WALKING INSIDE THE FUTURE WITH SCHILLER, RIEMANN, PLATO, KEPLER AND RAPHAEL

An experiment in performative axiomatic change with Plato's idea of anamnesia, Schiller's moral man, Riemann's idea of thought mass, Kepler's sphere, and Raphael's *The School of Athens*

By Pierre Beaudry, 5/16/2016

INTRODUCTION

"Put on warm clothes, and expect the unexpected."

Putin to NATO, Süddeutsche Zeitung.

I concluded my last report with the following provocative question: What is most vital for the survival of mankind: forecasting what is to be expected or be in the paradoxical state of expecting the unexpected; that is, the *unknown of all the unknowns!?* That question is the reason why man was created in the first place. That is the state of pure creativity. And the irony is that most human beings who have lived on this Earth have had a chance to experience this state of existence but have failed to discover its benefits. A few still have a memory of it, most have lost it completely. Why do they fail? Because the vast majority of people believe in the fallacy of public opinion; that is, the fallacy of the *a-priori* type of fraud known as "*post hoc, ergo propter hoc.*" (after that, therefore because of that)

When you are in front of a new historical strategic situation, the best way to discover an unexpected event before it occurs is to scan rapidly the world scene in

order to spot the anomaly, the odd thing that strikes out at you, as if from the darkness of a background that seems impenetrable, like the darkened wall of Plato's Cave. In other words, you must first have knowledge of what is considered to be a normally accepted scene in world affairs; and then, spot the abnormality as if it were coming out at you from some unknown place and for some unknown reason. Then, ask yourself: What is wrong with this scene? What is this strange thing doing there? What does it mean?

In a way, Bernhard Riemann used this simple method of foraging in order to develop the main propositions of his thesis in his <u>habilitation dissertation</u>. He took one look at the scene of classical geometry and asked himself: What is wrong with Euclidean space?

When he first looked at that scene, he was confronted with a predisposed geometrical space giving itself as a complete and well defined manifold of determinations which were made to be accepted as self evident, but which was hiding underlying assumptions. However, when he applied that space to the real world, Riemann discovered that certain physical realities that took place in the world could not be explained under such conditions, and therefore, the whole Euclidean system could no longer be accepted without questioning its underlying assumptions. That's the epistemological measure you are looking for in your own mind if you wish to search for the unexpected. However, it is not the unexpected thing, in itself, that you are looking for. It's your ability to measure up to it when it hits you.

At any rate, that measure is not a mathematical measure, because you are not looking for the determination of some metric relationship. You are not looking either for some silly Newtonian action-reaction event. You are looking for the knowledge of an unspoken physical and mental reality. What you are looking for is an epistemological relationship whereby one monad can be measured by every other monad and which is being directed by a unique universal manifold from the top down; that is, from the outside in. And, finally, if you do that, you will discover that you are quite alone in your quest, because most people around you will fail to

understand what you are up to and will disagree with your choice of orientation. As Lyn put it:

"But the key thing lies not in the personnel as such. It lies in the development of the personnel and development of the character of their behavior and their mission-orientation. And that is the factor which wins the war! In other words, this is not a matter of a number of people who are fighting the war, not the ones who have gained this or gained that; that is not the issue. The issue is, can the human species produce from within its own ranks, a body of people who will meet the challenge of defeating the kind of evil we have to face now." (Lyndon LaRouche, **MORNING BRIEFING**, Friday, May 13, 2016)

1. ON THE PERFORMATIVE ACTION OF CHANGE

"The only way to eliminate the natural state of force in the current barbaric state of human society is to performatively set the example of exterminating that natural force within you, by yourself."

Dehors Debonneheure

There is no way to know where to find the unexpected, but there is a way to find out how to get to it. Riemann showed the pathway to get there in his Doctoral Dissertation: *On the Hypotheses which Lie at the Foundation of Geometry*. What Riemann presented in his habilitation dissertation is a sort of roadmap to go into the form of unknown that I would call the unexpected; that is, a form of unknown which changes you as you discover it. This is what I have identified in several of my previous reports as *the performative action of change*.

A performative action is a complex epistemological function which Riemann made effective use of in his own dissertation, and which implies that he actually caused a change in another person's mind, by means of making the same change in his own mind, and by walking the reader through the pathway of the stated process. Implicitly, the reader will say to himself that if this process worked for Riemann, it will probably work for him as well, but, it doesn't necessarily mean that it will be as successful. If you wish to see how this performative epistemological function works, try the case of winding a clock while the clock is still ticking. The difficulty, here, is how to make the change while you keep time.

So, how do you wind up the human clock in such a way that human society doesn't run down at the same time? How can you improve the winding of human society as a whole in a manner such that not only the human clock will keep on ticking, but it will also keep better time in the future? How can time be still ticking while you are making the changes? That's the paradoxical idea that you want to solve. How does that function? What happens to time while you are winding the clock?

The way to wind a clock and account for the time it takes while you are doing it, is to do it from the future; that is, by projecting yourself ahead of time and pull yourself from where you wish to go to for the benefit of mankind. In other words, time reversal is the measure of change because change is the measure of time reversal. That's the way the old boot-strap principle works.

The performative process of change appears, therefore, as a double action of doing something and saying what you are doing at the same time, but this is just a surface effect. A performative action is actually a revolutionary way of modifying the singularities of a system in the small in order to create changes of that system in the large without destroying it. It is a means of going from a lower manifold to a higher manifold by solving the previous anomalies of the system.

In his third letter **ON THE AESTHETIC EDUCATION OF MAN**, Friedrich Schiller demonstrated how the natural state of man is in conflict with the moral state of man, because nature is incapable, by itself, of establishing reason as the rule of law in human society. Nature can only use force. In such a case, man must change the natural state of man, which is self-centered and destructive, and replace such an animal state of force with a state of human law, without destroying humanity. This is the decision that mankind must make in today's historical

strategic situation. The great question here is: How does man go from natural animality to reason? Schiller's Third Letter formulated the problem as follows:

"Nature begins with Man no better than with the rest of her works: she acts for him where he cannot yet act as a free intelligence for himself. But it is just this that constitutes his humanity, that he does not rest satisfied with what Nature has made of him, but possesses the capacity of retracing again, with his reason, the steps which she anticipated with him, of remodeling the work of need into a work of his free choice, and of elevating physical into moral necessity.

"He comes to himself out of his sensuous slumber, recognizes himself as Man, looks around and finds himself—in the State. An unavoidable exigency had thrown him there before he could freely choose his station; need ordained it through mere natural laws before he could do so by the laws of reason. But with this State based on need, which had arisen only from his natural endowment as Man, and was calculated for that alone, he could not and cannot as a moral being rest content—and woe to him if he could! With the same right, therefore, by which he becomes a man, he leaves the dominion of a blind necessity, since he is parted from it at so many other points by his freedom, as—to take only a single example—he effaces through morality and ennobles through Beauty the low character which the needs of sexual love imprinted on him. He thus artificially retraces his childhood in his maturity, forms for himself a state of Nature in idea, which is not indeed given him by experience but is the necessary result of his rationality, borrows in this ideal state an ultimate aim which he never knew in his actual state of Nature, and a choice of which he was not then capable, and proceeds now exactly as though he were starting afresh and substituting the status of independence, with clear insight and free resolve, for the status of contract. However artfully and firmly blind Lawlessness has laid the foundations of her work, however arrogantly she may maintain it and with whatever appearance of veneration she may surround it—he may regard it during this operation as something that has simply never happened; for the work of blind forces possesses no authority before which Freedom need bow, and everything must yield to the highest ultimate aim which Reason sets up in his personality. In this way the attempt of a people that has reached maturity to transform its natural State into a moral one, originates and vindicates itself.

"This natural State (as we may call every political body whose organization is ultimately based on force and not on laws) is now indeed opposed to the moral man, for whom mere conformity to law is now to serve as law; but it is still quite adequate for the physical man, who gives himself laws only in order to come to terms with force. But the physical man is actual, and the moral man only problematical. Therefore when Reason abolishes the natural State, as she inevitably must do if she wishes to put her own in its place, she weighs the physical and actual man against the problematical moral man, she ventures the very existence of society for a merely possible (even if morally necessary) ideal of society. She takes from Man something that he actually possesses, and without which he possesses nothing, and assigns to him in its place something which he could and should possess; and if she has relied too much upon him she will, for a humanity which is still beyond him and can so remain without detriment to his existence, have also wrested from him those very means of animality which are the condition of his humanity. Before he has had time to hold fast to the law with his will, she has taken the ladder of Nature from under his feet.

"The great consideration is, therefore, that physical society in time may not cease for an instant while moral society is being formed in idea, that for the sake of human dignity its very existence may not be endangered. When the mechanic has the works of a clock to repair, he lets the wheels run down; but the living clockwork of the State must be repaired while it is in motion, and here it is a case of changing the wheels as they revolve. We must therefore search for some support [emphasis is mine] for the continuation of society, to make it independent of the actual State which we want to abolish.

"This support [emphasis is mine] is not to be found in the natural character of Man, which, selfish and violent as it is, aims far more at the destruction than at the preservation of society; as little is it to be found in his moral character, which ex hypothesi has yet to be formed, and upon which, because it is free and because it is never apparent, the lawgiver can never operate and never with certainty depend. The important thing, therefore, is to dissociate caprice from the physical and freedom from the moral character; to make the first conformable with law, the second dependent on impressions; to remove the former somewhat further from

matter in order to bring the latter somewhat nearer to it —so as to create a third character which, related to these other two, might pave the way for a transition from the realm of mere force to the rule of law, and, without impeding the development of the moral character, might serve rather as a sensible pledge of a morality as yet unseen. (Friedrich Schiller, <u>Excerpts</u> from On the Aesthetic Education of Man, (1795)

What sort of "support" can be found as a safety net for the continuation of society while the human clock is being changed? There is only one way to do away with the animalistic nature of man, and save humanity at the same time; it is by increasing the energy-flux-density of the human mind per capita; and that can only be done by performing as many exemplary individual axiomatic transformations as one can accomplish throughout the world at this crucial moment in time, so that humanity finally becomes strong enough to realize it must now either make that leap into the future or perish as a whole.

2. BERNHARD RIEMANN AND THE THOUGHT MASS EXPERIMENT

The historical moment has come when every human being must participate in the crucial action of transforming mankind for its future survival. This action is both an aesthetical action and strategic in character; that is, it must respond to a military command which is aimed at eliminating war from all future society of mankind and it must appeal to human creativity. The time has come when man must now grow up and leave his historical animality behind. This is what the intention of Bernhard Riemann's Philosophical Fragments were all about. It may not be obvious to the reader at first sight, and it may even be quite unexpected coming from a scientific mind; but, as the reader will discover, those fragments are quite performative with respect to the epistemological subject at hand.

Mankind, today, faces its greatest challenge in all of human history and the outcome of the present strategic situation will depend on the understanding that

people have of the following Riemannian series of insightful epistemological fragments.

Philosophical Fragments

Bernhard Riemann

"With each simple act of thinking, something durable, substantial, enters our mind. This substance appears to us, in fact, as a unity, but it appears (insofar as it is the expression of space and time extension) as comprising a subsumed manifold; I name this a 'thought mass.' To this effect, all thinking is the development of new thought masses.

"The thought masses entering into the mind appear to us to be images;

their varying internal states determine how they differ qualitatively.



"As they are forming, the thought masses blend; or are folded together, or connect to one another and also to older thought masses, in a precisely determined manner. The character and strength of these connections depend upon causes which were only partially recognized by Herbart, but which I shall fill out in what follows. They rest primarily on the internal relationships among the thought masses.

Figure 1 Bernhard Riemann (1826-1866)

"The mind is a compact, multiply connected thought mass with internal connections of the most intimate kind. It grows continuously as new thought masses enter it, and this is the means by which it continues to develop.

"Thought masses once formed, are imperishable; and their connections cannot be dissolved; only the relative strength of these connections is altered by the addition of new thought masses.

"Thought masses need no material carrier for their continued existence, and exert no lasting effect upon the physical world. Therefore they are not related to any portion of matter, and have no position in space.

"On the other hand, a material carrier is required for every entry, generation, every formation of new thought masses, and for their unification. Thus all thinking does occur at a definite place.

"(It is not the retention of our experience but only thinking, which is strenuous; and this exertion of effort, in so far as we can estimate it, is proportional to the mental activity.)

"Every thought mass which enters the mind, stimulates all thought mass to which it is related, and does so the more strongly the less the dissimilarity between the internal states (quality).

"This stimulation is not confined, however, merely to related thought masses, but also extends, through mediation, to those that are linked with them (that is, connected by previous thought processes). Thus if among the related thought masses, a portion is linked, these will be stimulated not merely directly but also through mediation, and therefore will be stimulated proportionally more strongly than the rest.

"The reciprocal action of two thought masses being formed at the same time, is conditioned by a material process between the places where they are both being formed. Likewise, for material reasons, all thought masses being formed enter into unmediated interaction with those formed immediately before; however, through mediation, all older thought masses linked to these will also be stimulated into activity, although to a weaker degree according to the diminished amount and increased distance of their connections.

"The most general and simplest expression of the effectiveness of older thought masses is in their reproduction, which occurs when an active thought mass strives to reproduce one similar to itself.

"The formation of new thought masses is based partly on the combined effect of older thought masses, partly on material causes; and these, working together, are retarded or advanced according to the internal dissimilarity or similarity of the thought masses whose reproduction is sought." (Bernhard Riemann, <u>PHILOSOPHICAL FRAGMENTS</u>, translated by David Cherry, 21st Century Science & Technology, Winter 1995-1996.)

One should not confuse a *thought mass* with what philosophers generally identify with an idea or with an object. An idea is a single concept representing either a process or a thing; while a *thought mass* is a manifold of ideas in action. Moreover, a *thought mass* is not an "object" and cannot be treated like the mind usually deals with sense perception objects. Therefore, it would be wrong to translate "*geistesmassen*" by "thought-object." "*Mass*" or "*messen*" also means musical measure and a limit.

A *thought mass* is a group of interconnected ideas forming a coherent whole in a process of change which can be characterized as belonging to a specific family of transformative or performative knowledge. The laws of physics, for example, form a *thought mass*; but then again, recipes for baking pies also form a *thought mass*. However, their transformation powers do not belong to the same family, and their performative powers for change are not the same.

The specific *thought mass* that I am concerned about, here, are related to historical *thought masses* expressing axiomatic principles concerning God, Man, and Nature, and how such principles can be transformed from lower to higher manifolds by means of axiomatic changes. Such *thought masses* belong to the domain of epistemology and their historical elaborations originally came from both Greece and China, most notably from Plato and Confucius. For my purpose, here,

"thought mass" has a very precise epistemological boundary condition as "amatterofmind," which I can best represent as a Lydian musical resonance of change that I have identified in previous reports on Music. Some people have difficulty with this modality because the boundary condition keeps on changing depending on the extension of the n-fold manifold.

The way that I have represented such an axiomatic change, in several of my reports, was as a galactic toroidal function, that is to say, a *thought mass* of historical discoveries of principle. Riemann had identified such a process as his measure of curvature in his habilitation dissertation; that is as n [n-1]/2, an equation that I have been using, since 1996, as a conceptual function of position for my Poloidal/Toroidal ratios in all discoveries of principle. (See my <u>Video</u> <u>Class</u> on **Time Reversal** of 1996.)

In this case, I used a variation of the theorem that Poinsot used for prime numbers. That is, the following measureofmind: If you have n intervals of doubly-extended circular action arranged in a Torus, and you join them from h to h, h being relatively prime to n, the moving line of the Torus will necessarily pass through all of the n intervals before returning to its starting point; and it will have necessarily covered n times n minus 1 over 2 the poloidal circumference of the Torus, and h times n minus 1 over 2 the entire toroidal circumference of the Torus. In other words, The Poloidal action = n [n-1]/2 and the Toroidal action = h [n-1]/2.

Riemann may have actually used a similar function of position when he stated: "for determining the metric relations of an n-fold extended manifold representable in the prescribed form, in the foregoing discussion n [n-1]/2 functions of position were found needful; hence when the measure of curvature in every point in n [n-1]/2 surface-directions is given, from them can be determined the metric relations of the manifold, provided no identical relations exist among these values, and indeed in general this does not occur." (Bernhard Riemann, *On the Hypothesis which Lie at the Foundations of Geometry*, Translated by Henry S. White, Vassar College, Poughkeepsie, N. Y. In *Source Book in Mathematics*, by David Eugene Smith, Dover Publication, Inc., Mineola, N.Y., 1959, p. 418.)

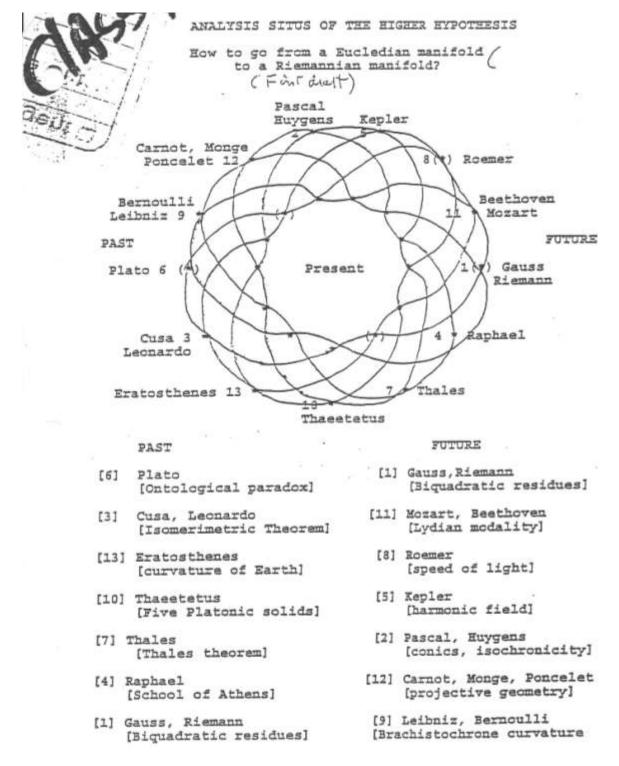


Figure 2 Original 1996 copy of the modular wave function for a *thought mass* of 13 discoveries of principles. The P/T ratio is 6/13 and the actual prime ordering of the discoveries are 1, 6, 10, 8, 9, 2, 12, 7, 3, 5, 4, 11, 1. Video Class.

I suggest to the reader that he take the time to identify for his own benefit, the number of discoveries of principle that he has made during his lifetime and that he create a *thought mass* representing, in his own mind, its living transformation. The above **Figure 2** is a mere representation of a series of discoveries of principle that I had made up until 1996, and which I have enfolded into a *thought mass* representing the action of time reversal on its evolution. In other words, this *thought mass* represents a total of thirteen discoveries which are not ordered chronologically, but which are acting to change each other isochronically, in a manner analogous to biquadratic residues, in the simultaneity of eternity.

3. THE BEAUDRY SPHERE AS AN AXIOMATIC THOUGH MASS

Think of the process of change in Spherics in the way that Kepler had conceived of the sphere as an exemplar of the Christian Holy Trinity. As Kepler put it:

"This [sphere], then, is the authentic; this is the most fitting image of the corporeal world, which anything that aspires to the highest perfection among corporeal created things takes on, either simply or in some respect. [The spherical is the archetype of light and likewise of the world] The bodies themselves were confined separately within the limits of their surfaces and could not by themselves have multiplied themselves into an orb. For this reason, they were endowed with various powers, which, though they do have their nests in the bodies, nevertheless, being somewhat freer than the bodies themselves and lacking corporeal matter (though they do consist of their own kind of matter which is subject to geometrical dimensions), may proceed forth and might try to achieve an orb, as appears chiefly in the magnet, but appears plainly in many other instances. What wonder, then, if that principle of all adornment in the world, which the divine Moses introduced immediately on the first day into barely created matter, as a sort of instrument of the Creator, for giving form and growth to everything [In

praise of light] – if, I say, this principle, the most excellent thing in the whole corporeal world, the matrix of the animate faculties, and the chain linking the corporeal and spiritual world, has passed over into the same laws by which the world was to be furnished. The Sun is, accordingly, a particular body, in it is this faculty of communicating itself to all things, which we call light; to which on this account at least is due the middle place in the world, and the center, so that it might perpetually pour itself forth equably into the whole orb. All other things that have a share in light imitate the sun." (Johannes Kepler, *Optics: Paralipomena to Witelo and the Optical Part of Astronomy*, Translated by William H. Donahue, Green Lion Press, Santa Fe, New Mexico, 2000, p. 19)

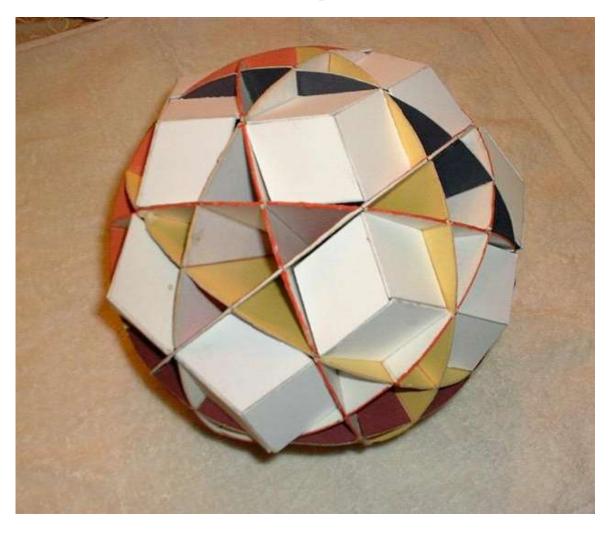


Figure 3 The Ten-Circle Beaudry Sphere generating the five Platonic Solids.

The triply-connected geometric *thoughts mass* of the Beaudry Sphere represents, in a geometrical form, the process of an axiomatic change generated from the higher manifold of the sphere to the lower manifold of the polyhedron. The inversion of the center of the sphere projected outward into the 20 vertices of the dodecahedron is the result of an invisible process of axiomatic transformation going from the sphere of positive curvature to the polyhedron by means of negative curvature; that is to say, by going from the higher manifold of spherical space to the lower manifold of the polyhedron. What is significant in this unexpected transformation from positive to negative curvature is a little known physical process of inversion that Kepler was the first to elaborate in his *Optics: Paralipomena to Witelo and the Optical Part of Astronomy.* The transformation is made through the caustic of a surface of negative curvature.

Kepler noted in his 1604 paper that when sunlight was projected through a sphere filled with water, the light rays that passed through the sphere transformed the image projected on the surface of positive curvature at one end was transformed into a surface of negative curvature at the opposite end. See **Figure 4**. Such an inversion of invisible rays of light became concentrated into an invisible conical focus that transformed the entire scene in front of the sphere into an inverted flat image of itself in the back of the same sphere. The axiomatic transformations of the human mind proceed in a similar fashion by increasing its energy-flux-density through the process of an axiomatic transformation.

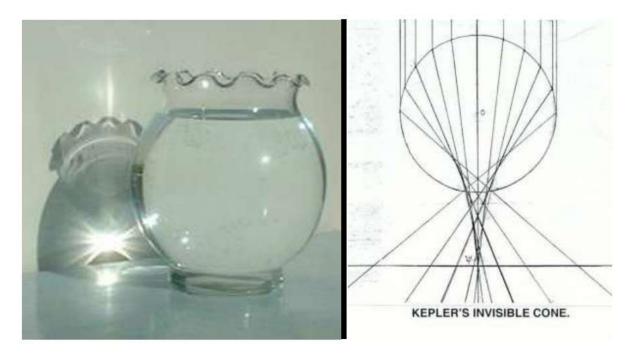


Figure 4 Kepler showed how the hot direct sunlight projects through cold water as the singularity of a caustic of inversion [a high density of non-linear singularities which Kepler admits having "despaired of defining geometrically the exact point at which this last intersection occurs." (*Ibidem*, p. 205)] The last intersection of the caustic of negative curvature, as shown in Kepler's invisible cone, at ψ , is the locus where the total image of the image inversion appears as a whole in the formation of a gestalt that shows how the future changes its past by construction. The same effect takes place, performatively, at the point of a new discovery of principle, as the impact of it gets reflected everywhere in the invariant cross-section of the mind of the discoverer, and thus, changes everything else in the mind's past existence. (See my report: HOW TO DELIGHT YOUR MIND WITH KEPLER'S SNOWFLAKE)

Think of the transformation from old axioms into new ones as a process that is generated from the center of the Beaudry Sphere as being such a caustic of negative curvature through the entire body of the sphere to the surface of positive curvature of the sphere as a process where three levels, the center, the interval, and the surface are not separated, but form a single process of self-transformation which goes from positive, negative, and zero curvature. Think of zero curvature as

the boundary condition between positive and negative curvature. This change operates as a self-reflective process which is enfolded in a *though mass* transforming itself from the outside of the future into the inside of the present by time reversal. As Lyn put it:

"The ability to adduce a truly universal physical principle, must be prescribed, instead, as requiring the developed ability to present a current forecast of what must be also a quality of that true foresight which goes intrinsically into a true sense of an actual future which actually exists only beyond the alleged 'powers' of mere sense perception, but, which, rather, exists only within the actual process of generating a future!

"For example: in relatively customary cases, there is a very limited ability to forecast an actual change in principle of action, insofar as my own experiences with frequently successful forecasting experiences, have often successfully demonstrated. 'Experiencing an unexpected development,' which had occurred in the course of forecasting a development of that type, occurs among some persons, but never actually occurs 'as if deductively.'"(Lyndon LaRouche, HOW THE FUTURE BUILDS ITS PAST, EIR, August 23, 2013, p. 6)

The rotating inversion involves an action similar to turning a glove inside out; that is where the constructive proof of building polyhedra from the sphere is located. This is also what Lyn had identified as "Walking Inside the Future." He described it as follows:

"Insofar as we know presently, the human species is the only form of life which has the capability of foreknowledge of future events and related developments. A very much smaller fraction of that total human population has shown active insight into the implications of that fact. Nonetheless, despite the latter fact of the present situation, the fact that some living human persons manifest such a capability with significant facility, is sufficient to define that capability as being a universal principle of our said species.

"The crucial distinction of those actively prescient of their own such capability, is that they have some significant degree of actual knowledge of the practical implications of the special intellectual capabilities involved. Hence, I identify such persons as "Walking Inside the Future." [My emphasis] (Lyndon LaRouche, HOW THE FUTURE BUILDS ITS PAST, EIR, August 23, 2013, p. 9)

The process involves the interaction of no less than walking through four main principles of discovery identified above in the 1996 epistemological *though mass* experiment of interconnecting 1) The Gauss-Riemann discovery of biquadratic residues, 2) Plato's Ontological Paradox, 3) the Theaetetus discovery of the Five Platonic Solids, and 4) the Kepler harmonic field.

4. HOW PLATO CHANGED THE PAST THROUGH ANAMNESIA

"Memory knows where everything is; but, where is memory?"

Dehors Debonneheure

There is an ambiguity in the nature of anamnesia. It is a performative action of double negation, a negation of a negation. That is to say, if amnesia is the loss of memory, then, anamnesia must be the resistance in the process of recovering what had previously been lost. In other words, anamnesia is not simply "remembering," but "resisting the oblivion of forgetting." This is the equivalent of an act of epistemological warfare against the present degeneracy of civilization.

More to the point, however, anamnesia is the performative gesture which underlies the very tension of the creative process itself, between the remembrance and the forgetting within its own articulation. It is the creative act of creating change and of fearing its outcome by resisting its oblivion at the same time. Similarly, by remembering things that he didn't know from a doubtful previous existence, Plato created the performative pathway to change the past by time reversal. Thus, the crucial issue about anamnesia is not to remember, but to

discover how to performatively change the past by time reversal; that is, discovering how the mind destroys its past and resurrects it in a transformed fashion at the same time for the future.

The function of anamnesia that Plato referred to in his *Meno, Phaedo*, and *Phaedrus*, is a metaphor reflecting the process of rediscovering in the human mind what had been discovered before for the benefit of the collective *thought mass* of humanity, and which mankind has the ability to change. Yes, you can change the past. Start with the performative example of Socrates in dialogue with Meno, just before the slave boy made the discovery of how to double the area of the square. Socrates said:

"SOCRATES: [...] As for myself, if the sting ray paralyses others only through being paralyzed itself, then the comparison is just, but not otherwise. It isn't that, knowing the answers myself, I perplex other people. The truth is rather that I infect them also with the perplexity I feel myself. So with virtue now. I don't know what it is. You may have known before you came into contact with me, but now you look as if you don't. Nevertheless I am ready to carry out, together with you, a joint investigation and inquiry into what it is.

"MENO: But how will you look for something when you don't in the least know what it is? How on earth are you going to set up something you don't know as the object of your search? To put it in another way, even if you come right up against it, how will you know that what you have found is the thing you didn't know?"

"SOCRATES: I know what you mean. Do you realize that what you are bringing up is the *trick argument* [my emphasis] that a man cannot discover either what he knows or either what he does not know? He would not seek what he knows, for since he knows it there is no need of the inquiry, nor what he does not know, for in that case he does not even know what he is looking for." (Plato, *Meno*, *80cd*, translated by W. K. C. Guthry.)

Indeed, how can you recognize what you don't know when you don't even know what it is? That is the performative state of perplexity that one must find oneself into when confronted with the discovery of a principle. *How do you know the unknown? How do you discover the unexpected?* That is precisely the "trick argument" you are looking for. You cannot discover anything unless you are confronted with something that is unexpected and perplexing. And, you will not be confronted by it unless it hits you in the face. Therefore, what you are looking for is not the unknown, but the pathway to get to it just ahead of you. In other words, when you are confronted with such a situation, it is the perplexity of unexpectedness itself, which provides the entrapment that takes you into the unknown. That's the pathway of the present future.

But, most people are practical and will avoid such an entrapment at the very first glance. They will argue like the Socrates "*trick argument*" that if you know it, you don't need to look for it, and if you don't know it, you are wasting your time looking for it. Most people will be practical and say it is useless to look for such knowledge because, either you have it or you don't. So, why bother with it?

Similarly, in the *Phaedo*, Plato investigated the *thought mass* of anamnesia by means of *noesis* (intellectual connection) through *catharsis* (purification from sense perception). After a lengthy discussion on the subject or *anamnesis* (reminiscing), Socrates said:

"And unless we invariably forget it after obtaining it, we must always be born knowing and continue to know all through our lives, because 'to know' means simply to retain the knowledge which one has acquired, and not to lose it. Is not what we call 'forgetting' simply the loss of knowledge, Simmias?

"Most certainly, Socrates.

"And, if it is true that we acquired our knowledge before our birth, and lost it at the moment of birth; but afterward, by the exercise of our senses upon sensible objects, recover the knowledge which we had once before, I suppose that what we call learning will be the recovery of our own

knowledge, and surely we should be right in calling this recollection." (*Phaedo*, 75de, translation Hugh Tredennick.)

So, the question is: How can eternal truths be in our souls for all of eternity? Is there another option than to accept the fact that our soul must have existed before we were born? Or, does the soul come into being already stamped with universal knowledge? Are we immortal before we are born? Or do we already have the marks of universal characteristics? This is a very interesting question, and it is at the very center of the epistemic question of anamnesia. What is the true epistemological nature of anamnesia? Plato does not answer that question and the Neo-Platonists did not either. There is, however, a series of historical references to what I would call remembering the world-soul with Plotinus, Porphyry, and others, but most of them lead to fanciful mysticism.

Leaving aside all of the mythologies on the descent of the souls into the underworld, or about so-called experiences of metempsychosis, there is an interesting connection between Platonic anamnesis and the Christian Last Supper about which the Apostle Paul states:

"24 And when he had given thanks, he brake it, and said, Take, eat: this is my body, which is broken for you: this do in remembrance of me.

"25 After the same manner also he took the cup, when he had supped, saying, this cup is the new testament in my blood: this do ye, as oft as ye drink it, in remembrance of me." (King James Bible, *I Corinthian 24-25*)

Such an anamnesic moment is not a passive moment of remembering the past; it is an actual performative moment of changing the past by reliving what came to pass at Gethsemane and throughout the Crucifixion of Jesus. Leonardo da Vinci's fresco of *The Last Supper* is probably the most powerful celebration of that Christian anamnesia showing how to resolve the conflict of all discontents, struggles, perplexities, failures, disappointments, etc., in response to Christ's stinging statement: "One of you will betray me!"

But the most appropriate epistemological representation of a historical anamnesia is Raphael's *The School of Athens*. This painting is not merely an

intellectual remembrance of the Platonic Academy; it is an axiomatic action of transformation in the economy of universal ideas, which connects together multiple principles into a unique *thought mass*, the two world views of Platonism and Christianity, as a unique form of epistemological progress in the world. It is in that form of Simultaneity of Eternity, that the anamnesis of Raphael *makes the past present in the future*. This is the proof that *thought mass* never gets lost, and can never be destroyed, because it reflects humanity itself. Therefore, anamnesia is not recalling the details of the past; it is the reconciliation of all lawful memories of mankind, into a creative *thought mass* process of changing everything that man has known, including the unknown, in order to improve the future of humanity. *The School of Athens* is the perfect exemplar of a Riemannian *thought mass* of artistic composition.

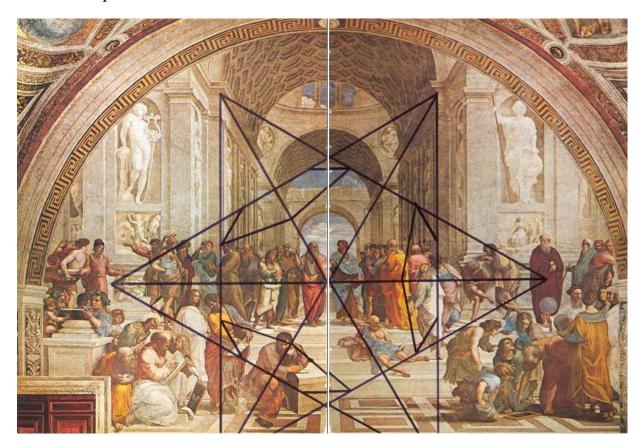


Figure 5 Raphael, <u>The School of Athens</u> (1509-1511) centered on **The Timaeus** of Plato and generated from the spherics of Platonic Solids.

"Imagine the following dialogue between a Religious Minister and a Philosopher who are paying a visit to the Vatican in Rome, and are standing in the center of the Room of the Signature, where are displayed the two great frescos of Raphael Sanzio, *The School of Athens* and *The Dispute of the Holy Sacrament*. As if he were standing in the center of a sphere, the Minister begins to realize the nature of his privileged position and, looking up in a state of total perplexity and admiration, asked the Philosopher:

- "- MINISTER: Don't you think that *The School of Athens* is the most extraordinary representation of our ancient heritage?
- PHILOSOPHER: No! I don't think that Raphael intended to paint that fresco as a representation of the past, but, rather, as a representation of the future that we are standing in the middle of today.
- MINISTER: I don't understand what you are saying. What do you mean by representing the future? These are all dead philosophers who lived before Raphael's time.
- PHILOSOPHER: That's right. Their physical envelopes are dead, but their minds are still very much alive through Raphael himself and through us. They are the immortals who have come together in this singular place with the intention of changing us in the future. You see, we have not really walked into a room of the Vatican; we have actually walked into the mind of Raphael. All of these scenes represent his state of mind. And, all of these people have come together in this singular place to show us the decision that Raphael had made with respect to his choice of orientation and destination for mankind. These thinkers have come to speak to you and me about their future. So, we are now standing in the middle of a stereographic Pythagorean Sphaerics projection, as if inside of a *dodecahedral nesting* of the Five Platonic Solids! (See **Figure 5**)
- MINISTER: I really don't understand a word you are saying. Please explain yourself more clearly.
- PHILOSOPHER: Sorry if I am being cryptic. It is actually very simple. What I mean to say is that Raphael has painted the idea of intention in the

simultaneity of eternity as LaRouche has identified the function of this concept in history. Raphael has painted the idea of the conditions of change that the Renaissance of a creative humanity is able to exert on the future of mankind, in order to modify the disastrous course of the present time, our time. And he has done that time change by means of Plato's *Timaeus*.

- MINISTER: I am not sure I follow you, but go on just the same.
- PHILOSOPHER: As LaRouche put it: "The existence of the real future of mankind's universe lies along a physical-dimensional "line" called (human) *creativity*, a notion which might be identified by the technical term *antientropy*. In this view, the existence of the universal future exists not as a fixed point in the future, but, rather, as if it were a wave of change in place and choice of ultimate destination, a change over which mankind can exert willful control by the future, on the present."
- MINISTER: I see! You mean to say that Raphael knew that we, in the future, would be investigating his mind and would be using his paintings to change the current direction of mankind?
- PHILOSOPHER: That is precisely correct. And, he was counting on us to use his ammunition as epistemological directed charges against the enemy.
- MINISTER: Do you realize what this means?
- PHILOSOPHER: No. What?
- MINISTER: This means that Predestination does not exist. This means that you have the freedom to change the future by changing the destination of mankind with creativity.
- PHILOSOPHER: That's right. You've got it! And the best part of it is that God is in agreement with that. This is what Raphael was doing in changing from what he had done in *The Dispute* to what he was hoping humanity could become in the future with the help of *The School of Athens*. And he did this by means of revolutionizing artistic composition, the very soul of which we are now contemplating.
- MINISTER: In other words, we are part of the subject of these two painting. We are the result of his intention.
- PHILOSOPHER: Yes, absolutely! Raphael painted *The Dispute* first, because it reflected the past and the present that had to be changed in order

to have *The School of Athens* reflect, afterwards, the future that humanity must become, in the simultaneity of eternity. But, he started with the future function of *The School of Athens* in his mind. He did not start from the past. This is why he painted the two frescos in such a manner that the two different manifolds would be folded together to become a single one in our minds, as we stand, here, in the center of this Room of the Signature." (Pierre Beaudry, <u>RAPHAEL SANZIO</u>, <u>THE SCHOOL OF ATHENS AND THE DISPUTE</u>, <u>PART I</u>)

In that sense, the Raphael anamnesia is not merely a remembrance of the past; it changes the past by uniting the past in the presence of the future. It connects the unknown with the known, the unexpected with what should have been known; it makes the future exist, finally, in the here and now, as the past should have been represented in all great artistic composition. The tragedy, today, is that such a thought mass has been systematically avoided and almost completely obliterated by so-called "modern art" in all contemporary societies.

CONCLUSION

As Cusa would have it, the denial of anamnesis is what makes man forget its previous need for learned ignorance; a tragedy which can take place within less than a hundred years of cultural degeneracy of human society. In other words, during my own lifetime, this is what has been happening to the world ever since the end of World War II. The collective *thought mass* memory of Americans and Europeans got lost within a few generations, or rather, within a few degenerations. This is what Socrates was referring to when society becomes forgetful by wars and distractions from the truth. As Socrates put it:

"Wars and revolutions and battles are due simply and solely to the body and its desires. All wars are undertaken for the acquisition of wealth, and the reason why we have to acquire wealth is the body, because we are slaves of its service. That is why, on all these accounts, we have so little time for philosophy. Worst of all, if we do obtain any leisure from the body's claims and turn to some line of inquiry, the body intrudes once more into our investigations, interrupting, disturbing, distracting, and preventing us from getting a glimpse of the truth. We are in fact convinced that if we are ever to have pure knowledge of anything, we must get rid of the body and contemplate things by themselves with the soul by itself. It seems, to judge from the argument, that the wisdom which we desire and upon which we profess to have set our hearts will be attainable only when we are dead, and not in our lifetime." (*Phaedo*, 66c-e)

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