

Reflections on Duchamp, Quantum Physics, and Mysterium Coniunctionis

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In this brief essay, psychiatrist Massimo Lanzaro explores the alchemical possibilities contained in Marcel Duchamp's masterwork *The Large Glass*.

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When Jung published his first major work on alchemy (*Psychology and Alchemy*, 1944) at the end of World War II, most reference books described this discipline as nothing more than a fraudulent and inefficient forerunner of modern chemistry. Today, more than fifty years later, alchemy is once again a respected subject of both academic and popular interest, and alchemical terminology is used with great frequency in textbooks of depth-psychology and other disciplines.

Jung interpreted the practice of alchemy as the symbolic projection of psychic processes. In *Psychology and Alchemy and Mysterium Coniunctionis* (1955/56), Jung's empirical exploration and rediscovery of the objective psyche led him to recognise that the basis of the alchemist's endeavour was the archetypal union of opposites by means of the integration of opposing polarities: conscious and unconscious, reason and instinct, spiritual and material, masculine and feminine. In the last summaries of his insights on the subject, influenced in part by his collaboration with the Nobel Prize winning physicist Wolfgang Pauli, the old Jung envisions a great psycho-physical mystery to which the old alchemists gave the name of *unus mundus* (one world). At the root of all being, so he intimates, there is a state wherein physicality and spirituality meet.

Seen in this light, the various stages in the alchemical process take on a new meaning. Alchemy, like analytic psychology, is a discipline in which the notion of the subjective and objective as separate and opposing realities is dissolved. Both disciplines are sciences which seek to reintegrate these separate realities into their original, undivided form. While Jung was engaged on his research, notions of Hermetism and alchemy, far from losing intellectual ground, continued to influence post-romantic and avant-garde artistic movements such as Surrealism, which were exploring aspects of experience as process.

The surrealists wanted to make a leap into the irrational for two reasons. One was the disgust inherited from their direct predecessors (the Dadaists) at the mess the old apparently rational structures of thinking and behaving had made of European society. The other, more positive, reason was that the exploration of the non-logical (unconscious) world would enable them to tap entirely new sources of creativity. This is the reason why they took such an interest in the art of the mentally ill. People whom rational, bourgeois society classified as mentally incompetent became, for the members of the Surrealist Group, pioneer explorers of a realm which could without apology be described as 'visionary'.

If these considerations supplied the basic structure of surrealist thinking, there were some others which were important. One was something they had learned from Freud - the power of libido. Rather than resisting this, as the religious and visionary artists of the past had tended to do, the members of the Surrealist Movement wanted to harness the libido for the benefit of their work. A second was what they inherited from late nineteenth century Symbolism. To some extent in

revolt against the first generation of modernists, they looked at these less immediate predecessors and found in them a fascination with imagery which was inherently ambiguous and charged with multiple meanings. Third, they were fascinated, just as the Symbolists themselves had been, by aspects of hermetic philosophy and especially by Rosicrucianism and alchemy.

Alchemy they regarded as a pseudo-rational system which could be used to show up the pretensions of modern scientific rationality. They approached this body of information in a much more self-conscious way than the artists who had examined the same material in the years before World War I - their use of the imagery borrowed from this source is nearly always tinged with irony.

The supreme artistic ironist of the period is, in my opinion, Marcel Duchamp (1887-1968). His impact on art was widespread, multidirectional, and occurred over a long time span. Duchamp defined new media (or, mixed media), repeatedly crossing over the traditional boundaries of sculpture, painting and graphics. Marcel Duchamp's "alchemical" masterpiece is *The Large Glass*, or *The Bride Stripped Bare by Her Bachelors, Even*, whose very title, in French *Le Grand Verre*, has onomatopoeic echoes of alchemy's "Great Work" (*Le Grand Oeuvre*). [[click here to open a copy of The Large Glass in a new window, with thanks to Wikipedia](#)]

This "definitively unfinished" work displays a design for a strange mechanical device and is accompanied by an enigmatic "manual", the "Green Box", containing notes by the artist. Together, the glass panes and the notes appear no less complex and ambiguous than an act of alchemy. This work has been seen as the critical interpretation of the myth surrounding devotion to the Virgin Mary. The Virgin's assumption into heaven and the denuded bride are at the same time symbols of the transformation and purification of base matter and of revelation, unveiling. The sacred marriage of substances is the central theme of alchemy, something which would today perhaps be described as chemical affinity. The basic idea of this supremely complex work seems to be one which is central to alchemy - that of the union of opposites which will result in the birth of the perfect being ("the androgyne").

The purpose of the "chocolate grinder", as Duchamp called the device with the three drums placed in the centre of the lower pane of *The Large Glass*, recalling the millstone in Durer's *Melancholy*, is to grind the matter into its black nigredo state, ironically referred to as chocolate. The meaning of nigredo (putrefactio) in *Melancholy 1* is clear; melancholy or black material is the first stage of the alchemical process, the first moment, the first sign. The mournful "black bile" pervades the alchemist's universe, but it is nonetheless the first step on the path towards the light. In *The Large Glass*, the enormous scissors symbolise the splitting-off and grinding (separatio) of the matter while the seven cylinders or "sieves" are instruments of refinement (distillatio). Once the material has been dissolved (sublimatio), it rises, like vapour, then falls from the cloud in droplets and sets off the process again (multiplicatio). In iconographic terms, Duchamp's "Bride", like all the elements in *The Large Glass* is a mechanism whose humanity is symbolic and whose driving force is instinctual desire. This desire is symbolised by the fire of a combustion engine, love is symbolised by the combustible material and the seed by the spark of gunpowder. The masculine is represented by the bachelors, in uniform, brought back to life by the call of the feminine.

At this point, we can make a somewhat pretentious intellectual leap that connects with the words of Jung: "In inventing the turbine, which produces electricity from its driving motor, men became able to divert the course of rivers and then extend this power to a multiplicity of operations, they have therefore succeeded in using machinery to transform natural, instinctive energy which follows its own path and does so without the need for work." The psychological machine that transforms energy is the symbol. Symbolic activity arises from the existential need to harmonise opposing forces (masculine and feminine) in a state of reciprocal tension and thus give expression to the libido in terms that go beyond the instinctive to the realms of the creative and the cognitive.

The first operation of alchemy addresses itself to the breaking up (torturing, bleeding, dismembering) of the confining structure of matter and reducing it to a condition of creative chaos (*massa confusa*, *prima materia*). From this, in the process of transformation, the true, creative binaries emerge and begin their interaction designed to bring about the *coniunctio* or alchemical union. In this ultimate union, says Jung, the previously confined light is redeemed and brought to the point of its ultimate and redemptive fulfilment.

While these statements ostensibly refer to the material universe and to nature, Jung perceives in them a model or paradigm for the material and natural aspect of human nature as well. Under the guise of liberating the light confined in matter, the alchemists were endeavouring to redeem the spirit or psychic energy locked up in the body and psyche (the "natural man" of St. Paul) and thus makes this energy available for the greater tasks of the spirit or spiritual man.

Duchamp wrote that: "At no time in the process depicted in *The Large Glass* does the Bride enter into a relationship with masculine reality; the process culminates, not in physical possession, but in a final vision, the unveiling". Octavio Paz noted that "this is sometimes interpreted as an allegory for onanism or as the expression of a pessimistic view of love: true union is impossible and therefore non-consummation or voyeurism (the eyes as witnesses) is an alternative, if no less cruel, to the remorse that follows possession".

In this later assemblage work (*Etant Donnes*, also known as *Given: 1 The Waterfall, 2 Illuminating Gas*), the artist reveals that the union is possible, but only when the gaze is transformed into contemplation and knowledge of the projected psychic content. Only then is it possible to integrate the female anima into the masculine consciousness and the characteristics of the male animus into the consciousness that is evident in the purely feminine. Duchamp worked in secret from 1946 to 1966 on *Etant Donnes*, which must be viewed through a peep-hole in the foreground door. The view is further directed by a hole in the midground brick wall. The background contains a landscape and waterfall.

Duchamp also famously added a moustache and beard to a reproduction of the *Mona Lisa*, an apparent act of avant-garde desecration, but with the less blatant motive of wittily emphasising the androgynous nature of the figure. Today, in compliance with the silence imposed by religion, rationalism and materialistic concretism, alchemy is stripped of any form of scientific dignity and justifiably so in some ways.

Duchamp countered the scientific positivism of his day with his own meta-ironic notes on "physique amusante": "A straight, one-metre-long thread falls from a height of one metre onto a horizontal plane, and as it curls the way its fancy takes it, it offers us a new representation of the unity of length". In alchemy, the

mercurial feminine principle symbolises the protomorphic, fluid and unpredictably mutable properties of natural phenomena.

Duchamp's 4 Oct 54 statement: "For me there is something other than yes, no, and indifferent - it is for example the absence of investigations of this kind" showed his understanding of the fundamental basis of quantum theory, with "indifferent" being his term for "superposition", and "investigations" being his term for "experimental measurements".

Perhaps the inclination of our century to attribute so much power to science is counterbalanced by the disorientating uncertainties inherent in quantum mechanics which demonstrate that it is impossible to determine both the precise position and speed of some sub-atomic particles. Moreover we know that the way in which these particles present themselves depends on the very act of observation itself.

References

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