ROUSSEL BRISSET DUCHAMP

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Jean-Pierre Brisset, Raymond Roussel, Marcel Duchamp: three men whose names are inextricably linked by their respective intellectual trajectories, creative processes, and reception histories. Similarities between them abound, and can also be perceived in minute biographical details, accidents, and coincidences. Their well-known penchant for treating aesthetic issues as issues of methodology provided all three of them with the impetus to devote themselves to technical innovations, which is maybe a lesser known aspect of their respective works. Brisset, Roussel, and Duchamp all took out patents at the French Office national de la propriété industrielle: another feather in their cap, so to speak, in addition to their aesthetic achievements. While these technical inventions might seem far removed from their official, canonical bodies of work, it is precisely this distance that could allow us to shed new light on the leitmotivs and obsessions of their creators; they are the flip side of their linguistic, literary, and artistic endeavors, constituting their obscure but highly significant supplement.

Brisset, or the Repetition of Origins

Jean-Pierre Brisset, who would have featured prominently alongside with Roussel in Duchamp's "ideal library," is best known as an author of linguistic and prophetic tractates, in which he attempted to prove that humans had evolved from frogs on the basis of a phonetic analysis of the French language: according to him, the shouts of our amphibian ancestors are embedded in modern languages, like an insect trapped in antediluvian amber. Through the "Great Law" that was revealed to him in 1889, Brisset reconstructs the language that was spoken in the primordial swamp, and discovers the webbing between the words: "All the ideas that are expressed through similar sounds have the same origin and all refer, initially, to the same object."2 Such principle of analogy transmutes resemblance into equivalence. On this basis, every word can be decomposed into its basic elements, each of them turning out to be semantically loaded, i.e. being actual words: the primordial shouts of our ancestors. These shouts, expressing surprise,

¹ "Brisset and Roussel were the two men in those years I admired for their delirium of imagination. Jean-Pierre Brisset was discovered by Jules Romains trough a book he picked up from a stall on the quais. Brisset's work was a philological analysis of language – an analysis worked out by an incredible network of puns. He was a sort of Douanier Rousseau of philology. [...] Roussel was another great enthusiasm of mine in the early days. The reason I admired him was because he produced something I had never seen. That is the only thing that brings admiration from my innermost being – something completely independent – nothing to do with the great names or influences. [...] It was fundamentally Roussel who was responsible for my glass *The Bride Stripped Bare by Her Bachelors, Even*. [...] My ideal library would have contained all Roussel's writings – Brisset, perhaps Lautréamont and Mallarmé." Marcel Duchamp: *Salt Seller. The Writings of Marcel Duchamp*, New York, 1973, p. 126.

2 Jean-Pierre Brisset: *Œuvres complètes*, préfaces et édition de Marc Décimo, Dijon, 2001, p. 702.

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desire, or fear, allow Brisset to retrace the history of the slow transformation of the primitive frogs into modern humans. For instance, he singles out the phonetic resemblance between the German word *die Zähne* (*the teeth*) and the French numeral *dizaine* (*ten*) as a means of investigating the early origins of our dentition. The upper and lower jaws of children have ten milk teeth each. It follows that this must also be the number of teeth that appeared on the originally toothless jaws of our ancestors. A trace memory of this metamorphosis has been preserved in our language, whose development happened in parallel with the progressive bodily transformations of our ancestors. Thus, the "Great Law" can also shed light on the relationship between teeth and mouth (*les dents, la bouche*):

Les dents, la bouche.	Teeth, mouth.
Les dents la bouchent,	Teeth block the mouth,
l'aidant la bouche.	helping the mouth.
L'aide en la bouche.	Teeth are a help in the mouth.
Laides en la bouche.	Teeth are ugly in the mouth.
Laid dans la bouche.	There is something ugly in the mouth
Lait dans la bouche.	There is milk in the mouth.
L'est dam le à bouche.	Damage is done to the mouth.
Les dents-là bouche.	Block, or hide, those theeth. ³

3 Ibid.

The function of the teeth is thus to seal the mouth, they are white like milk, often look bad, and occasionally cause a lot of pain. Homophones invariably lead back to a primordial scene. Etymology turns into scenography: from the exploded debris of the original word and its conventional dictionary definition, uncanny myths start to emerge, feverish visions, and whole genealogies of morals.⁴ In the sonic elements of language, on the swampy grounds of the signifier, Brisset unearths a new signified, hidden behind the conventional signified of daily communication. We start hearing the voices of our ancestors: their history, inscribed onto the palimpsest of language, had remained occulted by a layer of routine signification like a frog under a sprawling water lily.

The "Great Law" is far from being Brisset's only discovery.⁵ Immediately after completing his military service, and a few months before the bloody repression of the Paris Commune (a movement to which, in spite of his deeply rooted left-wing political opinions, he didn't participate), he settled in Marseille, where he taught swimming, and also invented a swimming belt. His ambitious project having resulted in financial failure, he decided to turn to writing. In his tractate *La Natation ou l'art de nager*

4 Michel Foucault insightfully described such "definition of the word through the staging of homophones" in the text he devoted to Brisset's work. See: Sept propos sur le septième ange, Fontfroide-le-haut, 2016. 5 The most comprehensive description of the life and work of Brisset was offered by Marc Décimo: Jean-Pierre Brisset, Prince des Penseurs, inventeur, grammairien et prophète, Dijon, 2001. Three Inventors: Brisset, Roussel, Duchamp

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appris seul en moins d'une heure (How to Learn the Art of Swimming Alone in Less than an Hour), Brisset offered a practical manual that was taking its cues from the military literature of the time, and was meant to provide optimal training conditions for a swimming brigade that was of undeniable strategic importance. But it also served a broader purpose: to bring the joys of swimming to civilians. A simple exercise, to be executed on dry land, lying on one's back, had to be repeated six hundred times in order to turn the reader into a confident swimmer. Unsurprisingly, the author recommended adhering to breaststroke, or, in the original French: *la nage en grenouille*, frog-like swimming.

The swimming belt invented by Brisset, with its two inflatable elements "to be used by members of both sexes," was meant to help novice swimmers in their first attempts. Its safety was guaranteed: if one of these two inflatable elements had burst, the other one would have been sufficient to maintain the flotation. This insubmersible device was thus duly patented under the number 91825. The repetition and the law of the series, which determined both Brisset's swimming doctrine and the structure of his language-learning manuals, are also apparent in his patent application number 115 713. Again, in this document, which offers a series of calligraphic models to teach writing to school children, Brisset pays particular attention to the question of bodily movements, to the progression from repetition to reflex, and, quite prominently, to the

possibility of distinguishing a succession of smaller basic elements within an apparently continuous movement. The eager hand of the student only has to follow the model faithfully a few hundred times in order to be able to eventually produce perfectly regular letters without such external help. The automatization of writing through repetition emphasizes Brisset's acoustic cubism, which will lead him on a quest for the origins of mankind.



Jean-Pierre Brisset's design for a swimming belt with two inflatable elements: *La ceinture caleçon aérifère à double réservoir compensateur* (1871).

Roussel, or the Empty Center of Language

Remarkable inventions and machines play a key role in the work of Raymond Roussel, especially in *Impressions* d'Afrique (1910) and Locus Solus (1913). The latter details the exploits of inventor Martial Canterel, who takes a group of anonymous guests through his sprawling, thoroughly mechanized amusement park, which he has created in his isolated retreat in Montmorency, a short distance away from the gates of Paris. On September 18, 1922, while the representations of the theatrical adaptation of his novel at the Théâtre Antoine were still earning a certain succès de scandale, Roussel took out a patent at the Office national *de la propriété industrielle* on "the use of vacuum as means" to conserve heat in every circumstances pertaining to housing and locomotion," which bears the number 567 990, and was published on March 12, 1924, after the author had added numerous documents detailing possible practical applications of his invention.

"The invention presented in the following document describes a technique aimed at improving the comfort of houses and vehicles. This process [*procédé*] consists in 1) installing hollowed out metal plaques in which a vacuum has been created in the walls, roofs, floors, and partition walls of houses during construction [...]."

Regular windows, according to this plan, should also be replaced by double, vacuum-isolated glass panels. And in

preexisting houses, these metal plaques should simply be installed onto the existing walls as a way of "doubling" them (doubler), a process that might be replicated for automobiles, train cars, ships, and even planes. Interior spaces thus equipped would benefit from an enhanced insulation that would facilitate the maintaining of optimal temperatures in the wintertime, as well as during the summer. What's more, this could be achieved by using 90 % less fuel. In his own property in Neuilly, Roussel experimented with



Raymond Roussel's patent application.

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this idea – which was rather revolutionary for his time – and even supervised the construction of a small structure of three cubic meters in his garage, for testing purposes. Roussel found himself forced to sell his house in Neuilly in 1931: the lavish theatrical representations of his works, the 1929 financial crisis, and his generous financial support of Marcel Griaule's "Dakar-Djibouti" expedition had drained his financial resources. Concerned for the safety of the new owner, Roussel made sure to inform him that the "small structure full of glass tubes" in the garage had to be demolished with the utmost caution: he was afraid that it might explode.

Roussel didn't publicize his invention: this relatively low profile contrasts with the PR campaigns that surrounded his "House on Wheels", a trailer-like housing machine built in 1926, or with the new chess endgame with knight and bishop that garnered the praise of chess master Savielly Tartakower in 1932. Roussel's 1924 invention didn't seem to have served commercial purposes either. One can reasonably assume that the sealing in of a vacuum (*le vide*) between two walls or panels meant to outfit the room (*la doublure* can also refer to the lining of clothes) abides by a secret logic, one that also seems to constitute the foundational principle of his literary work. At the age of nineteen, while he was working on his first book, a novel in verse titled *La Doublure* (the word can also refer to an understudy), Roussel had the ecstatic revelation of

his future worldwide fame (aloire universelle): after the commercial and critical failure of the book, this feeling led him in turn to sink into a deep personal crisis. "What I wrote, as Roussel explained to his psychotherapist Pierre Janet (director of the laboratory for experimental psychology at the Salpêtrière), was surrounded by radiance. I closed the curtains, for I was afraid that the slightest gap might allow the luminous beams that were radiating from my pen to escape outside... But, no matter how many precautions I took, rays of light escaped from me and passed through the walls, I had the sun inside me and could in no way stop that incredible blazing of myself."6 Roussel's interest for new techniques of insulation through vacuum might also have been an attempt at hermetically enclosing the inner sun within the intimacy of the writing body: such a fantasy recurs in a number of the fictional inventions described in his literary works, for instance in the "Invol...", a chemical substance "with stunning isolating properties" created by Lavoisier in Roussel's fragment *The Allev of Fireflies*,⁷ which Roussel wrote immediately after completing Locus Solus.

Such "vacuum-creating technique" doesn't only illuminate Roussel's individual mythology. His patent could also be described as constituting a structural metaphor for the literary technique (*procédé*) according to which he wrote Three Inventors: Brisset, Roussel, Duchamp 13

the entirety of his literary work in prose, the existence and intricacies of which, however, were only disclosed by Roussel posthumously.⁸ Words, groups of words, or sentences that were homophone while also being semantically thoroughly unrelated constituted the first building blocks of this technique. In the most thorough explanation provided by Roussel, he illustrated this process by using one of his earliest stories as an example: this text corresponded to one of the first and, relatively speaking, simplest uses of the technique. The story begins with the description of a billiard table, on the inner cushions (bandes) of which cryptographic cyphers (i.e. letters) have been written in white chalk by the narrator. The enigmatic, "baroque" signs, if deciphered using a specific key, form an allusion to the plotline of a fictional novel titled Among the Blacks (Parmi les noirs): in a series of letters that he sent in secret, the protagonist describes his experience as the prisoner of a group (bande) of African outlaws, led by an older, experienced plunderer (*pillard*). Thus, both narratives are based on the same cryptographic key, with the exception of a single letter:

Les lettres du blanc sur les bandes du vieux *b*illard... Les lettres du blanc sur les bandes du vieux *p*illard.

⁶ François Caradec: *Raymond Roussel*, translated by Ian Monk, London, 2001, p. 34.

⁷ Raymond Roussel: *The Alley of Fireflies and Other Stories*, translated by Mark Ford, New York, 2019.

⁸ See Raymond Roussel: *How I Wrote Certain of My Books*, translated by John Ashbery, Kenneth Koch, Harry Mathews and Trevor Winkfield, Cambridge, Massachusetts, 1996.

A metathesis, a minimal phonetic difference is enough to entirely transform the meaning of the original sentence. turning "the white letters on the cushions of the old billiard table" into "the white man's letters on the hordes of the old plunderer." In similar fashion, single words are successively invested with two different meanings, being thus "doubled" (doubler). A gap, a void seems to appear within them, as they appear stuck in a limbo, somewhere between "neither x nor y" and "both x and y". But such fundamental uncertainty of meaning doesn't stand in the way of repetition in the slightest; rather, repetition becomes a crucial, hallowed stage of the writing procedure. In the words of Gilles Deleuze, Roussel's goal seems to be precisely "to expand this void as much as possible, thus also making it determinable and measurable, and to fill it with a whole machinery, a phantasmagoria that binds together the differences in the repetition and integrates them within this process."9 The art of the author consists in closing this gap between those two polarities through a poetic device based on a very comprehensive and thorough repetition. Similarities between the latter and Brisset's "Great Law" are notable. But whereas Brisset was aiming at the identity of difference, Roussel, on the other hand, seems to celebrate the difference of the identical.

Roussel's procédé is the cornerstone of an aesthetic that, as Michel Leiris puts it, aims at building "as many partition walls as possible" between reality and imagination.¹⁰ In order to reach this utopian goal, Roussel seems to have increasingly thickened and poeticized his narrative material, by focusing it onto a "punctual minimum" that "becomes the pretext and the canvas for an endless number of explanations."¹¹ In the last book he published during his lifetime, the Nouvelles Impressions d'Afrique (1932), Roussel produced the most radical application of these aesthetic principles. In these rhymed Alexandrine (i.e. 12 syllables) couplets forming four "Songs," each dedicated to the description of a different tourist attraction in Equpt. Roussel offers an endless accumulation of lists, inventories, and rosters. Furthermore, these lists are imbricated within each other in a particularly complex fashion, reaching a degree of entanglement and proliferation that is both aweinspiring and disconcerting. Roussel had originally planned on printing each layer of these multiple imbricated frame stories in a different color, but eventually gave up on the idea, as it proved to be too expensive. He decided to use parentheses instead: there are five levels of imbricated parentheses in the main text; further subdivisions were moved to the footnotes. The fourth Song, for instance, thus corresponds to the following sequence:

10 Michel Leiris: Roussel & Co, Paris, 1998, p. 251.

11 This formulation is borrowed from Hanns Grössel, in his edited volume *Raymond Roussel. Eine Dokumentation*, Munich, 1977, p. 153.

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⁹ Gilles Deleuze: "Raymond Roussel ou l'horreur du vide", in: L'Île déserte et autres textes, Paris, 2002, p. 102–105, here p. 103.

It is virtually impossible to read the *Nouvelles Impressions d'Afrique* in a linear fashion: the text is crisscrossed by an infinite number of partition walls, each of which seems to be hollowed out in order to "create a vacuum". This is probably why some of the most insightful and attentive readers of this text, including Jacques Brunius, Juan Esteban Fassio, and Daniel Libeskind, all felt compelled to build several reading machines. But if the structure of the book could be readily described as a network of vacuum chambers, the original edition of the book was also characterized by an equally remarkable optical apparatus: each of the 59 pages of the text correspond to 59 illustrations by the painter Henri-Achille Zo. Roussel had sent him relatively vague instructions about the iconographic contents of these illustrations anonymously, through a Parisian detective agency: this drive towards visual indifference is strongly reminiscent of the artistic practice of Marcel Duchamp, for instance the selection of his ready-mades. Due to the particular imposition scheme of the original edition, and to the decision to only print on the right-hand side of each double page, the illustrations, which alternate with the text, are hidden in the inner side of each folded printed sheet. They were originally meant to be left systematically uncut, and were folded in such a way that the pages are

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systematically linked together on the upper edges of the printed sheet. The only way to look at the illustrations is thus to lift up the bottom edge of the first page of each folded sheet to create a paper funnel that would function as an improvised eyepiece. This process of peering at the illustrations takes place in a minimal in-between space, slowly expanded, in a virtual no-man's land that one could aptly describe by using a term coined by Duchamp: "infra-mince".

Duchamp, or the Illusory Depth

The work of Marcel Duchamp combines the unmistakable penchant for eroticism¹² of Brisset's linguistic speculations and the complexity of Roussel's bachelor machines, creating a staggeringly original oeuvre. Duchamp's openness for literary influences also runs parallel to his sustained interest in scientific and mathematical modes. of thinking and of representation. He appropriated and ironically reconfigured the latter in the spirit of the 'Pataphysics of Alfred Jarry, and of the nominalism of Henri Poincaré.¹³ Accordingly, he produced numerous works exploring various optical phenomena, as expressed in his motto: "One can look at seeing [regarder voir]; one can't hear hearing."¹⁴ For instance, À regarder (l'autre côté du verre) d'un œil, de près, pendant presque une heure (To Be Looked at (from the Other Side of the Glass) with One Eve, Close to, for Almost an Hour) (1918), a work on glass created in Argentina that repeats the motive of his Large Glass and is itself accompanied by a small magnifying

12 For Brisset, the origins of language are chronologically linked with the formation of sexual organs, *le sexe*. As our frog ancestor noticed that a new appendage was growing between his legs (Brisset is unapologetically phallocentric), at first occasioning pain, he shouted: *Coa? Quoi? Quak? What? Qu'est-ce que c'est?* What is that? *Que sexe est?* What sexes that, what is this "sex?"

13 According to Poincaré, scientific facts are entirely based on a series of conventions adopted by the scientific community, which is why they cannot pretend to be eternal "truths." Under the influence of Poincaré's epistemology, Duchamp developed a "pictorial nominalism." The images cannot be defined as "truths" either (i.e. in terms of a correspondence with autonomous, external facts), inasmuch as they merely thematize the structure of the act of seeing itself. On this point, see Thierry de Duve: Nominalisme pictural. Marcel Duchamp et la modernité, Paris, 1984.

14 Marcel Duchamp: *Salt Seller. The Writings of Marcel Duchamp*, New York, 1973, p. 23.

glass,¹⁵ or *Le rayon vert* (1947), whose title is an allusion to the famous natural phenomenon of the "green ray" described in the eponymous novel by Jules Verne (who was himself one of Roussel's favorite authors). But one work by Duchamp offers the most compelling combination of optical experimentation, engineering skills, and – failed – entrepreneurship: the *Rotoreliefs* (1935). They consist in cardboard discs, with spiral-shaped motives printed on both sides: a number of them are abstract, some feature figurative elements such as a hot-air balloon or a Japanese Koi carp. But under closer examination, these spirals turn out to be a juxtaposition of eccentric circles. When they



A complete set of the *Rotoreliefs* of Marcel Duchamp.

15 This magnifying glass, and Duchamp's accompanying instructions stating that one had to look into it for an hour, is strongly reminiscent of Roussel's early poem *La Vue* (1904), which consists in a lengthy description (in hundreds of Alexandrine verses) of a beach panorama, reproduced in microscopic form in a minuscule glass sphere, which itself functions as a magnifying glass and is sold as a souvenir penholder.

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rotate, these circles create the illusion of a pulsating spiral movement: a stereokinetic effect, with the additional characteristic that the illusion of depth is also created if one looks at the rotating device with only one eye instead of two.

In his early works, Duchamp had already experimented with such effects. His first spiral slides date back to 1923. while the Rotative demi-sphère (Optiques de précision) was created in 1924. In a letter to Jacques Doucet, the patron of the surrealists, who had financially supported the creation of the work, Duchamp mentioned that "[he] would also regret it if anyone saw in this globe anything other than 'optics'."¹⁶ Duchamp's rejection of "retinal painting" was thus accompanied by a para-scientific investigation into the act of seeing. Para-scientific, because Duchamp's disques optiques do not consist in the mere staging of an experimental procedure. Upon closer examination of the Rotating Machine with Half-Sphere, one can see that a complex word play has been inscribed on the edge of the sphere: "Rrose Sélavy et moi esquivons les ecchymoses des esquimaux aux mots exquis" ("Rrose Sélavy and I avoid the bruises of the Eskimos of exquisite words"). Many such word plays are featured alongside the *Rotoreliefs* in Rrose Sélavy (Duchamp's alternative artistic persona) and Man Ray's short film Anémic Cinéma (1926), whose title itself constitutes an anagram. The pulsating, vertigo-inducing

16 Quoted from Arturo Schwarz: *The Complete Works of Marcel Duchamp*, 2. Ed., New York, 1970, p. 53.

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spiral movements of the *Rotoreliefs* alternate with a series of similarly rotating, mathematical-looking word equations, appearing in white letters on the black background of the screen: "Bains de gros thé pour grains de beauté sans trop de Bengué" ("baths of cheap tea for beauty spots with a minimum of Bengué lotion"), "Nous livrons à domicile: moustiques domestiques (demi-stock) pour la cure d'azote sur la Côte d'Azur" ("We offer home deliveries: domestic mosquitoes (half-stock) for the nitrogen cure on the Cote d'Azur"). In these sentences, Duchamp appropriated the homophones and internal rimes of the French language that



Duchamp's Rotating Machine with Half-Sphere (Precision Optics).

also constituted the building blocks of the works of Brisset and Roussel. The rhythmical repetition of single syllables creates a paradoxical space, within which the meaning of the words is no longer stable: strongly reminiscent of the rotation of eccentric circles creating an illusory depth, such semantic instability seems to create a new kind of space, a pulsating third dimension. The legacy of literary *procédés* and the rejection of "retinal painting" in favor of "precision optics"¹⁷ more directly impacting the retina of the observer are powerfully combined in a patent filed by Duchamp.

Duchamp deeply believed in the importance of his *Rotoreliefs*, and was genuinely hoping that they might be a commercial success. He organized the printing of 500 copies of this set (containing six cardboard discs each), which were meant to be sold commercially for a mere 18 Francs. The cardboard box in which the set was to be sold could be opened up and installed onto a turntable, allowing one to "play" the *Rotoreliefs* at 33 turns per minute. In a way, the *Rotoreliefs* are the polar opposites of the Ready-mades. While the latter resulted from the relatively random choice of a preexisting mass-produced object, which by virtue of this choice (and of the modifications introduced by the artist, that are also of paramount importance) becomes an artistic unicum, the *Rotoreliefs* only exist as technically reproduced objects.

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In 1912, after his first meeting with Duchamp, Guillaume Apollinaire had enthusiastically written that Duchamp was meant to "reconcile Art and the People."¹⁸ In 1935, Duchamp felt that he was finally ready to "attempt to come in 'direct contact' with the People, as he called it."¹⁹ After applying for a patent for the *Rotoreliefs*, he rented a booth at the Concours Lépine, a Parisian trade fair near the Porte de Versailles, where he planned on exhibiting a number of his inventions. But the mass success he was hoping for eluded him. His friend Henri-Pierre Roché described the scene: "All those discs were spinning around him at the same time, some of them vertically, some of them horizontally, a real carnival [...] but I have to say that no one really took notice of his little booth.

No one among the visitors, who were all feverishly on the lookout for the next useful invention, could be persuaded to pause and take a closer look at those discs. A single glance was enough to realize that between the garbage compressing machine and the incinerators on the left, and the instant vegetable chopper on the right, his own contraptions seemed largely useless. When I went to see him, Duchamp smiled and said, 'At least that much is clear: this was a mistake, one hundred per cent.'"²⁰

¹⁷ For a comprehensive discussion of this concept, see Lars Blunck: *Duchamps Präzisionsoptik*, Munich, 2008.

¹⁸ Guillaume Apollinaire: *The Cubist Painters*, translated by Peter Read, Berkeley, Los Angeles, 2004, p. 75.

¹⁹ Henri-Pierre Roché: "Souvenirs sur Marcel Duchamp", in: Robert Lebel: *Sur Marcel Duchamp*, Paris, 1959, p. 79–87, here p. 84.

²⁰ Ibid. See also Duchamp's own recollection, in an interview with Calvins Thomkins: "I had three of those machines turning three at a time to attract the populace. They never bought one! One was sold in one month. [laughs] It was a complete fiasco." Marcel Duchamp: *The Afternoon Interviews*, New York, 2013, p. 81.





1. Raymond Roussel – Augmentation du confort des maisons et des véhicules/ [par] M. Raymond Roussel résident en France [Seine]/ Demandé le 18 septembre 1922, à 10h 14m, à Paris.

Raymond Roussel's patent for an insulation method based on the non-conductivity of vacuum: "This invention provides a means to increase the comfort of houses and vehicles. The method works as follows: When constructing a house, hollow metal plaques in the interior of which a vacuum has been created, are installed in the walls, roof, floorboards, ceiling, partitions and doors." The proposed procedure mirrors the omnipresent *doublure*-motif of Roussel's writing: the duplicity of language, the inner lining of clothes and the space between two identical words used in different meanings.



Plates

2. Le Corbusier – Test chamber for a "mur neutralisant". Saint Gobain, 1931.

It is quite possible that Le Corbusier has read some of Roussel's books. Just as unsuccessfully as Roussel, he proposed the concept of a *mur neutralisant* for the insulation of several of his buildings. This invention was conceived to consist of a double glass-wall enclosing a cavity through which conditioned air would be circulated. "The Russian house, the house in Suez, Paris or Buenos Aires, the luxury liner crossing the equator: they all will be hermetically sealed". Never realized on a larger scale, both inventions came to share the same fate: to live out their existence as gardenshed-sized test-chambers.

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Plates

3. Trevor Winkfield – Reading Raymond Roussel's "Nouvelles Impressions d'Afrique", 1968.

The space between the walls, on a model scale, turns into the space between two pages of an uncut sheet of paper: In the *Nouvelles Impressions d'Afrique*, the last work published in his lifetime, Roussel stages a labyrinthine self-enclosure of language by means of parentheses, bifurcations, and digressions. In order to see the Illustrations by H.-A. Zo, anonymously commissioned by Roussel through a Parisian detective agency, the uncut pages have to be sliced open. The twenty-eighth illustration epitomizes the self-referential character of the book: "A man seated at a table on which a book is placed vertically: he is parting two of its uncut leaves so as to read a passage."



Plates

4. Juan Esteban Fassio – "La Machine à lire Raymond Roussel", first presented in: Letra y Linea, nr 4, Buenos-Aires [July 1954]; Fran®ois Caradec: "La Machine à lire Roussel ou La Machine à lire les Nouvelles Impressions d'Afrique", in: Bizarre, nr 34/35 [1964], p. 59–66.

It is known that in writing the *Nouvelles Impressions d'Afrique*, Roussel employed a specific imposition scheme uncommon for the pocket-book format, in order to place Zo's illustrations within the hidden pockets of the uncut leaves. The encapsulated writing influences and is influenced by its material production. Juan Esteban Fassio's *Machine à lire...* opens a different perspective on the *Nouvelles Impressions*: We are suddenly dealing with a hypertext, a vast network of imaginable things, a combinatorial maze to be read in a non-linear, proto-digital way.



5. Jean-Pierre Brisset – La ceinture-cale∑on aérifière de natation à double réservoir compensateur, 1871 [Jean-Pierre Brisset: Oeuvres complètes, édition de Marc Décimo, Dijon: presses du réel, 2001, p. 30–35.]

Another *doublure*: Jean-Pierre Brisset's swimming belt with two air-filled chambers immensely increases the chances of survival. If one of the elements breaks, the second one remains intact – behind a thing lies a second, identical duplicate.

Plates There are many laws in speech, unknown until today, the most important of which is that a sound or a series of identical, intelligible and clear sounds can express different things by a modification in the way of writing or understanding these names or words. All ideas uttered with similar sounds have the same origin and all relate, in principle, to the same object.

For example the following sounds:

Les dents, la bouche. Teeth, mouth. Les dents la bouchent, Teeth block the mouth, l'aidant la bouche. helping the mouth. L'aide en la bouche. Teeth are a help in the mouth. Teeth are ugly in the mouth. Laides en la bouche. Laid dans la bouche. There is something ugly in the mouth. Lait dans la bouche. There is milk in the mouth. L'est dam le à bouche. Damage is done to the mouth. Les dents-là bouche. Block, or hide, those theeth.

Jean-Pierre Brisset - "La grande Loi", in: Jean-Pierre Brisset: La Science de Dieu ou La Création de l'homme, Paris: Librairie Chamuel, 1900 [Jean-Pierre Brisset: Oeuvres complètes, édition de Marc Décimo, Dijon: presses du réel, 2001, p. 702].

Mankind's amphibious origins can be proven by a methodologically rigorous application of the principle of identity to our languages. A divine revelation enabled Brisset to demonstrate that beneath our everyday language we will find a second, hidden language which contains both, the history of our evolution and the cries of our ancestors. For all words constituted of similar sounds refer to the same origin. Meaning is just a surface phenomenon.



7. Anton Stuckardt - Virtual Camera Obscura, 2015.

If two identical processes take place under different material circumstances (written/ spoken, analog/digital), they reveal an infrathin – but all the more important – difference. The duration of a series of events is transferred to the singular event of their computation. In his digital simulation of a camera obscura, Stuckardt proves the existence of temporal and spatial expansion in the virtually thin space of numeric calculation. This is to justify the passage operated by Raymond Roussel in his famous tale "Among the Blacks" from the initial sentence: "Les lettres du blanc sur les bandes du vieux billard" [The white letters on the cushions of the old billiard table] to the final sentence: "Les lettres du blanc sur les bandes du vieux pillard" [The white man's letters on the hordes of the old plunderer] by showing that these two sentences are in the same way two equivalents to the sentence "Les bandes de la lettre sur les pillards du vieux blanc". [The strips of the letter on the hordes of the old white men]

Le	s lettres caractères énergies chaleurs fièvres passions souffrances tolérances indulgences générosité largesse libéralités bienfaits faveurs bandes	du blanc fard rouge vin ivresse euphorie décharg ordure débris fragmen passage ouvertu introduc recomm exhorta appel levée plii	sur les nent e t t stion andation tion	bandes d rebords saillies éminences conseillers conducteurs chaufteurs brigands pillards	u vieux	billard table d'opérations abaque compteur indicateur mouton Rothschild financier capitaliste libéral libéral individualiste non conformiste original bleu livide blafard blanc	
Le	s lettres billets effets linges beau monde l'aristocratie distinction plaques jetons honoraires salaires récompenses gratification libéralités bienfaits bienfaits bandes	du blanc homm aman aman aman amou voyag comm serge flic ordur s débris s débris s débris s débris s débris s débris s débris s débris s débris	sur l te t reux reau n teur is ont de ville e s teur ture luction mandation tation	es bandes clans parti unions liaisons charmes montagnes éminences conducteur chauffeurs brigands pillards	du vier	ux pillard plagiaire copiste scribe Bartleby humanité culture bouillon consommé concentré condensé digeste code convention marché foire exposition abandon naturel pur innocent blanc	

8. Marcel Bénabou, Georges Perec – L. S. D. [Littérature sémodéfinitionelle] analytique [Exercise on a Sentence by Raymond Roussel] [in: Oulipo: La littérature potentielle [Créations, Re-Créations, Récréations], Paris: Gallimard, 1973, p. 138–140.]

Another proof: Marcel Bénabou and Georges Perec, both members of OULIPO, employed the method of semantic definition to show that the fantastic connection between two remote meanings can be traced even in that objective catalogue of language that is a dictionary: the process of alphabetical ordering reveals a crystalline geometry inside the words.

1	MYSTÈRES ET SECRETS DE L'ALPHABET 45	
la forme , sa per- ou phi- binaison tent que rnier, et atinuité, i consti- en s'ad- de telle rree, ils out lieu a de lois rs facile ne peut a de lois ffort et ne peut a de talle ffort et ne peut s détails ffort et ne peut s détails ffor- is et qui šée.	A construction of the second	

9. René Palaysi – Mystères et secrets de l'alphabet, Paris: Librairie Nizet, 1956.

According to René Palaysi, the letters of the Alphabet are not arbitrary, they are inhabited by eternal, objective truths. Each letter is like a prefabricated building element – meaning is generated following a specific procedure of construction, a ladder from A to Z: retelling the story of evolution. A to F: the six days of creation. The alphabet is a code for the description of cosmic relations.

10. Isidore de Seville - Representation of the World as a Solid Figure in a 12th Century Manuscript.

Isidore de Seville's representation of the world as a solid figure maps the earth and its planetary system – its hemispheres, the four elements, the sun and the moon – onto a geometric cube. The cube's axonometric projection presents it as both, spatial illusion and pictographic compression. The worldorder is contained in thirteen lines.

the	aneword	free	onawołd	6	am	oneword
of	Gneceord	Gut	anaword	6	been	aneword
and	oncieord	ouž	Gnaword	L	vonld	6neword
to	eneword	one	onaword	1	how	oneword
a	uncieord	other	anaceord	L	vere	oneword
ín	oneword	do	unaword	v	uc	uneword
f02	aneword	no	oneword	J	r	onceord
í8	cheword	time	concieord	J	revíces	aneword
on	cheword	they	oncieord	L	ome	conceptd
that	onceord	site	encieord	ť	hese	onceord
Gag	uneword	he	uneword	6	lick	oneword
this	oneword	up	oneword	ć	źs	uneword
with	ancieord	may	aneword	6	íke	oneceord
ć	conceord	what	Gneceord	J	reníce	aneword
yon	oneword	which	chcieord	x	5	onceord
ít	eneword	their	eneword	ť	han	oneword
not	uneword	neces	uneword	7	Find	oneword
02	oneword	out	oneword	4	orice	uneword
be	aneword	use	aneword	6	date	onceord
ase	Gneceord	any	Gneword	6	back	aneword
from	oneword	there	cncieord	z	top	6neword
at	oneword	see	oneword	4	ocople	onecord
as	uneword	only	unceord	1	had	aneword
yoni	onaceord	so	oneword	6	líst	uneceord
all	anawoid	his	aneword	ŀ	rame	oneceord
have	bnaceord	when	Gneword	J	íust	anceord
nece	onaword	contact	onceord	6	nver	oneword
nore	enaceord	here	oneword	L	tate	onevoid
an	unaceord	Gusíness	uncieord	8	gear	onevoid
was	onaword	who	oneword	6	day	uneword
we	ahaword	web	aneword	ć	ínto	oneceord
will	chaword	also	conceptd	G	emaíl	aneword
home	chaieord	noce	oneword	Z	two	oneword
can	ohaword	help	onceord	1	health	oneword
us	unaword	get	uneword	r	2	onceord
about	onawołd	pm	oneword	L	vorld	uneword
íf	anaword	view	ancieord	8	e	oneword
page	Gnaceord	online	Gneword	ŀ	reet	anoword
ng	cnaword	С	checeord	L	used	<i>bnoceord</i>
has	onaword	e	onceord			
seoisch	unaceord	First	uneword			

11. Underware – One Word Language, 2017.

But if one sign is sufficient to describe the entire cosmos, how many lettershapes are necessary for the working of written languages?



12. Jean-Pierre Brisset – La planchette calligraphique destinée à l'enseignement de l'écriture et du dessin, 1876 [Jean-Pierre Brisset: Oeuvres complètes, édition de Marc Décimo, Dijon: presses du réel, 2001, p. 293–299.]

In his linguistic writings Brisset postulated that the true meaning of a word is obtained by the combination of the meanings of its syllables. This insight was preceded by another form of segmentation: Every letter of the alphabet can be divided in a certain sequence of movements the hand and the eye have to execute. There is no sign without repetition. It is essentially repetition – and therefore without essence, without a simple, non-divided origin.

Automatic reading.

This is a very pretty experiment because it is quite easy and the results are very satisfactory. The subject reads in a low voice. and preferably something comparatively uninteresting, while the operator reads to him an interesting story. If he does not go insane during the first few trials he will guickly learn to concentrate his attention fully on what is being read to him, yet go on reading just the same. The reading becomes completely unconscious for periods of as much as a page. In this experiment when well under way, it is the moments of conciousness that are rare. One remembers having read something at the beginning of the paragraph and suddenly finds himself at its end. All between is a blank. [...] Often, though the reading is entirely un-conscious he is conscious of a confused murmer heard all the time-the sound of his voice-but it bears about the same relation to his consciousness as the murmer of the stream, beside which one reads on a summer day-a general background of sound, not belonging to anything in particular. [...] Absurd mistakes are occasionly made in the reading of words-substitutions similar in sound but utterly different in sense.

Unconscious memory and invention.

For this purpose the person writing read aloud while the person dictating listened to the reading. In this way it not frequently happened that, at interesting parts of the story, we would have the curious phenomenon of one person unconsciously dictating sentences which the other unconsciously wrote down; both persons meanwhile being absorbed in some thrilling story. In this experiment, as in the automatic reading already described, whenever it happened that the speaker became aware of his dictation solely by hearing his own voice, his voice seemed strange and extra personal.

13. Gertrude Stein and Leon M. Solomons: "Normal Motor Automatism" In: Psychological Review, Vol. 3, nr 5 [September 1896], p. 492–512.

But what does the mind produce while following the same instruction repetitively for at least one hour? Before pursuing her literary career, Gertrude Stein, as a student of Hugo Münsterberg in Harvard, conducted experiments on involuntary, subconscious, and synaesthetic processes of speech and writing, thus practicing automatic writing twentyfive years before the Surrealists. The subject's hand starts writing what his ear has not heard, his mouth starts dictating what his eyes have not read.



14. Josse Pyl – Apparatuses and Methods for Writing with Electrical Signals, 2015.

And then, why does it type? The computer keyboard imitating the typewriter keyboard, the latter adopting the typesetters case – think of "Upper Case" and "Lower Case" letters – while its technological foundation changed entirely. These Apparatuses and Methods for Writing with Electrical Signals offer direct haptic control of what is being written and its "typographic" shape.

0. Continuous variation of parameters can gradually convert a font with an old-facing of the acontemporary style. All of the letters in this example have the same b-beight, but their em with increases as their schedule in the parameters. The gives a perceive effect in words come out of the past to the present, as they approach the future. 0. din mysle, list their em with increases as their schedule increases. 0. din mysle, list their em with increases as their schedule increases. 0. din mysle, list the present, as they approach the future. 0. din mysle, list their em with increases as their schedule increases. din mysle, terms mage and the past to the present, as they approach the future. 0. din mysle, list the past of the past of the past of the schedule increases. at a gat a gat a gat a base based the still waters. He reaket me to lis down in green pastures: at a gat a base based the still waters. He reaket me to list the leadeth me basid the shall waters. at a gat a base based the still waters. He reaked me to list the leadet me in the paths of righteousness for his name's sake. ially the complexity of and thy staff they comfort me. I will fear no evil: for thou art with me; they comfort me. Thou approach they staff the days of my life: and I will dwell in the days of the stall water. Surely goodiness and mercy shall follow me and fill dwell		
 their sheight increases. This gives a perspective effect in which the words come out of the past to the present, as they approach the future. din ple, ters scesses a din ple, ters is a provide the past to the present, as they approach the future. The LORD is my shepherd; I shall not want. He maketh me to lie down in green pastures: he leadeth me to lie down in green pastures: he leadeth me to lie down in the pasts of righteousness for his name's sake. He restoreth my soul: he leadeth me in the paths of righteousness for his name's sake. Yea, though I walk through the valley of the shadow of death, I will fear no evil; for thou art with me; they confort me. Thou preparest a table before me in the presence of my life; and I will dear of mercy shints in the presence of my life: and I will dwell in the house of the LORD for ever.).).	Continuous variation of parameters can gradually convert a font with an old-fashioned flavor into a contemporary style. All of the letters in this example have the same h-height, but their em width increases as
A in ple, ters cess- cerif asse a of Ishall not vant. e of He maketh me to lie down in green pastures: he leaded way soul: he leaded way so for way life: and l will dwell he days of my life: and l will dwell he house of the LORD for ever. 15 Knuth / Concept of a Meta-Fout		their x-height increases. This gives a perspective effect in which the words come out of the past to the present, as they approach the future.
lin ple, jers ses- erif ian e of t a g at f at g at t a g at ling t a g at t a g at b leadet me b evide the still waters. He restoreth my soul: he leadeth me b evide the still waters. He restoreth my soul: he leadeth me in the paths of righteousness f or his name's sake. ally Yea, though I walk through the valley the f of the shadow of death, I will fear no evil: f or thou ar with me; thy rod and thy staff thy rod and thy staff thy rod and thy staff thy comfort me. 1.2- Thou preparest a table before me in the presence of mine enemies: thou ancintest my head with oil, my cup runneth over. shall follow me all the days of my life: and I will dwell in the pouse of the LORD for ever. 15 Knuhl / Concept of a Meta-Fout		
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ight I will fear no evil: ight for thou art with me; ight thy rod and thy staff ints. they comfort me. 1.2. Thou preparest a table before me in the presence of mine enemies: in the presence of mine enemies: atio my cup runneth over. erifs Surely goodness and mercy shall follow me all the days of my life: and I will dwell in the house of the LORD of 2' for ever. 15 Knuth / Concept of a Meta-Font	the	of the shadow of death,
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atio my cup runneth over. erifs Surely goodness and mercy shall follow me all the days of my life: and I will dwell of 2' in the house of the LORD for ever. 15 Knuth / Concept of a Meta-Font	ems;	thou anointest my head with oil.
strifs Surely goodness and mercy ints shall follow me not all the days of my life: and I will dwell and I will dwell of 2' in the house of the LORD for ever. 15 Knuth / Concept of a Meta-Font	atio	my cup runneth over.
International and the days of my life: and I will dwell f2' in the house of the LORD for ever. 15 Knuth / Concept of a Meta-Font	erifs	Surely goodness and mercy
oot and I will dwell of 2' in the house of the LORD for ever. 15 Knuth / Concept of a Meta-Font	oints	all the days of my life:
12 In the house of the LORD for ever. 15 Knuth / Concept of a Meta-Font	noot	and I will dwell
15 Knuth / Concept of a Meta-Font	51 2	for ever
15 Knuth / Concept of a Meta-Font		
		15 Knuth / Concept of a Meta-Font

15. Donald E. Knuth - "The Concept of a Meta-Font", in: Visible Language Journal, Vol. 16, n 🛛 1 [Winter 1982], p. 3–27.

An important attempt at changing the way typographic signs are constructed and adopted to the possibilities of electrical signals was the development of "Meta-Font" - a way to draw glyphs not by their outline but by a description of points to be connected by a virtual pen. The computer's hand begins to write, following a variable stencil. The linear letter turns into a network of knots.



16. Bárbara Acevedo Strange – The Khipu of the Inca. 2019.

The knotted threads - khipu - of the Inca follow an intricate logic. In general terms, they are composed of a primary cord to which a variable number of pendant strings and knots are attached. The former Inca record keepers, known as khipukamayuq (knot makers/keepers), supplied Inca rulers with a vast variety and quantity of information. The correlation of the inscribed data with other records of cultural production offer plausible explanations for the khipu's function: from recording information pertaining to censuses, accounting, tributes, ritual and calendrical organisation, genealogies, astronomical observations to grid-like structures for spatial organisation. They are non-alphabetical writing systems which reveal the two principal conditions of meaning: difference and repetition.



17. Guy Rombouts - Azart, 1984.

A translation of letters into a three-dimensional environment: Words are transformed into overlapping rings by a linear unfolding of letters into lines. The letters' properties are "unfolded" into the properties of a line, a thread. A=Angular, Aquamarine; B=Barred, Bordeaux Red; C=Curve, Citrus Yellow. The alphabet returns to its spatial beginnings.



18. Rudolf Fald – Vas Lana der Inca in seiner Bedeutung für die Urgeschichte der Sprache und Schrift, Leipzig: Verlag J. J. Weber, 1883.

In 1877 the Austrian geologist Rudolf Falb traveled South America to study seismic and volcanic phenomena. Instead, he became so fascinated with the indigenous culture that he began to speculate about a common origin of all languages which he assumed to lie in a prehistoric Inca language. His breathtaking linguistic and mythological analogies find their equivalent in the typographical design of his book: Thousands of signs, hieroglyphs and letters were specially cast for it.

Plates

41

100	BEHAVIOUR [CH. 11]		СН. ПТ
2.09.0	It is comowhat more difficult to treat the identity question a g		
J 02 2.	anestions such as		
	"who is Coscar?" "what is an integer?"		
	the would be of no use wenlooing them by		
	"It would be of no use replacing them by		
	"what does the word integer mean?"		
	At this stage we are not able to introduce a word that means "means", and moreover, it has been our policy not to define, but to describe.		
	Yet the difficulty is not as great as one might believe. A text such as	÷.	
	* Ha Ino Hb * $x, x = Hc$:		
	^t Hb Ing Hc Hc ^t :		
	$Hb \operatorname{Ing} Ha \cdot \mathbf{\tilde{x}} \cdot \mathbf{t_1} \mathbf{t_2} Hb \operatorname{Ing} x Hc$:	- 1	
	Ha Inq Hb Ben *		
	is clear enough. Caesar (Hc) has been introduced to Ha in accord-		
	ance with etiquette. If Caesar is absent, the dialogue runs as follows:		
	* $Ha \operatorname{Inq} Hb \cdot ?x \cdot x = Hc$. *	
	$Hb \operatorname{Inq} Ha^{*}Hc = : \Upsilon \cdot t_{1} t_{2} x \operatorname{Inq} x$. Alea est jacta :	- 1	
	Ha Inq Hb Ben *		
	Here $t_1 t_2$ is a substitute for some time-interval just before the		
	crossing of the Rubicon. As we cannot name any other action but		
	speaking, we have had to identify Caesar by one of his sayings - at the moment all his sayings are meaningless, so it does not		3 02 4
	matter which we choose. The same pattern may be used for the question "what is an	· · · ·	3 03 1
	integer ?"		
	* $Ha \ln q Hb \cdot ?x \cdot x = int$: $Hb \ln q Ha \cdot Exg \cdot 0 \in Int \cdot 1 \in Int \cdot 1011 \in Int \cdot -101 \in Int \cdot Etc$.		
	$11/101 \notin Int. \sqrt{10} \notin Int. Etc:$	- 1	
	$x \in \text{Int}$. \Leftrightarrow . $x = 0 \checkmark 1 \backsim -1 \checkmark 10 \checkmark -10 \lor \text{Etc}$:	- 1	
	$0 \in A . \land \land x^* x \in A . \rightarrow : x+1 . \cup . x-1 \cdot \subset A : \rightarrow . Int \subset A :$ Ha Inq Hb Ben *		
	Exg (fL exempli gratia) means "for instance".	. 1	
3 02 3.	Our solution cannot be invalidated by the remark that the person named <i>Hb</i> could have answered 'Int = Int'. For then <i>Ha</i> should have replied 'Mal' as he would have done if $? = 10+10$ had been answered $10+10=10+10$.		

19. Dr. Hans Freudenthal – Lincos. Design of a Language for Cosmic Intercourse, Amsterdam: North Holland Publishing Company, 1960.

In place of a common historical root, Lingua Cosmica (Lincos) offers a logical language based on mathematical procedures intelligible to all species. Each statement in Lincos contains the entire descriptionof the language's structure – it's own genesis. What had been cast in lead in Falb's study is cast directly into Lingua Cosmica's grammar.



20. Alfred Kallir – Sign and Design. The Psychogenetic Sources of the Alphabet, London: James Clarke & Co., 1961.

The shapes of our letters contain a whole erotic symbolism which had to fall into oblivion in order to make universal meaning possible. The letter A is not only a stylized ox-head turned upside down, it refers by metonymy – head, horn, limbs, organs, tools – to (male) desire: ALPHA = PHALL. The unconscious is structured like an alphabet: "At the bottom of the mind and memory of mankind lie the patterns of its primordial experience, to be called up time and time again by the formative psyche; a reflex, as we come to realize, of the process of procreation – of the anxious desire for procreation, we dare say, in the semantic field inextricably conglomerating with the communicative purpose. Over and over again the two creative antithetic male and female principles are found entwined – married, we may here suitably call it."





21. Elena Vogman – Velimir Khlebnikov's "Laws of Time. Calculations for the Tables of Destiny", ca. 1921.

Only few recognized in Khlebnikov's work a serious challenge to poetic language, a challenge effected through the shift (*sdvig*) to mathematics. Having previously searched for elective affinities among words with homonymic or consonant structures, Khlebnikov began to seek these also in numbers. This led him to a series of experiments in predicting the future through an operation of the "pure laws of the number." While text fragments from his major unfinished project, *Doski Sud'by* (Tables of Destiny) have been translated into many languages, over 300 drafts and diagrams from the same project still remain unacknowledged. Among these, Khlebnikov put forward proto-algorithmic calculations to map, visualize, and foresee historical events. In a similar gesture he predicted, in 1912, the 1917 collapse of the empire. Diagrams for his *Tables of Destiny* are more than drafts for poetic or theoretical texts, though (as suggested by literary scholars); rather, these "tables" display a series of hidden relations. Graphically showing distance and proximity between different historical events, these maps constitute an alternative historiography capable of competing with poetry.



22. Louis Wolfson - Le Schizo et les langues, Paris: Gallimard, 1970.

The US-American writer Louis Wolfson, "the demented student of languages", as he calls himself, is often mentioned alongside Roussel and Brisset. In his autobiographical book *Le Schizo et les langues*, written directly in French, Wolfson tells the story of his mental illness which is at the same time a linguistic illness: The words of his mother tongue are a cause of pain. Other languages provide help. Wolfson expands the principle of homophony from a method applied to the vocabulary of one language to a method which unites different languages: a machine of war for the extinction of his English mother tongue.



23. Marcel Duchamp – Rotoreliefs, 1935.

Having renounced art, Duchamp became more and more fascinated by the study of optical phenomena. The only patent he declared consists of several cardboard discs on which off-center circles and ellipses have been printed. When set in motion, these "optical playtoys", as he called them, produce the illusion of three-dimensional volume and relief, thus connecting the second and the third dimension. In Duchamp's short film *Anemic Cinema*, the Rotoreliefs alternate with nine revolving disks labelled with puns and alliterations in French: the repetition of syllables, which creates an illusory depth of meaning, corresponds to the pulsating movement of the spirals with their latent eroticism.

Plates

24. Maximilian Gilleßen – A Souvenir Penholder Reminiscent of Roussel's Text "La Vue" [1904], 2019.

In his poem *La Vue* Roussel meticulously describes in two thousand lines the minuscule photograph of a beach panorama embedded into the Stanhope lens of a souvenir penholder: "Sometimes a momentary gleam suddenly shines/ Into the view set into the bottom of a penholder/ Against which my wide-open eye is glued/ Very close, almost touching it." Roussel does not merely describe the things he sees under the magnifying glass as precisely as possible – he is more precise than possible, thus creating a panoptic, sur-real gaze which is only conceivable in the space of literature. Interestingly enough, the first microphotographs have been used for reproducing and distributing secret messages during the Franco-Prussian war.

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25. Bradley Allen Fiske - Reading Machine, 1922.

The portable reading device invented by Rear General Fiske builds on the same military precision optics employed in Roussel's souvenir penholder. A microscopic reproduction of a text, undecipherable to natural human vision, is parsed by a moveable lens. Not unlike the optician's chart in Duchamp's À regarder (l'autre côté du verre)..., literature turns into an optical phenomenon.

26. Marcel Duchamp – À regarder [l'autre c∑té du verre] d'un oeil, de près, pendant presque une heure, 1918.

The term "precision optics" had already been coined by Duchamp in a preparatory note to his major work *The Large Glass or The Bride Stripped Bare by Her Bachelors, Even*, for which, as he put it, "fundamentally Roussel [...] was responsible". At a first glance \dot{A} *regarder...* presents itself as a study for the so-called Oculist Witnesses in the area at the lower right of the *Large Glass*. Above one of the oculist's charts for testing eyesight, Duchamp however glued a round magnifying glass, which turns this optical arrangement into a work in its own right. It seems to invite the eye to look at the imaginary spectacle of a bride stripped bare. Perhaps it is for good reason that Duchamp's "o-cul-ism" contains the same pun as his *L.H.O.O.Q:* optics, voyeurism, and the eroticism of language coincide in the focal point of a lens.

Plates

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27. John Hejduk - The Architect's Wheel, 1993.

Hejduk's dictum "It's all structure" resonates in his diagram of the architect's wheel. Just like Duchamp who combined puns and optical phenomena, Hejduk considered forms of depiction (e.g. axonometry, perspective), elements of a building (e.g. wall, foundation, roof), building materials (e.g. brick, concrete, wood) and works of literature (e.g. Proust, Robbe-Crillet, Blanchot) as equivalent elements of architectural thought.

28. Massimo Scolari, RAYMOND ROUSSEL'S HOUSE, 1975 [from LIBRO I, color pencil on paper, 278 x 203 mm [AMSV]].

Plates

29. Lecreux Frères – Sketch of an unrealized tomb monument for Raymond Roussel on the Père-Lachaise cemetery, 1932.

Another void, another house for Roussel: In 1932 the author of *Locus Solus* acquired a vast mausoleum on the Parisian cemetery Père Lachaise, containing thirty-two divisions which he reserved for his relatives (though he would remain the only inhabitant of this catacomb). The number of divisions – half the number of fields on a chessboard – has often been interpreted as an allusion to Roussel's last passion: chess. Did he choose the brothers Lecreux, specialists in funerary statuary, because of their name, in which resonates the word "creux" – "hollow"? Their tomb monument would have shown Roussel not as a writer but as a reader amidst a library – the whole arrangement carved from black and white marble. His grave is in direct vicinity of that of Jules Richard, the inventor of the vérascope, an early stereo camera Roussel used in his youth. The void of a grave is full of meaning.

30. Raymond Roussel: "Le Mat du Fou et du Cavalier. Formule Raymond Roussel", in: L'Échiquier. Revue internationale d'échecs [1932] [posthumously reprinted in: Raymond Roussel: Comment j'ai écrit certains de mes livres, Paris: Librairie Alphonse Lemerre, 1935].

Roussel never officially gave up his artistic activities, like Duchamp did. However, he spent the last year of his life almost exclusively playing chess and discovered the means "of achieving the extremely difficult checkmate with bishop and knight", a very rare endgame problem. The "Formule Raymond-Roussel" was praised by the chess master Savielly Tartakower in several articles. In the same year, Duchamp published together with Vitali Halberstadt *Opposition and Sister Squares*, which is devoted to another almost purely theoretical situation in chess, in which all pieces have been captured except for the opposing kings and some pawns. In 1952 Duchamp explained in a brief address to a convention of chess players in New York: "The chess pieces are the block alphabet which shapes thoughts; and these thoughts, although making a visual design on the chessboard, express their beauty abstractly, like a poem. [...] I have come to the personal conclusion that while all artists are not chess players, all chess players are artists."

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31. Jean Perdrizet – Espéranto sidéral, 1932 [Christian Berst Art brut [ed.]: Jean Perdrizet. Deus ex machina, Paris: Christian Berst, 2018, p. 246–247.]

A restless inventor and bachelor till his end, Jean Perdrizet not only attempted to "unravel the mysteries of life after death" (like Camille Flammarion), he also constructed his own mechanical universe (like Roussel) and explored the aesthetics of movement (like Duchamp). Perdrizet was particularly interested in the invention of reading and writing machines. For him, vision and language were profoundly intertwined: "thought arises in the eye, the atoms of thought are pictographic letters". In order to be able to communicate with extraterrestrial life he created his own "Ligua Cosmica", the "espéranto sidéral", also known as "language T": "a language in which each letter is optimized, and differs only minimally from the shape of the object it designates." It offers "an etymology which uses 92 visible signs of a typographical typewriter, the keyboard of thought." All things that can be thought can be written on the keys of a typewriter.

Olaf Nicolai – Les Mangeurs d'étoiles, 2018.

The star plays an essential role in Roussel's personal mythology. It is the "star on the forehead", the sublime mark of genius and predestination. Among the writers Roussel fervently and unconditionally admired was the popular astronomer and spiritualist Camille Flammarion. With an almost fetishistic nostalgia, Roussel kept a star-shaped graspent of biscuit originating from a lunch with Flammarion in a star-shaped glass box. Georges Bataille, whose partner Dora Maar had purchased this readymade-like object in a Parisian flea market after Roussel's death, speculated about its meaning as follows: "Roussel's obscure purpose appeared to be closely connected to the fact that the star could be eaten; he obviously wanted to appropriate to himself this edible star in a manner more important and actual than simply eating it. This strange object signified for me the way in which Roussel had achieved his dream of eating a heavenly star."

Raymond Roussel

La Doublure, Paris, 1897. Impressions d'Afrique, Paris, 1910. L'Étoile au front, Paris, 1925. Nouvelles Impressions d'Afrique, Paris, 1932.

Roussel's works were originally published at the author's own expense by Alphonse Lemerre. The title of his first novel, *Impressions d'Afrique*, has often been interpreted as a pun on "impressions à fric" (the printings of a wealthy man).

Jean Cocteau: Opium, Paris, 1930.

Chess was not the only passion of Roussel's later years. In an attempt to regain the ecstatic sensations which overwhelmed him while writing his first book, *La Doublure*, he got gradually addicted to alcohol and barbiturates. In a detoxification clinic close to Paris he met Jean Cocteau, who was struggling with opium dependency, and who was struck by Roussel's resemblance with another writer in search of lost time: "He had the hair, the moustache, the gait of Proust."

Michel Leiris: Roussel & Co, Paris, 1998.

Leiris, the son of Roussel's fonds manager and secretary-turned-archivist of Marcel Griaule's Dakar-Djibouti mission, had been fascinated with the author of *Impressions d'Afrique* since his childhood, when he saw the first stage adaption of the novel. The volume gathers all the texts Leiris wrote on Roussel over more than five decades.

Jean Ferry: Une autre étude sur Raymond Roussel, Collège de 'Pataphysique, 13 Absolu 95 E.P. [= pataphysical era], Paris, 1964. Jean Ferry: L'Afrique des Impressions, Collège de 'Pataphysique, 11 Gidouille 91 E.P., Paris, 1967.

Two pataphysical studies of Roussel's oeuvre by one of his first, most accurate and to this day most entertaining exegetes. Ferry, Regent at the Collège de 'Pataphysique founded in 1948, had his own chair of Rousselian Studies there.

François Caradec: Raymond Roussel,

translated by Ian Monk, London, 2001.

This biography was first published under the title *Vie de Roussel* in 1977 and remains the uncontested authority to this day. The total absence of any documents that might give insight into Roussel's inner life, prompted Caradec to come up with the beautiful and fitting pun "vide Roussel' (*empty Roussel or Roussel vacuum*).

Mark Ford: Raymond Roussel and the Republic of Dreams, Ithaca, New York, 2001.

The most comprehensive introduction to Roussel's life and works published in English.

Alain Robbe-Grillet: "Énigme et transparence chez Raymond Roussel", in: *Pour un nouveau roman*, Paris, 1963, p. 87–95.

How does an author react when he realizes, another author has already anticipated his work? This essay can be regarded as a good example.

Books

Michel Foucault: *Death and the Labyrinth. The World of Raymond Roussel*, translated by Charles Ruas, New York, 1986. First published in French in 1963, this book is one of the most neglected major works of Foucault's early writing. In a language reminiscent of Maurice Blanchot, he develops a very special ontology of language based on Roussel's poetics.

Leonardo Sciascia: "Documents Relating to the Death of Raymond Roussel", translated by Shanti Evans,

in: Via Roma 398. Palermo, Milan, 2018, p. 3-47.

In the early 70s, the Sicillian writer of crime novels started looking into Roussel's mysterious death in Palermo. As his research proceeds, he uncovers more and more inconsistencies.

François Piron (Ed.): Locus Solus. Impressions of Raymond Roussel, Dijon, 2012.

The exhibition catalogue investigates Roussel's immense influence on literary and artistic modernism.

Markus Raetz, Max Wechsler: *Impressions des Impressions d'Afrique*, Lucerne, 2016.

In 1980, Markus Raetz was commissioned by the publishing house Matthes and Seitz to illustrate the German translation of *Impressions d'Afrique*. The book documents his attempt to translate the logic of Roussel's writing practice into images.

Mark von Schlegell: *Roussel Returns*, New York, 2018. An essay that reads Roussel in the tradition of Edgar Allan Poe and Jules Verne, while celebrating him as a pioneer of the hypertext.

Joan Bofill: Raymond Roussel. Le Jour de Gloire, 2016, 1h 8m. A documentary on Raymond Roussel, who inspired the surrealist group, Marcel Proust and countless novelists and artists of today, from Enrique Vila-Matas and Miquel Barceló to Jan Svankmajer. Taking as our point of departure the film *Impressions de la Haute Mongolie* (1976), which Salvador Dalí and his director José Montes-Baquer dedicated to Roussel, different specialists including Michel Butor uncover the figure of this writer and poet on a journey through literature, music and the visual arts, taking us from Barcelona to Mallorca, Madrid, Germany, France, Italy, Austria and the US. And from the microscopic ink-impregnated images to the most singular portrait of the human soul.

Special issues of magazines devoted to Roussel:

Cahiers G.L.M., N° 9 (1939). With texts by Michel Leiris and Raymond Roussel.

Bizarre, N°s 34/35 (1964).

A double issue of the surrealist magazine, edited by Jean Ferry and devoted entirely to Raymond Roussel. With texts by Cocteau, Roger Vitrac, François Caradec and others, as well as an interview with Roussel's nephew Michel Ney.

Books

L'Arc, N° 68 (1977; reprint 1990).

Among central texts by Gilbert Lascault, Jean Frémont, Jean Ricardou and Michel Butor, the issue also includes Harry Mathew's and Georges Perec's fictional essay *Roussel and Venice*. Alain Robbe-Grillet in a short contribution complains about the "apparent uselessness" and "emptiness" of the illustrations in *Impressions d'Afrique*: "La transparence roussellienne continue de me poser un problème." ("The Rousselian transparency is still a problem for me.")

Revue de la Bibliothèque nationale, N° 43 (1992). "Lavish overview of the mouthwatering cache of Rousseliana discovered in storage in 1989 and subsequently purchased by the Bibliothèque Nationale. To be begged, borrowed or xeroxed at any cost." (Trevor Winkfield)

Viridis Candela. Le Correspondancier du Collège de 'Pataphysique, N° 26 (15. Sable 141 E.P. [2013]).

Inspiring contributions to Roussel studies by Patrick Besnier, François Piron, Sophie Lucet and Alain Chevrier. Including a correspondence between the psychiatrist Gaston Ferdière, the mineral water company Évian and Michel Foucault about the realism of Roussel's poetic works.

Jean-Pierre Brisset

Jean Pierre-Brisset: *Œuvres complètes*, edited by Marc Décimo, Dijon, 2001.

Brisset's grammar textbooks and patents as well as his linguistic and prophetic writings in one volume.

Marc Décimo: *Brisset, prince des penseurs*, Dijon, 2001. The standard work on Brisset.

André Breton, Paul Éluard (Ed.): *Dictionnaire abrégé du Surréalisme*, Paris, 1969.

First published in 1938 for the *Exposition international du Surréalisme*, which might be best remembered today for the coal sacks Duchamp had hung from the ceiling of the Galerie des Beaux-Arts. Brisset has his own article dedicated to him, and is also mentioned in the entries on "*Grenouille*", "*Pouce*" and "Sexe".

Michel Foucault: *Sept propos sur le septième ange*, Fontfroide le haut, 2016.

First published in 1970 as introduction to a reprint of Brisset's works at éditions Tchou.

Walter Redfern: All Puns Intended. The Verbal Creation of Jean-Pierre Brisset, Oxford, 2001.

Marcel Duchamp

Marcel Duchamp: *The Writings of Marcel Duchamp*, edited by Michel Sanouillet and Elmer Peterson, London, 1989.

Books

Linda D. Henderson: Duchamp In Context. Science and Technology in the Large Glass and Related Works, Princeton, 1998. An important study of Duchamp's reception of the science of his time, including his literary influences (Jarry, Roussel, Pawlowski).

Calvin Tomkins: Duchamp. A Biography, New York, 2014.

Museum Jean Tinguely (Ed.): *Marcel Duchamp*, Basel, 2002. With an essay by Marc Décimo on Duchamp's puns and his reading of Brisset. Detailed chronology by Jacques Caumont.

Jean Clair, Harald Szeemann (Ed.): Junggesellenmaschinen/ Les Machines célibataires, Venice, 1975.

The catalogue to Harald Szeemann's legendary exhibition after an eponymous study by Michel Carrouges, whose title in turn refers to Duchamp's machine myth. Including texts by Carrouges, Bazon Brock, Michel de Certeau, Jean-François Lyotard, René Radrizzani (on Roussel) and Arturo Schwarz (on Duchamp and alchemy).

Others

Rudolf Falb: Das Land der Inca in seiner Bedeutung für die Urgeschichte der Sprache und der Schrift, Leipzig, 1883 (reprint Wiesbaden, 1989).

Tom Tit [Arthur Good]: La Science amusante, Paris, 1890–1906. One of the best-known works of popular science from the late nineteenth century. The young Roussel might have read it; Max Ernst used it for his collages, and Duchamp's "physique amusante" is a direct allusion to this literature, which came with a set of boxes full of accessory items: "boîtes de physique amusante" ...

André Breton: Anthologie de l'humour noir, Paris, 1966. This literary anti-canon, written in 1940, has over time become a canon in its own right. Brisset, Roussel and Duchamp all hold a special place in this surrealistic pantheon.

John Hejduk: Soundings, New York, 1993.

Le Corbusier: Breveté sans garantie du gouvernement, Zurich, 1996.

Louis Wolfson: Le Schizo et les langues, Paris, 1970.

Gilles Deleuze: "Louis Wolfson ou le procédé", in: Critique et clinique, Paris, 1993. Originally written as a preface to Le Schizo et les langues, this essay compares the literary writing methods of Wolfson, Brisset and Roussel.

Christian Berst (Ed.): Jean Perdrizet. Deus ex machina, Paris, 2018. An excellent overview of the life and work of the extraordinary inventor and bachelor.

Colophon

The **Alphabetum** is an artistic space to explore the formative and formal aspects of language. These aspects are mostly considered separate. Typographers and type-designers are primarily focused on the letterform and writers mostly do not pay attention to the forms of the letters they form into words. The ambition of the Alphabetum is to reveal that these two properties of written language are much more interlinked than is commonly acknowledged. A letter is a letter because it resembles a letter; and because it resembles a letter it is a letter.

Joseph Beuys said that every human being is an artist. Hans Hollein translated this idea into space and time, suggesting that everything is architecture. John Cage proposed that everything we do is music. Would it therefore not be acceptable to declare that every thing is type? When we look at art, music and architecture from a more general point of view, we see that all three disciplines have emerged from the languages we created. We might even argue that art, architecture and music are themselves languages. It is noteworthy that Beuys's, Hollein's and Cage's statements are not formulated in art, architecture and music, but in letters, forming words, combined in statements. Ludwig Wittgenstein once said that the limits of our language are the limits of our world. Could it also be the case that the limits of the alphabet are the limits of our language? This would bring us back to the typographic tautology. A letter is a letter.

The Alphabetum, inaugurated on the 16th of February 2019 with the exhibition Roussel/Brisset/Duchamp, Engineers Of The Infra-Thin, is part of the program of the international art institution West Den Haag.

Alphabetum I: Roussel, Brisset, Duchamp Engineers Of The Infra-Thin

Curated by Anton Stuckardt & Maximilian Gilleßen (zero sharp) www.zerosharp.org

Editor: Anton Stuckardt & Maximilian Gilleßen Translation Essay: Raphael Koenig Translation Plates: Johanna Schäfer Exhibiton Design: Leo Stuckardt Typefaces: Gedankenexperiment & Zeitung

We would like to thank Bárbara Acevedo Strange, Christian Berst Art Brut, Marc Décimo, Raphael Koenig, Olaf Nicolai, Josse Pyl, The Raymond Roussel Society, Johanna Schäfer, Massimo Scolari, Leo Stuckardt, Elena Vogman and Trevor Winkfield for their contribution.

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