A Note on Linda Dalrymple Henderson's "Duchamp in Context" (Niceron, Leonardo, Poincaré & Marcel Duchamp)

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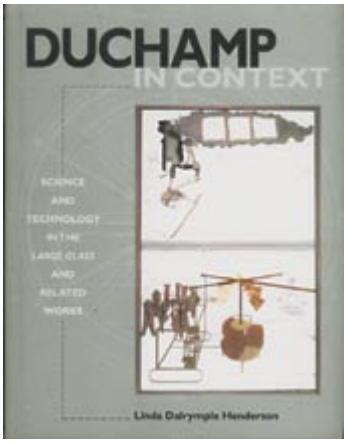
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Figure 1
Linda Dalrymple Henderson, *Duchamp in Context: Science and Technology in the* Large Glass *and Related Works*, (Princeton: Princeton University Press, 1998)

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Figure 2
Portrait of Jean Francois Niceron (1613-46), 1646



Figure 3
Marcel Duchamp, Cover for *A l'infinitif* [a.k.a. The *White Box*],
1967

The recent discovery by Rhonda Shearer of the influence of the Renaissance geometer Niceron on Marcel Duchamp's *Large Glass* (note from *White Box*) is confirmation of both his debt to Poincaré and his status as a sophisticated geometer in his own right.

The formidable academic scholarship of Professor Henderson may tend to limit the overall influence of Poincaré in favor of a "smorgasbord mix"
of contemporary science on Duchamp's formulation of the *Large Glass*. In another context, the brief introduction by Prof. Henderson of Niceron missed an important contribution to the understanding of M.D.'s approach to Optics and Perspective.

Similar to his friend Apollinaire, Duchamp, in lieu of academic training, immersed himself in intensive studies of Optics and Perspective (as opposed to the generality of Apollinaire's varied studies) in the St. Genevieve Library becoming, also a savant of the history of ideas. More information about Duchamp makes it untenable to deny the focus of Duchamp on Poincaré's ideas, as proposed in "Science and Method" and "Science and Hypothesis."

A concern with Optics and Perspective is common to Duchamp, Poincaré and Leonardo (in his *Notebook*). This focus on the geometry of vision is inseparable from the physiology of vision and the mechanics governing perception. Such a density of material, presented to even the most sophisticated public, might require a “light touch” (not of the hand, so despised by Duchamp) in presentation. Comic relief is afforded by such notions as “hilarious invention.” Niceron himself, in “La Perspective Curieuse,” is at no loss for subtle jokes at the expense of the Pope’s Turkish foes!

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Figure 4
Marcel Duchamp, Plate of *Eau & Gaz à tous les étages*affixed to the box for the limited edition of Robert Lebel’s *Sur Marcel Duchamp,* 1958

Blake wrote, “energy is eternal delight.” This sums up the pervasive erotic element which everywhere humanizes Duchamp’s exploration of the theme of a universal energy which ascends from the prosaic “Bachelor Realm” to the higher dimension proper to the “Bride.” This vary complex being, the Bride, seems to embody a gradient of stages (gas on all floors) from the strictly mechanical, to the electromagnetic, to the Wasp of Fabre, the etymologist, to Rrose Sélavy and – perhaps – in some empyrean splendor, the Virgin Mary herself.

The concept of a continuum of progressive states from the micro to the macro-scotic realms is essential to both Poincaré

and Duchamp. Such a progression implies, at some point, a separation in dimensions which nonetheless still communicate. Thus, the Bachelor Realm is redeemed from isolation and yet supplied the gross fuel, which undergoes transformations as a distilled essence, at last arrives to nourish the Bride and to enable her, in turn, to provide for the limited world of the Bachelors a way of transcending their prescribed orbits, clothed in liveries and uniforms of stultifying conformity.

Everywhere this continuum appears buffeted by chance or, more accurately, refined by chance, so that an alternative to the dead stasis of thermodynamic equilibrium is revealed in the universal play of energy states—as well as in the mind as in Nature. As chance has its play in the mind, Poincaré brings forward a theory of human creativity and genius, in the chapter formulation, following an intensive but more or less random input of study, ideas appear to sort themselves out in what he calls the unconscious mind. There follows “tout fait,” the illuminating flash of insight. This vividly recalls Kekules’s epochal discovery of the benzine ring. Poincaré elaborates on this process from his own experience; service in the army only served to grant him a time for unconscious reflection on a problem. Freed of military obligations, he was struck all of a sudden with a path to a solution to his problem. Of course this epiphany had to be paid for in the laborious working out of the happy inspiration!

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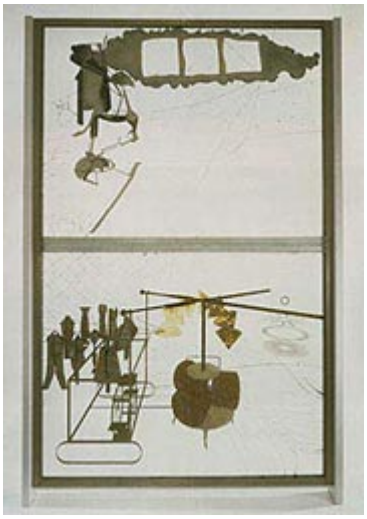


Figure 5
Marcel Duchamp, *The Bride Stripped Bare by Her Bachelors, Even* [a.k.a. The *Large Glass*], 1915-23
In accordance with his universal postulate of collisions producing phenomena—from random collections of dust mites (an important Duchampian motif) to the vast interstellar space of the Milky Way where flaming gases mingled following principles laid down by Clerk Maxwell—all nature, including Mind, was subject to a process in which destined outcomes proceeded in an orderly fashion from inputs randomly fed into closed systems. Similarly in the mind of genius, ideas, like molecules, collided and bumped against each other. At length, the closed system of the unconscious mind sorted out the most fruitful outcome, giving rise to a new paradigm.
This is the central theme of the *Large Glass*. Through an almost the "illuminating gas" arises and, becoming increasingly refined, passes from the three dimensional realm of the Bachelors into the higher fourth dimensional realm of the Bride. This process mirrors in contemporary form the transmutations that the alchemists made with the array of crucibles, furnaces, alembecs, etc.

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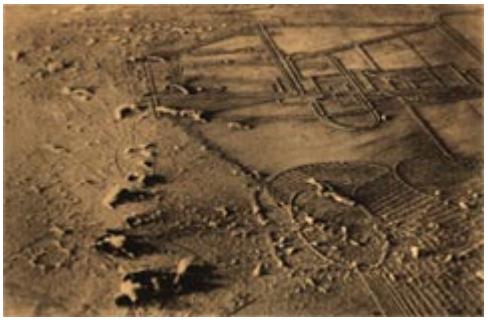


Figure 6
Marcel Duchamp, *Dust Breeding*, 1920(Photograph by Man Ray)
When confronted with the suggestion he was an alchemist, Duchamp replied, "If I have practiced alchemy it has been in the only possible way that it can be practiced today, namely unknowingly."

The thesis, shared by Duchamp and Poincaré, infers that any effort to place Duchamp in any other orbit (*pun intended)

than that of Poincaré is to deny M.D.'s consistency and his basic seriousness, however concealed by the rubric of "playful physics" or "hilarious picture." A very serious mind has addressed the basic problem of human creativity. In so doing, he has adopted as a model the thoughts of a leading mathematician and physicist of his day. Without Poincaré, the Great Glass would lack cohesion and relevance to seminal modern thought. Duchamp would have spent so many years of thoughtful labour in vain (neglecting the dreary months of repairing his masterwork in Katherine Dreier's garage after it was shattered by careless handling); producing only a witty commentary on contemporary science.

*Poincaré was a foremost astronomer interested in the three-dimensional problem.

Without wishing to in the least diminish Linda Henderson's monumental work, Duchamp in Context, the writer seeks to put Duchamp in a leading place in the history and development of science—not as an original theoretician or as an experimentaist in any but a "thought experimentalist mode." (Remember that Einstein's great discoveries came from the use of imaginative "thought experiment.") The notes for the *Great Glass*, in themselves, furnish an extraordinary essay in thought experimentation. Without intensive academic training, without a well-furnished laboratory, without consistently available help from hired co-workers or staff, Duchamp's commentary on science has much to do with Jarry's pataphysics.

Pataphysics, as Jarry himself defines it, consists of, "the science of imaginary explain the universe supplementary to this one." The writer believes that the universe supplementary to this one could only be apprehended from a higher dimensional standpoint, attainable solely through mathematical insight. This would confirm that Duchamp had recourse to the brilliant insights of Poincaré, who above all others at the time understood the inter-dimensional tensions between the familiar third-dimensional world and the so-called fourth,

where the fourth is a spatial dimension (five dimensions would include time). Such tensions, according to Duchamp and Poincaré, could be resolved in the subconscious mind following an intensive period of effort or study. (The phrase “tout faite,” in fact, originated with Poincaré.)

Jarry’s pataphysics were propounded (posthumously) by his character Dr Faustroll. The so-called laws of science were, according to the doctor, merely exceptions occurring more frequently than others. This skeptical iconoclasm gave rise to Duchamp’s notion of “playful physics.” Perhaps the concept of “meta-irony” would better serve than any other to characterize Duchamp’s approach to “exact science.” His mentor Poincaré was applying a statistical, probabilistic model to descriptions of that range of phenomena, dust mites to galactic gaseous formations, already referred to.

The intrusion of probabilistic consideration into exact science displaced an earlier confidence in Determinism—followers of Newton and Laplace Physicists, e.g. Einstein, were uncomfortable with a world in which “God played dice.” Although a fervent amateur of advanced science, Duchamp was nevertheless capable of a gentle (and very intelligent) mockery of that which so fascinated him.

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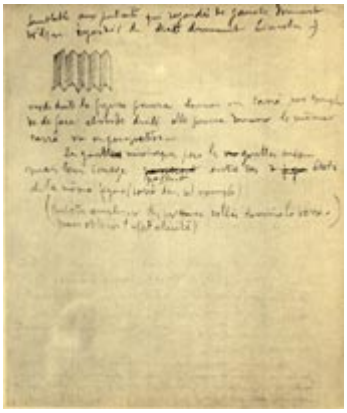


Figure 7
Marcel Duchamp, Note from the *Green Box*, 1934
In Niceron, Duchamp may have seen a quality of “hiddenness.” By this the writer refers to the use of “folded prisms and

multiple viewpoints to convey unsuspected images, lurking," as it were, awaiting detection—as with Duchamp's 'Wilson-Lincoln effect,' Rhonda Shearer has consistently drawn attention to the quality of 'hiddenness' in the oeuvre of Duchamp. This is not obscurantism; although there is a traditional linkage to the obscure language of the classical alchemists.

The reference to the "language" of the alchemists brings up Duchamp's fascination with language and the subtle level of meaning. Word puns, anagrams – the whole elusive verbal trickery of Cabalism—is common both to Duchamp and Jarry. In a period where ciphers and codes are looked for everywhere (affording a wealth of humorous material to comedians and cartoonists), why waste intellectual effort on "schoolboyish" pursuits? The answer lies in the deconstruction of language itself. Consider the contribution of so many and so diverse intellects to this endeavor of our time: Levi Strauss; Noam Chomsky; Moore; Ayer; Wittgenstein, Charles Dodgson (e.g. 'Alice' – a word means what I choose it to mean); Roussel; Jarry; Apollinaire; etc, etc. the critical analysis of language is a major preoccupation of our time.

If Duchamp is much more than a very clever master of word play, it is essential to look at the entirety of his life's work—even his period of just "breathing!" The readymades, for example, form a continuous commentary on the *Large Glass*. In fact, every note and every artifact or "precision painting" or "tout fait" forms part and parcel of a big "closed system." Such smaller closed systems—mechanics; entymology (the Wasp); electo-magnetism; eroticism; non-Euclidian geometry; chess; verbal manipulation; symbolism; alchemy—all figure in the "compendium" / encyclopedia, as it were, of the *Large Glass* and the Bride. Duchamp, from this viewpoint, is a major philosopher of our time, on a level with Popper Jasper, Wittgenstein, or whomever one chooses to nominate. Only his medium is different from the strictly verbal-literary works of the forgoing. Also, it might be added, he conveyed in an

urbane and witty manner insights made ponderous and hard to follow by the savants. Then, it might be asked, who are the real obscurists? The writer much prefers to be amusingly enlightened by the *Large Glass* than to pour over wordy and weighty tomes, the output of scholars caring little but for the approbation of academic peers.

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