

# Alchemical and New Scientific Approaches to the Concept of Transmutation

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(Edited by Rick Moore)

## Foreword

Throughout history, Alchemists have been fascinated by the Power of Transmutation. Although we tend to think of it as the natural outcome of a successful alchemical operation, it is also thought of as the “power” acquired by the adept who develops the tools to perform this operation. However, as Paracelsus tells us, we are too often content simply knowing the name given to something instead of understanding its true meaning. As committed Alchemists, though, we must go further. We must ask ourselves what the real meaning of the “Transmutation is. “ In other words, what is the signature hidden behind the concept?

The intention of this article is to approach the issue with an open mind, analyzing the case from two different perspectives— through the eyes of an academic scientist facing the concept through a emerging theory called Topological GeometroDynamics (TGD) and also through the eyes of a practicing alchemist incorporating the concept into his/her daily operations. The truth can only be apprehended by a harmonious synthesis of the two perspectives.

This synthesis is the point where the true Adept shall focus is attention, and be rewarded by perceiving that Reality, Life and in fact all Universes are part of one single structure that, once “discovered,” is indeed capable of wondrous possibilities.

*“Haec est totius Fortitudinis Fortitudo fortis, quia vincet Omnem rem subtilem, Omnemque Solidam penetrabit.” (“This is the greatest Force of all powers, because it overcomes every Subtle thing and penetrates every Solid thing.”) - Tabula Smaragdina (The Emerald Tablet)*

## What Definitions Make the Concept of Transmutation Possible?

According to emerging scientific views, the Universe is seen as a system of fully organized and systematic layers all interacting and blending each with the other, that can be described by the following basic concepts:

- Many-sheeted space-time defines a hierarchy of space-time sheets.
- There is a hierarchy of matter: ordinary matter, dark matter, and even more refined forms of matter becoming more and more quantal in nature.
- There is also a hierarchy in which matter is at the lowest level and higher levels define mind as cognitive representations relative to matter, cognitive representations about these, and so on - an entire hierarchy defining the interactions of consciousness and existence.
- Therefore, a theory about a particular physical system and the theorizing mind itself transform into a perspective that both are parts of a physical system rather than the system being built by some strange mind outside of the physical world.

Physicists incorporating the concepts of this way of thinking affirm that it is possible to define these hierarchies in a rather precise manner physically and mathematically. This is a solid

foundation on which to build an alchemical acceptance of such controversial academic topics. In the alchemical worldview, this classification can be interpreted as the different levels of development (from Lead to Gold). It affirms ancient concepts, translating them from past knowledge to present science. The hierarchy of various kinds of matter contains in principle an endless number of levels that can be regarded as increasingly refined forms of material existence.

In this view, ordinary matter is at the lowest level. At the next level is dark matter whose particles differ in manner from those of ordinary matter so that dark matter can appear only in what is called Bose-Einstein condensates consisting of many particles behaving as quantum coherent wholes and effectively defining particles of dark matter. One can also imagine that these Bose-Einstein condensates of dark matter form further Bose-Einstein condensates - a kind of "dark, dark matter" - for which the Planck constant would be  $2000 \times 2000$  (4 million) times larger and so on. We would have a hierarchy of more and more quantal, and at the same time mental, physical existences.

Superconductors and laser beams are currently considered to be basic examples of Bose-Einstein condensates. It is not, however, yet clear whether they can be regarded as "partially dark matter." Also, atoms can transform into dark atoms and form Bose-Einstein condensates consisting of large number of dark atoms coming together to form a "super-atom."

If we think of aggregates of matter as having quantal properties it facilitates an understanding of the non-predictable and coherent behavior of living matter from the standpoint of quantum physics. The essential consideration behind this line of reasoning is that the Planck constant is much larger for dark matter than for ordinary matter (by a factor about 2000 or power of this). This means that the length and time scales for coherent quantal behavior are much longer and that quantity does not of necessity result in random system behavior.

Also, the physicists are now perfectly aware that "dark matter" exists de facto because of the gravitational fields it creates. There is not, however, any consensus about what dark matter really is, how it interacts with ordinary matter, and/or how to detect it. This is where a convergence with Alchemical theory can profitably occur. My dear colleagues in the Alchemical Path know that "dark matter" corresponds to the Prima Materia of alchemists. At the quantum level, dark matter controls the behavior of visible matter and serves as the organizing principle.

#### **How Are Dark Matter and Visible Matter Related?**

Dark matter is the matrix for visible matter in living systems. Here an Arcanum is revealed in its simplest form. There are rather detailed models of how this interaction happens being developed by scientists of the so called "New Age Sphere" in conjunction with alchemists. A model for the simplest life forms is plasmoids comprised of simple rotating magnetic field configurations containing negatively charged plasma. This model explains all the basic aspects of bio-molecular systems and living cells, and yet is very difficult to understand in the framework of ordinary chemistry.

Let's look at the case from an alchemical point of view. Beneath all the variations we may encounter among the treatises of our ancient Masters, there is one certain, yet obscure underlying principle. In order to perform the Magnus Opus, they all start by taking the substance named "Prima Materia" and subjecting it to a series of operations to obtain the final Product which we know as the Stone. This Stone, however named or described, is

always a substance that represents the perfection of the original first matter and its qualities invariably are such as those that pertain to a living being, not an inanimate mass. In a word, the interaction can only be possible by Transmutation; that is, taking a "dead substance" - impure, powerless, valueless - and transmuting it into a live, active and invaluable being. Here, the First Meaning of the concept comes forth: "Transmutation does not change the nature of its subject but brings it to its utmost state of manifestation." Literally, alchemy is the Science of Perfection.

#### **The First Arcanum of Transmutation: Operations (Geometric Time; Experienced Time, and the Alchemists' Time)**

Time is the key of evolution. Evolution is the sphere where perfection can be conceived. Therefore, the detailed mechanism of intentional action (our "secret fire") involves essentially the new view about time that can be summarized by saying that there are really two types of time.

There is the linear concept of time of physicists, that is like a fourth space coordinate. We are essentially 4-dimensional beings. Our conscious experience and our cherished beliefs create the illusion that we correspond to a single time, a constant snapshot (aboriginals who have not learned Newtonian physics however live in dream time without any clear borderline between past, future, and now). For instance, when I remember something, I experience my past; I "see" into the linear past which is part of me. Actually, the mechanism of this seeing is the same as in the case of ordinary seeing in which light is reflected from a material body; now, it is time reflected from the brain of the linear past. I can also directly re-experience past events. I am speaking about episodic or sensory memories. The case of the phantom limb, in which a person experiences pain in limb he has lost years ago, is a good example of this. I can also "see" into the linear future in the sense that I can predict roughly what will happen tomorrow.

The second concept of time is "discrete" time, which consists of a sequence of quantum jumps, with moments of consciousness serving as the "elementary particles of consciousness." Usually these two times are incorrectly thought of as being the same. But for discrete time there is no future, only the past and the present,

However, there is yet a third concept of time wherein all three types of time— past, present, and future— exist simultaneously. We may describe this type of time as "synchronous." Linear time is reversible, which is to say that the laws of physics with respect to linear time would allow running the film backwards. Moments of discrete time can be reassembled. Neither of these can occur or are they necessary when existence is viewed as being the very fabric of synchronous time. These are difficult concepts and at least partially explains why physicists have been led to the wrong identification of these times.

Alchemists, adepts and possessors of initiated worldviews have much to offer this discussion. Consider, for example, the earliest surviving alchemical manuscript, "Isis the Prophetess to Her Son Horus," found in the Codex Marcianus, a medieval (11th century) collection of Greek fragments. This manuscript helps us see the true nature of the transmutation at the core of alchemy. Transmutation is not a single tool or consequence involving a personal or local effect to our environment. It is a three-fold operation, involving the nature of time, and "the times" in a completely unique way.

As the secret was passed down through the various forms, the information fragmented. Because of this, some initiates received only the internal and transformational processes without the full understanding of how the parts related to the whole of the ancient science. The most guarded secret was that of time itself, and the secret of all secrets, according to the Builder texts at Edfu, involved the beginning and end of "time."

This has to be revealed to each one of us. But Ancient Masters have given us hints about it. Law of the Universe Number 1: You Exist! Pay attention to the revelation herein. This leads us to ONE time sheet where all transmutation is possible in literally infinite ways. The alchemist must "move" to this sphere in order to accomplish the Great Work. Only within this time can the Prima Materia be manipulated at Will.

### **Time Mirror Mechanism as a Mechanism of Intentional Action**

In the scientific view, dark matter becomes a causative agent by, for reasons as yet unknown initiating what physicists call a "phase conjugate laser beam," consisting of negative energy dark photons. Negative energy is equivalent to the property of traveling backwards in time.

In the linear past, a time reflection that is geometrically completely analogous to the ordinary reflection from a mirror therefore occurs and the beam is reflected back in time from a "time mirror" as a positive energy laser beam of dark photons. This beam interacts with ordinary matter and is in fact the causative agent for the resultant physical effects. As an example, the brain patterns of nerve pulses initiating some motor actions could even be one such outcome.

What makes this mechanism so elegant is that there is no delay in linear time; a system can react instantaneously by initiating the action that is already in the linear past. To identify either linear or experienced time and to react proactively to potentially dangerous situations sounds somewhat like science fiction.

The time mirror mechanism also defines a mechanism called remote metabolism. Suppose, if you will, that some part of your body needed energy immediately in a crisis so there was no time to send nerve impulses to your brain which could then send commands initiating the transfer of energy. What that body part could do instead would be to send negative energy dark photons to the linear past where a system able to receive this negative energy exists. Since energy is conserved, the body part would get a positive "recoil energy." In a more refined arrangement, the negative energy signal serves only as a request inducing emission for a large positive energy signal from the linear past. All this happens nearly instantaneously.

Alchemists consider that the mirror effect is already in place. By working in the correct time sheet, we learn to experience the fact that physical reality is literally "nothing" - NO THING. What we call gross matter is simply the reflection of the vibrations sent by the primary system of existence. This "mirror" of complex and holographic functioning systems that is the Core and focus of the mass becomes the alchemist's playground. Reflecting on this statement will give the reader understanding. Here is a simple analogy: look at your mirror and smile. How long does it take for the reflected image to "smile back" to you? Does it occur in the future? Would there be any reflection if you were not standing at the front of the mirror? Could the reflection smile at you first?

The Operation of the Sun involves and requires the understanding of an ultimate truth about time and existence. It is without question one of the simplest and most fascinating Alchemical concepts .

## **Transmutations and Nuclear Alchemy**

For those who still assume that transmutation in Alchemy only means changes in chemical properties, it is worth considering that chemical properties certainly change if the atomic nuclei change their nuclear charge, determined by the number of protons in the nucleus (there are also neutrons)

The transformation of ordinary matter, such as palladium (Pd) used in cold fusion experiments into what can be called "partially dark matter," would make possible transmutations. Atomic nuclei contain protons and neutrons. In cold fusion experiments, protons inside the nuclei of a palladium target bombarded by ordinary deuterium (D) nuclei would be transformed into a dark matter phase in which they have a large value of Planck constant (at least about 2000 times larger than normally).

This means that dark protons have a large Compton length (that is quantum size) on the order of .1 nanometers instead of the ordinary proton size of about .000001 nanometers. These dark protons overlap and combine to form larger units, a type of super proton with the outcome being agglomerates of dark proton matter consisting perhaps of protons of numbering in the range hundreds or even. For the neutrons of the palladium nuclei this need not happen so that it is better to talk about partially dark matter.

In this phase, protons can be said to form a single super proton, and one cannot say which proton belongs to which nucleus. Therefore, when the transition to ordinary matter occurs, the protons can be shared in a new manner. Some nuclei get more protons than they had as the palladium nucleus and some get less. Completely new elements can appear.

A cold fusion reaction is different from this and is made possible by the absence of a strong repulsive electromagnetic interaction between deuterium nuclei and dark deuterium attached to palladium since the ordinary proton of deuterium nucleus is posited on a different space-time sheet, or in a "different world," than the dark protons of the target deuterium attached to palladium and palladium nuclei. This is only a part of the story and the overarching concept of transmutation is perhaps the more interesting idea, since it would make living matter a "natural alchemist" able to some degree to synthesize the nuclei it needs. Nuclear transmutations have indeed been observed in both experiments as well as in living matter.

### **"Electronic Alchemy" May Also Be Possible**

A many-sheeted space-time continuum also allows the possibility of chemical transmutations in which atomic nuclei are not only changed, but also the electronic clouds of atoms as well. This hypothesis can be proposed as the original explanation of ORMEs.

This "electronic alchemy" could be achieved by the dropping of valence electrons from the atomic space-time sheet to some larger space-time sheet. Presumably, the dropping of the same number of protons would also be required. These dropped protons and electrons would behave like dark matter. This would mean that the atom would behave like an atom with a full electronic shell (noble gas without practically any chemical interactions with respect to ordinary chemistry, but somewhat like the original atom with respect to dark matter interactions.)

Other options can also be imagined and I believe that there is a rich spectrum of possibilities waiting to be discovered

## Conclusion

For alchemists, it is indeed of primary importance that we understand that the concept of Transmutation is achievable and is a topic worthy of not only serious experimentation, but of academic interest as well. We look forward to following up on academic and scientific developments, and hope that it will lead to a more comfortable interaction between Alchemy and the physical sciences.

That said, as an alchemist, I will finish this work with an alchemical approach, seeing the Universe in simple concepts (after all, simplicity is of the very nature of the complex labyrinth of this marvelous Path we choose to follow.)

In summary, the guidelines for understanding Alchemical Transmutation are:

- There is One Power named Transmutation and it is the key of all.
- It is the accomplishment of the Great Work and the operation of the Stone.
- Adepts Can and Will perform it.
- Time is the secret agent.
- Evolution itself is the missing scientific link.
- "To make gold, you must have gold."
- Transmutation is the ultimate power of the Adept Alchemist.
- It affects ALL levels of what we know as REALITY.
- It brings forth eternal Perfection.
- Change is the only constant of the full Operation.

*"Sic Mundus creatus est. Hinc erunt Adaptationes Mirabiles, quarum Modus est hic." (In this way was the Universe created. From this comes many wondrous Applications, because this is the Pattern.) - Tabula Smaragdina (The Emerald Tablet)*

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