Duchamp and Dalí: Photography of the Naked Object

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My paper centers on two photographs. Both present an object to which attention is directed by various means. One is a "threadless spool" — "completely naked, completely pale, completely peeled, immensely unconscious, clean, solitary, tiny, cosmic, non-Euclidean" — seen lying as if by chance at the lower portion of an anonymous photograph accompanying Dalí's 1935 essay "Non-Euclidean Psychology of a Photograph." [illus. 1] This object – not least the string of adjectives adorning Dalí's description – popped up in my mind while going through some Duchamp materials associated with his Boîte-en-valise, or Box in a Suitcase, a kind of portable museum of Duchamp's works on which he worked from
1935 and practically until 1971. It was then that an early photograph c. 1917 of Ready-mades in Duchamp's studio caught my attention, not the original photograph but rather one constituting an interim stage in Duchamp's preparatory work on the *Boîte*.

Similarly to other photographic reproductions in *Boîte-en-valise*, the original photograph has been treated or manipulated; unlike other photos, in this one Duchamp's Readymade *Trébuchet* (*Trap*, 1917) was whitened out, its erased details appearing in a line drawing attached to the photograph [illus. 2].

![Retouched photograph and line drawing](image)

This retouched photograph and the drawing were reproduced separately as two letterpress blocks and then printed one after the other, the line drawing overprinted on the half-tone print [illus. 3].
Similarly to most other reproductions in the *Boîte*, the resulting print was colored by pochoir (that is, stencil based technique).² My initial response to the whiteness of the objects, their nakedness so to speak, and the fact that both were lying discarded on the ground served as a point of departure for exploring the photographic dimension in the thought and work of Duchamp and Dalí. I don't purport to do a point by point comparison but rather show how the two photographs, and the objects on which they focus, define significant signposts in the two complex, at times paradox-ridden, trajectories of Duchamp's and Dalí's respective involvement with photography; how, in fact, both use photography as a conceptual vehicle, challenging accepted ideas concerning photography's use and subverting the conventions attached to it. Along the way I discovered that the objects themselves raised interesting questions that added an extra-dimension to the conceptualization of the respective photographs.
Let's turn first to Dalí's object, the threadless spool, with its "imperceptible existence" and invisible nature as it appears in the photograph. It is this invisible nature, argues Dalí, which provokes a sudden eruption of a "paranoiac apparition," with this launching Dalí on an "interpretative" feat in the course of which he attacks Kant's philosophy, showing its inadequacy for the modern epoch. De Chirico's objects are seen by him as materializations of Kant's "pure intuition," which "may be conceived only metaphysically." Kant maintained that the ideas of space and time are intuitive rather than conceptual, and that they consist of "pure intuition" in that the essential nature of their referents is known in advance of experience and not as a result of it. Hence, argues Dalí, this spool for Kant could not be considered other than as definitely situated in space. Dalí then transposes the story of the spool's changing circumstances onto what might be referred to as a "family romance," a story turning around questions of legitimacy and moral degradation. I won't go in detail into this rather involved story— an interpretative feat which is not so much an example of paranoia-criticism as it is an elaborate conceit, largely based on word play and extended to its last ounce of metaphorical wit. Suffice it to say that Dalí concludes by stating that the situation of this spool is no longer recognized in terms of Kant's "absolute metaphysics" as being "outside of ourselves." We Surrealists, asserts Dalí, have learned how to listen to the solicitations of the physical reality of such "insignificant objects"—such solicitations as those that our dreams reveal to us as being characteristic of our period and our life. By evoking the peripeties of a "naked spool," Dalí situates Surrealism at the antipode of metaphysical abstractions, and close to modern physics.

One may well ask now why does Dalí affix to the spool the label "non-Euclidean"? According to Kant we've always had, argues Dalí, "space in absolute repose, and, independently, time equally absolute and flowing. This state of affairs has been completely stamped out by the
theory of relativity, which teaches us that there is neither absolute time nor absolute space, and that only the union of time and space has physical significance." Dalí appears to associate Einsteinian space-time with non-Euclidean geometry; the threadless spool is non-Euclidean then because its situation is defined not in terms of classical space and time but those of the theory of relativity. There are several references to the theory of relativity in Dalí's writings of the 1930s. His knowledge of the science involved was no higher than what popular books or magazine articles could offer, but this was no hindrance to his imaginative constructions. Thus, the story of the development of the conception of space over the centuries, as promulgated in "Aerodynamic Apparitions of 'Beings-Objects'" (1934-5), ends with the "modern theory of relativity whose space became important, material and real to such an extent that it even ended up having four dimensions, including time which is certainly a delirious and Surrealist dimension par excellence." This serves Dalí to equate the "physical aerodynamism" of space, its objects and people with what he calls "moral aerodynamism," with this helping him in setting up the concept of "beings-objects." An imaginative application of relativity to his own theory is developed in a much earlier essay, "The Sanitary Goat," included in his book La Femme visible (1930), in which Dalí distinguishes between the meter as an absolute or even abstract measure and the material meter which, according to Einstein's theory, is not a constant but rather given to dilation in the eyes of the beholder while in motion. The point, however, is that "Just as one should rely on the physical dilation of measures whether common or not, in the same way one should rely on the psychic dilation of ideas." And further on, "The new geometry of poetic thought requires physical revision and accommodation of the order of those that Einsteinian physics bring to bear upon all measurements." The conclusion is that the "physics that should form the new geometry of thought will be precisely … the delirium of paranoiac interpretation" (Writings, pp. 229-30).
This notion of the psychic dilation of ideas in relation to paranoiac interpretation directs us to
the psychological dimension of Dalí's engagement with the threadless spool. "Abandoned at
the corner of the street of psychology," the spool also embodies a "flagrant and
incomprehensible delirious phenomenon" and is referred to as a "chose folle," "crazy thing."
We are dealing then, as suggested by the title, with "non-Euclidean psychology" which is
located at the opposite pole from the "Gestaltists." Dalí refers to them rather derisively early
in the essay as "repressed Kantians," presumably because they too consider the world as
experienced rather than experience it in the light of the latest scientific developments.
"Psychology is nothing other than human behavior vis-à-vis this physics," Dalí concludes. The
spool then is located at the junction of modern psychology and physics. Furthermore, we
should note that the title of the essay is "Non-Euclidean Psychology of a Photograph." That is
to say, the photograph itself embodies a non-Euclidean dimension.

I shall return to this point later on, but right now let us turn to Duchamp's ready-made
_Trébuchet_ (Trap) and the different phases of its existence. In 1953 in an interview Duchamp
described the genesis of this readymade, ". . . a real coat hanger that I wanted some time to
put on the wall and hang my things on but I never did come to that – so it was on the floor
and I would kick it every minute, every time I went out – I got crazy about it and I said the
Hell with it, if it wants to stay there and bore me, I'll nail it down … and then the association
with the Readymade came and it was that."5 The title came after the fact, of course.
"Trébuchet" is a chess term for a pawn placed so as to "trip" an opponent's piece; the word in
French also means a bird trap and a type of catapult used in the Middle Ages. The verb
Trébucher means to slip up, stumble or stumble over a word. All these meanings nucleate
around this ready-made which fits Arturo Schwarz's observation that a ready-made is
sometimes a pun in three-dimensional projection.6 It is an immobile object nailed to the floor

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over which Duchamp's visitors would stumble; we also would stumble into the linguistic trap of its punning title. The title of a ready-made, whether a pun or an open-ended phrase (for example, *In Advance of the Broken Arm*), opens it to a pendulum-like oscillation of meaning, a swinging between alternative readings. All this is clear enough and well-known to Duchamp scholars. *Trébuchet* was no longer in existence in 1940, when Duchamp had a reproduction made of the photograph taken in 1917 and retouched it. According to Ecke Bonk, who provides the most extensive documentation of the making the *Boîte-en-valise*, this was done before he left Paris with Mary Reynolds in May 1940, moving to Arcachon with his sister Suzanne, her husband Jean Crotti, and, interestingly enough, with Gala and Salvador Dalí.7 In his essay "The King and the Queen Traversed by Swift Nudes" (1959) Dalí recounts how, in "the middle of the war, during a German bombardment, Duchamp and I went back and forth between Arcachon and Bordeaux filling up his famous suitcase."8 Is it possible that Dalí was privy to some phase in the work on this photograph? Be that as it may, it was then that Duchamp went on working on his *Boîte* and probably kept working on this photograph as well. But now we come to the crux of the matter. Why this particular manipulation of the photograph, one not occurring elsewhere in the *Boîte*? The whitening out of the image, copying it in the style of mechanical drawing, and then printing it over the whitened area and coloring it? The original image is clear enough but perhaps Duchamp wished to further emphasize its outlines. This indeed may be the case, but then other ready-mades were accentuated and colored and, to the best of my knowledge, without resorting to this laborious process. Such are, for instance, the photos depicting *In Advance of the Broken Arm*, *Hat Rack*, and *Sculpture de voyage*. Duchamp's work on the image of the *Bottle Dryer* was quite elaborate, with three blocks made of Man Ray's 1936 photo of a newly bought object. The reproduction for the *Boîte* was created in five successive printings of the three blocks, but still no whiting out was involved.9 Thus the manipulated photo of his studio seems to have been
important enough to Duchamp to have it included – or rather one of the original proofs with instructions for reproduction of *Trébuchet* – in one of the twenty Boîtes of the deluxe edition. So the question again is why the whitening out of the image and the process that followed?

This is where I resort to Duchamp's engagement with the fourth dimension as described and elaborated in his notes and in various statements and interviews. The subject has been dealt with quite exhaustively (and exhaustingly) by Craig Adcock's PhD thesis and book. I should mention also Linda Dalrymple Henderson's two books, *The fourth dimension and non-Euclidean geometry in modern art* (1983) and *Duchamp in Context* (1998). Also important in this respect are books and articles by Jean Clair. I can only present the gist of this rather involved subject. Non-Euclidean geometry and the geometry of the fourth dimension fascinated the Cubists who met with Duchamp and his brothers, Jacques Villon and Raymond Duchamp-Villon at Villon's home in Puteaux. These included Gleizes, Metzinger, Léger, Picabia, Apollinaire and others. In interviews conducted in the 1960s Duchamp is quite vague and at times inaccurate with regard to his sources. He also makes light of his ability as a mathematician or the seriousness in applying himself to these studies. Thus in an interview with Dore Ashton he says: "Oh, I'm not much of a mathematician. In those days, 1910, 1911, 1912, there was a lot of talk about the fourth dimension and I was tempted. Non-Euclidean geometry had been invented in the 1840s but we were just hearing about Riemann in 1910. It was very interesting because there were no straight lines left. Everything was curved. I'd say I liked the fourth dimension as one more dimension in our lives." And he adds, "Now, you know, I live in three dimensions. It was mostly talk with us, but it did add an extra-pictorial attraction."
Duchamp's geometric interests lay, however, beyond these somewhat simplified views. I've noted earlier that Duchamp in later life was quite vague about his scientific sources, mispronouncing names and mistakenly associating them with ideas that weren't theirs. There are three names that take the lead, however. Gaston de Pawlowski's book *Voyage au pays de la quatrième dimension* had a great impact on Duchamp and his Cubist friend around 1910-1912. Duchamp also read Henri Poincaré's more philosophically oriented mathematical works, but his greatest debt is to Esprit Pascal Jouffret's book *Traité élémentaire de géométrie à quatre dimensions*, where considerations of a flat world (such as the one described by Edwin Abbott in his *Flatland* and in Charles Howard Hinton's scientific romances) and the perception of a third dimension by its inhabitants in various permutations of such a world suggest an analogy with our perception of the fourth dimension. Duchamp's most sustained elaboration of the fourth dimension and n-dimensional geometry are to be found in notes discovered in 1964 and published as *A L'infini*, these are also included in his writings published under the title *Marchand du sel* or *Salt Seller* in the English edition. Duchamp's notes and their import to the scholar is a vast subject. I can only present a few notions that pertain in particular to the manipulated photo of Duchamp's studio while omitting a great many equally important ideas and observations expressed throughout the notes.

Duchamp was interested in the ways in which three-dimensional geometric forms could be transferred into two-dimensional forms, or four into three, but, by implication, also the way two-dimensional beings will present or experience three-dimensional space, or the way we could conceive of the fourth dimension. An important element in his considerations is the cast shadow analogy. As he explains in his interview with Pierre Cabanne: "Since I found that one could make a cast shadow from a three-dimensional thing, any object whatsoever – just as the projecting of the sun on the earth makes two dimensions – I thought that, by simple
intellectual analogy, the fourth dimension could project an object of three dimensions, or, to put it another way, any three-dimensional object, which we see dispassionately, is a projection of something four-dimensional, something we're not familiar with. / It was a bit of sophism, but still it was possible. 'The Bride' in the 'Large Glass' was based on this, as if it were the projection of a four-dimensional object." In his notes—those were written around 1912-13 with this four-dimensional quality of the Bride in mind—Duchamp is more explicit. "The shadow cast by a 4-dim'l figure on our space is a 3-dim'l shadow," and he provides an analogy with the way architects create a plan of each story of a house, arguing that a four-dimensional figure can be represented in each story by three-dimensional sections. The different stories will be bound to one another by the 4th dimension (Writings 89). In another note he suggests making a picture of shadows cast by objects on a plane, then on a surface having some curvature, and then on transparent surfaces. Thus, he adds, "one can obtain a hypophysical analysis of the successive transformations of objects" (Writings 72). While referring to the Large Glass, much of what he says about shadows is applicable to his large painting Tu m', done in 1918, where three ready-mades cast their shadow on the painting's surface. Suffice it to point out that the three-dimensional objects attached to the painting's surface and the trompe-l'oeil painted elements blur the boundaries between illusion and reality and open the canvas to the third dimension [illus. 4].
Thus the shadows seem to have been projected on a curved surface. The molds in Duchamp's *Three Standard Stoppages* were used to trace the lines emerging from the corners of a parallelogram that appears to be receding into space. These lines further augment the sense of a non-Euclidean space.

In notes appearing under the heading "Appearance and Apparition" (*Writings* 85) Duchamp presents his thoughts on the relationship of the world of three dimensions to the two dimensions of art. "There is the surface apparition (for a spatial object like a chocolate object" – he probably refers to the chocolate grinder – "which is like a kind of mirror image looking as if it were used for the making of this object, like a mold, but this mold of the form is not itself an object, it is the image in n-1 dimensions of the essential points of this object of n dimensions." And a few lines below he adds: "By mold is meant: from the point of view of
form and color, the negative (photographic); from the point of view of mass, a plane (generating the object's form by means of elementary parallelism) composed of elements of light . . . " He suggests then that the mold of this chocolate object is the photographic negative apparition of the plane. Now we come back to our photo treated and manipulated many years after the notes were written. Duchamp never ceased to dwell on the fourth-dimension, and it's hard to believe that in a portable museum such as the Boîte-en-valise that serves as a compendium of his work there won't be at least a trace of this interest. Included, of course, is a reproduction of Tu m' but Duchamp was not too happy with its overt presentation of his ideas. I may be going out on a limb now in making the following suggestions, but then this fits also Duchamp's ideas about the freedom to interpret his objects. Coming upon the photograph of his studio, Duchamp decided to engage with the image of the Trébuchet as indeed a catapult, one that launches the object or rather the whole photograph, in its virtual or metaphoric situation, into the fourth dimension. First, he made the object disappear and left in its stead its shadow – a white two-dimensional shadow, the photographic negative of a shadow referred to earlier in a note – and thus a mold of a three-dimensional object. He then recreated the three-dimensional object in a mechanical drawing style. This was his way, in his words, of "fighting against the hand." However, in its open and airy form the drawing also hints at the various graphic attempts by early 20th century mathematicians to depict the projection of a four-dimensional object in three-dimensional space. What comes out in Duchamp's notes, in particular with regard to his notion of the "infra thin," is that a three-dimensional object that is transformed into a two-dimensional shadow is analogous to a three-dimensional object in its capacity of an infinitely thin layer from the point of view of the fourth dimension. [illus. 5]
The very elaborate printing process, in which the drawing is printed over or projected onto the photo, suggests then a projection of a slice out of the fourth dimension onto the photo, which might be considered another slice which in itself contains a projection of a shadow, a white shadow. The different slices are bound to one another by the 4th dimension, as he argues with regard to the architectural metaphor referred to before. The photo thus
conceptualizes or creates a virtual representation – or is it presentation? – of the fourth-dimension.

Duchamp's *Trébuchet*, in its pristine, white and naked state, forms part of a process of conceptualization of the photo itself. The fourth dimension is virtualized through various symbolic actions of the kind employed by Duchamp from his early engagement with the ready-made, actions encompassing language, thought and gesture in a way that allows them to concretize or literalize metaphors and figures of speech. With this photograph as well as others included in the *Boîte-en-valise*, Duchamp challenges the conventional task of the photograph of serving as a faithful documentation of the visible reality. This is typical of his employment of photography throughout his career. In his Box of 1914 he photographed paper scraps bearing his handwritten notes mounting them on cardboard and placing them haphazardly in boxes made for photographic glass plates. As noted by Elena Filipovic, "In using the medium as no art photographer in his time would, and claiming the result as an artwork in itself and simultaneously as a supplement to, or discursive accompaniment for, another artwork [that is, *The Large Glass*], Duchamp put his finger on photography's troubled relation to contemporary notions of the work of art." In other words, these photos work against photography's claim to its status as a legitimate rival to painting as well as against its commercial mass-cultural function. The notes photographically reproduced in *The Green Box* of 1933, which reproduce the uneven shape of the original notes, place an even greater onus on their hovering between being unique copies, marks of the artist's hand, and their status as reproductions. There's a great deal more to say about Duchamp's particular employment of photography, but obviously I won't be able to do so in the framework of this paper.
I return then to Dalí's photo and its import as a vehicle for ideas about photography. Again, I won't be able to trace in full Dalí's evolving ideas. Suffice it to point out how Dalí extolls the "cold and antiartistic photographic data," its ability to realize the "most complete, scrupulous and exciting cataloguing." He sees photography as a tool for establishing osmoses between reality and surreality, arguing that the photographic data sets up – "through the infinite figurative associations to which it may submit our mind – a constant revision of the external world, which becomes increasingly an object of doubt . . ." At the beginning he doesn't have much to show in this respect. He appears to opt for the kind of "dumb" photography used by Breton in Nadja, as evinced by one of the photographs illustrating his essay "The Liberation of Fingers" (1929) depicting the family house in Cadaqués, but the photos of fingers in this essay introduce another, more disturbing, dimension. This is indeed the direction to which he takes photography – the confluence of psychopathology and morphology, evoked in his essay "Concerning the Terrifying and Edible Beauty of Art Nouveau Architecture" (1933), where he refers to the photographs of women in a state of ecstasy found in the archives of the Salpêtrière (Writings, p. 198). In his collage The Phenomenon of Ecstasy [illus. 6] he introduced photographs of ears assembled in the 19th century by police chief Alphonse Bertillon together with images of women found in flea markets which he turned over to make them appear in ecstasy, similarly to the images of women in a state of ecstasy illustrating Breton and Aragon's essay "Le cinquantenaire de l'hystérie" published in La Revolution Surréaliste in March 1928).
The bringing together of the convoluted anatomy of the ear and the impassioned attitudes of hysterics, as well as the spiraling movement within the collage toward its apex in a photograph of a woman by Brassaï point to Dalí’s interest in creating formal analogies of psychic states. In his essay "The Phenomenon of Ecstasy" Dalí asserts that there are "images that provoke ecstasy, while ecstasy provokes in its turn some images" (Writings 201), with this collage presumably combining both. Another strand of ideas with regard to photographs relates to their ability at times to provoke a feat of paranoiac interpretation. "A postcard I have received," he notes in his essay "Love" (included in La femme visible), "might illustrate and even clarify an idea that has begun to haunt me, that is to say, that has begun to take on a form of unreality in my mind and become, with every instant that passes, clearer and more enigmatic" (Writings, pp. 191-2). This is the manner in which he puts to use photographs in
his paranoiac-critical interpretation of Millet's *L'angélus*, and this is also the way he engages in a paranoiac-critical interpretation of "Non-Euclidean Psychology of a photograph."

As pointed out before, the photograph itself appears to embody in Dali's reading a non-Euclidean psychological dimension. In other words, the Euclidean space it apparently exhibits is merely the skin or shell of a hidden reality that Dali's interpretation brings to the fore, convincing us of its existence. We might see it as a virtual projection into our field of vision of a world conceived paranoiac-critically. Duchamp's photograph entails a projection into our field of vision of a world conceived only mathematically. If there is some irony involved in this evocation of a virtual fourth dimension, it is an "irony of indifference."

Duchamp's naked object is just there, hovering between actuality and virtuality. Dali's is one of those objects exerting their solicitations upon us, and that "from their unnoticed state, they loudly trumpet their obvious physical reality" (*Writings*, p. 306). Dali's naked object is ecstatic.

**List of Illustrations:**

2. Duchamp's studio, 33 West 67th Street, New York, c. 1917, with the *Trébuchet* (*Trap*) whitened out. Photographed presumably by Henri-Pierre Roché.
3. Duchamp's studio, 33 West 67th Street, New York, c. 1917, the drawing printed over the whitened area.
4. Marcel Duchamp, *Tu m’t*, 1918. Oil and pencil on canvas, with bottle brush, three safety pins, and a bolt, 69.8x313 cm. (detail)
Notes


2 I came across the Trébuchet photograph in Elena Filipovic, The Apparently Marginal Activities of Marcel Duchamp (Cambridge, Mass. and London: The MIT Press, 2016), p. 146. Photographs of the various phases of this photograph, as it appears in different versions of the Boîte-en-valise, are included in Ecke Bonk, Marcel Duchamp: the portable Museum: the making of the "Boîte-En-Valise": de ou par Marcel Duchamp ou Rrose Séaly (London: Thames and Hudson, c1989); see pp. 239-240 for the different phases of the photograph, including the colored version. Bonk provides a very detailed explanation for the various techniques utilized by Duchamp in preparing the Boîte.

3 So much so, I should add, that the designer of the original edition of the 1998 edition of The Collected Writings cut off the lower part of the photo together with the image of the spool; luckily, the new edition published by The Salvador Dalí Museum has kept the photo intact.

4 Dalí, Collected Writings, p. 209.


7 Bonk, Marcel Duchamp: the portable Museum, p. 156.

8 Dalí, Collected Writings, p. 369.

9 For photographs of the Readymade and documentation of the printing process, see Bonk, Marcel Duchamp: the portable Museum, pp. 232-3.

10 Craig E. Adcock, Marcel Duchamp's Notes from the Large Glass: An N-Dimensional analysis (Ann Arbor, Mich: UMI Research Press, c. 1983)


12 Cited in Adcock, p. 36.


14 Filipovic, The Apparently Marginal Activities of Marcel Duchamp, p. 38.


16 Dalí, "Reality and Surreality," Collected Writings, p. 95.


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