

## READYMADE

Michael R. Taylor

"In 1913 I had the happy idea to fasten a bicycle wheel to a kitchen stool and watch it turn."<sup>1</sup> Marcel Duchamp's recollection about the genesis of the first readymade suggests a private, sedentary origin for what would eventually become one of the most radical and influential concepts in the history of art. "To set the wheel turning," he explained to Arturo Schwarz, "was very soothing, very comforting, a sort of opening of avenues on other things than material life of every day. I liked the idea of having a bicycle wheel in my studio. I enjoyed looking at it, just as I enjoy looking at the flames dancing in a fireplace."<sup>2</sup> Duchamp mounted the front wheel of a bicycle, with its fork upside down, on an ordinary kitchen stool because of the immense pleasure it gave him to spin the spokes and, thanks to the remarkable harmony and coherence of mind, body, and machine, become lost in a magical, trance-like form of meditation.

As Duchamp explained in a letter to his sister Suzanne in January 1916, the importance of *Bicycle Wheel* and the second readymade, a rack for drying wine bottles that he had purchased in the Bazar de l'Hôtel de Ville in Paris in 1914, only became apparent to him after he moved to New York in 1915: "If you have been up to my place, you will have seen, in the studio, a bicycle wheel and a bottle rack. I bought this as a ready-made sculpture. And I have a plan concerning this so-called bottle rack. Listen to this: here, in N.Y., I have bought various objects in the same taste and I treat them as 'readymades.' You know enough English to understand the meaning of 'ready-made' that I give

these objects. I sign them and I think of an inscription for them in English."<sup>3</sup> After exhorting Suzanne not to tear her hair out "trying to understand this in the Romantic or Impressionist or Cubist sense,"<sup>4</sup> he asked her to place an inscription in small letters in silver-white oil paint on the inside of the bottom rim of the bottle rack and then sign it, in the same handwriting, "(d'après) Marcel Duchamp" ([after] Marcel Duchamp), thus making it a readymade from a distance. Unfortunately, the artist did not know at the time of writing that his sister had already thrown away *Bottlerack* and *Bicycle Wheel* when she cleared out his studio in Paris. It was a fate common to many of the readymades, and Duchamp took the news with characteristic indifference. He made a replica of *Bicycle Wheel* for his New York studio around 1916 and bought a second galvanized-iron bottle dryer when he returned to Paris in 1921.

The artist had borrowed the term *readymade* from the garment industry, where it was used to describe mass-produced, ready-to-wear items. In Duchamp's conception, however, it was only by receiving an inscription—often a nonsensical or cryptographic phrase—along with the artist's signature that a mass-produced commercial item attained the provocative status of a readymade. The inscription, he later recounted, "instead of describing the object like a title was meant to carry the mind of the spectator towards other regions more verbal."<sup>5</sup> As Duchamp explained in his letter to Suzanne, this process began with *In Advance of the Broken Arm* (fig. 152). In November 1915, accompanied by the Swiss artist Jean Crotti, Duchamp bought

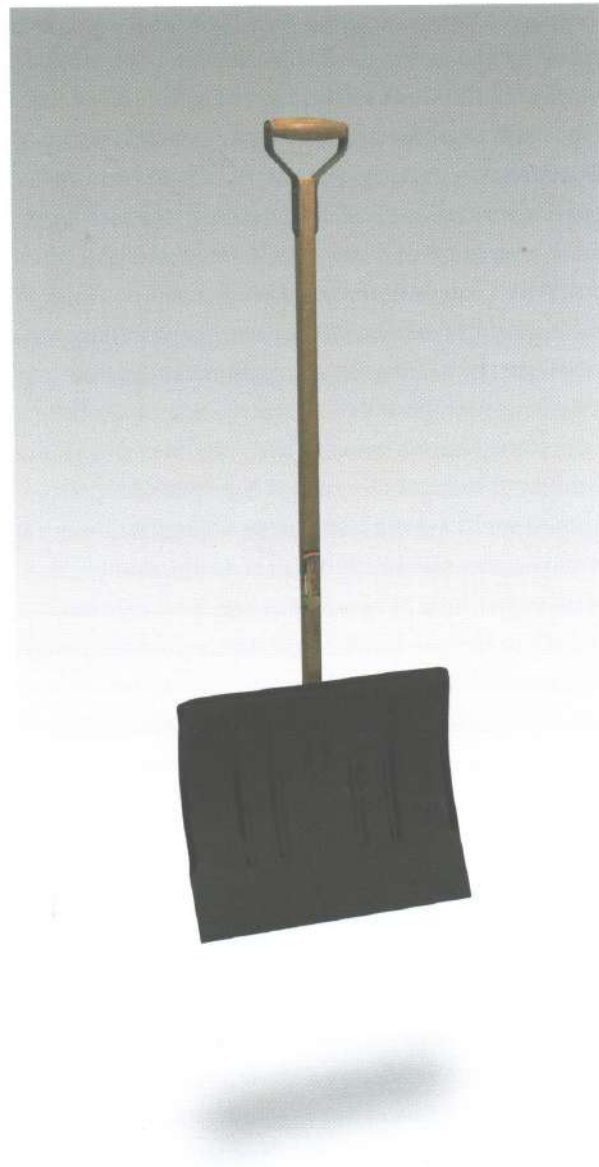
Fig. 152

*In Advance of the Broken Arm*, 1945  
(replica of 1915 original)

Wood and galvanized iron snow shovel  
48 × 18 × 4 inches (121.9 × 45.7 × 10.2 cm)  
Yale University Art Gallery, New Haven.  
Gift of Katherine S. Dreier to the Collection  
Société Anonyme, 1946.99

a snow shovel with a flat metal blade and a wooden handle at a hardware store on Columbus Avenue. Since snow shovels were not made in Europe at this time, this tool had a novelty factor for the émigré artists, and Duchamp later recalled how proud Crotti looked as he carried the purchase, slung like a rifle on his shoulder, to Duchamp's studio at 33 West Sixty-Seventh Street. Once there, the artist added the inscription "In Advance of the Broken Arm / (d'après) Marcel Duchamp," tied a piece of wire to the handle, and hung it from the ceiling. It was the inscription on the handle rather than the appearance of the snow shovel that marked the object's transition from the hardware store to the world of ideas.

Duchamp considered the readymade to be the single most important concept to come out of his work, yet he never arrived at a definition that completely satisfied him. Indeed, in later years he came to view its very indecipherability as a sign that there was still magic in the idea. Nevertheless, the artist gave numerous interviews, talks, and lectures that illuminate aspects of the complex thought processes behind works such as *In Advance of the Broken Arm*. For example, in the eloquently understated lecture "Apropos of 'Readymades,'" which he delivered at New York's Museum of Modern Art in 1961 (reprinted in this volume), Duchamp identified some general traits that characterized the objects he selected: "A point which I want very much to establish is that the choice of these 'readymades' was never dictated by esthetic delectation. This choice was based on a reaction of





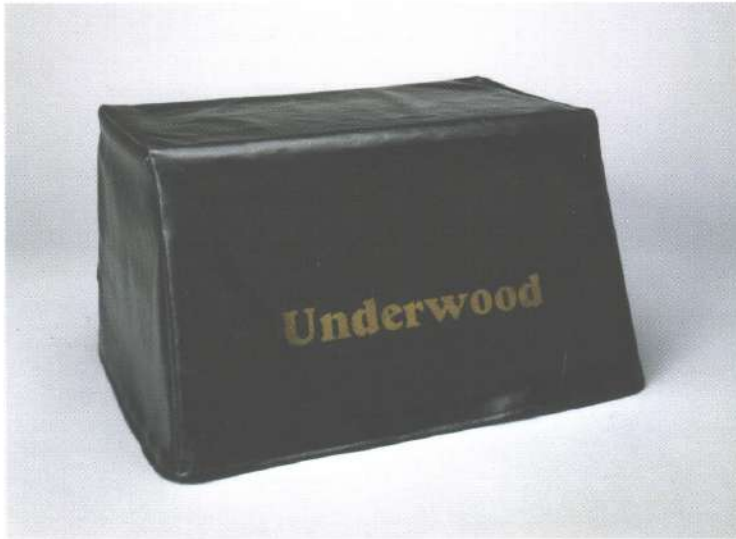


Fig. 153  
*Traveler's Folding Item*, 1964  
 (replica of 1916 original)  
 Black vinyl covered fabric  
 9<sup>7</sup>/<sub>16</sub> × 16<sup>3</sup>/<sub>4</sub> × 12<sup>3</sup>/<sub>16</sub> inches (23 × 42.5 × 31 cm)  
 Collection of The John and Mable Ringling  
 Museum of Art, the State Art Museum of Florida,  
 Florida State University, Sarasota.  
 Gift of Mary Sisler Foundation, 1978 (MF78.6)

visual indifference with at the same time a total absence of good or bad taste... in fact a complete anesthesia."<sup>6</sup> This pun on the word *aesthetic* provides a fascinating insight into what the artist was trying to achieve in the readymade gesture: the lack of feeling and loss of sensation that one associates with anesthesia here equate with the visual indifference that was crucial to the artist's success in finding a readymade.

Duchamp described the process of selecting readymades out of the vast array of manufactured goods for sale in New York in the 1910s as a kind of rendezvous: "I don't look at them," he later told Don Morrison, "I think about them. I don't look for them. They find me."<sup>7</sup> He did not choose objects for their beautiful appearance or functional design. Rather, it was an experiment in which the artist believed that if he could somehow numb his senses, as if under local anesthetic, it would lead to the suppression of taste and aesthetics in the selection of these visually neutral, mass-produced objects. Duchamp later singled out *Comb*, a plain, steel dog comb dated February 17, 1916 (see fig. 55), as the readymade that had come closest to achieving his desired blend of visual indifference and absence of taste, since its mundane, unexciting appearance meant that it was never lost or stolen during his lifetime.<sup>8</sup>

When the artist exhibited two readymades in the *Modern Art after Cézanne* show at the Bourgeois Galleries in New York in April 1916 they passed unnoticed by the majority of visitors. Duchamp later recalled that he was given permission to show the readymades,

which can be identified as *In Advance of the Broken Arm* and the typewriter cover called *Traveler's Folding Item* (fig. 153), only because he had made it a condition for allowing the gallery to display his earlier paintings.<sup>9</sup> According to the artist, the works were "exhibited in an umbrella stand at the gallery's entrance," where visitors took off their hats and coats.<sup>10</sup> Hidden away beneath the coats and the umbrellas, and with no identifying labels, the artist's unassuming readymades were completely ignored by critics and public alike, much to the delight of Duchamp. It would take the *succès de scandale* of *Fountain* the following year for the complex issues and ideas behind the readymade manifestation to be discussed in public.

When the artist, under the pseudonym Richard Mutt, submitted an unaltered white porcelain urinal entitled *Fountain* (see fig. 64) to the first exhibition of the Society of Independent Artists in New York in April 1917, he knowingly created a scandal that broke the critical silence on the readymades. As a deliberately provocative *blague*—a premeditated joke in plastic form, designed to flush out the hypocrisy of the society's promise of a jury-free exhibition in which any artists who paid the entrance fee could exhibit whatever work they wanted to—the urinal needs to be distinguished from the other items he designated as readymades during this period, such as the snow shovel, the typewriter cover, and the metal dog comb. Whereas these objects constituted a personal experiment with taste, the urinal was chosen explicitly for its shock value and was intended for public rather than private

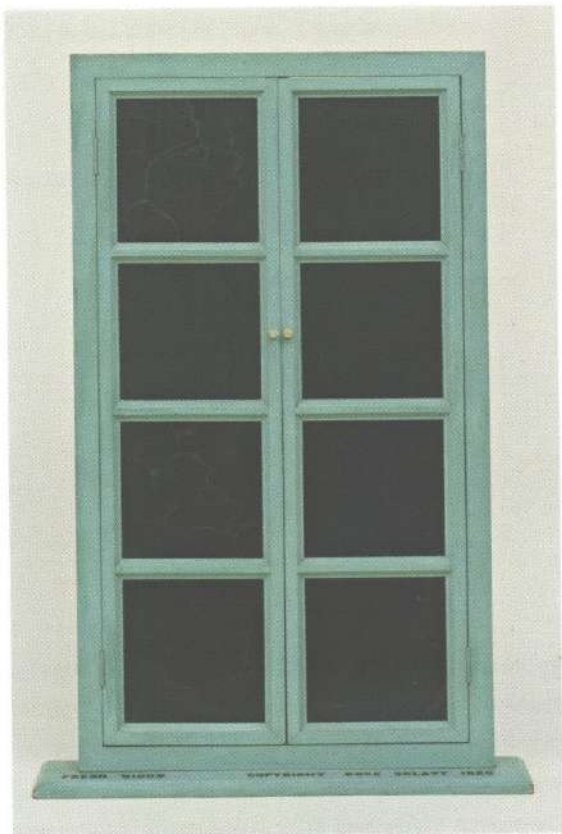


Fig. 154

*Fresh Widow*, 1920

Miniature French window, painted wood frame, and panes of glass covered with black leather  $30\frac{1}{2} \times 17\frac{5}{8}$  inches (77.5 × 44.8 cm), on wood sill  $\frac{3}{4} \times 21 \times 4$  inches (1.9 × 53.4 × 10.2 cm)  
The Museum of Modern Art, New York.  
Katherine S. Dreier Bequest, 151.1953

consumption. Duchamp's subversive intent was to offend the moral standards of the Society of Independent Artists by entering as a work of art a signed toilet fixture that no public venue in 1917 could show, thus revealing its claims for artistic freedom to be a sham.

Despite its unique status within this group of objects, *Fountain* largely defined the parameters for critical engagement with the readymades at the time, leading to a profound misunderstanding of Duchamp's work and ideas.<sup>11</sup> To make matters worse, the issues and debates that surrounded the artist's lewd submission were mediated through Alfred Stieglitz's astonishing photograph of the object (see fig. 66), which transformed the gleaming men's room fixture into an anthropomorphic figure that contemporary viewers were quick to equate with a religious presence, such as a veiled Madonna or a seated Buddha, thus further misconstruing Duchamp's iconoclastic intentions for *Fountain* as well as the readymade gesture itself.

As the readymades proliferated around 1917, their presence in Duchamp's studio created a disorienting environment that must have unnerved visitors. Snapshots of the artist's cluttered studio taken during

this period (see figs. 50–53) reveal how the readymades deliberately disrupted the space through their unconventional configuration. In *Advance of the Broken Arm* and *Hat Rack* hung from the ceiling; *Trébuchet*, a coat rack selected as a readymade in 1917, was nailed to the floor by the artist in a fit of exasperation, after he had continually tripped over it (see fig. 54); and *Fountain* was suspended from the lintel of an interior doorway. Friends who visited the studio were thus treated to a discombobulating installation in which the boundaries between the readymades and the surrounding furniture and studio detritus were nonexistent.<sup>12</sup>

Beginning in 1916 and continuing through the end of 1921, Duchamp expanded the notion of the readymade by creating increasingly elaborate constructions, such as *Apolinère Enameled* (see fig. 56), *With Hidden Noise* (see fig. 58), and *Fresh Widow* (fig. 154), which he designated as "assisted readymades" or "readymades aided" to differentiate them from the earlier, unmanipulated readymades. For example, *Fresh Widow*, which Duchamp made in 1920, consists of a small model of a French window that the artist paid a New York carpenter to make according to his precise instructions. This work deliberately references the Renaissance idea of the work of art as a window onto the world. However, Duchamp specified that the windowpanes be made of leather instead of glass, forever frustrating the ordinary processes of seeing and communicating associated with windows, as well as the illusionistic qualities of oil painting since the development of linear perspective in Renaissance art. The black leather panes also



imbue the readymade with a mournful appearance that was appropriate for the immediate aftermath of World War I. *Fresh Widow* is thus a three-dimensional pun that references the multitude of women who had recently become widows as a result of this global conflict, which claimed the lives of millions of soldiers, as well as the artist's disdain for the oil-painting tradition in Western art. However, the fact that Duchamp signed the miniature French window in industrial-style capital letters "FRESH WIDOW COPYRIGHT ROSE SELAVY 1920" suggests that another reading is possible. *Fresh Widow* was the first work to be signed by Rose Sélavy, the artist's female alter ego, whose salacious puns, mordant wit, and risqué calling cards would soon replace the readymades altogether. Given Rose's dissolute sense of humor, could it be that these war widows were also fresh in the sense that, freed from the chains of marriage, they were anxious to open their shutters and enjoy themselves again?

*Why Not Sneeze, Rose Sélavy?* would be the last readymade that Duchamp ever produced (see fig. 59). Completed in 1921, this elaborate arrangement, which consists of a painted metal birdcage filled with 152 white marble "sugar" cubes, a mercury thermometer, a piece of cuttlefish bone, and two small glass dishes, is far removed from the radical simplicity and aesthetic neutrality of the bottle rack or the snow shovel. As an assisted readymade, its complex design and use of metaphor and symbolism approach the status of a work of art, akin to Pablo Picasso's assemblages of the same period. Even the birdcage shows signs

of manipulation; it is too cramped to house the smallest of domestic birds, and on closer inspection one discovers that the metal bars have been clipped and folded to imbue the work with a claustrophobic effect. When Duchamp discussed *Why Not Sneeze, Rose Sélavy?* in later years he emphasized the visual gag that underpinned the birdcage assemblage: while it appears to be filled with sugar lumps, the "lumps are made of marble and when you lift it, you are surprised by the unexpected weight."<sup>13</sup> Perhaps the same was true of the readymade gesture, which had seemingly lost its appeal for Duchamp by 1921, as suggested by the title of this final readymade, which again references his alter ego, Rose Sélavy. Later that year, Duchamp would change the spelling of her first name to "Rose"—a pun on the English word "arouse" and, when combined with her surname, on the French phrase *eros, c'est la vie* (Eros, that's life). By that time, her scandalous antics had replaced the readymades as his primary vehicle for exploring and expanding the world of art and ideas.

However, in the 1950s and 1960s, the artist authorized numerous replicas and reproductions of the readymades he made between 1913 and 1921. In line with Duchamp's lifelong efforts to deny the possibility of defining art, these late works both expand upon and complicate our understanding of the already paradoxical and ultimately unclassifiable concept of the readymade.<sup>14</sup>

## PRECISION OPTICS

Alexander Kauffman

In a personal note dated 1913, Marcel Duchamp posed himself the question, “Can works be made which are not ‘of art?’”<sup>1</sup> “Precision optics” (*optique de précision*) is one of several designations he would subsequently adopt to distinguish works and ideas from those “of art.” (Others include “readymade” and “infrathin,” also discussed in this volume.) Duchamp employed the terms “optics” and “precision optics” when referring to the two motor-driven spinning machines he built in the early 1920s, *Rotary Glass Plates* (1920; see figs. 87, 88) and *Rotary Demisphere* (1924–25; see figs. 156, 157).<sup>2</sup> In the first formal catalogue raisonné for the artist, published in 1959, Robert Lebel deployed the phrase taxonomically, appending “(precision optics)” to the titles of both works.<sup>3</sup> Art historians have since broadened the category to include other works Duchamp made in the 1920s and 1930s that feature rotating disks, such as *Disks Bearing Spirals* (1923; Seattle Museum of Art), *Anemic Cinema* (1926; see fig. 90), and *Rotoreliefs* (1935; see fig. 91).<sup>4</sup>

As he had in 1916 with “ready-made”—originally a hyphenated term for standardized, mass-produced commercial items—Duchamp appropriated “precision optics” from existing discourses. As Lars Blunck has demonstrated, before Duchamp ever employed the phrase, “*Precision Optics* served as a collective name for optical precision instruments and was understood to be a scientific declaration as well as a technical designation” to indicate “high quality and mechanical precision.”<sup>5</sup> Indeed, later in life, Duchamp confirmed that he had intended the phrase to evoke an optician’s guarantee.<sup>6</sup>

His reliance upon optical science, or “oculism,” was already evident in a 1919 letter to his friend and patron Louise Arensberg, where he attested to “using eye charts,” specifically “the ones oculists use to ‘test’ eyes.”<sup>7</sup> Duchamp did not elaborate on their function, but presumably he was referring to his ongoing work on *The Bride Stripped Bare by Her Bachelors, Even* (*The Large Glass*) (1915–23; see figs. 43a,b), which Louise and her husband, Walter, were then sponsoring. Living in Buenos Aires at the time, Duchamp was constructing a small study for components he planned to incorporate into *The Large Glass*, which included a magnifying lens and which he referred to as “the opticerics” (fig. 155).<sup>8</sup>

Duchamp built *Rotary Glass Plates* upon his return to New York the following year, assisted by his friend the American artist and photographer Man Ray. When activated, the machine’s horizontal metal axle rapidly spins five painted glass plates, creating an illusion of continuous concentric circles. A photograph by Man Ray shows two eye charts mounted to the wall beside the newly constructed apparatus (see fig. 87). The circular forms in the top chart, which appears to be a mass-produced test for astigmatism, echo those painted on the surfaces of the glass plates. Four years later in Paris, Duchamp constructed *Rotary Demisphere*, in which a motor turns a hemispherical dome to create a similar spiraling illusion (figs. 156, 157). He and Man Ray then attempted to film that machine using an improvised stereoscopic camera mount. Duchamp also made other rotating spiral designs and filmed





Fig. 155  
*To Be Looked at (from the Other Side of the Glass) with One Eye, Close to, for Almost an Hour*, 1918  
 Oil, silver leaf, lead wire, and magnifying lens on glass (cracked), mounted between panes of glass in a standing metal frame, on painted wood base  
 Height: 22 inches (55.8 cm)  
 The Museum of Modern Art, New York.  
 Katherine S. Dreier Bequest, 150.1953

them with Man Ray, creating the 35 mm black-and-white short *Anemic Cinema* in 1926. Although his sustained work with spinning illusions concluded with this film, Duchamp would return to them periodically throughout his later career. Beginning in 1935, he released multiple editions of color lithographs printed on cardboard disks, a format he trademarked as “Rotorelief.” With this neologism, a portmanteau of “rotary” and “relief,” he again borrowed from existing commercial terminology. (An American agricultural firm began marketing a rotary tiller, trademarked “Rototiller,” in 1932.) Then, in the mid-1940s, Duchamp created a sequel of sorts to *Anemic Cinema*, featuring the *Rotorelief* disks in a color dream sequence within Hans Richter’s narrative feature *Dreams That Money Can Buy* (fig. 158).

Duchamp’s “precision optics” clearly deviated from those hawked by opticians. Instead of providing visual acuity, they conjured apparitions, and even these devices lacked precise handling. Man Ray’s memoirs

report the plates of the *Rotary Glass* detaching and nearly decapitating him, and the stereoscopic experiment failing when developing tanks Duchamp built from trashcan lids damaged the film stock beyond repair.<sup>9</sup> What then to make of Duchamp’s appropriation of opticians’ charts and terminology for aspects of *The Large Glass* and subsequent works?

Duchamp had initially conceived *The Large Glass* in the summer and fall of 1912 in reaction to his experiences showing his paintings with the Puteaux Cubist group over the previous year. Albert Gleizes and Jean Metzinger, the dominant painter-theorists of that group, elevated their mode of Cubism by contrasting it with what they considered to be a facile, slavish pursuit of visual effects in the paintings of Gustave Courbet. In their book *On Cubism* they asserted that Courbet “accepted without any intellectual control everything his retina communicated to him. He did not suspect that the visible world becomes the real world only through the operation of thought.”<sup>10</sup> Duchamp shared

Fig. 156  
 Man Ray  
 "Rotary Demisphere" under Construction in  
 Man Ray's Studio at 31 bis rue Campagne-  
 Première, 1924  
 Autochrome photograph  
 Collection of Lucien Treillard, Paris



Fig. 157  
 Rotary Demisphere (Precision Optics), 1924–25  
 Painted papier-mâché demisphere fitted on velvet-  
 covered disk, copper collar with Plexiglass dome,  
 motor, pulley, and metal stand  
 58<sup>1</sup>/<sub>2</sub> × 25<sup>1</sup>/<sub>4</sub> × 24 inches (148.6 × 64.2 × 60.9 cm)  
 The Museum of Modern Art, New York. Gift of  
 Mrs. William Sisler and Edward James Fund,  
 391.1970.a–c



their criticism of modern painting's optical mimicry, which he sometimes referred to as "retinalism."<sup>11</sup> Initially experimenting with Gleizes and Metzinger's favored solution of imagined, simultaneous views in oil paintings such as his *Portrait (Dulcinea)* of 1911 (see fig. 17), Duchamp eventually embraced the schematic graphic format and modern media of *The Large Glass* and speculated about the potential for making works that were not "of art." As he later explained, "I was interested in ideas—not merely visual products. I wanted to put painting once again at the service of the mind."<sup>12</sup>

In *The Large Glass*, Duchamp intended to pair the visual object with a textual catalogue or booklet that would establish the conceptual basis and confound reliance upon the "retinal." His personal notes document the plan, stipulating a text written with "transparent language," explained as "avoid[ing] words that are metaphorical or general" in order to make the "idea predominant and language only... its instrument



(of precision).<sup>13</sup> He evidently employed the eye charts, first in the *Glass* and later in the “optics” works of the 1920s, for similar reasons. The charts simultaneously parodied the superficiality of recent easel painting and elevated his own work’s objectivity through their association with empirical optical science. When an exhibitor requested to show *Rotary Demisphere* soon after its completion, Duchamp’s response made clear the critique implied by his embrace of “optics”: “To tell you the truth, I’m not keen on the idea. . . . All painting and sculpture exhibitions make me sick. And I would like to avoid being associated with them. I would also be sorry if people saw in this globe anything other than ‘the optical.’”<sup>14</sup> Though Duchamp would, more than a decade later, reverse this decision and permit exhibition of his *Rotary* machines, their continued designation as “precision optics” and identification with his alternate authorial persona Rose Sélavy are remnants of this earlier animus.<sup>15</sup>



Fig. 158  
 Arnold S. Eagle (American, born Hungary, 1909–1992)  
*Marcel Duchamp Filming Disks*, c. 1945–46  
 Contact print  
 Philadelphia Museum of Art. Gift of Jacqueline,  
 Paul, and Peter Matisse in memory of their mother,  
 Alexina Duchamp, 13-1972-9(411)

## PICTORIAL NOMINALISM

John Vick

Sometime in 1914, while absorbed in the planning of *The Large Glass* (see figs. 43a,b) and with at least one readymade already produced, Marcel Duchamp wrote a quick note to himself on a scrap of paper: "A kind of pictorial nominalism (check)".<sup>1</sup> Though he flagged the term for further research, he never wrote of it again. Moreover, it remained widely, if not completely, unknown to anyone but Duchamp until two years before his death, when a facsimile of his 1914 note was published in *The White Box* of 1966 (fig. 159). Its inclusion there indicates the importance of pictorial nominalism for Duchamp, and a look at the term's parts begins to explain why. *Pictorial* refers to a picture, to a certain tradition and notion of art. Coming from Duchamp, it implies painting, the medium he had practiced seriously for over a decade but by 1914 was starting to leave behind. *Nominalism* refers to a philosophy dating to the Middle Ages that appealed to Duchamp. Nominalists deny the independent existence of abstract and universal entities, claiming instead that such concepts are mere names invented out of convenience to group diverse, particular things and experiences.<sup>2</sup>

A much longer note from the same year reveals Duchamp's preoccupation with nominalism and offers some insight into how he believed the philosophy related to art (figs. 160a,b). It begins, "Nominalism [literal] = no more generic specific numeric distinction between words (tables is not the plural of table, ate has nothing in common with eat)."<sup>3</sup> Here Duchamp imagines words as autonomous, that is, no longer bound by linguistic rules such as grammatical number or tense.

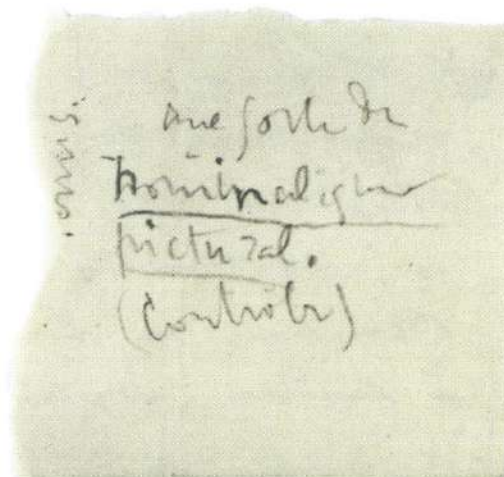


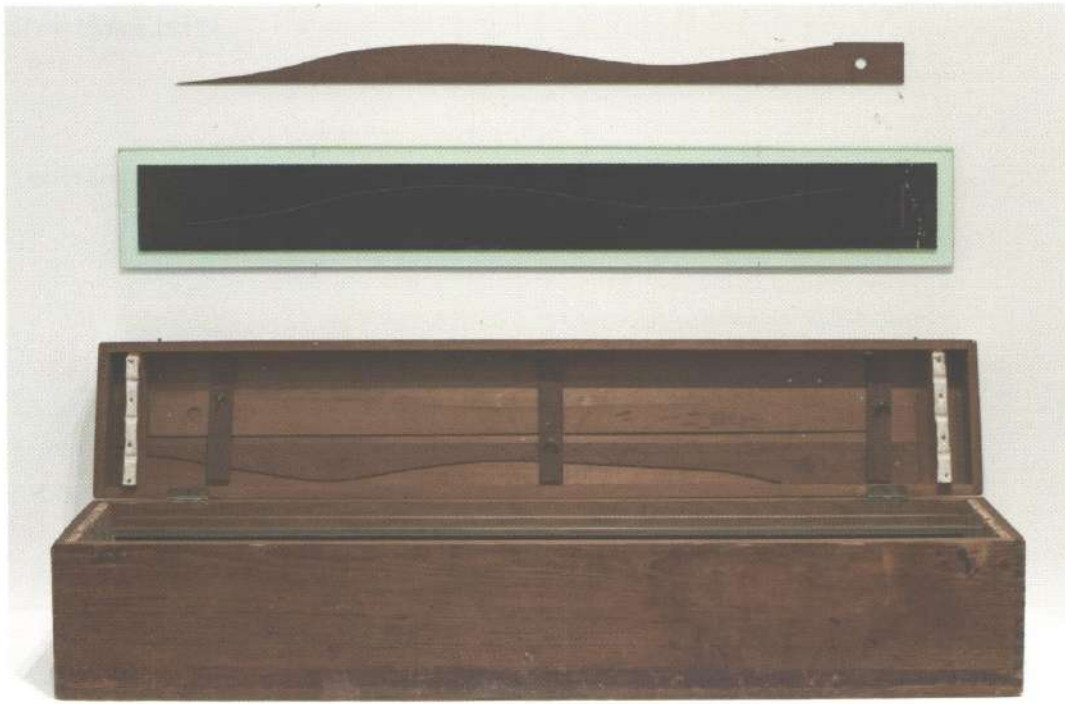
Fig. 159  
Facsimile of Note on Pictorial Nominalism, 1914  
From *In the Infinite (The White Box)*, 1966  
Collotype  
2<sup>3</sup>/<sub>8</sub> × 2<sup>9</sup>/<sub>16</sub> inches (6 × 6.5 cm)  
Philadelphia Museum of Art. Purchased with  
the Library Revolving Fund, 1969-96-1

Words do not even define objects or ideas. He continues: "No more physical adaptation of concrete words; no more conceptual value of abstract words." These positions adhere to nominalism's focus on particulars and its denial of abstract and universal entities. For Duchamp, the aesthetic implications are critical. He reasons that a word "also loses its musical value" and that groups of words are "independent of the interpretation," meaning not changed by the nuances of written or spoken execution, like a person's penmanship or accent.<sup>4</sup> From there, he concludes that a group of words "no longer expresses a work of art (poem, painting, or music)." Nominalism, then, offers up a theory of artistic deconstruction, and the trailing-off list of art forms in the note's final sentence suggests that it can be applied to all creative acts.









Duchamp may also have had readymades in mind when he wrote his note on pictorial nominalism. *Bicycle Wheel* and *Bottlerack* (see figs. 48, 49) date to 1913 and 1914, respectively, the same years as the *Chocolate Grinder* paintings. Like other readymades that followed, these two early examples consist of found or purchased objects that the artist combined or modified slightly, if at all. With no subject other than their components, no ostensible meaning or relevant aesthetic model, and no straightforward artistic attribution, they realize in sculptural terms Duchamp's thoughts on nominalism, right up to the conclusion that a readymade "no longer expresses a work of art."<sup>5</sup> However, a readymade does more than critique traditional notions of fine art and the creative process. By distinguishing an everyday object from others like it—sometimes through only a given title or inscription—a readymade enacts the nominalist principle that a particular thing is independent of the name normally used to categorize it. To paraphrase the artist, "bottleracks" is not the plural of *Bottlerack*. This concern for differentiation applies to the readymade concept in general, because Duchamp reworked its typology again and again to avoid a single, convenient definition. His final readymades, dating to the 1960s, in fact, were not readymade at all, but carefully fabricated replicas.

Duchamp addressed nominalist philosophy more directly in another work from 1913–14. His *3 Standard Stoppages* is a kind of readymade that takes the standard meter and gravity as its found "objects" (fig. 161). Conceived first in his notes, Duchamp executed it by dropping three threads, each one meter long, from a height of one meter, onto three prepared canvases. With the "meter diminished" by the chance distortions of each drop, he had devised "a new shape of the measure of length."<sup>6</sup> This revision of the metric system puts into physical form nominalism's privileging of particular experiences over general concepts. Duchamp also considered adapting the *Stoppages* into a language of colored signs that could describe *The Large Glass*. This never quite happened, though their shapes reappear as the "capillary tubes" of the *Bachelor Apparatus* in that work, as well as in the paintings *Network of Stoppages* (1914; Museum of Modern Art, New York) and *Tu m'* (1918; Yale University Art Gallery, New Haven; see fig. 67). Duchamp's notion that the *Stoppages* might replace both the Roman alphabet and the metric system shows the potential, and ambition, of his nominalist agenda. This slippage between language and measurement may also explain why years later, for *The White Box*, the artist chose to file his note on pictorial nominalism in a folder marked "Dictionaries and Atlases."



When the Museum of Modern Art acquired *3 Standard Stoppages* in 1953, Duchamp identified on a questionnaire two inspirations for the work that represent key sources of his nominalist philosophy.<sup>7</sup> The first was “Riemann’s post-Euclidean geometry,” postulated in the mid-nineteenth century by the German mathematician Bernhard Riemann, which was based on curves rather than straight lines. For Duchamp, new scientific theories such as Riemann’s revealed how knowledge reflects not absolute truths but contingent principles, and so served as a model for his own reassessments of art.<sup>8</sup> The second was Max Stirner’s *The Ego and Its Own*, a radical philosophical text published in German in 1844 and translated into French in 1900. As an individualist anarchist, Stirner trusted neither the divine nor humanity, but only himself. His system of thought takes nominalism’s emphasis on particulars to an extreme, making each person his or her own authority and measure of reality. Duchamp’s uncompromising individualism and increasingly self-referential works testify to that shared opinion.<sup>9</sup>

In this later phase of his career, as prominent institutions such as the Museum of Modern Art and the Philadelphia Museum of Art began to collect and regularly display his work, Duchamp still deemed himself “a good ‘nominalist.’”<sup>10</sup> Yet increasing recognition may have led him to consider what this philosophy, so liberating for an artist, would mean for the people seeing and writing about his art—both during his lifetime and beyond. The nominalists of the Middle Ages maintained that an understanding of the world, in the

absence of abstract and universal entities, came from faith in God alone. For Stirner, it came from the individual. So would Duchamp’s disdain for conventional content, expression, and technique leave viewers with nothing but his established reputation to certify the significance of his works? Would his legacy be no more than a cult of personality? Duchamp’s statements and actions suggest that he hoped not. Most notable among these is his comment from 1957 that “the creative act is not performed by the artist alone; the spectator... adds his contribution.”<sup>11</sup> This seems to be where the concept of pictorial nominalism ends, with an artist who knew that by challenging accepted definitions of art he must in turn invite viewers to define his art in their own terms.

## INFRATHIN

Cécile Debray

*The possible is an infra-thin—The possibility of several tubes of color becoming a Seurat is the concrete “explanation” of the possible as infra thin. The possible implying the becoming—the passage from one to the other takes place in the infra thin.*

—Marcel Duchamp, *Notes*, note 1<sup>1</sup>

Formulated by Marcel Duchamp during the 1930s to characterize an important aspect of his creative approach, the neologism *infrathin* turned out to be a “true theoretical pillar of his entire oeuvre.”<sup>2</sup> And yet the term received scant attention during the artist’s lifetime. It first appeared in print in 1945, when Duchamp conceived the cover of the issue of *View* magazine devoted to him. For the front he created a photomontage of a bottle suspended in space emitting a cloud of gas (an image related to the Milky Way in *The Large Glass* [see figs. 43a,b]); on the back is an aphorism printed in letters of different types: “When the tobacco smoke smells also of the mouth which exhales it, the two odors are married by infra-thin” (see figs. 115a,b). Also in 1945, the artist discussed the term with the Swiss author Denis de Rougemont in conversations that were not published until 1968, the year of Duchamp’s death.

The word reappeared in its full discursive and programmatic context with the posthumous publication of the *Notes* by Paul Matisse in 1980. This ensemble of 289 notes, which the artist held onto but did not integrate into either *The Green Box* (1934; see fig. 92) or *The White Box* (1966; see fig. 127), was transcribed, translated into English, reproduced in facsimile, and published in the order of the envelopes in which they had been kept, albeit divided into four themes: *Infrathin* (notes 1–46), *The Large Glass* (notes 47–166), *Projects* (notes 167–207), and *Word Games* (notes 208–89).<sup>3</sup> Duchamp composed the forty-six notes pertaining to *infrathin* during the 1930s and 1940s, at a time when he was publishing his manuscript notes in

*The Green Box*, revisiting his oeuvre through the collection of miniature replicas called *Box in a Valise* (1935–41; see figs. 93a,b), repairing the damaged *Large Glass* at Katherine S. Dreier’s home in West Redding, Connecticut (between May and July 1936), and delivering lectures and interviews about his own work in the United States.<sup>4</sup> His coining of “*infrathin*” and exploration of its theoretical and poetic inflections in these brief notes thus took place amid a reflective and retrospective effort to encompass his singular way of working.

The photomontage cover for *View*, the publication in which “*infrathin*” first appeared, resembles a glossary of *The Large Glass*: the Milky Way, the gas of the Bachelors (the plume of smoke emitting from the bottle), the breeding of dust (the dusty appearance of the bottle), and the brotherhood of Uniforms and Liveries (the label on the bottle is the front page of Duchamp’s military service booklet). The presence of these motifs reveals the photomontage as the first figurative transposition of *The Large Glass* and marks it as a prelude to the project that he would initiate the following year, in 1946. *Infrathin* is thus connected to the ensemble of works that prepared the way for the final great installation that was revealed only after his death, *Étant donnés: 1° la chute d’eau, 2° le gaz d’éclairage...* (*Given: 1. The Waterfall, 2. The Illuminating Gas...*) (see figs. 130a,b). These include the series of small sculptures or casts with erotic overtones Duchamp realized between 1950 and 1954: *Not a Shoe* (1950; Centre Pompidou, Musée National d’Art Moderne, Paris), *Female Fig Leaf*, *Objet-dard*, and *Wedge of Chastity*



(see figs. 135–37). The idea of infrathin pertains, simultaneously, to molding, reproduction, and imprinting; to the character of the infinitesimal geometrical and physical movements of forms and sensations; and to related issues concerning difference and similarity, separation and delay, the creator and the observer, and gender and eroticism.<sup>5</sup>

*Infrathin, infra-thin, or infra thin:* Duchamp's spelling is loose, just as the range of meanings he wants to attach to the word can be scientific, sensitive and affective, or poetic. As he explained to de Rougemont in 1945: "It is a thing that eludes scientific definition. I selected the word thin which is a human, affective word and not a precise laboratory measurement. The noise or music a pair of velvet trousers like this one makes when one moves is related to the concept of infrathin. The hollow in paper between the recto and verso of a thin sheet. . . . Something to think about! . . . it's a category that has kept me quite busy for ten years. I think that via the infra-thin one can pass from the second to the third dimension."<sup>6</sup>

In this way, the notion of infrathin derives from optical illusions Duchamp created in works such as *Bicycle Wheel* (1913; see fig. 48) or *Rotary Demisphere* (1924–25; see figs. 156, 157), illusions that play on the infinitesimal movement from one sensation to another, from line to continuous surface, from plane to volume. As the art historian Jean Clair writes, "The *infra-thin* is also the qualitative degree to which the same transforms into its opposite, though whether it is still the same or already other is impossible to decide."<sup>7</sup> Clair



notes that, from the point of view of sensation, *infra-thin* indicates "the infinitely thin slim edge that defines a threshold." This threshold of sensation lies at the core of *Étant donnés*, as the "naturalist paraphrase" of *The Large Glass*: the passage from two-dimensional plate to three-dimensional installation; the Bride before and after pleasure; the post-coital Bride as fallen animal; brought back down from the four-dimensional sky to reality.

Similarly, the series of casts Duchamp executed during this period—including *Please Touch* (an edition in foam rubber after a plaster cast of a female breast for the cover of the exhibition catalogue *Le Surréalisme en 1947* [see fig. 134]), as well as the four erotic sculptures mentioned above—play on positive and negative, convex and concave, and the interior and exterior of the same object (imprint of a woman's breast or groin), so as to catch *infrathin* sexual differentiation and complementarity (fig. 162). According to Clair, "*Objet-dard* takes on a phallic 'appearance' while being in reality the meticulous copy of a female organ. . . . As 'imprints' of female genitals, these sculptures are male 'molds' in terms of their 'appearance' . . . but are female 'casts' in terms of their 'apparition.'"<sup>8</sup> Following the same dialectic, the *Étant donnés* installation appears like a camera obscura (the historical precursor to the photographic camera): "Everything is inverted, as in

Fig. 162  
Mold for "Female Fig Leaf," 1950  
Plaster  
5<sup>5</sup>/<sub>16</sub> × 10<sup>5</sup>/<sub>8</sub> × 9<sup>1</sup>/<sub>4</sub> inches (13.5 × 27 × 23.5 cm)  
Centre Pompidou, Musée National d'Art  
Moderne, Paris

a mirror. The interior becomes the outside of things. The convex becomes the concave. A world in negative. By an infrathin movement, everything seems to have been imperceptibly turned inside out, like the finger of a glove."<sup>9</sup>

In the *Notes*, Duchamp enlists infrathin to elucidate the readymade procedure, using it to describe the separation between an object and its cast reproduction, or between one cast and another. Note 35 says: "2 forms cast in the same mold(?) differ from each other by infra thin separative amount. All 'identicals' as identical as they may be, (and the more identical they are) move toward this infra thin separative difference."<sup>10</sup> For example, with *50 cc of Paris Air*, the sealed glass vial Duchamp brought to Walter Arensberg as a gift (see fig. 57), the artist plays on an infrathin separative distance (with the interface of glass) between captured air from Paris and the ambient air of New York; he creates a cast of air. The infrathin gap is found in all the readymades, whether on the level of color (e.g., *Pharmacy* [see fig. 112], *50 cc of Paris Air*, and *Why Not Sneeze, Rose Sélavy?* [see fig. 59]); movement (e.g., *Bicycle Wheel* and *Unhappy Readymade* [see fig. 69]); forms and their possible counter-forms (e.g., *Bottlerack* [see fig. 49] and its absent bottles, *Traveler's Folding Item* [see fig. 153] and its absent typewriter); or even of sound (e.g., *With Hidden Noise* [see fig. 58]) or word (e.g., *Apolinère Enameled* [see fig. 56]).

Georges Didi-Huberman observes that the notion of infrathin makes it possible to grasp what appears as a contradiction in Duchamp, that diligent and meticulous

copier who loathed all forms of repetition. By means of imprinting, Duchamp "repeats a *same* by contact, but the result of this repetition creates an *infrathin gap* where the likenesses produced are so precise and brutal, so strange and troubling, that they become *unassimilable* by any notion of imitation."<sup>11</sup>

—Translated from French by Matthew Affron