen the term multigraph and photo-multigraph used on North American photo postcards. My own preference is for multigraph, though it should be noted that the term was unfortunately also widely used for a popular duplicating machine.

The lack of a definite name probably points to the fact that the process never gained a very strong foothold. Indeed the ups and downs of the popularity of the process is difficult to assess. Though the process began to get the attention of the photographic press in 1893, *Photographic Amusements* in 1896 begins by indicating that it is “a process of multiphotography which at one time was quite popular.” The 1931 edition of the book speaks of a revival of multiphotography as a novelty item at beaches and resorts and the 1937 edition no longer speaks of it in terms of commercial portraiture at all but uses tabletop illustrations very much aimed at the hobbyist.

It is also difficult to gauge the popularity of the process from available examples. Recently, such images have been appearing regularly if not in great numbers in the internet

auctions. They appear in a number of formats but most often as postcards indicating that the high point of their popularity was the period from about 1900 until 1920. Tintypes appear only occasionally as do other formats such as Cabinet cards. While clearly, they were mostly produced as novelty items, the original journal articles point to more established studio production where extra features such as vignetting and touching out of the line of the mirror would create a more finished look. It seems, however, that, in the main, the process remained in the province of arcades and fairs.

The multigraph in art-historical terms.

The surreal nature of the multigraphs has been noted above and a little investigation shows that this relatively simple process had a modest influence on several important twentieth century artists. The multiple portrait, of course, had a number of historical precedents from the renaissance onward. The most famous examples are Van Dyck’s triple portrait of Charles I of 1636 and a similar triple portrait of Cardinal de Richelieu by the French artist Phillipe de Champaigne of about 1642. These multiple portraits were created for the very practical purpose of providing three views of the same subject to be used in creating a three dimensional sculpture and show the subject full face and in left and right profile. In photography, as noted before, a number of techniques for multiple portraits were used in the nineteenth century but as in painting multiple portraits are relatively uncommon.

The mystery and eccentricity inherent in photographing the back of a subject was also exploited, if only occasionally, by nineteenth century commercial photographers although, there too, there were several nineteenth century romantic painters who made use of this device. The multigraph, in fact, combines both the multiple view and the view from behind, and the resulting surreal effect meshed perfectly with some of the concerns of artists working in the first decades of the twentieth century.

The multigraph is generally absent from most books which treat photography as a fine art but it is briefly discussed in at least two. In a brief introduction to the book *Photography as Fine Art*,²¹ Douglas Davis mentions multiple portraits made by the surrealist artist Marcel Duchamp²² in 1917 as well as those by the Polish artists Waclaw Szpakowski in 1912 and Stanislaw Witkiewicz in 1917. The book illustrates a dramatic multigraph by Witkiewicz, of himself, dressed in a military uniform but the writer very much overestimates the effort required to produce these photographs. The Duchamp multigraph is said to have been made with “a battery of mirrors” while the two Polish artists are said to have used five. The author is however, on more solid ground when discussing the impulse behind these photographs, namely, the love of the surrealist artists for “reflections and tromp l’oeil illusions” and for photographs that “begin in realism but end in mystification.”

A second book, *Futurism and Photography*²³ is devoted to photography of the Italian *Futurist* movement which embraced the notion of technological progress and therefore, inevitably photography. In particular, their photographs made use of mirrors, distortions and multiple exposures. The book contains an illustration of a single multigraph by Umberto Boccione, a key figure in the movement who around 1905-07, made a rather ordinary self portrait using the process, although it may be that he simply had a commercial multigraph made of himself. On it he inscribed the Italian words

“io” and “noi” or “I” and “We.” The book’s author, Giovanni Lista, explores the issues in the *Futurist* use of photography. He discusses the multigraph as a process that subverts the usual technological meaning of the photograph which is that it “captures reality unambiguously.” The multigraph, however, multiplies the image and so in some sense deals with “the multiplicity of being,” an issue important to the futurists, hence the title of the multiphotograph “I-We.”



Fig. 10. Undated multigraph of a soldier by the studio of Max Huebler in Vienna, Austria.

One should not over emphasize the multigraph’s influence on these artists as there seem to have been relatively few made. It may be that the effects produced by the multigraph did not lend themselves to much further exploration, though the use of multiple mirrors to fracture reality was explored by a number of important twentieth century photographers.

Finally, there is the issue of what makes a good multigraph. The initial surprising aspect of the concept soon wears



Fig. 11. Unusual multigraph of a dog, by Myers-Cope Co. on the Boardwalk of Atlantic City, New Jersey.



Fig. 12. Multigraph of a lady on the telephone. Studio unknown. Courtesy of a Minnesota collector.

off. One soon begins to look for those multigraphs which exploit the effect to produce a result that rises above the ordinary. The card player from Montreal is one such image. The intensity of the player’s absorption in the game and the way in which his cards are held close to his chest, creates an internal drama resulting in an “unintentional masterpiece.” Indeed, the use of playing cards was frequently used as a prop to enhance the drama of the result. The multigraph of the dog (Fig. 11) is interesting for the somewhat ludicrous choice of subject. The lady on the phone (Fig. 12) shows how a simple prop and a choice of angle can produce an extraordinarily lively and engaging effect while the multigraph of the Austrian soldier (Fig. 10) is given mystery and drama through the use of costume and dramatic lighting. The majority of multigraphs, though, are relatively ordinary, though for the original customer, they were probably a great delight.

There are still several aspect of the multigraph that would be worth exploring. To what degree was this technique used by establishment photographers catering to a more upscale clientele? To what extent were commercial kits available? Clearly, early studio setups required large mirrors which would likely have been produced by carpenters but *Photographic Amusements* alludes to the “Five-in-One” outfit used in making multigraphs at the beach. Is what finally killed the process the fact that all novelty wears thin in time or possibly the fact that the principle view of the subject was the back of the head? Indeed why have multiple portraits of any kind never been the norm? Finally, was the process really ever used to photograph criminals? ♣

Endnotes

1. C.W.Wilks, *The Magic Box: The Eccentric Genius of Hannah Maynard*, Toronto: Exile Editions, 1980.
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3. *George Eastman House* database and *City Directories* from Atlantic City.
4. *The Photographic Times*, XXIII:631 (Oct. 20, 1893), 344.
5. *La Science Illustrée*, XIII:329 (Mar. 17, 1894), 252. Thanks to M. Bernard Plazonnet for bringing this article to my attention.
6. *The Photographic Times*, XXIV:663 (June 1, 1894), 345.
7. *Scientific American*, (Oct. 6, 1894), 216.
8. *Photography, the Journal of the Amateur, The Profession & the Trade*, VI:310 (Oct. 18, 1894), 667.
9. *The St. Louis and Canadian Photographer*, XII (Nov., 1894), 522.
10. *La Science Illustrée*, XIV:365 (Nov. 24, 1894), 411.
11. *Wilson’s Photographic Magazine*, XXXII:458 (February, 1895), 80.
12. *The Photographic Times*, XXVI:4 (April, 1895), 193.
13. *Photographic Amusements, Including a Description of a Number of Novel Effects Obtainable with the Camera*, edited by Walter Woodbury (The Scovill & Adams Co.: New York, 1896), later published by The Photographic Times Publishing Association.
14. In 1922 the book was issued under Walter E. Woodbury’s name but revised and enlarged by Frank R. Fraprie, while the 1931 edition was by Fraprie and Woodbury. The last edition in 1937 was by Fraprie and O’Connor.
15. I am indebted to an article by C. Chérout which points to two of these books. C. Chérout, *Les récréations photographiques: Un répertoire de formes pour les avant-gardes, Etudes Photographiques*, November, 1998.
16. A. Bergeret et F. Drouin, *Les Récréations Photographiques*, Paris, Charles Mendel, 1891.
17. Hermann Schnauss, *Photographischer Zeitvertreib*, Liesegang Verlag, 2nd edition, 1890.
18. Hermann Schnauss, *Photographic Pastimes*, Iliffe and Sons, London, 1891.
19. C. Chaplot, *La Photographie Récréative et Fantaisiste*, Charles Mendel, Paris, 1904.
20. Felix Naumann, *In Reiche der Kamera*, Liesegang Verlag, 1912.
21. *Photography as Fine Art*, E.P Dutton Inc., N.Y., 1983, page 18.
22. The multigraphs by Duchamp and Boccione and others are illustrated midway through the 2003 article *Zeit des Ereignisses – Zeit der Geschichte: Am Beispiel der Multiperspektivität* by Gunnar Schmidt at URL <http://www.medienaesthetik.de/medien/zentrorama.html>. (See the cached article). These also can currently be found at URL <http://wd.blogs.com/wisch/fotomontagephotomontage/index.html>.
23. Giovanni Lista, *Futurism and Photography*, Merrell Publishers Ltd., London, 2001.

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