



From the desk of Pierre Beaudry



**BAILLY’S METHOD OF DISCOVERY BY EPISTEMOLOGICAL
HYPOTHESIS: AN “ANALYSIS SITUS” APPROACH TO THE HISTORY
OF ANCIENT ASTRONOMY**

by Pierre Beaudry, Wednesday, September 09, 2009.



“The history of astronomy is an essential part of the history of the human mind.”

Jean Sylvain Bailly



Jean Sylvain Bailly

THE LIFE OF SYLVAIN BAILLY

Jean Sylvain Bailly was born on September 15, 1736, in the Louvre Museum, in Paris. His father was the keeper of the Kings Art Collection for which his family had a hereditary appointment. Home-schooled by his father in painting, and the fine arts, and by friends of the family in mathematics and astronomy, Sylvain did not show the talent of painting that his father was hoping he would develop in order to continue the family obligation, but did reveal himself to be a very serious student of astronomy, and had shown, early on, a true proclivity for profound philosophical thinking that he had developed in contact with the works of Gottfried Leibniz.

During the earlier part of his life, Bailly made an attempt at literature by writing two tragedies, entitled CLOTAIRE, and IPHIGENIE EN TAURIDE; but his adolescent muse of the arts had not blessed him with literary genius. However, there was a remarkable coincidence in the fact that the story of CLOTAIRE had been about a mayor of Paris who ends his life by being massacred by the Parisian mob- the very destiny that awaited him at the end of his political career.

Sylvain spent most of his days, and nights, making observations of stars and planets through one of the windows of the upper gallery of the Louvre, where he had set up a homemade observatory equipped with a telescope. In 1760, at the age of twenty-four, Bailly made successful observations of the oppositions of Mars, Jupiter, and Saturn, under the guiding eye of the mathematician and astronomer, Abbot Nicolas Louis Lacaille, famous for having discovered the parallax of the Moon. His work was so brilliant that Lacaille made him a member of the Academy of Sciences, in 1762, where he began to do research on the satellites of Jupiter.

After his first success in the Academy of Sciences, Bailly submitted a paper to the Academie Francaise. The subject proposed by the Academy, in 1767, was on the life of Kings. Bailly chose to write a EULOGY OF CHARLES V, for which he obtained only an honorable mention. However, Francois Arago, the astronomer-biographer of Bailly from the Ecole Polytechnique, saw in this early piece, the principles and ideas that would shape the political life of the future leader of the French Revolution. Arago wrote: *“Those thoughts, however, would have defied the most squeamish mind, the most shadowy susceptibility. The panegyrist unrolls with emotion the frightful misfortunes that assailed France during the reign of King John. The temerity, the improvidence of that monarch; the disgraceful passions of the King of Navarre; his treacheries; the barbarous avidity of the nobility; the seditious disposition of the people; the sanguinary depredations of the great companies; the ever recurring insolence of England; all this is expressed without disguise, yet with extreme moderation. Nothing seems to reveal, not even foreshadows in this author, the potential President of the National Assembly, or even the future Mayor of Paris during the revolutionary upheaval. Yet, the author may*

even make Charles V say that he will discard favor, and that he will select his representatives on the basis of merit; it will still appear to Bailly that taxes ought to be laid on the rich and spared on the poor; he will even go as far as claiming that oppression is a means of awakening the idea of equality...when moderation is united to firmness, it becomes power.” (1)

In 1767, Bailly responded to the call from the Academy of Berlin which proposed a prize for a EULOGY OF LEIBNIZ. Bailly won the prize. Bailly displayed a true understanding of the UNIVERSAL LEIBNIZ, and showed a remarkable mastery of his calculus. Bailly also obtained prizes for eloquence from the Academy of Rouen, on the subjects of Corneille, Racine and Moliere, in 1768. Furthermore, it is essential that the scientific contributions of Bailly be reestablished here from the distorted pages of French officialdom ever since the Revolution; that is, especially his unique contribution in the domain of the history of ancient and modern astronomy, which bring to the light of day how his choice of study, was as noble and profound as the character of the man himself.

For a period of 9 years, from 1762 to 1771, Bailly wrote several essays on astronomy, one of which, a {Theory of the Satellites of Jupiter}, led him to write a much more considerable work on the history of astronomy. In 1775, he wrote the {History of Ancient Astronomy}, which became an immediate controversial best seller, because it was in opposition to Voltaire’s view that, in his {Philosophy of History}, located the origin of astronomy in India, while Bailly located it origin in the Atlantis, and the northern islands of Asia. Bailly then published {Letter on the Origin of Sciences} (1777), and {Letters on the Atlantis of Plato}(1779) and {History of Modern Astronomy} (1782). As a result of this extraordinary work, Bailly rapidly became the most celebrated historian of astronomy in Europe, and a rare example of triple membership in the {Academie des sciences, the Academie des inscriptions, and the Academie Francaise}. In 1787, he completed an additional volume on astronomy with the {History of Indian Astronomy}.

In 1789, Sylvain Bailly saw himself catapulted onto the political scene as if in spite of himself. (2) On the 21st of April 1789, the citizens of Chaillot named Bailly their elector for that district. On May 12th, the assembly of electors chose Bailly for the nomination of first deputy of Paris. From that moment on, the events of the French Revolution elevated Bailly successively to the functions of President of the Third Estate, President of the National Assembly, and first Mayor of Paris. During the extraordinary days of June 17, 20 and 23rd of 1789, Bailly, with the collaboration of General Marquis de Lafayette, participated in the highest and most crucial moment of the Revolution, a moment that shall be remembered and celebrated, in the history of the world, as the founding moment of the modern nation of France, resonating, within the sphere of SIMULTANEITY OF ETERNITY, as an echo of Benjamin Franklin’s 1776 Declaration of Independence of the United States of America. On June 20, Bailly wrote and proclaimed THE TENNIS COURT OATH: *“An oath to never separate, and to assemble wherever circumstances might render it requisite, until the Constitution of the Kingdom should be established and confirmed on solid foundations.”*

On August 4, 1789, all of the efforts that Bailly and Lafayette had put in the act of constitution of the National Assembly were consummated in one extraordinary event. During the day, Lafayette's *Declaration of the Rights of Man and of the Citizens* were voted and passed by the National Assembly. In the evening, the nobility, carried by the enthusiasm of the day, repudiated their own feudal privileges forever. Bailly noted that this was “*the night of destruction (of privileges) and of public happiness*”. The French oligarchy considered this to be the “*Saint Bartholomew of properties.*”

After two years of magistracy, Bailly resigned his post at the Paris City Hall. Jean-Paul Marat, a trained Swiss/British agent under the control of Lord Shelburne, had launched a systematic slander campaign against him. Ultimately, Bailly found himself accused of having organized the escape of the King's family out of France, with the collaboration of Lafayette. In October of 1793, a friend, Charles Marquis de Cassaux offered to pay for Bailly's safe passage to England, and then to America. Bailly refused these warm solicitations, and answered Cassaux: “*From the day that I became a public official, my fate had become irrevocably united with that of France; never will I quit my post in the moment of danger. Under any circumstances my country may depend on my devotion. Whatever may happen, I shall stay.*” He was found guilty, and was executed on November 12, 1793. After his condemnation, Bailly reported this crucial insight to his friend Lafayette: “*I die for the sitting of the Tennis Court, and not for the fatal day at the Champs de Mars.*”

(1) Francois Arago, {Biographies of Distinguished scientific men}, Boston: Ticknor and Fields, 1859 p.107-108.

(2) Pierre Beaudry, {Jean Sylvain Bailly: The French Revolution's Benjamin Franklin,} EIR, Volume 28, Number 4, January 26, 2001.

This introductory report on the scientific work of Jean Sylvain Bailly intends to establish, for the historical record, the true nature and significance of a man who was the friend and political collaborator of Benjamin Franklin, and Marquis de Lafayette, who was the first Deputy of Paris to the Estates General, the first president of the French National Assembly, and the first Mayor of Paris, during the early years of the French Revolution. Sylvain Bailly was not only a great political leader, and the “Founding Father” of modern France, but he was also a scientist of great stature, and the first great historian of astronomy in France. The following report reviews the highlights of Bailly's contributions to the domain of history of ancient astronomy.

THE EPISTEMOLOGICAL HYPOTHESIS

The uniqueness of Bailly's method, in his *History of Ancient Astronomy*, is that he developed a veritable Platonic dialogue with ancient civilizations; that is, he established an *{“analysis situs”}*, or a *{geometry of position}* with their minds without going on location. Knowing that he would not find empirical evidence if he did go to the relevant ancient countries, Bailly resorted to making extrapolations into the minds of these ancient peoples, based on the epistemological condition that the principle inferred would correspond to the universally acceptable quality of an idea. Then, as Plato did, in his famous metaphor of the cave, in the *Republic*, Bailly projected into the reader's mind, the dialectical quality of his own discoveries, and forced him to compare the traces of ancient thinkers with the cognitive quality of his own mind, thus enabling him to draw out, for himself, a communicable truth as an admissible proof of the validity of his method. In other words, Bailly creates a cognitive dialogue between 1) the mind of an ancient and extinct people, 2) the judgement of Plato about that people, or the fragment of a fable from a third people, and 3) the mind of the reader in the future. This is how the imperceptible truth of a forgotten people can become known and communicated to another mind, from time immemorial to thousands of years into the future, from thousands of years in the past.

The hypothesis developed by Bailly stems from a very special paradox. Bailly recognized that, on the one hand, the original ancient people that made fundamental discoveries in astronomy did not leave us any documented evidence of its knowledge; but that, on the other hand, the only knowledge, that we do have of such discoveries, has been derived from less ancient and secondary civilizations who were not the inventors of that knowledge. The reader might be surprised and puzzled by such a hypothesis, and wonder: *{“How can anyone demonstrate the existence of a people which has not left any direct evidence of its existence?”}*

Indeed, first of all, how can anyone prove that, in time immemorial, there existed a science of which we have no record, and that, furthermore, a {knowledgeable and morally disciplined people} created it? And secondly, how can it be proven that a civilization, that had been making astronomical observations for thousands of years, was not the inventor of that science? Aren't these pretty outrageous statements to make? Indeed, these are some of the most fascinating questions at the heart of Bailly's contributions to the history of ancient astronomy, and to the history of ancient man.

The reason why these questions may appear to be so extravagant, at first glance, is really caused by the fact that we have been brainwashed into looking at history from the standpoint of British style archeological discovery of hard empirical facts, fabricated or not, as opposed to searching for the history of ideas. The method used by Bailly is precisely that of the history of ideas; that is, a method of *{epistemological hypothesis}* projected from the light of reason upon unknown patches of history, shedding light on

fragments and shreds of evidence, and reading their shadows as fundamental signs of truth that are about to leap out from Plato's cave.

Bailly's second, and complementary hypothesis, concerning the original source of ancient astronomy, is even more disturbing. Contrary to accredited and accepted knowledge of the times, Bailly claimed that the origin of astronomy did not come from India, as was established by Voltaire and others, but originated from the northern regions of the globe, initially from the navigator-astronomy people from the Island of Atlantis, as was described in Plato's historical account in the *Timaeus* dialogue. Since the Egyptians, the Persians, the Chaldeans, the Indians, the Chinese, and the Greeks, have all acquired more or less the same data, have given the same names to stars or planets, and have adopted similar astronomical calendars, at approximately the same period of time, and since there exists recorded evidence showing that they did not discover, or communicate, such a body of knowledge to each other, Bailly endeavored to prove that they were the recipients of a single and unique predecessor people whose civilization came from the West, and from the North.

About 6,000 years ago, the Atlantis people had developed an advanced economy, and a culture, which enabled their population to grow beyond the land's capacity to sustain them, and thus, they were forced to launch the greatest colonization and education program that covered practically the entirety of the globe, from the northern Atlantic and the northern Asiatic region of Siberia.

Moreover, the question that Bailly asked himself was not so much "who was that more ancient people?" His concern related not to a people per se, but to the quality of their knowledge. Bailly based his hypothesis on the simple, but crucial aspect of the missing quality that was required to make the discoveries of early astronomy; that is, *{the lack of cognition}* which was characteristic of secondary civilizations. In other words, the fundamental question for Bailly became a crucial issue of identifying two different but complementary aspects of *{cognition}*: one was to find the necessary conditions required for an original people to make *{fundamental cognitive discoveries}*, and the other was to identify how a civilization that came afterwards, demonstrated the lack of such *{cognitive discoveries}* in its own practice of astronomy, or otherwise. These were the two conditions under which Bailly set out to discover the existence of several ancient peoples by means of reason alone, and without any recourse to sense certainty.

On February 27, 1777, Voltaire, outraged by this hypothesis, wrote to Bailly: *{ "I can conceive that it is possible for the Indians to have been instructed by a more ancient people. But, is it not permitted to doubt it, since we have received no news of that ancient people?" }*

In his first of many letters on the Atlantis of Plato, Bailly replied: *{ "A foreign country might have educated India, without any remaining traces of that ancient event; in fact national pride has every interest in eliminating them. How many men have benefited from gifts they have received, but without mentioning the names of their benefactors? It is permitted to have doubts about this instruction, when we don't have any {"news"} of this*

ancient and lost people. Doubt is always permitted in science; it is the touchstone of the truth. However, doubt must have boundaries; all truths cannot be demonstrated like mathematical truths. The human species would have too much to lose, if it were reduced to this unique class. Balanced testimonies, weighed probabilities, comparative fables confirming each other, all project by their coming together a very strong light which may be considered as evidence. And when, with the help of philosophy, we arrived at results that are founded on the nature of things, and on the nature of human beings, we have reasons to believe and not to doubt. You do not need to know the name of a people in order to recognize its existence and its works. Asia is still filled with {"news"} of that people: the conformities between the known peoples establish this {"news"}; the institutions of knowledge, very old and situated at the very beginning of oriental nations, established this {"news"} of a people that created these institutions. Great monuments are not the works of a people who is beginning to rise, but of a people which has come to an end point. A palace cannot be built by children."} (1)

The {"news"}, as he puts it, is that all of those civilizations have reported the same {no-news}, and they reported this {no-news} in the same manner, through fables which have all deformed the truth in similar ways. Thus, Bailly establishes first the existence of this paradox of {no-news "news"}, and then, secondly, he forces us to replicate the discovery he has made, and obliges us to relive it in our own minds, as a test case idea to be validated. This is a typical Platonic way of communicating ideas from the past to the present, and into the future, a method of {discovery by epistemological hypothesis}, whose importance has been recently demonstrated, and strongly recommended, by Lyndon LaRouche, in the practice of a certain dimension of Socratic "learned ignorance" applied to the domain of ancient history:

{ "Thus, in our efforts to account for what we presently know, from our familiarity with some relevant aspects of the earlier existence of mankind, we actually know, chiefly, only certain slices from that relatively tiny span of human existence which we study as that portion coinciding with so-called recorded history. Even from much of that record, our available evidence is fragmentary and otherwise imperfect.

"On account of such imperfections in the record available to us, we must pay special attention to the possible implications of what we do not know, and also to those border-areas, in which our knowledge is imperfect, as in such cases from Greek history as Pythagoras, Thales, and Heraclitus. The achievement of the degree of rigor we must apply, to be justified in stating, "I know" depends upon our sensitivity to the possible implications of that which we do not know...

"Therefore, it is only through acquiring the habit of studying history as the cognitive history of the production of ideas, that we might develop what is best labeled an epistemological sense about ideas. It is when the term "philosophy" is used to point toward a matured, richly developed "epistemological sense" of history of ideas, that the competent forecaster emerges...

“In science, we must make great leaps into the realm of the hypothetical; but, those leaps are permitted only to the degree we are epistemologically circumspect respecting opinions in areas both past and future history, yet unexplored, as I have illustrated this warning in the foregoing remarks on the exemplary case from Heraclitus’ fragment.”} (2)

Indeed, once you discover the *{intention}* of a people, in his actions, or through his lack of action, you also discover the knowledge and the lack of knowledge that results from them. For that reason, when a historical case is found in which such expected results should have been reported, but have been omitted, an even greater attention must be paid to the traces of what is no longer there, because something of great significance is missing, like a gem glowing darkly, that no one could discover unless he or she is looking for the implications of what is not there.

What is common to all known civilizations is that they all have invented fables to manipulate and control their populations. A *{knowledgeable and morally disciplined people}* does not need to invent fables; it creates science, and educates its population. According to Bailly, the ancient people who had invented astronomy did not require fables to set the time for their works, and to control their people. Astronomy was developed out of the necessity for transoceanic navigation and for the seasonal practice of large-scale agriculture developments. As Bailly emphasized in his same letter to Voltaire: *{“Necessity is the mother of invention, but what is necessary is not always possible. Astronomy is much more necessary to govern the works of a society, than fables are needed to govern human beings; however, although they are the fruits of the imagination, fables are always derived from something that is based on the truth. In this case, the truth of science is the product of labor, time and genius. In a human being, the imagination is born before the reign of reason; a mature man concerned with science does not revert back to children’s games. It is precisely because the Indians have invented these fables that they did not invent and improve astronomy.”}*

THE FIRST DEBRIS OF KNOWLEDGE

Bailly compared the history of ancient times to a palace that had fallen into ruin and whose debris were spread over a long and confused dark age period. The difficulty of reconstructing the palace resides in the art of rediscovering the secret of assembling disparate pieces, replacing some pieces that have been lost, but most of all in finding the elementary idea of its architecture, so that one could have a truthful idea of its constitution. *{“Astronomy is the only beacon in this obscure night. Certainty is born again when the contact with astronomical observations is again reestablished. The historical moments which are attached to them become fixed reference points, or become asylums where the lost voyager of tenebrous antiquity can find a resting place...”}*

“The history of astronomy is an essential part of the history of the human mind. This science born in the fields, and among shepherds, has passed from the most simple of men to the most sublime spirits. Imposing by the greatness of its object, intriguing by the means of its research, and astonishing by the number and the type of its discoveries, it is perhaps the very measure of the intelligence of man, and the proof of what he can accomplish with time, and with a bit of genius.” } (3) From that standpoint, the most interesting aspect of Bailly’s approach is not so much the history of observations of the celestial bodies in themselves, but rather the history of the cognitive power of astronomical discovery, and its significance for the future generations of humanity. { *“The true inventor of this science is he who, in discovering the first truth, has established the basis for our astronomical knowledge. Is that inventor unique? Does this science, equally ancient for different peoples, have several inventors? The issue could be resolved if we could rely on traditions; each nation names its guides: Uranus and Atlas for Atlantis; Fohi for China; Thoth or Mercury for Egypt; Zoroaster and Belus for Persia, and Babylon. This may be enough for those who are only looking for names, and who, following the writings of the national tradition, are willing to take the word of vanity. But the science cultivated by the Indians, the Chinese, the Chaldeans, and the Egyptians, may not be their own original work. Often the knowledge has been communicated from the outside, the scepter of the sciences passing from one people to another. Without any in depth knowledge of the history of sciences, one can see that their light was born in the Orient, as that of the Sun, and during a very slow evolution, seems to be traveling, like him, around the world.”* } (4)

The difficulty that Bailly encounters with respect to ancient records of history is universal and relates to a truthfulness that is incontrovertible. The solution to this recurring problem is not easy to find, however, as we shall discover in the following pages, Bailly was able to devise a means of extracting the truth out of a lie, simply by following the traces of its {intention}. { *“In dealing with obscure traditions and the first traces of astronomy, it is necessary to establish the dates of the facts, and to compare those facts with the degree of civilization, with the genius of the people, before asserting that it was capable of elevating itself to the merit of the invention. This is the best way to destroy all false pretense and discover any usurped rights. The vanity of the peoples and the ignorance of the very beginnings, have always located the origin of knowledge in obscure times... We are not here to decide if Uranus, Atlas, Fohi, Thaut, Zoroaster, Belus, were the first astronomers, we are simply saying that they are the most ancient, whose names have come down to us, and in this regard, they are the true initiators of the science.”* } (5)

The point is that in the night where all cows are black, the rulers of peoples, their priests, and their sophists, have manipulated tradition and epic poems, from generation to generation, and have distorted the metaphor of historical truth into an entertaining mixture of reality and fantasy. The result is such that the oligarchies have recuperated the real heroes, and turned them into symbolic figures, such as the so-called gods of Olympus. Thus, historical truth gets lost when the impact of the poetic principle of metaphor is turned into the lies of fiction, and romantic symbolism. This is the reason why, today, the tragedies of Aeschylus, Shakespeare, Schiller, are considered as mere

fictitious Hollywood type entertainment, as opposed to cognitive metaphors proportional to true historical events that they truly represent.

Bailly wrote: { *“We believe therefore that Uranus, and his children, Atlas and Saturn, were real historical characters, because their existence has nothing of the incredible, and their existence has been recorded by many writers. The age of these princes, or family leaders, who existed at the same time, the first known astronomers, can provide us with some notion of the antiquity of astronomy. If we refer to Suidas, we could establish that Atlas lived around 2,600 BC, but it is clear that Suidas was mistaken...In examining the roots of the human species, we find that the root of the Atlantis people is the main and most ancient one; at least we see clearly that this people is more ancient than the Egyptians. The Atlantis theogony, reported by Diodore of Sicily, is the same as the one of the Egyptians, of the Phoenicians, and of the Greeks; we find the same names, and the same events, and it appears that these different countries had been inhabited and civilized by a people which had established its ideas and conquest far and wide. This theogony may have been introduced in Egypt, in Ethiopia, in Phoenicia, by this innumerable people, which came from the Island of Atlantis, during the time of the great irruption that Plato talks about in the Timaeus, and which spread everywhere across a great part of Europe, Asia, Africa, and which had invaded the whole earth, as was reported in those days. Note that Diodore of Sicily said explicitly that the descendents of Atlas became the leaders of many peoples, and that several Greek authors trace their ancestors back to the Atlantis.”*

“Everybody knows that the Greeks owe their arts, their sciences, and even their gods to Egypt and Phoenicia. But the memory of this irruption that Plato has put on record (in the Timaeus and the Critias), this method of consecrating the origin of heroes, by tracing it back to the Atlantis, the same generations, the same family names among the gods, and the heroes, in Atlantis and in Egypt; the absence of these names in the chronology of the Kings of Egypt, provide us with some very strong inductions to the effect that, whatever antiquity is attributed to the Egyptians, the Atlantis people go back to a greater antiquity. It is therefore in the obscure times that have preceded the historical period of Egypt, during the period when reigned the gods, or rather the Atlantis people, that we must establish the time of Atlas...The age of Uranus, of Atlas goes back at least to the year 3,890 BC which establishes the antiquity of the Atlantis astronomy, and the invention of the Atlas sphere.” } (6)

Thus, a great civilization of astronomer-navigators was able to travel around the world, during antediluvian times, and transmit their knowledge and culture to a multitude of new nascent civilizations. This can be demonstrated negatively in several ways, but the degenerate form of astrology is one of the better ways. Take the case reported by Censorin where the Chaldeans, like many other civilizations throughout Asia, had established a cycle of 12 years intervals with the names of animals for each year, and which was called the Chaldea cycle. When you trace the origin of that cycle, in the “science” of that civilization, you discover that this zodiac did not relate to any astronomical cycle, but on the contrary, to some derived astrological determinations. Bailly shows that this is a typical fallacy of composition, because { *“there are no periods*

that do not have their origin in astronomy. Jupiter, as observed from the Earth, comes back to the same point in the sky at the end of 12 years and five days.”}(7) Thus, Bailly established that the zodiac was possibly discovered from the observation of Jupiter’s cycles, through which the planet would travel across one sign of the zodiac after another, during one year, and this is where the names of those 12 years became identified with the names of animals representing as many constellations. Furthermore, the degeneration of astronomy into astrology demonstrates how, in the course of ancient history, the practice of astrology can always be traced back to a people that could not have invented astronomy.

THE ATLANTIS OF PLATO

When Bailly first approached the question of the Atlantis, in the Timaeus of Plato, he began to develop a strong hypothesis according to which a “young people”, like the Greek people, was not able to have invented the science of astronomy. Astronomy could have been invented only by a older and more mature people which had been extinct, and which had left behind no direct remains of its discoveries. The only remains of that ancient people had been transformed and disfigured by secondary peoples whose national pride had eliminated the traces of their former teachers. This hypothesis was so powerful and full of reason, that Bailly saw it necessary to address it to the most cynical, and most perverse mind of his time, the number one enemy of Leibniz in France, Voltaire.

Although Bailly was always “correct” with Voltaire, he, nonetheless, had an inimitable way of honoring this old ruin with the most powerful truth, and by confronting him with an unassailable and disarming power of reason. Bailly wrote back to Voltaire, who was then 85 years of age: { *“However prejudiced in favor of the Brames you may be, I am again letting you be the judge in choosing between these wise men, so justly admired, and the more knowledgeable people, although unknown, that you refuse to accept the existence of. I admit that it is difficult to find interest in people we do not know. We are always taken by our senses. You have dialogued with the wise men who have instructed Pythagoras, you have seen them through the eyes of that philosopher, you have read their books; while admiring their wisdom, you have developed a veneration and a love for those who put it into practice; you must feel some aversion in casting them off for those teachers lost in the night of antiquity, forgotten by the ingratitude of men, and whose names and memory have almost been erased by time. One creates a society, and chooses friends by reading history...”*

“Thus, it is quite clear, Sir, that you have loved the ancient Brames. Your affections were directed toward wisdom and knowledge. However, your Brames are quite young by comparison with their antique instructors. This antiquity renders more respectable the old friends that I have chosen for myself. While friendship is an inclination of the heart, it is also a sentiment of respect, and this respect increases in the case of aging. I imagine these first philosophers with a grave exterior, their heads covered with white hair, cultivating pure morals, living a simple life during the centuries

of a golden age, where the light of reason had struck only on useful things, like the moral and physical needs of men, and where perversity had not yet corrupted their manners by distorting the blessings of their minds.”}(8)

This incredible frankness of Bailly is disarming, because he is both determined to root out the stubborn axiomatic vanity of people, as well as correcting the distorted orbit of the perverted mind, in order to free the *{spirit of invention}*. Indeed, Agape is always generous and truthful, never envious. For example, when Bailly makes the stunning judgment to the effect that a nation lacked the genius required for the invention of astronomy, it is not because he considers this people incapable of creating that kind of genius, but because, in defending the vanity of the lies of its ancient past, that people reveals to the rest of the world precisely the fact that it did not produce such a genius. Bailly wrote: *{“Asia more constant, deprived of genius and of the spirit of invention, conserves its antique physiognomy as she still imitates, to this day, the beauty of that forgotten century, of which I have been attempting to reconstitute the memory of.”}*(9) The sad truth, indeed, lies in the fact that such a civilization has refused to change those very ancestral ways which has paralyzed their genius for millennia. In the worst cases, when such ignorant populism, as has become rampant in the United States among the “fundamentalist” variety of Biblical fanatics, insists that people should be treated like “human cattle”, the life of their cognitive powers has left their souls, and has been replaced by the magical powers of sense perception. Many cases of such behavior are to be found in the ancient Tibetan Buddhist practice of turning the prayer wheel, or walking under stacks of sacred texts, all in the hope that such magical actions will infuse the ignorant with the perfect understanding of the scripture, or will bring upon himself and his family the bounties of the heavens, that which reason, they believe, would never be able to confer upon them.

Bailly is conscious that he can only reveal the truth of this lost ancient people through the veils of time immemorial, with the use of metaphors, as if through some fleeting images on the walls of Plato’s cave. Indeed, the only fragmented testimonies that do remain are deformed shadows of distorted fables, and biased historical accounts. However, it is precisely because these distortions are so marked, in a specific revealing manner, by different peoples, that they provide the required historical proof of the existence of the ancient people who instructed them. For example, Bailly pursues the case of India. *{“What happens during centuries of ignorance is precisely the same as what is produced during a period of dark ages; everything happens without witnesses, and when the light shows up, those who are illuminated, have no idea of what happened before this new light came on. But, I would harm my cause by saying that no trace of that great event remains in India. These traces are too strongly marked to be misinterpreted. There remains a beautiful monument and some foreign instructors, and some transplanted philosophy, and also, the fact that from this instruction, imported into India, no further progress has been accomplished. It is the Sanskrit, this learned language which was abandoned by a people who spoke it to another people who understood nothing of it... A dead language presupposes a destroyed people; it is an unassailable truth. Thus, without the enumeration of the monuments of astronomy, without mentioning the universal spirit*

of their antique institutions, which claim a more ancient people, Sanskrit is a monument to its existence, and the remaining trace of its passage in India.”}(10)

Then Bailly goes through an extensive description of Plato’s account from both the Timaeus and the Critias, the account of Theodore of Sicily, as well as several others. But, there again he warns Voltaire. { *“But, Sir, beware of the expressions used by philosophical writers. Each stroke of the pen, in their stories, in their descriptions, each shade of color is an idea. When Plato speaks of the most beautiful and the best generation that has ever existed, he wishes to identify the most beautiful as the most learned and enlightened; when he describes it as the best, he means that it had laws and morals that were respected. If we only considered the physical meaning of these expressions, the beautiful would mean something of a regular and flowery nature, the best would refer to a strong and powerful nature: but we are listening to a poet-philosopher for whom the beautiful is knowledge and the best is virtue. Thus, when Plato spoke with the Athenians, this spiritual, likeable, and light-headed people, all together similar to our Frenchmen, that I, myself, have attempted to converse with, on the subject of the same people, he was talking about an ancient people who was knowledgeable and morally disciplined, but destroyed and forgotten.”* } (11) In other words, Bailly is telling Voltaire: “Reflect well on this matter, my honorable friend, because this story is about you.” If you want to situate your mind in correspondence with an {enlightened reason}, you must locate yourself within the boundary conditions set by Plato himself; that is, you must be able to discover the orbit of Plato’s {intention}, in his own choice of words. Then, and only then, by means of the mind, and not through the senses, can you discover that his qualification of the Atlantis people, as a {*“knowledgeable and morally disciplined people”*}, was a verifiable cognitive insight. Thus, Bailly demonstrates that the process of discovery of that idea is not any different than the action of its communicable form in the mind of another person over time.

In the Timaeus, Plato made the Socratic point that although the Greeks were hungry for glory, they had to admit to the hard truth of the fact that they were not the original people of western civilization. To the contrary, they were the carriers of a more ancient civilization that existed before them. { *“Oh! Solon, Solon, said the wise Egyptian; you Greeks are always children; no matter how old you are, none among you have the instruction and the experience of your age. You are all beginners in the knowledge of antiquity, you ignore what has occurred in ancient times, either here, or in your own country. The history of 8,000 years is written in your sacred books; but I can go back further, and tell you what our fathers have done during 9,000 years, that is to say, about their institutions, their laws, and their most brilliant actions.”* } (12)

Bailly emphasized that the issue was not so much 8,000 or 9,000 years, but the conservation and recollection of the memory of a lost people, the memory of their institutions, of their knowledge, the memory of their names and of their bold actions, their victories and their defeats. But the truth of these ancient facts became merged with the beginning of a new people, and the two histories became a single one. This is how the facts of an ancient people became merged and blurred with the facts of a newly emerging people; true facts in their original setting of departure became relatively false in their new

clothing at the point of arrival. From that standpoint, writes Bailly, { *“we must accustom ourselves to the idea that the heroic times of Greece, the times that she has glorified herself with, do not belong to her, and represent the first history of the people which first came to live there.”* }(13) Moreover, we have every reason to believe both the story of Plato and that of the Egyptian priest who have both admitted that much about the origin of their own people, which is much older than Egypt and Greece, and have recognized that their own beginnings were established by this ancient people that came from the Atlantis.

Furthermore, Bailly developed a crucial insight in what must have been the nature of the boldest feat of a people that organized itself like a military operation to cross the Ocean, and decided to colonize the rest of the world. One can only imagine this great adventure as the first organized human force to spread its physical-economic strength over the noosphere of our planet, and to reach out over every continent, virtually at the same period of time, like a great expedition, a colonizing Armada composed of thousands of ships on which sailed tens of thousands of men and women, leaving behind their Island never to return. The Atlantis had launched an astronomical, industrial, and agricultural revolution throughout the world, sometimes between the fifth and the third millennium BC. It was that superior intervention of an early colonizing effort by the Atlantis that first defined the early economic infrastructure of maritime routes, industry, water management, silk roads developments, and improvement in agriculture on the territories of Egypt, India, and China.

Let us see how Bailly established, by simple observation of human nature, what was the motivation behind such a bold enterprise. In another letter, Bailly wrote: { *“I find in our nature only one probable origin for that boldness. We love freedom, everything that bounds us, and stops us, seems to be unbearable. I would conceive that man was only able to brave the sea when she became an obstacle; but she could not become one unless she were present on all sides, and when she roared, and seemed to be telling the inhabitants of the island: “I am breaking on your coasts to enslave you.” It is an insular people which must have invented navigation in the first place. This enterprise is that of a man who, surrounded and prisoner of an island decides that his desires will no longer be restricted and his curiosity will soon be satisfied. Sir, you know what sacrifice desperation will have one accept, in order to break out of a prison. Join to this, the power of boredom and of want, the increase of the population, the number of people exceeding their capacity to sustain itself, and you will also find the force of necessity which commands, and weighs one dead for another, and makes danger acceptable in exchange for hope. It is therefore an island people which has taught the inhabitants of the continent that they could brave the sea and cross it to find new homes. It was therefore required that these island people invented industries and the art of ship building, and established the instruction of how to use them. The inhabitants of the continent did not benefit from this training and this example, only until after they had appropriated these arts, and when they began to be animated by their own industry, and when abundance had created in them artificial needs, which were no less urgent than if they had been true, but necessary to motivate these adventurous enterprises. Then we witnessed what could be done out of greed instead of what was attempted out of desperation.”* }(14) The

colonization of Europe, North Africa, and Asia, and possibly Central and South America, by the Atlantis people, was the first great migration of population and civilization that man has known during ancient times, and probably occurred in many waves, over a period of several hundred years. However, because those people were *{knowledgeable and morally disciplined}*, they did not leave their Islands merely because they wanted to free themselves from an overcrowded prison. The Atlantis people had a civilizing mission, and wished to expand their economic development and their knowledge for the benefit of the general welfare of all of the people of the world.

No doubt, Bailly's qualification of *{“adventurous enterprises”}* refers to the reckless and treacherous policies of the various companies of “adventurers”, such as the raw material looting free trade, British West-Indies Company, and the earlier Venetian centered *{“geopolitical”}* operations, imposing colonialism and running amok throughout the world for the past several millennia. Such policies have resulted in exactly the opposite of the scientifically oriented *{intention}* of the Atlantis people, and this is why this *{policy intention}* must be turned back to what it once was initially, before 5,000 BC. However, to do this properly, we must be able to make the crucial difference between *{colonialism}* and *{colonization}*.

This is the very difference that Lyndon LaRouche has been making with respect to the current Bush *{policy intention}* modeled upon the Venice-British-Dutch maritime power, and his own *{policy intention}* for the construction of the Eurasian Landbridge modeled upon the spirit of ancient transoceanic navigators. It was in that sense that LaRouche noted precisely that *“the vital interest of the Venice-modeled Anglo-Dutch maritime power, has been to abort the rate of scientific and technological development of the planet as a whole! The natural continuation of the scientific and technological development of the planet for human habitation, and the pressures for such development caused by improvement of the demographic characteristics of populations, must render inevitable the absolute supremacy of inland-based development over attempted control of the planet through maritime supremacy!”*

As LaRouche has shown with respect to Vernadsky's economic physical principle of development of our planet through the three spheres of the non-living, the living and the cognitive noosphere, the implication of such a civilizing force by ancient transoceanic navigators, is that it contributed to the greatest expansion of science, especially astronomy and agriculture, in ways that are totally foreign to Venetian-British geopolitical colonial games. By emphasizing the original role of the maritime cultures, and their civilizing role, LaRouche confirmed the views of Bailly. *“Contrary to the popularized mythologies of modern British Biblical archeology and the conventional history texts, the relatively most advanced ancient cultures were transoceanic maritime cultures, rather than inland-based, or “riparian” cultures. Within the scope of modern archeology's actual knowledge, it was transoceanic maritime cultures, such as the Dravidian language-group culture which created Sumer, which spread maritime cultures inland along the obvious riparian routes. Only as technology advanced, was inland development in a position to “compete”, so to speak with the per capita and per square kilometer rates of physical output achieved along coastal and major riparian inroads.”*

The conflict between the two outlooks is indicative of the difficulty of establishing today, a Just New World Economic Order, in this very area of the world where the civilizing efforts of the Atlantis people first emerged 6,000 years ago, but where, for centuries, the geopolitical control of Venetian-British colonialism have kept the nations of the entire Eurasian continent in captive economic backwardness. LaRouche is telling us to look back at these ancient cultures in order to solve this dilemma posed by “maritime power”. {“*By looking backwards to earlier cultures, through the eyes and mind of Johannes Kepler and his successors, our appreciation of the minds of the ancient transoceanic navigators, is not diminished but greatly increased. What we know of the construction of calendars from as recently as five to eight thousand years ago, gives us an insight into those ancient maritime culture which necessarily traversed the Atlantic, Indian, and Pacific oceans thousands of years earlier. With that benchmark as a point of reference, we appreciate better the nature of the obstacles which had made the mastery of the inland areas so difficult until relatively modern times.*

“From this vantage-point a certain view of geopolitics emerges.

“Maritime powers, such as Venice, had depended upon factors of advantage inhering in sea-power. These advantages were, in the long run, temporary in nature. The inevitable consequence of improvements in scientific progress and in statecraft, would produce naturally the circumstances in which the clear economic and related supremacy of inland development would surpass maritime power.” (15)

THE RECORDS OF ANCIENT HISTORIANS

Bailly fixed the year 3,890 B.C. for the age of Uranus, by taking the average period calculated according to six ancient historians, Manetho, Dicaerque, Diogene-Laerte, Herodotus, Diodore of Sicily, Pomponius-Mela. Since the different chronologies differ from as little as 5,555 years to 48,863 years, Bailly resolved to ignore the extremes and worked out an average based on accounts that related to the known cycles of solar astronomy, and the annual cycles of the planets. Thus, Bailly decided on 3,890 B.C. as the date for the antiquity of astronomy, and for the {“*invention of the sphere attributed to Atlas.*” }

From the antiquity of Atlas, 3,890 B.C., Bailly established a chronology for all known ancient people in the following manner:

Egyptians, 3,000.
Chaldeans, 2,473.
Phrygians, 2,700.
Persians, 3,209.
Indians, 3,000.
Chinese, 2,952.

Scythes, 2,924.

These different dates have been reported with respect to specific celestial events. For example, the Egyptian account is established according to the periodic cycles of the heliacal rising of Sothis, which corresponded with the flooding of the Nile. The Persian account is based on ancient manuscripts relating to four stars which indicated the cardinal points: the Eye of Taurus, and the Heart of Scorpio related to the two equinoxes, while the Eye of Leo and the southern Fish corresponded to the two solstices. The Chinese account relates this to the appearance of the first emperor, Fohi, who was also known to be an accomplished astronomer.

However, Bailly adds the following striking observation: { *“There is a sort of leverage between those peoples, between the Egyptians, the Chaldeans or the Persians, the Indians, the Chinese, the Scythians or the Tartars, they do not surpass each other in antiquity, and this remarkable period of about 3,000 years is approximately the same for all of them. This represents the date at which their knowledge comes down to us. But, we must realize that this is a period of a renaissance of astronomy, and not its beginning.”* } (16) And one might add, that this renaissance was built on the debris of an ancient knowledge that is not only lost to us, but also lost to them. According to Bailly, there is every reason to believe that the science of astronomy had been cultivated during a very long period of time, prior to 3,000 BC, and that it had also been lost during a long period before that time.

Bailly writes: { *“When we look very carefully at the state of astronomy in Chaldea, in India, in China, we find more debris than elements of science; they have fairly exact methods of calculating eclipses, but they can be made use of practically with blind-folds, without any idea of principles of the methods involved, nor with any knowledge of the causes of these phenomena; certain elements are fairly well known, while others, also essential, and also simple, are either unknown or grossly established; a huge amount of observations which remain unused and without results, for centuries. How can we understand that such peoples, inventors of astronomy, had been unable to perfect it during the long period of their existence? If there are such peoples that cannot walk, anymore than they can create their own sciences, would the people, which once established their knowledge by the motion of their own self-propagation, could ever come to a standstill, and lose their momentum?”*

“The art of invention and progress in the sciences are of the same nature. Such progress is only the regeneration of invention, the reliving of a series of similar discoveries, and possibly of an equal amount of effort. Why, then, did the Indians, but mostly the Chinese and the Chaldeans, accomplished so little progress in astronomy, during such a great number of centuries? It is because these peoples have lived without genius, and they had the same apathy for discoveries as for conquests. It is because they have not invented the science. It was the work of a preceding people which, no doubt, which had made great strides in the field, but most of whose work had never reached us. That people had been destroyed by a great revolution. A few aspects of its discoveries, of its methods, of the periods that they had invented, had been stored in the memory of

scattered individuals. But, they had been stored within vague and confused notions, by way of practical learning, rather than through the cognitive use of principles. The remains of a dismembered science have been brought to China, to India, and to Chaldea; these were delivered to ignorant peoples who did not profit from them. They were told to keep records of their observations of the stars, and the Chinese and the Chaldeans made observations during thousands of years! Their constancy, their assiduousness have been encouraged by astrology which was communicated to them at the same time, and which is much more suitable to the ignorant.” }(17)

Bailly thus acknowledged that a people could make progress only when it was able to reinvent past discoveries of principle. A correction in the discovery of principle, an improvement in the principle of method, will ensure the reinvention of the cognitive process of a people for centuries, and millennia, to come. For example, this is what European civilization was able to accomplish, for the last 2,500 years, in its *{manifest destiny}*, from the ancient Greece of Thales, Socrates, and Plato, to the Christian revolution of Jesus, John, and Paul, to the Italian Renaissance of Nicholas of Cusa and Leonardo da Vinci, opening the pathway for the creation of the first nation-state, under Louis XI of France, to the great legacy of Kepler and Leibniz, and finally to the establishment of the American Revolution with Benjamin Franklin. Such was the westward motion of the beacon of scientific and technological progress, whose seeds of potential growth had originally been deposited on every continent of this planet by the genius of the ancient Atlantis people. (re. LaRouche EIR)

The question is: why have the great discoveries of Atlantis not continued to flourish somewhere else around the world after their great expedition? There is no simple answer to that question. However, there are two ways of approaching the question from the vantage point of Bailly’s method of *{epistemological hypothesis.}* On the one hand, sometimes, great discoveries are brought by an instructing people to a new people that have so degenerated on its own, that it has become incapable of assimilating the cognitive discoveries of the instructor. On the other hand, the spirit of the instructor people may also be defective, which occurs when the soaring creativity of an inventive people becomes uprooted after it has landed in a foreign soil, and becomes like a beautiful albatross no longer capable of free flight, but stumbling clumsily as he walks across the land. Bailly wrote: *{“However, when peoples walk across the globe, when they are transplanted, when the new climate destroys their genius, they have nothing left. Their monuments are back in the country of origin, or else have been destroyed by the centuries; the sky and the earth have changed their spirit, and that is how nations degenerate.” }(18)*

ASTROLOGY: THE ASTRONOMY OF IGNORANCE.

On the other hand, the mere learning process of repetitive observations, without investigating the significance of intent and purpose of their principles, will lead to { *“astrology: the astronomy of ignorance.”* } This is what leads Bailly to hypothesize that even the oldest astronomical engravings, reportedly made by Thoth, on ancient Egyptian columns, are not originals, but merely second hand copies of much more ancient discoveries that had been based on a complete body of knowledge, before the deluge. Bailly’s estimate is that the principles of astronomy, as a completed form of knowledge, had been established about 1,500 years before the deluge, that is, about 10,000 years ago.

It should be further noted that, in his commitment for reliving discoveries of the past, Bailly was fighting against the opposite tendency to astronomy; that is, the manipulation of popular ignorance by astrology. He wrote: { *“Judicial astrology is a deplorable sickness of the human mind. No doubt, it was born out of the abuse of astronomy. Since all men are impatient about what the future holds, they are eager to find out what is in store for them; only the wise man knows that such a knowledge would be devastating. Miserable about the past, unhappy about the present, the little man lives only in anticipation of what he hopes to get in the future. The uncertainty of his destiny puts him on a pathway that he attempts to accelerate. However, if the future were to open before him, tormented by what such woes would bring to his present existence, and unaccustomed at consuming fruits before their ripened condition, his life would be turned into nothing but a burden. Divine wisdom spared us from the burden of such calamities that astrology has attempted to spread all over the earth.”* }(19) It is in that sense that the mixing of astronomy and astrology, among the ancient civilizations of Chaldea, Egypt, India, and China, contributed largely to obfuscate and hide the true origin of their astronomical knowledge, and was conducive to their perpetrating “blind practices” without understanding any discovery of principle. A typical case of such corruption is exemplified by an account of the Ambassador of France to Siam, M. De la Loubere, who in 1687, brought back from the orient a Siamese manuscript showing that ancient Siamese Astronomy was essentially oriented toward the fabrication of horoscopes, and that { *“the first precept of this astronomy was to serve astrology.”* }(20)

ATLAS : THE INVENTION OF THE SPHERE

{“Atlas invented the sphere, that is to say, he generated the different circles of the heavens, and made a portable model with only a few of these circles. He would demonstrate its use (everywhere he went), and he was seen holding this model of the world on his shoulders. As usual, exaggerated stories came down to us, in admiration of his accomplishments, and thanks to tradition which confuses everything, it was said that Atlas was carrying the universe on his shoulders.” } (21)

According to Bailly, Atlas, the scientific leader of the lost continent of Atlantis, was not only a real person, but was also the navigator-astronomer who first discovered the sphere, as well as the ordering for the revolutions of the planets in apparent epicycloid motions around the sun. As if to celebrate this unique discovery, Atlas wanted the future generations of mankind to remember this early conception of Astronomy by naming the days of the week according to the ordering of the seven planets known at the time.

Bailly notes that ancient astronomy was established when the sphericity of the heavens was discovered by intersecting the meridian circle, the equatorial circle, and the circle of the ecliptic. Such is the construction principle of what became known as the Atlas Sphere, which was later turned into a mythological deformation. However, Bailly indicates that the tradition, as usual, has unjustly deformed the ancient story of Atlas, and that, instead of being burdened by carrying the world on his shoulders, the truth of the matter is that Atlas was so excited about his discoveries that he built a small model of the sphere he had invented, and carried it on his shoulders everywhere he went to teach astronomy. Indeed, there is always some truth to be found about the deformations of mythologies, and it can always be rediscovered in the inverse proportion to the ruling oligarchies attempts at erasing their living memory.

Bailly established that the first discoveries in astronomy related to the east-west motion of the sun, and soon after, the discovery of this daily motion, came the discovery of the motion of the stars in the same direction. The intriguing question was: where does the sun go during nighttime, and where do the stars go during the daytime? The true genial idea about the heavens came to the discoverer who established the idea of the spherical hemisphere turning on itself around the earth, and carrying all of the stars with it.

Furthermore, Bailly implied that the discovery of the roundness of the earth was not only made very early, but was part of the very first astronomical discovery of principle. Indeed, Bailly thought that the discovery of the east-west motion of the sun could not be established without the discovery of the sphericity of the earth! This is a very interesting idea indeed, because the very first discovery in astronomy would have been spurred by the fact of the disappearance of the sun, by the eclipse of the invisible shape of the earth. Interestingly enough, this would mean that no profound discovery in astronomy were possible without first making the discovery of the roundness of the earth as part of the earliest cognitive process of discovery. How then can this have occurred? How can the discovery of where the sun goes during the night, and where the stars go during the day, be linked to the discovery of the roundness of the earth? This required {“a genial effort,” says Bailly. “*The issue was never completely resolved until someone realized that the roundness of the earth was enveloped from all sides by the entirety of the heavens...*”}

“Patient and astute observers did not waste time in discovering that the spectacle of the heavens was not always the same. At the end of six months, it is almost entirely changed; the stars that were rising at a certain hour, are now ready to set, and new stars have appeared in the orient. During a precise daily monitoring, one could observe that all of the stars were rising everyday earlier than the eve, and that at the end of a month, there was a difference of two hours. This anticipation in the rising of stars was the effect of some unknown motion. No doubt, at first, one imagined that aside from its daily motion around the earth, from east to west, the starry heaven had another motion, a slower rotation, and in the same direction, by means of which the stars were accelerating their rising and their setting. However, what became of the invisible stars during several months, and where did the new stars, rising on the horizon, come from?...”

“Then someone realized that there was a certain star that did not significantly change its position during the course of the night. It was like at the center of the motion, and the other stars seemed to rotate around it; consequently the position it occupied in the sky was called the pole, and that star became known as the pole star. There it was, an immobile star around which some of the stars made a complete revolution, while the majority of the other stars made only a partial rotation. Some more profound speculators dared to follow these stars beyond their partial appearance, and conceived, through their imagination, of the missing portion of the rotation that their eyes failed to capture. Thus, the heavens became a complete sphere, and in order to explain its motion, two fixed points needed to be imagined, similar to the pole that could be seen in the sky, another pole had to be fixed in direct opposition, which had to be located under the earth, in the second part of the sky; and the imaginary line that was joining these two points, around which the daily motion rotated, was called the world axis.” } (22)

Thus, the discovery of principle of the Atlas sphere was made. Moreover, for Bailly, once the sphericity of the heavens was known, it became natural to establish that the earth had to be also round. First of all, it was clear, to the first astronomer, that the earth was suspended in space, since the stars were going around it, and were coming back

on the other side. Secondly, since the heavens were enveloping the earth, it was natural to adduce that the earth was rounded by the action of that envelopment of the heavens. Both of them, the heavens and the earth, were therefore made according to the measure of that similar proportional roundness, and from this emerged the idea of a proportionality between the domain of the gods and the domain of the mortals, as expressed by the congruence between the cycles of the planets and the days of the week. Furthermore, since the ancients considered roundness and sphericity more divine than any other shape, the stars and the planets were also thought to be naturally round and spherical.

Bailly estimated that such a discovery must have occurred very early on during the Age of the Atlantis, and when their philosophers reflected upon the proportional relationship between the relative position of certain stars with respect to specific latitudes of travel on earth. Bailly adds: { *“Another reflection demonstrated the roundness of the earth; it was that of the new stars which were becoming visible to those who were changing latitude by traveling north to south, or south to north. We consider that such voyages have merely confirmed this hypothesis... Philosophers noted that by going towards the south, some unknown stars were appearing on the horizon; and upon returning home, they no longer saw them. The sighting of these stars was therefore relative to a certain position on the globe. Only the roundness and convexity of the earth could produce such an effect.”* }(23)

Bailly showed that originally the measure of time was taken differently, according to the needs of the people. For example, the ancient nomadic tribes of the Tartars and the Arabs followed a lunar calendar of about 29 days and a half. On the other hand, ancient farmers needed a solar calendar to determine the recurring period of the crops whose time was probably determined, very early on, by the solstices and the equinoxes, that is by four points on the horizon.

Very early on, astronomers were disturbed by what appeared to be a second motion of the sun. Indeed the sun was moving in an apparent circular motion around the earth, from east to west, but, it also seemed to be changing its altitude north and south, and thus seemed to have a second motion which was getting closer to the pole, or further away during regular periods of the year. Thus a second motion was taken under consideration. However, { *“they drew the right conclusion from the wrong supposition.”* } It was not until the motion of the ecliptic was discovered that this anomaly was resolved. { *“Finally, either by a stroke of genius or by chance, and possibly by both, the long sought for solution was found. Someone noticed that if you incline the pathway of the sun with respect to the poles, all of the apparent difficulties will be solved, and it will become clear that the path of the sun is a single and uniform circular motion. And the name of ecliptic was given to the circle which the sun describes in this oblique pathway.”* }(24)

From that point on, several small but fundamental discoveries were made: the discovery of the { *equatorial circle* } which locates the time of the year when the time of day is equal to the time of night. Also the { *equinox points* } were located on the equator to mark the intersection with the pathway of the { *ecliptic*. } This is the historical marker which established the construction of Atlas’ sphere. The discovery of the intersection

between the great circle of the ecliptic and the great circle of the equator, led directly to the invention of the sphere. This is how Bailly describes the invention: {“A circle was affixed perpendicular to the horizon, from the south to the north, and it was called the meridian, because it was located in the plane of the celestial meridian. Another circle was connected to the first, at right angle, and it was called the equator. The most difficult was to orient this new instrument, that is to say, to place correctly the vertical copper circle within the plane of the celestial meridian. However, because the ancients had observed that this plane was the one that all of the stars crossed when they reached their highest point, it was easy to aim at some beautiful star, and to position the instrument at the location and the moment when it reached its highest elevation. This method was not very precise; however, as it were, we believe that it was quite sufficient for the purpose of the new born astronomy, and led to many more discoveries...”}

“This instrument provided for an infinity of observations. The meridian was marked with a point showing the elevation of the Sun at summer solstice; another point showed the lowest position of the Sun at the winter solstice; the interval between those two points measured the motion of the Sun with respect to the poles...But this circle could not be fixed, because, the daily motion being around the poles of the equator, the ecliptic always changed its position with respect to the horizon and to the meridian. Some modification, therefore, had to be made to the instrument. The meridian always remained fixed, but a new circle was added to the equator such that it made with it the same angle as with the ecliptic. Two other great circles, called the {colures} of the equinox and of the solstice, were inserted through the poles, and passed through the equinox and the solstice points. These four great circles, reunited and wedged in the meridian circle, were made mobile around the axis of the two poles of the world, and that later became the model for the armillary sphere of Alexandria.” (25)

Bailly points out that Eratosthenes had built such a working sphere in the Observatory of Alexandria. It was a very large metal sphere, about 16 feet in diameter, and it was based on this portable Atlas model.

[Figure 1. Illustration of the Atlas sphere]

This method of constructing of the Atlas sphere corresponds to what astronomers today call the {Ecliptic system of coordinates.} It is also found in ancient China, in ancient India, and ancient Egypt, and has been made use of for the alignment of their temples and their pyramids with respect to the north star.

THE NORTHERN HYPOTHESIS

One of the most remarkable ideas of Bailly was to attribute the origin of astronomy to a northern people. { *“The first lights came from the north, contrary to the accepted prejudice that the Earth was enlightened by an increase of population coming from the south toward the north. The Scythians were one the most ancient nations; the Chinese descended from them; the Atlantis people, more ancient than the Egyptians also were related to them; Acmon, the leader of a horde of Scythians, founder of a city of his name in Phrygia, was the father of Uranus who had civilized the Atlantis. According to M. Danville, the Getes, living near the Danube river, were of Scythian origins. They had a pontiff, who they claimed was immortal, like the Dalai Lama of the Tartars, In Siberia, and generally under the 50th parallel, were found, between 80 degrees of longitude and 130 degrees, vestiges of a civilized people that lived there; ruins of several towns were uncovered which seemed to have flourished there; manuscripts made of silk paper were found, with characters traced with Chinese ink, gold and silver; also were found pyramids used for burials with inscriptions written in an unknown language; finally, human and animal figurines were discovered that were made of gold, silver, and bronze. The human figures were replicas of Indian divinities.”* }(26)

Bailly has a theory according to which, when the Earth began to cool down, millions of years ago, it first began to cool down from the poles. { *“The surrounding countryside were the first inhabitable places. The internal heat, by reducing itself from the center, had sufficient activity to keep temperate climate in the glacial zones, and make the torrid zone inhabitable. This is what genius teaches us; and while locating the origin of science in the north of Asia, we did not intend to imply that it was born at the north pole, even though a number of fables and even astronomical facts would make it a natural plausibility. Such is the fable of Proserpine who spends alternately six months on earth and six months in the kingdom of darkness; also the story of Hercules and the Amazons, in which we find that night had a powerful empire over the zones of the heavens, an empire that Hercules ripped away from them, by becoming the symbol of the spring Sun. This story becomes quite plausible, and receives a simple explanation, when we recognize that the phenomena being described occurred near the pole, where one night goes on for six months, and where the Sun wins a complete victory over night, at the moment when it rises on the horizon, on the day of the equinox, and makes his appearance only to extend his reign for another six months. The prejudice in favor of circular motions, and which, during antiquity had such ancient and profound roots, would have started under the pole where the celestial motions are all limited to daily phenomena whose motion occurs only in circles. This would also possibly be the origin of the years of 6 months, which were only made up of one day, or one night at the pole. The inhabitants of Kamchatka still have these years of 6 months. When you descend towards less boreal latitudes, around the 79th degree, where night is no more than 4 months, then you find the origin of these singular years where the solar revolution divides the year into three seasons.* } (27) This extraordinary account was also reported by Herodotus, in Chapter IV of his HISTORIES, in which he describes the northern regions of the

Scythians where {"there are people who sleep through six months of the year."} (27)
This Bailly hypothesis has been further pursued, and extensively confirmed, during the late 19th century, especially by Tilak.

In his book on the interpretation of Vedic Texts, and Legends, Tilak refers to the exercise of a higher knowledge with respect to the ancient Vedas; that is : {"the North Pole and the Arctic regions possess certain astronomical characteristics which are peculiar to them, and if a reference to them can be discovered in the writings of the Vedas, it follows, in light of modern researches, that the ancestors of the Vedic Rishis must have become acquainted with these characteristics, when they lived in those regions, which was possible only in the inter-glacial times."} (28)

It is therefore through an astronomical method, that we can assign a chronological limit to the ancient writings of the Vedas, as well as to other ancient writings. Tilak will date the Vedic hymns at a period earlier than 4,500 BC. {"These astronomical statements, it was further shown, unmistakably pointed out that the Vernal equinox was in the constellation of Mriga or Orion (about 4,500 B.C.) during the period of the Vedic hymns, and that it had receded to the constellation of the Krittikas, or the Pleiades (about 2,500 B.C.) in the days of the Brahmans..." } (30)

This confirms Bailly's hypothesis of a people more ancient than the Brames. Similarly, ancient religious references to such celestial characteristics, found in the Rig-Vedas, and which are also confirmed by the first two Iranian {Farguard of the Vendidad}, the oldest known written historical documentary evidence of the last Glaciation period, can fairly accurately identify that a large colony of human beings were enjoying a very mild climate, and long six month summers, in the northern regions of Asia, at the latest, sometimes around 8,000 years BC; and that such a Northern civilization, which was without a doubt, a sea-faring civilization, may have traveled to, or lived in, that region during the last inter-glacial period, going back possibly 20,000 years.

This is further corroborated by Lyndon H. LaRouche Jr. who demonstrated that it was this earlier form of civilized astronomical and transoceanic culture which gave birth, in different ways to the fishing and agriculture civilizations represented by the language group of the Indo-European peoples. LaRouche wrote:

"The LaRouche-Riemann method enables us to accomplish two things which could not be undertaken either by astronomy alone, or by application of Sanskrit philology to the astronomical-calendar evidence from the Vedic sources. First, by using the LaRouche-Riemann method, we are able to show that the astronomical-calendar evidence suffices to demonstrate conclusively certain characteristic features of the culture which produced such ancient calendars. Second, from the standpoint of the hypothesis of the higher hypothesis, situated within the LaRouche-Riemann method, the calendar evidence, added to already explored evidence of the recent 2,500 years development of European science, permits us to offer more general, more fundamental conclusions bearing on the principled features of scientific progress than have been otherwise available.

"The initially stunning feature of the ancient calendars is the inclusion of some very long astronomical cycles, including such cycles for the North geologic {and magnetic} Poles. Most stunning of all, the determination of the cycle for the movement of the magnetic North Pole could be accomplished by an ancient culture only were that culture {a well-developed maritime culture}...The development of a maritime culture, associated with urban sites, is demonstrably the precondition for the production of the "agriculture revolution"... We have in currency two sets of general accounts of the last Ice Age. One account has the glaciation radiating into the North American and Eurasian continents from the polar ice. This account is by no means conclusively demonstrated. The second account associates the Ice Age with entry of the Gulf Stream into the polar region, melting the ice cap, and contributing to the deposit of glaciation upon the adjoining continents. Unless we associate the pre-Vedic polar culture in question with special cases of the Alaska land-bridge, the astronomical-calendar evidence requires the Gulf Stream version of the Ice Age, and points to a stunning antiquity for that culture...It is noteworthy that only a maritime-fishing culture would have lived in a quasi-temperate Arctic region [when ocean-levels were as much as hundreds of feet lower than today] during the long Arctic night. Since early astronomical calendars were produced there, those calendars must have been produced under such cultural conditions." } (31)

In the following pages, I will show how Bailly established the connection between certain astronomical events and the metaphors of ancient tales which could have been established only by a civilization who was able to travel north of the 71st parallel.

THE THREE DIVISIONS OF THE YEAR

Let us identify for the reader, some crucial characteristics of the sky under which man is able to identify the essential chronometrical features of the three main locations of the northern hemisphere; that is, 1] the North-Pole Region, 2] the Polar Circle Region, and 3] the Temperate and Equatorial Regions. What should be emphasized at the onset, because it is not obvious at all to the observer living in a temperate location of the planet, such as the United States, or Western Europe, is that the very notion of astronomical space-time is very different for a human being living in these three different areas, and becomes quite unique to the navigator who has acquired the knowledge of all three regions by his ability to travel across the Northern Hemisphere and elsewhere around the globe.

This means that, in ancient times, only a navigator/astronomer could have secured the knowledge of a true astronomical calendar. But, in order to better understand the complexity of the problem of determining a true calendar of the earth, without the need of mathematical instruments, let us look at the main chronometrical characteristics of each of these three regions, taken separately, and which are based exclusively on repeatable, and patient astronomical observations.

* 1- In the REGION OF THE NORTH POLE, people divide the year into two periods: one period of a single long day, which is the duration of a summer of 6 months of continuous sunshine, and a period of one long night of about 6 months. The summer season is also preceded, and followed by 2 months of constant dawn, and 2 months of constant sunset. This fact implies that the period of daylight is about 10 months, and the period of complete darkness, only two months. In other words, {*one year corresponds to one entire night and day.*} Aside from this {*daily year,*} the most extraordinary singularity of the heavens at the Pole is 1] that the zenith, the alignment of the pole of the earth, and the Pole Star, are in an identical axial position, and 2] that all of the visible stars in the sky appear to rotate in circular and horizontal planes around that Pole Star axis. Bailly does not believe that this region was the country of the original people he is looking for, but that records of such astronomical events, such as the day of 6 months, have been established by travelers. In reference to the study of the Swedish historian, Olaus Rudbeck in his *De Atlantica*, Bailly reports that the tale of the Phoenix, which is found both in ancient Egyptian records, and ancient Swedish texts, is nothing but an astronomical metaphor. {*“They speak of a bird whose head and chest is of fire color, and its wings and tail of heavenly blue. It lives for 300 days, after which, followed by all of the migrating birds, it flies to Ethiopia, makes its nest and burns itself with its egg; then, from its ashes is regenerated in a form of a reddish worm which grows wings, and after acquiring the form of a bird, flies again with the migrating birds back towards the northern regions.”*} (32) Bailly establishes that this description coincides precisely with the astronomical condition of the region located under the 71st parallel and where the sun sets over the horizon for a period of 65 days, and then returns for a period of 300 days. This is the region of the islands of both Northern and Greek mythologies, where the island of Saturn would correspond to the islands of Spitzberg, or of Greenland.

* 2- In the REGION OF THE ARCTIC CIRCLE, the long day and the long night [summer and winter] will always be shorter than six months, and always longer than 24 hours. For example, instead of dividing the year into a single day and a single night, the peoples of that latitude, living close to the ARCTIC CIRCLE, will divide the year into three distinct periods: one of which is a long day of two months [summer], the second is a period of a long night of two months [winter], and a third period of 8 months of nyctemeron days and nights, each of which will never be longer than 24 hours. Bailly reports from the ZEND-AVESTA (Translated by M. Anquetil, Tom. II, p. 400) that according to the book of Zoroaster, there is reported this very interesting observation: {*“The longest summer day is double the shortest day of winter.”*} This relates to the climate found at the northern latitude, which corresponds to the location of the site of Siberian pilgrimages of Indians, as well as Lamas and Brames of Tibet. Bailly writes: {*“The only way to satisfy this condition is found in the climate of 16 hours, that is to say, where the longest day is of 16 hours, and the shortest day is of 8 hours. And that is the climate, which corresponds to latitude of 49 degrees, which is the location of Selinginskoi. One can find also at this parallel, a city by the name of Locman, which could be the country of origin of the famous fabulist of Persia; no doubt the same as the Esope of the Greeks, which brings back to the northern climates the origin of the apologist and of morality, as well as that of philosophy and astronomy. Thus is derived this singular paradox that it is not in Egypt, in Persia, in Chaldea, in India, nor in China,*

but under this parallel, and in the north that we must seek the origin of this ancient knowledge.” } (33)

* 3- In the TEMPERATE AND EQUATORIAL REGIONS, people will divide the year into 12 months of 30 nights and days (nyctemeron), each period not exceeding more than 24 hours each. The longest day of the year (more than 12 hours), will be in the middle of the summer, and the shortest day of the year (less than 12 hours), will be the mid-point of winter. Thus, the solstices can be determined in this third region of the planet. Similarly, the mid-points between these two extremes will represent the spring and the fall equinoxes when only two days, during the entire year, will each have a duration of no more than 12 hours of darkness, and 12 hours of sunlight each. This is the region from which the precession of the equinoxes can be discovered. In this region, the Sun and the stars rotate in oblique circular fashion, and the year is divided into four seasons. Bailly concludes: { *“By traveling down from less boreal latitudes, around the 79th degree where night lasts for only four months, one would no doubt discover these singular years where the solar revolution is divided into three seasons. In our climates, however, astronomy provides us with no means of discovering such a division of the year. But, it becomes natural under the parallel of 79 degrees where the sun, invisible during 4 months, rising on the horizon toward the pole during a similar period, and taking the same amount of time to set, that the year would be divided into three seasons. The tale of Janus and the Phoenix take us toward more southern climates, where the absence of the sun is only 65 days. The celebrations of Osiris and of Adonis, whose absence, or death, is mourned during 40 days, compared with analogous practices of northern peoples who mourned the Sun during 40 days, and who celebrated the return of the Sun on the horizon in the same fashion as did the celebration of Osiris and Adonis recovered, seem to place the origin of the cult of Adonis near the 68th degree of latitude when it was brought to Syria by the Scythian Deucalion. When these fables are brought together, they seem to indicate different homelands of human beings; it is as though the human species is following the Sun and is marching towards the equator. If that is the case, then the invention of astronomy would be the result of a very singular cause. By following the Sun, and by seeking to abridge those nights which were so long and so dreadful, human beings would have discovered the roundness of the Earth, the phenomena of the inclined sphere, the obliquity of the zodiac on the equator, and the revolutions of the planets of which they previously could not have had any idea. In that purely hypothetical march, astronomy would have been founded, or would have flourished only when human beings, moving towards the south, between the 60th and the 50th degree of latitude, discovering a new sky, would have rejoiced every day in the presence of the Sun, would have discovered the entire zodiac, and would have divided this zone into four parts. This climate seems to be that of the home of that ancient and wise people, and the theater of their progressive astronomical knowledge, of which we have nothing but vestiges. This hypothesis would explain why the Chaldeans, the Indians, and the Chinese, who were the first to possess these precious remains, have been depositaries without genius.” } (34)*

In summation, it becomes evident that, depending on what region of the globe an astronomer is located, in the northern hemisphere, his written record, reflecting the angular motions of the stars, will express a division of the year which shall reflect one of

those three types of very different yearly divisions, and thus, will reveal to him, by simple inspection of the celestial behavior, at which latitude of the globe he is living in, or across which latitude he is traveling. In other words, not only is this ancient astronomer/navigator capable of determining a long cycle calendar, but he is also aware that the earth is round. Similar conditions could also apply, but in an inverse arrangement, for a navigator coming from the South Pole, and traveling across the southern hemisphere.

As his work takes him through the northern regions of Europe and Asia, Bailly uncovered the existence of more new peoples who had been extinct in ancient times. For example, he discovers the Scythians of Siberia, the ancestors of the Tartars, the Gog and Magog people which are said to be the equivalent of the Gin and Magin, and Tchin and Marchin, from which the name of China itself is derived. Also the ancient Tartar Manchous lived in the northern province of Chan-si, the northern most province which was the first province of China to be inhabited, and which is separated from the Tartar country by the Great Wall. A fifth ancient people that Bailly discovers called the Tichoudes who are exclusively known for their mining industry in northern Asia. Bailly makes the interesting observation that the whole of Asia, from East to west had a fortified northern region running approximately anywhere from the 40th degree to the 42nd degree of latitude built for the purpose of preventing the hordes of the north from invading the south. Also, Bailly reports that the myths of Adonis, and Osiris have a definite northern origin, north of the Caucasus, and were not original of Egypt or Greece.

(Figure 2. Bailly's map of Asia) (Bailly notes the following: *“On this map drawn in accordance with the prescriptions of Herodotus, we have located different ancient peoples such as the Issedones, the Arimaspes, the Hyperboreans, the Massagetes, the Amazons...we did not intend to give an exact map establishing the precise limits and positions of those people; we merely wanted to indicate their general location relative to the historical points that were treated in this work.”*)

Furthermore, Bailly discovers the Dives and Peris peoples who were the ancestors of the Persians, a different people altogether, from the Phoenicians, and other peoples of Asia Minor. The remarkable characteristic of these people resided in the fact that their temples had no statues, no divinities of human form. Fire, the most active of the elements, represented the supreme being. {*Idolatry was non-existent.*} They were from a different migration, but where from? Here, Bailly hesitates, because he has just lost the trace of the Atlantis, and has found a new human civilization which does not show any trace of Saturn, Atlas, Jupiter, Hercules, Venus, etc. Looking into the archives of the Persians, Bailly reports on the following: {*“Once upon a time there existed in Asia a race of creatures who the Persians called the Dives and the Peris, and the Arabs called Ginn. The Greeks called them Dios, and the Romans identified them as Divus, which we (in Europe) called Genius. Bear in mind that this race must have been considered as excellent and superior, since its name had been used to designate the Supreme Being, and a quality of the mind which is most rare. Its name represents today everything that human beings admire and honor the most, on this earth....It is said that before the creation of Adam, God created the Divas and gave them the government of the world during a period*

of 7 thousand years. The Peris have succeeded them and have occupied the earth for another 2 thousand years. The Divas were strong and powerful, they were giants. The Peris were better and wiser. The fables which penetrate everywhere and disfigure everything, said that the Dives were males and the Peris were females. However, these two species were distinct, but were not brought together by sexual attraction. They were rather considered enemies of each other, and I am surprised to hear that the Divas were reputed to be so evil. However, I have sufficiently familiarized myself with the meaning of words to assert that they are tradition's best means of conserving antique ideas. For example, I find in the Orient that the Divas was the assembly of ministers, the depositaries of authority; the same name which for us signifies Council. Thus, Orientals designate authority by the idea of force and power which they derive from the word Divan, just like we designate this authority with the idea of wisdom which comes from the word Council. These denominations describe at the same time the morals of a people. One rules in Asia because one is strong, one commands in Europe, because one is wise. That is not all, Sir, the word Divan also means a collection of writings, of poems, in one word, a recipient of knowledge. I therefore conclude that the Divas were powerful and educated, because, regardless of the hatred they had been subjected to, and regardless of the scar of wickedness they had to suffer from, the tradition of their strength and of their spirit has been perpetuated throughout all times, in the language of the those who, from people to people, had cursed them.} (35)

Following Leibniz's insights into the principle whereby proper names were originally appellative, Bailly discovered that the names of people, rivers, cities, etc., could be traced back to their lost homes, even long after the language had ceased to exist, and their homes had been obliterated by time. Leibniz had established a definite correspondence between the northernmost languages, including the totality of European languages which he called Scythic languages, as opposed to the meridional languages which he established as Aramaic languages. Bailly makes a similar case for the Greek hero, Hercules. { *“Not only was Hercules Asiatic, but he was also a man of the North. Everything that is born on our soil, everything that is cultivated by our hands, propagates itself through ramifications, multiplies itself through its offspring; the native land contains and preserves the roots of the plants it has produced. The name of Hercules is visibly a stranger in Greece, it is solitary and has no family. His roots are to be found in the northern languages. Her, in Swedish means an army; heria, a devastation; herbod, a declaration of war; her-bunad, the arms and the military equipment; hera-clede, a man armed for war; and finally hersull, or her-culle, a leader of soldiers. It is a recognized fact that all of the proper names have originally been meaningful, and are foreign to a language in which they have no meaning; they belong to the country in which they express the signification of something. Thus, I was right in telling you that Hercules was a hero of the North; and since Hercules is the emblem of the Sun, since the cult of this star has also come from the North, these two origins are mutually confirmed.* } (36)

THE ASTRONOMICAL ORDERING OF THE WEEK DAYS

According to Bailly, the original discoveries of astronomy have all been derived from the existence of a single and original ancient people whose contribution represents *{a unique and common heritage of mankind.}* The proof of this assertion lies in a curious discovery which, as we shall see, reflects the universal power of cognition of every human being that ever lived, and which must be carried forward, as if through the simultaneity of temporal eternity, for all future generations.

Bailly established conclusively the ancestry of the Atlantis people when he discovered a very unique and curious astronomical cycle, which had been in use in all of the major civilizations, but that no one paid much attention to. This is the discovery of the ordering of the planets with respect to the days of the week. What is so special about this arrangement, is that its very existence serves to prove the correctness of Bailly's method of discovery by *{epistemological hypothesis}*. In point of fact, it is this ordering itself which provides the clue to the uniqueness of the required proof, and in a most convincing way. Indeed, the very existence of this ordering shows that it could not have been discovered in different places, at different times, and by different peoples, simply because it is so precise in its apparently universal arbitrariness. Indeed, why would three ancient civilizations like Egypt, India, and China, adopt the same apparent absurdity as the basis for their common calendar?

Let us reconstruct this discovery which Bailly implicitly attributes to the last great astronomer of the Atlantis people, Atlas, and whose heritage and knowledge must again become the *{common heritage of mankind,}* and therefore must belong to all the peoples of the world for all times.

Let us examine how the days of the week were identified with a specific ordering of the seven planets. This is how Bailly describes this curious and unique singularity: *{“It is perhaps the most singular proof of the antiquity of Astronomy, and of the existence of this people, more ancient than the others. These planets, which presided over the days of the week, were organized in an order which is still in existence today. First there is the Sun (Sunday-Dimanche), the Moon (Monday-Lundi), Mars (Tuesday-Mardi), Mercury (Wednesday-Mercredi), Jupiter (Thursday-Jeudi), Venus (Friday-Vendredi), and Saturn (Saturday-Samedi). The same is to be found with the ancient Egyptians, the ancient Hindus, and with the ancient Chinese. This order is not based on distance, size, or luminosity of the planets. This is an order which appears to be arbitrary, or else it is based on reasons that we know nothing of.”}*(37)

Although Bailly admits that he does not know what the ordering is, a further investigation will reveal that there does exist an ordering principle to the planets relative to the days of the week, and which is not self-evident. However, before revealing the nature of this ordering, we must first make the following observations.

The first striking thing about this correlation resides in the fact that the same ordering of the planets, as applied to the weekdays, is invariable in all three major ancient civilizations. Bailly points out that the only difference between them was that the ancient Egyptians started the week on Saturday, the ancient Hindus started on Friday, and the Europeans start the week on Sunday. For Bailly, this is remarkable evidence pointing to the existence of a more ancient people, a common ancestor, who had made extensive discoveries in Astronomy before 4,000 BC. Bailly added: { *“One can say that it is impossible that chance so ordained that first these three nations would have separately come up with the same idea of giving to the week days the names of the planets, and secondly, that they would chose this precise arrangement, unique among so many others. Chance does not make such coincidences. A few scientists would like to find, in this, a proof that there existed a communication between the Chinese and the Egyptians: as for us, we are persuaded that no such communication existed, and we see, in this, a demonstration of the existence of that ancient destroyed people, who has passed on its knowledge to their successors by means of some institutions. These institutions are found in populations which were living at great distances from one another on this globe, and this forces us to conclude that they had the same origin.”* } (38)

The fact that the written record of Astronomy emerged in China, in Egypt, and in India, around 3,000 BC, shows that all three civilizations were informed of this { *“precise arrangement”* } of the planets at approximately the same time. Also, the fact that the proper names of the planets all relate to the heroes of the Atlantis indicates that this { *“precise arrangement”* } must have been discovered and decided upon at a much earlier time. As a matter of fact, no written records attest to such a communication between them, nor is there any account of how this { *“precise arrangement”* } was made at all by any of these people; only that the knowledge of such a correspondence between the planets and the days of the week existed at approximately that time, and were made use of by these people, and without indication of any understanding of the principle that underlies their ordering. The question is: why would three great civilizations commit the seemingly stupid mistake of choosing this { *“precise arrangement”* } if there were no reason for making that unique choice? What is the reason behind this apparent arbitrariness? For a Platonic investigator, this {lack of reason} is a very big clue. It is precisely this {lack of reason} which provoked Bailly to hypothesize that there was necessarily an ancient people, a common ancestor, that preceded these civilizations, and which had made extensive astronomical discoveries, at the latest 4,000 BC, and I would add, maybe as early as 12,000 BC; and so much so, that the oldest mentioned civilizations merely had debris of knowledge by comparison.

Since our own ignorance has barely kept a faint memory of this { *“precise arrangement”* }, it is only fair that such discoveries be made available to the world again today, especially to the English speaking peoples of the world, who must be really terribly unhappy in discovering that they have missed out on this great lost opportunity; for they have never been made aware, regrettably, that such an apparently arbitrary ordering of the planets had determined the days of their lives.

The truth of the matter is that this {“*precise arrangement*” } was based on several generations of observation of the seven planets’ perceived cycles, whose periodical ordering ultimately provided for the establishment of the first astronomical calendar. As we shall see, such an ordering implies, that their inventor, probably Atlas, had made the difference between the fixed stars and the seven planets, then had calculated the periods of those seven “wandering” bodies in the heavens, and had studied them, day in and day out, in the order of their increasing number of cycles. How can we know this?

Bailly has provided the following intelligence and insight with respect to the use of number 7 in ancient history. {“*It is from the number of 7 planets that the first divinities were established, and were born the respect and the superstitions of all nations, and especially the Asian nations relating to the septenary number. From there were derived the seven superior angels taught by the theology of the Chaldeans, the Persians and the Arabs, the seven doors of the Mythraic theology, through which the souls had to find safe passage in order to get to heaven, as well as the seven worlds of purification of the Indians. Tradition possibly followed written history, and it is easy to imagine how ignorance distorted ideas by abusing astronomical language. The name of the first illustrious men were given to the planets. Then, the genius behind the motion of the planet was mistaken for the individual whose name it belonged, and that was the beginning of the first apotheosis. Since the region covered by the planets does not extend outside of the zodiac, it was imagined that they had to preside over the constellations which occupy this zone. The Chinese who have 28 constellations enumerate them by the seven planets repeated four times. Similarly, the Egyptians had them preside over the 12 signs of their zodiac;...*”} (39) From this evidence, it can be inferred that the use of number 7 in Atlantis astronomy, does not originate with the cycles of the Moon, as some people may have mistakenly suggested. To the contrary, what must be discovered is that this arrangement of the 7 planets has no other origin, and no other significance, but to represent a direct and subjective reference to the period of time during which observations were made for each of them. In other words, this {*Atlantis cycle*} is a man-made cycle! Two steps will be required to demonstrate this hypothesis: one is to determine a reasonable ordering of the planets as such, and two, we must also determine a coherent correspondence with the days of the week.

First, establish the ordering of the planets, according to the number of days required for their complete cycles. Figure 3. (Illustration of the cycles of Jupiter and Saturn established by Francois Arago.) (39)

1. Moon: 28 days.
2. Mercury: 88 days.
3. Venus: 225 days.
4. Sun: 365 days.
5. Mars: 687 days. (1 year, and 322 days.)
6. Jupiter: 4385 days. (12 years, and 5 days.)
7. Saturn: 10752 days. (29 years, and 167 days.)

Secondly, establish the days of the week in accordance with this ordered progression.

- | | |
|------------|-----------|
| 1. Moon | Monday |
| 2. Mercury | Wednesday |
| 3. Venus | Friday |
| 4. Sun | Sunday |
| 5. Mars | Tuesday |
| 6. Jupiter | Thursday |
| 7. Saturn | Saturday |

Now that we have made the days of the week match the ordering of the planets, one on one, how can this arrangement relate to our weekly calendar?

At first glance, it is obvious that the above ordering has been chosen for no other reason than to represent the ordered number of daily cycles required for the observation of each and all of the seven planets, according to the natural order of their progression in our solar system. That is the key for solving this riddle. What is not so obvious, however, is how this ordering can be made coherent with our weekly calendar when only three days, Monday, Sunday and Saturday, are in correspondence with the planetary order, and when the whole arrangement does not seem to make any sense. How can this be corrected? Well, let's forget our weekly arrangement for a minute and address the mind of Atlas.

Ask yourself: why would Atlas have chosen that ordering to determine the days of the week, in the first place? Would it not be reasonable to think that it was because this is the only possible ordering of the planets that can give a progression of time within the solar system? Isn't that the *{ancient clock}* of the solar system? Could there be any other reasonable way of expressing daily and yearly cycles inside of our system as a whole? The answer is: No! Many nations have simply determined the names of the days by the numbers 1,2,3,4,5,6,7. Others have chosen an incoherent mish-mash. But, it appears that Atlas chose that ordering in order to tell us something about the constantly repeated cycles of our daily lives inside of the solar system, and the fact that it could not be known, and remembered in any other way than by setting the week days in accordance with them. How can this be confirmed with absolute certainty?

Construct a family of six polygons, formed by 7 circles each. Insert, in each polygon, the same initials for the days of the week following the ordering of the planets. As you proceed clockwise in each case, skip one day's interval for each polygon. The six arrangements will reflect a different ordering of the days of the week. Each case will show a different arbitrary ordering, at the exception of two cases, which are the inverse of each other; that is, polygon 3 and polygon 4. However, it becomes immediately obvious that the only correct arrangement is polygon 4, which is in the ratio of 4/7! Bailly already told us, implicitly, why this is the only correct arrangement, when he identified that the ancient Chinese zodiac was made up of 28 constellations; that is, the division of the entire zone covered by 7 planets repeated 4 times.

Figure 4. (Polygons illustrating the 6 different possible orderings of the 7 planets.)

This ordering is a simple *{memory function}* whose purpose is twofold: one, it serves as a reminder to humanity, that the most notable members of his Atlantis family contributed this Astronomical knowledge to the *{common heritage of mankind}*, and two, it functions as an unforgettable trace of sufficient reason, which can recall, at any moment, a passionate love for *{cognitive discoveries}*, to be communicated to future generations. In other words, Atlas used the most simple, natural, and least action way, to impact the cognitive powers of mankind, for all times, by laying claim to this unique space-time metaphorical concordance between the works of the heavenly bodies and the works of our daily activities.

Furthermore, it is even possible that Atlas may have established his own observation week by determining a period of four days for the study of each of the planets; which would explain the intervals of four days between each planet, but we have no clue to ascertain that. At any rate, there is no need to explain more than necessary. The point is made. We have demonstrated, once again, the validity of Bailly's method of discovery by *{epistemological hypothesis}*. Once this unique ordering of the weekdays is measured against the works of the heavens, the apparent absurdity of the shadows on the wall of Plato's cave become dissipated, and reason takes hold of certainty. (41)

Since no other construction, inside of our solar system, can account for the apparent absurd disorder of the planets with respect to the days of the week, only a genius like Atlas, who mastered the knowledge of multiply-connected circular action of the seven planets, could have established such a simple and natural arrangement from which are derived the days of the week, and from which not a single human being can derogate. Thus Atlas commanded the Universe, and the Universe obeyed!

Lastly, what this discovery establishes is that the method of *{epistemological hypothesis}* developed by Bailly, and demonstrated by this *{precise arrangement}* of the planets, established by Atlas, is suitable to identify the function of a higher hypothesis, whose modular measure is the expression of the incommensurable proportionality between God and man; that is, the proportionality of man created in the image of God, as expressed by the congruence between the works of the heavenly bodies, and the works of the mortals. This is the only known example of higher hypothesis which is suited for developing other cognitive discoveries in ancient astronomy, especially the discovery of the *{solar hypothesis}*. Therefore, such a heritage cannot be forgotten, and must become perpetuated for all time, and throughout all of humanity, by all accessible means. Bailly shows how such a measure relates to our own human quest for immortality: *{ "Thus, human beings carried by time and renewed by time, when they see the works of nature perish as they themselves go, while the earth is unshakeable, and is always alive, they have conceived of locating in its dimensions, the invariable type of measures they wanted to make eternal. A human being, which only lives a moment, has the ambition of extending his life through memory, and by making his institutions eternal; he wishes to extend his usefulness after his death: this being is replaced by others, who have the same*

needs, and the same desires. The module of measured pathways has been engraved upon the foundations of a common home, in order to instruct the hosts of all of the centuries to come.”}(42)

FOOT NOTES

(1) Jean Sylvain Bailly, {Lettres sur L’Atlantide de Platon et sur l’Ancienne Histoire de l’Asie}, Londres et Paris, Frères Debure, 1779, p. Aiiij, and P.6.

(2) Lyndon H. LaRouche Jr. {A Philosophy for Victory: Can We Change the Universe?}, EIR, February 11, 2001, p.21.

(3) Jean Sylvain Bailly, {Histoire de L’ASTRONOMIE Ancienne}, [First Edition 1804], Last Edition Burillier, Vannes, 1997. Bailly here shows his agreement with Thales of Miletus, one of the seven sages of Greece. Indeed, when King Amasis of Egypt invited Thales to his country, he was eager to ask him: “Where can wisdom be found?” And Thales replied: “In time.” And, one might add, with reference to Pantagruel’s visit to the land of the Divine Bottle, that it is through the incubation of time that discoveries are made, “and that is the reason why the ancients called Saturn, or Time, the father of Truth, or Truth the Daughter of Time.” Francois Rabelais, {Gargantua and Pantagruel}, Penguin Classics, Translation, J.M. Cohen, 1955, Book V, p.710.

(4) Bailly, Idem, p.28.

(5) Idem, p.29.

(6) Idem, p.34.

(7) Idem, p.136.

(8) Bailly, {Lettres sur l’Atlantide}, p.12.

(9) Idem, p.16.

(10) Idem, p.19.

(11) Idem, p.22

(12) Idem, p.29.

(13) Idem, p.32.

(14) Idem, p.92-93.

(15) Lyndon H. LaRouche Jr., WAR AS PEACE BY OTHER MEANS, March 3, 2001. This ancient impact of improving the sustenance of human reproduction on the planet might be further exemplified by the fact that the Atlantis people may well have been the first people to produce and export wine as an expression of the higher form of cultural interface between different peoples, as well as between the three spheres of Vernadsky. A civilization which is able to develop a complete knowledge of astronomy for navigation is well within the range of being able to grow some of the best wines in the world, and share with newly discovered ancient Greeks, what Pasteur had rightly called: the wonders of “life aging without oxygen.”

(16) Bailly, Idem, p.38.

(17) Idem, p.39-40.

(18) Bailly, {Lettres sur l’Atlantide de Platon}, p.3.

(19) Bailly, {Histoire de l’Astronomie Ancienne}, p.19

(20) Bailly, {Traite de l’Astronomie Indienne et Orientale}, p.Aij.

(21) Bailly, {Histoire de l’Astronomie Ancienne}, p.149.

(22) Idem, p.46-48-49.

(23) Idem, p.51.

(24) Idem, p.58.

(25) Idem, p.59-60.

(26) Idem, p.100.

(27) Idem, p.106.

(28) Herodotus, {Histories, University of Chicago Press,} Chicago & London, 1987, IV-25.

(29) Tilak, {The Arctic Home in the Vedas}, Published by Tilak Bros., Poona, India, 1956, p.42.

(30) Tilak, op. Cit., p.i.

(31) Lyndon H. LaRouche Jr., {The Present Scientific Implications of the Vedic Calendars from the standpoint of Kepler and Circles of Gauss,} Fusion Energy Foundation, January 29, 1984, p.5-6.

(32) Bailly, {Histoire de l'Astronomie Ancienne}, p.102.

(33) Idem, p.104.

(33) Idem, p.107.

(35) Bailly, {Lettres sur l'Atlantide de Platon}, p.146.

(36) Idem, p.307. See also Bailly, {Eloge de l'Leibniz}, Chez Aude et Spener, Paris, 1768, Footnote 23, p.49.

(37) Bailly, {Histoire de l'Astronomie Ancienne}, p.74.

(38) Idem, p.75.

(39) Idem, p.98-99.

(40) Francois Arago, the Ecole Polytechnique astronomer who made the epicycloid construction that I have used here for the outer planets of Jupiter, and Saturn, also wrote a biography of Jean Sylvain Bailly, in which he recognized that at an early age, Bailly himself had made the relevant opposition observations under discussion. Arago wrote: *{“The earliest observations made by Bailly, from one of the windows in the upper story of the Louvre gallery that looks out on the Pont des Arts, are dated in the beginning of the 1760. The pupil of Lacaille was not yet twenty-four years old. Those observations relate to an opposition of the planet Mars. In the same year he determined the oppositions of Jupiter and of Saturn, and compared the results of his own determinations with the tables.”}* (Francois Arago, {Biography of Distinguished Scientific Men}, Ticknor and Fields, Boston, 1859. P.102.)

(41) EIR India correspondent, Ramtanu Maitra, confirmed for me that, indeed, the days of the week for the Hindus do correspond to the seven planets of ancient Astronomy since time immemorial. They are established according to the same ordering principle as Atlas ordered them.

- 1- Sunday is Ravibar, the day of the Sun.
- 2- Monday is Sombar, the day of the Moon.
- 3- Tuesday is Mangalbar, the day of Mars.
- 4- Wednesday is Budhbar, the day of Mercury.
- 5- Thursday is Brihaspatibar, the day of Jupiter.
- 6- Friday is Shukrabar, the day of Venus.
- 7- Saturday is Shanibar, the day of Saturn.

According to the American revolutionary, Tom Paine, who had the opportunity to compare notes with Bailly, when he was in France, showed that the Saxon and Danish languages had originally named the days of the week, somewhat differently. He reported the following:

- “1.Sun-day from 'Sunne' the sun, and dag, day, Saxon. 'Sondag,' Danish. The day dedicated to the sun.
- 2.Monday, that is, moonday, from 'Mona,' the moon Saxon. Moano, Danish. Day dedicated to the moon.
- 3.Tuesday, that is Tuisco's-day. The day dedicated to the Idol 'Tuisco.'
- 4.Wednes-day, that is Woden's-day. The day dedicated to Woden, the Mars of the Germans.
- 5.Thursday, that is Thor's-day, dedicated to the Idol 'Thor.'
- 6.Friday, that is Friga's-day. The day dedicated to 'Friga,' the Venus of the Saxons.
- 7.Saturday from 'Seaten' (Saturn) an Idol of the Saxons; one of the emblems representing time, which continually terminates and renews itself; the last day of the period of seven days.”

This Saxon and Danish arrangement is obviously an irrational ordering, and an ulterior subversion of the Atlas original, especially with Mars falling curiously out of order, on a Wednesday; while this same Wednesday could be a phonetic deformation, and misplacement of Venusday.

Other languages have similarly lost the memory of the planets ordering, and have replaced them by numbers, like the Ukrainians, Russians, and the modern Chinese have done.

It should be noted that the Atlas ordering is the same arrangement that Ptolemy borrowed from him, via Hipparchus, several thousand years later, but without understanding its principle, and by stupidly assigning to their succession, an ordering of distances from the earth, which turned the whole system into an obvious absurdity.

(42) Bailly, {Histoire de l’Astronomie Moderne}, De Bure, Paris, 1785, p.157.

ADDENDUM.

THE ATLAS SOLAR HYPOTHESIS.

The *{precise arrangement}* of the multiply-connected circular action involving the 7 ancient planets, and especially, the outer planets, Mars, Jupiter, and Saturn, includes a valid set of empirical observations of their apparent *{direct}* and *{retrograde}* motions, which leads directly to the discovery of the *{solar hypothesis}*.

According to Bailly, Atlas was the first astronomer to understand, the apparent ordering principle of the planets, and to establish, possibly for the initial purpose of ordering his own observation time table, a relationship between the days of the week in correlation with the planets; a time table of four days of observations for each of the planets according to the succession of their periodical cycles. But, since we have already seen the correlation between the planets and the days of the week, let us now examine briefly the way Atlas must have observed the ordering of those planets in relationship to the sun.

Outside of the apparently fixed patterns of stars, there are seven other celestial bodies which are moving in apparent wandering motions across the sky. The motions of the sun and of the moon, among the stars describe an apparent circular motion around the celestial sphere, from east to west during the period of a year, and during the period of a month, respectively. Their motions are always forward, and in the same direction. However, this is not the case for the five other planets: Mercury, Venus, Mars, Jupiter, and Saturn.

Some planets *{oscillate}*, others appear to form the pathway of an epicycloid motion which includes a *{direct}* easterly motion, and a partial a *{retrograde}* westerly motion, plus an apparent stationary position between the two, during the course of one year. That is why the Greeks called the planets *{wandering}* stars. There is no doubt that Atlas did understand their principle, and was able to make the following observations of Jupiter, with the naked eye, and make a record of it.

Figure 5. The apparent orbit of Jupiter around the celestial sphere showing the view from earth with the opposition of the sun.

Observe that Jupiter appears to be making a series of loops around an ideal circle, and that the planet, in the different apparent positions of 01', 02', 03', 04', 05', 06', 07', 08', 09', seems to be carried by the radius of curvature whose center is not known. (Figure 5) The question is: what is the moving principle directing the rotating arm of that epicycloid, and of the apparent pathway of Jupiter in the night sky? The answer is not self-evident, but it is the sun. How can you discover that? Follow the changing position of the radius from 2-02' to 3-03', and so forth, to the position of 9-09'. On the one hand, the small portion of change from 2 to 3, on the ideal circle, represents the non-linear segment of over one month's duration along the pathway of Jupiter around the sun. On the other hand, the cycloidal portion 02'-03', represents the same period of the apparent pathway of Jupiter around the earth. This paradox creates a very special anomaly which causes an ambiguity between the circle and the cycloid, between an observation made from the sun, or an observation made from the earth!

Indeed, the difference in motion between the circle and the cycloid create an anomaly such that the direction of the invisible radii, between those two positions carries the actual proof of the *{solar hypothesis}*. That is to say, the discovery that the radius of curvature of the epicycloid is always pointing to the sun during this entire period. In other words, Mars, Jupiter, and Saturn will appear to be orbiting around the earth, but, as if they were being carried by *{an invisible arm whose direction is always oriented towards the sun!}* This is a very curious, but crucial singularity, which requires a significant moment of reflection.

First of all, take note of an important observation made by the nineteenth century astronomer, Simon Newcomb, who explains the special situation in a very revealing fashion: {*“The law of revolution of this arm is, that whenever the planet is opposite the sun, the arm points towards the earth, as in the positions 1-1’, and 9-9’, in which cases the sun will be on the side of the earth opposite the planet; while, whenever the planet is in conjunction with the sun, the arm points [away] from the earth. This fact was well known to the ancient astronomers, and their calculations of the motions of the planets were all founded upon it; but they do not seem to have noticed the very important corollary from it, that the direction of the radius of the epicycle of Mars, Jupiter, and Saturn is always the same with that of the sun from the earth. Had they done so, they could hardly have failed to see that the epicycles could be abolished entirely by supposing that it was the earth which moved round the sun, and not the sun round the earth.”*}

“The peculiarity of the planets Mercury and Venus is that the fictitious centers around which they oscillate are always in the direction of the sun, or, as we now know, the sun itself is the center of their motions. They are never seen more than a limited distance from that luminary, Venus oscillating about 45 degrees on each side of the sun, and Mercury from 16 to 29 degrees. It is said that the ancient Egyptians really made the sun the center of the motion of these two planets; and it is difficult to see how anyone could have failed to do so after learning the laws of their oscillation. Yet Ptolemy rejected this system, placing their orbits between the earth and the sun without assigning any good reason for the course.” } (1)

Although Newcomb made the mistake of treating this singularity simply as an {“important corollary”}, and failed to recognize that he is, himself, reliving a discovery, which was initially made by an ancient astronomer, he, nonetheless, makes the crucial point; that is, {*“whenever the planet is opposite the sun, the arm points toward the earth.”*} The simple fact that the two apparent positions of the radius at 1-01’, and 9-09’ indicate that the sun and Jupiter are in opposition, that is, {*the only two times in the entire year when the sun is directly on the other side of the earth opposite to the planet*} is sufficient to prove that all of the other positions of that {“arm”} must point that planet toward the sun! In other words, the physical-geometrical nature of the epicycloid motion is so well ordered that if two of the positions for each of the three planets, Mars, Jupiter and Saturn, are observed to be directed toward the sun, year after year, it is sufficient to conclude that every other position is also directed towards the sun.

This must have been a very exciting discovery for Atlas, because, in each of those observations, the three planets seem to come to a dead stop for a significant amount of time, as if to alert the observer and warn him: *{“Hey, wake up! There is a discovery to be made here.”}* The anomaly then becomes either excruciatingly painful, or it is at once solved. The fact that a planet stops in the middle of its orbit, and changes direction, requires an immediate attention, and resolution? Thus, an astute astronomer can discover, from two yearly observations of each of the seven planets, that the *{solar hypothesis becomes necessary every time the planet is in opposition to the sun.}* It follows directly from this, that the apparent 365 rotations of the Sun around the Earth, each year, are nothing but the rotations of the Earth orbiting around the Sun, during that same period of time.

Thus, the original Atlas discovery demonstrates that the motions of the outer planets are relative to, and in proportion with the actual motions of the earth, a proportion which establishes the very validity of the *{solar hypothesis}*. So, the question is: why is it that for thousands of years, after Atlas, the Ptolemaic system of geocentrism was made to prevail, in spite of the known truth? I will attempt to answer this as clinically as possible.

The idea of this *{solar hypothesis}* was such a revolutionary idea that, if it were to have prevailed in the general population of ancient times, it would have meant the loss of control of accepted public opinion by the oligarchy and its priesthood of the time. Thus, the creation of fables to manipulate the population, and maintain them in ignorance. This is why Ptolemy, who was warned against this danger, was told to reject the new conception, and to place the earth at the center of the universe, but only because it was more credible for the priesthood and the general population. In fact who would believe the paradox whereby what appears to be in motion is actually relatively stable, while what is apparently in a state of rest is actually in motion? Who would be crazy enough to believe that?

From the point of view of this paradox, the assertion of the *{solar hypothesis}* was a very daring proposition for the following reasons. First of all, the human mind is alone in establishing such a system, in which no visible evidence indicates that the earth turns around the sun. In other words, reason finds itself without the support, and without the collaboration of any physical facts that would contradict the general credibility of sense perception. On the contrary, even when reason is overwhelmed by the power of truth, the social conditioning of a people are such that the *{solar hypothesis}* is too much against appearances for it not to be rejected by public opinion. For this reason, this hypothesis was probably reinvented many times in the ancient past, but was rejected, as many times, because it disturbed the accepted order of things.

Secondly, the individuals who placed the sun in the center of the celestial motions took a very decisive and courageous *{subjective decision}* that only a few people, in the span of a century or two, would dare to undertake against public opinion; because they believed much more in the power of the truth, and especially in the power of generating a

{strong hypothesis}, a hypothesis which actually shows that scientific discovery is not objective, but subjective. That is to say, such an individual would not transfer the motions of the heavens to the apparently motionless earth unless he had made the decision to give more credibility to his reason rather than to his sense certainty; and had discovered that, by such a decision, the social order had to be reversed, as if by turning Plato's cave inside out, and the human mind had to be confronted by such paradoxes. Bailly reports that Pythagoras taught his disciples about the *{solar hypothesis}*, but that the conception was kept away from the general population because it { "would have shocked the commoner." } Thus, the multiply-connectedness of the epicycloid form of the *{solar hypothesis}* was put forward, but was also rejected as an unacceptable anomaly confronting the accepted "vox populi" of empirical sense perception with the power of subjective reason. This is why the late attribution of this discovery to Copernicus was such a controlled fraud. These may also have been the reasons why the ordering of the planets with respect to the days of the week were hidden from the general population for so long, and that their apparent absurd ordering had been further deformed by astrologers.

Thirdly, consider that the revolutionary aspect of this *{solar hypothesis}* is an early form of anti-Euclidean manifold, a non-linear conception of space-time which shall be rediscovered, much later, with the Kepler revolution leading into the calculus of Leibniz. This is confirmed by the Roberval-Pascal cycloid construction, leading to the Huygens-Leibniz development of the calculus of the evolute/involute curvatures of the isochrone curve, the isochrone paracentric and the catenary-tractrix curves, as well as the least time feature of the pathway of light directing itself, with a mind of its own, along the curvature of the brachistochrone of most rapid descent, discovered with the collaboration of Fermat and the Bernoullis brothers. This will generate the conceptual basis for what Lyndon LaRouche has identified as the Riemannian idea of multiply connected manifolds; that is, a curvature of physical space-time determined by the increase density of singularities per small increment of action. As LaRouche emphasized in a recent: { "there never was a "Copernican revolution" within the historical development of modern Europe. [Footnote] Through the pre-Roman (e.g. pre-Claudius Ptolemy), Hellenistic period of European civilization, the followers of Plato, and other scientists of that time, had established the so-called "solar hypothesis" on a valid empirical basis. In the domain of physics, this historically shaped emergence of Riemann's revolutionary notion of an implicitly orderable series of multiply-connected manifolds, corresponds to what Plato identifies as a notion of Higher Hypothesis." } (2)

So, to reestablish some truth about the Greek legend of the so-called gods of Olympus in this respect, Atlas was the Atlantis navigator-astronomer who had organized a revolution with his brother Prometheus, against the oligarchical rulers of his time. Atlas chose to fight the tyrants in his former Atlantis by elevating the cognitive powers of his people, with the most advanced expression of the power of reason: the *{solar hypothesis}*.

Indeed, as we have said, if these reasons were more than sufficient conditions for causing a major revolution by means of the *{Higher Hypothesis of solar hypothesis}* a genius like Atlas would not have failed to discover the

fact that, at only two specific moments of the year, at the point where they appear to stop moving, the inversion of the radius of curvature of the epicycloids of each of the planets, invariably, and repeatedly, year after year, did not point at the earth, but at the sun behind the earth, as their center of curvature. It was from this unique physical-geometrical principle, which is further confirmed by regular empirical observation, that Atlas established the ordering of the weekdays.

A similar inference can be made, for the discovery of the roundness of the earth, by observing the position of the sun with respect to the fixed stars. The matter is also a question of proportionality. Since an astronomer naturally seeks a correspondence between the heavens and the earth, as a form of confirmation that he was created in the image of God, he is able to project the celestial sphere proportionately to the earthly sphere. Bailly makes this decisive claim both for himself and for his Platonic method of discovery: *“Man has discovered in astronomy, in the correspondence between the heavens and the earth, the method by which to measure the world, without leaving his country, and almost without going out of his house. He has discovered that the celestial vault was absolutely similar to the spherical surface of his globe; simultaneously, he was able to measure a degree of the heavens and a corresponding portion of space on the earth; and thus, he was able to determine the dimensions of his home.”* (3) Is this not also the discovery of the measure by which all human beings are able to rejoice in the same fruits of wisdom, {“in time”}, as was enjoyed by the ancient human mind of an extinct civilization?

FOOTNOTES.

(1) Simon Newcomb, *Popular Astronomy*, Macmillan and Co, London, 1883, P.39-40. Although Newcomb was a consummate Newtonian, he shows here that, despite the {“*hypothesis non fingo*”} he was able to rediscover the hypothesis that the ancient astronomer had to make in the discovery of the {*solar hypothesis*}.

(2) Lyndon H. LaRouche Jr., {*The Becoming Death of System Analysis*}, EIR, March 31, 2000, p.20.

(3) Jean Sylvain Bailly, *Histoire de l’Astronomie Moderne depuis la fondation de l’Ecole d’Alexandrie*, Tome I, Chez de Bure, Paris, 1785, p.144.

FIN...]]