

JEAN-BAPTIST COLBERT: THE ECONOMIC DIRIGISM OF THE PEACE OF WESTPHALIA

by Pierre Beaudry, Leesburg, Wednesday, March 05, 2003.

In view of the currently collapsing world financial system, and given the context of the shortcomings of the Maastricht Treaty, European governments have a unique opportunity to distance themselves from the failure of the traditional Anglo-Dutch liberal system of private central banking, and organize the new European Axis of Peace amongst Russia, Germany, and France, into a dirigist economic policy of sovereign nation-states, based on the principle of Jules de Mazarin and Jean-Baptiste Colbert's public credit policy of the post 1648 Peace of Westphalia.

However, in order to understand this Colbertian dirigist policy of {fair trade}, it is essential to identify it as the most effective weapon against the {free trade} liberal policy of the British and Dutch maritime oligarchies. It is from that vantage point that the 17th century was the century of the {Peace of Westphalia}, the victory of the principle of the {Advantage of the Other} over the imperial designs of both Louis XIV and the Venetian controlled Habsburg Empire, and subsequently, the posthumous victory of Gottfried Leibniz over John Lock, in the application of the same principle that shaped the 18th century of the American Constitutional Republic of Benjamin Franklin into a successful anti-imperialist American System of Political Economy.

Nowadays, however, the benefit of such a Mazarin-Colbert economic principle should not merely be applied, as it were, inside of the nation of France, or only inside of the continent of a greater Europe, but should be made available for the greater benefit and advantage of all of the nations of Asia. This can be achieved by implementing the world wide economic and security collaboration proposal that Lyndon LaRouche had been promoting for decades, as the Eurasian Landbridge Corridor of Development, spanning from the Straits of Gibraltar to the Baring Straits. It is in that spirit that the following report on Mazarin and Colbert has been written, to remind the reader of the precedent created under the principle of benevolence of the Peace of Westphalia since 1648.

MAZARIN'S ECONOMICS OF THE PEACE OF WESTPHALIA.

By the early 1640's, after witnessing so much abuse by the Habsburg Emperor's feudal authority against the devastated multitudes of small and weak German states, and realizing that thirty years of war were leading inevitably toward the destruction of civilization, Cardinal Jules de Mazarin (1602-1661) decided to shift the attention of Europe away from religious conflicts, that had been manipulated into an endless cycle of vengefulness of each against all, and moved to establish a lasting peace which was to be

based on the economic and political sovereignty of the German Electorates and States, that is, economically and politically free from the tyranny of the Habsburg Emperor, and of Venetian manipulations.



Figure Cardinal Gilles Mazarin (1602-1661)

In 1642, six years before the Peace of Westphalia, Mazarin sent a negotiating team to Munster to begin working on his peace plan. The two French plenipotentiaries were Claude de Mesmes, Comte d'Avaux, and Abel Servien, two of his closest associates. Their mission was to use the power of France to intervene between the Emperor and the German Electors and princes in such a way, that the Emperor would be forced to relinquish his overpowering authority, and France would facilitate an economic program for the German states by helping them rebuild their territories. However, this result could not be achieved unless France, as the most powerful power outside of the Empire itself, were to be given the role of guarantor of German freedom on their own territory, a status of mediator that would give Mazarin's French plenipotentiaries a friendly and indirect right to intervene inside of the government of the Empire. This had to be done in such a way as not to give umbrage to the German Princes who would have rejected any direct form of foreign intervention. Indeed, what would be the benefit of replacing an Austrian imperial power by a French one?

Mazarin organized his plenipotentiaries to make their presence necessary, primarily along the Rhine River, by engaging them in the only honorable form of expansion that would correspond to the principle of {the Advantage of the other}, and that was, engage in a productive economy of {fair trade and commerce}. Thus, Mazarin began to play an entirely new and unique role inside of the Empire by increasing German freedom in production, trade, and commerce, along the main waterways of the Empire, but without impinging on the integrity of German territorial claims and economic rights. France had nothing to gain on its borders but to have free, friendly, and happy neighbors.

The Rhine River, running through very fertile provinces, had long been the target of Richelieu who, as prime minister of Louis XIII, had waged fourteen years of war to acquire key territories along the High Rhine with the presumption that the Rhine River was a God given "natural border of France." This foolish idea stemmed from the days of the Roman Empire, that is, from the same imperialist outlook that was later to become Louis XIV's folie des grandeurs, and the pretext for Napoleon Bonaparte's mad imperial conquests, a century later. As far back as the times of the Gaule Wars, that is Caesar's {De Bello Gallico}, French leaders were tempted into following the insane delusion that Imperial Roman historian, Strabo, had concocted and whereby "an ancient divinity had erected mountains and traced the course of rivers in order to define the natural borders of a people," and that consequently, the Rhine River had to be viewed as a {natural border of France.} Strabo had obviously found a tricky way to apply final causality to early form of British geopolitics.

However, that was not the view of Mazarin. Mazarin did not see the Rhine River as a border separating different peoples arbitrarily and limiting contacts between them. He saw it as a means of enhancing relationships between human beings of different nationalities. He saw the Rhine River as a great economic project rather than a way to grab more land or territory. It was a natural communication canal, a corridor of development, within German territory, but was unfortunately being commercially misused by river princes who were going against their own best interests by imposing such outrageously expensive tolls that tradesmen preferred using alternative routes which had been more to the advantage of the Venetians, the Dutch and the English, than to the German people themselves. This had to be changed.

Mazarin conducted a thorough study of the entire Habsburg Empire River system, including the region of Poland. He established a complex intelligence network from among his Belgian, German, Polish, and Hungarian allies to report back to the French plenipotentiaries who were involved in the preliminary negotiations for the Peace of Westphalia, in Munster, and to inform them on how many cities would be willing to increase their freedom within the Empire by collaborating with the French Ambassadors who would bring them peace and economic prosperity. Mazarin examined closely the potential for a north-south expansion of trade and commerce of goods being produced along all of the rivers of the Empire:

First, on northeastern border of the Empire, Mazarin studied the potential of the Vistule River going through the Polish regions of Silezia, Mazovia, and Eastern Prussia

(today Poland), and discharging itself into the Baltic Sea, near Gdansk. That river provided for Gdansk all of the riches coming from all of these regions, and could become the major port city of Poland.

Secondly, he recorded the fact that the Oder River, which also discharges itself into the Baltic Sea, after all of the production of trade and commerce from the Brandenburg, Silesia and Pomeranian plains had flowed into the city of Szczecin, could also transform that city into a major international port city.

Thirdly, The Elbe River, which starts in Bohemia (today the Czech Republic) after having gone through Saxony, Brandenburg, then flows into the North Sea northwest of Hamburg. Mazarin noted that most of the goods coming from the provinces of Lower Germany also flowed by Dresden, Magdeburg and Leipzig nearby to the west. Those cities could improve their economic situation by offering Commerce Houses for transshipments of regional goods to foreign countries.

Fourthly, Mazarin was given the report that the Weser River, which also flows through the fertile regions of Middle Germany, could be provided with a number of canals acting as import and export channels of goods to go through the city of Bremen located on that river.

Fifth, Mazarin saw another expansion of North-South trade by way of the Ems River, which crosses Westphalia, and brings all of the trade and commerce from Munster and the North Rhine region into a north-south axis opening to the North Sea.

Sixth, the Rhine River itself represented the most economically viable communication channel between Switzerland, Germany, France and the Netherlands, connecting Mulhouse, Strasbourg, Mainz, Bonn, Cologne, and carrying a great amount of trade from Alsace Lorraine, the Swiss Counties, Baden Wurttemberg, the Rhineland Palatinate, with an exit to the sea through the cities of Rotterdam and Amsterdam.

Mazarin saw that the sure way to bring about peace was to develop the general welfare of the German people by developing for their greatest advantage, the cities located at the mouth of, and along, these rivers, and thus, rescue those war torn regions by rebuilding all of the devastated centers of the Empire. He considered that this was the only way to counter the British-Dutch mercantilist control over the key cities of the Baltic and North Seas, and break their potential monopoly in the bud. For example, in 1642, he summoned his negotiators at Munster to announce and circulate everywhere that the precondition to the peace negotiations was to forbid the creation of new tolls along the Rhine River. The proposition was written as follows:

"From this day forward, along the two banks of the Rhine River and from the adjacent provinces, commerce and transport of goods shall be free of transit for all of the inhabitants, and it will no longer be permitted to impose on the Rhine any new toll, open berth right, customs, or taxation of any denomination and of any sort, whatsoever."
(Louis Pierre Anquetil, {Motifs des guerres et des traites de paix de la France pendant les

regnes de Louis XIV, Louis XV, et Louis XVI, depuis la paix de Westphalie, en 1648, jusqu'a celle de Versailles, en 1783,} Paris, De L'imprimerie des Lesguilliez, Freres, 1798. P. 68.)

According to the German historian, Hermann Scherer: " The expansion of Amsterdam and of the Dutch market had given the last blow to the ancient commercial greatness of Germany. The Rhine River and later the Escaut were closed to the German people; an arbitrary system of rights and tolls was established, and that became the end of the wealth and prosperity in the heart of Europe. The defection of many anseatic cities from the interior and the diminishing foreign trade of the Hanse destabilized the internal commerce and the relationship between northern and southern Germany. Add to this, the interminable wars, the religious fights and persecutions, and on top of all of this, the addition of custom barriers established under all sorts of pretexts, and for which the smallest princes of the empire added a cost as if it were an essential attribute to their microscopic sovereignty." (Hermann Scherer, {Histoire du Commerce de toutes les Nations depuis les temps anciens jusqu'a nos jours }, Tome Second, Paris, Capelle, Libraire-Editeur, 1857, p. 548.)

Scherer further reports that on top of the custom rights on the rivers, "most of the larger cities like, Botzen, Kempten, Buchhorn, Vienna, Luneburg, Leipzig, etc., were imposing a right of halting-place and of transshipment called the right of mile or the right of route." Each region was measuring its sovereignty by the power to raise tariffs, as if they though they could free themselves from servitude by granting themselves the privilege of enslaving others. Thus, these interruptions of the trade traffic, between southern and northern Germany, were bringing the German economy to a screeching halt. This became particularly disastrous for Brunswig and Erfurt, while Frankfurt-on-Mein and Leipzig were barely able to maintain themselves afloat, thanks to their annual fairs. Ironically, the very geographic situation of Germany required to do precisely the opposite, that is, free itself of the burden of custom barriers and open all of its mini-borders for anyone who wanted to travel in and out of the country, at low cost, not only north-south, but also east-west as well. Such were the conditions that Mazarin was studying, and attempted to bring a solution to, during the negotiating period of the Peace of Westphalia.

HOLLAND WAS A COMPANY THAT HAD A COUNTRY.

Since the discovery of America and of maritime routes to India, the control of sea-lanes and the monopoly of trade by global merchant companies have been the main function of a few maritime financial oligarchies, centered most prominently, during successive periods of history, in Venice, Amsterdam, and London, from whence they wielded the power of their central banking interests over most of the national governments of the world. The 17th century Dutch East India Company was such a commerce house. It was created on March 20, 1602, for the purpose of establishing a monopoly of trading in the East Indies.

The new company was placed under the protection of the government of William of Orange, in Amsterdam, and was composed of sixty administrators, elected by the shareholders, that is, elected by themselves to form a General Estates that became the real behind the scene government of Holland. It was like a parliamentary group composed of six different chambers, each of which was located in Amsterdam, Middleburg, Delft, Rotterdam, Horn, and Enkhuisen. The general business of international trade was put into the hands of a smaller group of seventeen directors who would meet several times a year, in Amsterdam, to determine the number of ships to send out, the period of their voyage, the time of their departure and return, and their specific destination and cargo. The executive orders had to be obeyed to the letter, and with the strictest of discipline.

According to its charter, which was later copied by the British East India Company, the Dutch Company was the only one authorized to trade with the East Indies, and no one else from Holland was allowed to engage in any such trading, and for his own personal benefit. In fact no other Dutch ship was allowed to take the route of the Cape of Good Hope, or of Cape Horn, without the permission of the Dutch East India Company. It had the right to establish colonies, coin money, nominate high functionaries of government, sign treaties with other nations, and even make war against them. This Hobbesian trading arrangement was so powerful that Holland was no longer a country with a company, but a company with a country.

In his {Histoire du Commerce de toutes les Nations}, (Whatshisname) describes the true nature of the monopolistic so-called {free trade} of the Dutch Company. In 1602, after expelling the Portuguese by force, from the Molucca Islands, in Indonesia, the fourteen ships of admiral Warwyk occupied the most important islands, especially Java, and made exclusive contracts with the local indigenous tribes, for the complete control of spice production and trade of the region; that is, at the exclusion of any other country. Whatshisname wrote:

"They (the Dutch East India Company) made war on nature herself, by letting her grow her goods exclusively where they intended to have complete control, and by destroying crops everywhere else. A Company order restricted the growth of nutmeg-trees on the Isle of Banda; another imposed a ban on cloves on the Isle of Ambon. In all of the other Molucca Islands, trees had to be burnt and slashed, and any new plantation was forbidden under threat of severe punishment. Treatises were agreed upon with the indigenous people, which sometimes had to be imposed by force of arms. The islands were closed to foreign ships and contraband was being watched night and day. The whole thing was organize in order to maintain a complete monopoly, and to prevent any price fluctuation in Europe." (p. 259)

After a few years of success that had surpassed all of its anticipations, the Dutch East India Company was transformed into a new colonial and political empire. The Dutch even made war against British colonial interests in Djakarta. The British knew precisely what the Dutch were up to and they wanted part of the action. In 1618, Admiral Jean Koen fought the British in Djakarta. The city was

burned to the ground and the British were forced out permanently. The city was rebuilt in 1621 under the old feudal name of Holland, Batavia, which, from that moment on, became the center of all of the Dutch operations in that area of the world. Batavia later became known as the Pearl of the Orient. Such a monopoly expanded into India itself, into Ceylon in 1658, into Malacca (Malaysia), the Islands of Sonde, Celebes, Timor, Borneo, Sumatra, and then beyond into Thailand, Taiwan, China, and Japan.

Since the shareholders of the company were the ones fixing the prices, the little green men under the floorboards of the stock exchange in Amsterdam kept improving the differences between the cost of {buying cheap spices and selling them dear}, which brought a profit from anywhere between 200 and 300 percent. In his {History of Dutch Commerce}, Lueder estimated that from its foundation in 1602 until 1739, the Company had bought for a total of 360 million florins and sold for a total of 1,620 million florins: a spoiling of nature, and of the general welfare of the people of Holland and Indonesia, in the amount of 1,26 billion florins.

COLBERT AND THE BIRTH OF POLITICAL ECONOMY.

Jean-Baptiste Colbert (1619-1683) was the greatest political economist and nation builder of the 17TH century, and his ideas and influence have determined the entire course of development of all modern nation-states, including the United States of America, since the Treatise of Westphalia, in 1648. Initially promoted as Intendant of the household of Cardinal de Mazarin, Jean-Baptiste Colbert later became Controller General of the Finances of France during the reign of Louis XIV. Colbert was the first world leader to successfully apply the new principle of Westphalia to economics that had been initiated by the Duke of Sully, under Henry IV, and would later be followed successively by Gottfried Leibniz, Benjamin Franklin, Alexander Hamilton, John Quincy Adams, Henry Carrey, Frederic List, Franklin D. Roosevelt, and Lyndon H. LaRouche Jr.

Colbert's seminal contribution to a humanist republican conception of political economy was initially reflected in France's historical fight for the defense of nation-states through its diplomatic role played before, during, and after the Peace of Westphalia, in liberating the peoples of Europe from the predatory control of the Austrian Habsburg Empire, and the central banking role of the Venice of the north, the private Anglo-Dutch {free-trade} system. For his mission to succeed, however, Colbert had to develop a combative principle of conduct and understanding which, in its generalized application, was to be an unassailable weapon, capable of not only of destroying both the private central banking looting operations and the Habsburg imperial lust for subjugating the peoples of Europe, but also be potent enough to destroy war itself. Colbert applied the principle of the Peace of Westphalia; that is, the principle of {the Advantage of the other,} to a grand design of economic development of France itself.



Figure Jean Baptiste Colbert (1619-1683)

For Colbert, the most important asset of the {common good}, and the most powerful enemy of war itself, was the development of infrastructure projects. The following pages will show how, in the footsteps of the initial thrust given by Henry IV and Sully, Colbert carried the principle of Benevolence of Cardinal Mazarin into large-scale and long-term economic development projects.

From the vantage point of long waves of history, if Colbert was the farsighted forerunner of Leibniz, of Franklin, and of LaRouche, it was because his towering figure stood on the shoulders of Jeanne d'Arc, Louis XI, Henry IV, Sully, and Mazarin, all of whom were his teachers and represented the most powerful enemies of French existentialism and romanticism, as well as of the British-Dutch-Venetian liberalism of {free-trade} central banking, for whom the very name of {Colbertism} still rings as anathema in the ears of the British-Dutch oligarchies today. In fact, any economic outlook organized by a strong centralized government that favors the {common good} through great public works, and public credits, has always been anathema to British-Dutch monetarism.

Jean-Baptiste Colbert did not come from a noble family, as several historians have falsely claimed. He did not need this pretentious kind of aggrandizement. Jean-Baptiste was the son of Nicolas Colbert and Marie Pussort, a family of honest merchants, who had traded in Reims and in Lyon, from 1590 to 1635, a period that became the turning point for French economic development with the revitalization of manufacturing

under Henry IV and Sully. Nicolas' brother, Odart Colbert, was a trader in Troyes working with an Italian banker partner, located in Paris, by the name of Gio-Andrea Lumagna, with whom he had developed an excellent commerce of draperies, bolting-cloth, linen, silk, wines and grains, which they produced in France and traded in England, the Lower-Countries, and Italy. Jean-Baptiste worked a few years in the bank of Lumagna, until 1649, one year after the Treaty of Westphalia was signed, when Lumagna became the personal banker of Mazarin, and recommended that Colbert become the Cardinal's household manager. The meeting of such great minds foreshadowed the unraveling of a true French revolution.

THE "REVENGE OF THE CRADLES."

Looking at Colbert from British and some American history books, one would be convinced that Colbert was a mercantilist free trader. That is a perverse lie. Anyone identifying Colbert as a mercantilist has to be either a total ignorant fool, or a British agent, at best. The British hated Colbert precisely because he was not a mercantilist; he was feared because he was a humanist nation builder. Colbert's policy was to undertake and fund, from the royal coffers of Louis XIV, all forms of industry, mining, infrastructure canal building, city building, beautification of the land through "Ponts et Chaussees," Arts et Metiers (Arts and Crafts), including the promotion of all aspects of science through the creation of the Royal Academy of Sciences, under the leadership of Christian Huygens. Thus, clearly, Colbert's idea of {the Advantage of the other} was aimed at benefiting future generations. It precluded primarily the stupid idea of {competition}. {Competition} is nothing but a politically correct term for {enemy.} With the idea of building things to last, Colbert's application of the principle of {the Advantage of the other} became the institutionalization of the economics of eternity.

The industrial protectionist system of Colbert is generally known for four major reforms that marked the beginnings of the modern industrial nation-state:

- 1- He had organized and funded a system of industrial corporations and infrastructure projects that provided job security for all types of skilled and non-skilled labor; that is, workers of all types of {arts et metiers}. The source of such wealth was the Royal Academy of Sciences.
- 2- He established protectionist measures for all standardized French clothing products, such that no dumping of foreign goods were allowed in France, except at very high cost. Colbertism became synonymous with protectionism.
- 3- He funded and supported population growth. He considered that war, and ignorance were the two main causes of population reduction. He believed that the "government had to take care of its poor," and that its role was to foster the increase of the population density of the nation.

- 4- He accompanied industrial measures with a reform of civil justice that became the first Civil Code of France, lasting 130 years until it was destroyed by the imperialist code of Napoleon at the turn of the 18th century.

These four points were enforced with total energy and determination. In other words, the entire Colbert system of nation building was based on state controlled industrial development, a dirigist policy sparkled with closely selected and productive private initiatives. Colbert looked at the nation as a productive farmer cares for his farm: the entire territory of France was meant to become the land where the common good was to grow unimpeded. He protected it, showered it with public funds, enriched it, and let others reap its beautiful fruits. He cultivated the common good by weeding out the privileges of aristocracy, he encouraged new industries and funded population growth by creating tax incentives and special bonuses for married couples. He put protectionist barriers all around France, against British, Dutch, and Belgium dumping. In one word Colbert became the champion of skilled labor and the sworn enemy of commercial aristocracy, which had been living off of their privileges, like the feudal aristocracy had done, during the past centuries. Colbert reestablished the priority of the {common good,} the {common wealth} of Louis XI. The following case suffices to make the point.

During the 1660's, there still persisted a three century old privilege that dated back to the shameful 1358 edict of Charles V that stated that the laws of commerce "are made to profit and favor each craft rather than the common good." <note.> (Pierre Clement, {Lettres, instructions, memoires, de Colbert,} Tome IV, Imprimerie Imperiale, Paris, 1867, p. 216.) Colbert turned this back onto its feet and, correspondingly instituted his first Edict on April 8, 1666, which was made to secure {All of the manufactures and factories of the kingdom} for the benefit of the common good. From that day on, Colbert wrote hundreds of measures and regulations until the entire garden of France began to bloom again, after the devastation of the religious wars. From that moment on, Colbert not only had a total control over the production of all French clothing goods, but he instituted a master's degree for the work force, in order to improve the quality of all manufacturing products.

Colbert invested about 500,000 pounds a year from the coffers of the King in new manufacturing investments. This money went for improvements in technology, improving skills of the workers to improve the quality of the products, and incentive for population growth. A lot of these new technologies were imported from Italy, Holland and elsewhere, to improve the quality of tapestries, linens, silks, etc., but most of the improvement was done on location. Historian Pierre Clement reports that Colbert "stopped at nothing in order to fortify the new establishments; each dyeing manufactures received 1,200 pounds of encouragement; the workers who married girls of the locality where they were employed, would receive a bonus of 6 pistoles, plus 2 pistoles at the birth of their first child. All apprentices were given 30 pounds and their own tools at the end of their apprenticeship. Lastly, the tax collectors were ordered to give a tax exemption of 5 pounds for those employed in certain more privileged manufactures." <fn> [Pierre Clement, Op. cit., p.235.]

Colbert further established that all workers who married under the age of 20, were exempt of taxes (tailles and other public charges) for a period of 5 years, and 4 years if they married at 21. The very same advantages were extended to older workers who had 10 children, including those who died in the service of the nation. As of July 1667, all workers who had 10 children could receive a pension of 1,000 pounds a year, and 2,000 pounds a year, if they had 12 children. After 16 years of such a regime, from 1667 to 1683, the program was stopped: the French population had reached a level of 20,000,000 people, the highest level ever reached up to that time, and France represented the largest national population in all of Europe. The policy was appropriately called Colbert's {Revenge of the Cradles}(Revanche des Berceaux). The same policy was established in the French colony of Canada.

COLBERT'S REFORM OF JUSTICE

The reform of the civil justice system, in 1669, was one of Colbert's greatest and most enduring achievements. It was so efficient and complete that it became accepted as the Civil Code of France for a period of 138 years, until the feudalist faction of the French oligarchy replaced it with the Code Napoleon, in 1807, and turned France, one more time, back to a fascist imperial police state. The Code Napoleon still rules France to this day.

Under the protection of Mazarin, Colbert was able to launch the greatest offensive against the very powerful aristocracy of France, and go against all odds; that is, against both public opinion and backward local prejudices to implement his reforms. He established the most sweeping reforms of justice of any nation since the beginning of history. Colbert succeeded in accomplishing what even the great Sully before him had attempted, but was not able to do. Colbert systematically extirpated venality from public office. He established a system of state counselors to replace the old civil order of Roman law, and totally transformed the regional traditional customs law. One of his most effective administrators and collaborators, was the King's Counselor to the Parliament of Toulouse (Court of Justice), the famous mathematician, Pierre de Fermat.

As early as the reign of Louis X (le Hutin) (1314-1316), {judicial offices} were sold to the nobility at a minimal fee paid to the King, but which brought incredible profits to the office holders. This was done as a matter of course, under the absolutely trusting axiomatic assumption that "the monarchical system was based on honor and that the nature of honor is to have for Censor, the entire universe." (Montesquieu, {Esprit des Lois}.) This being the case indeed, why should anyone raise an eyebrow about the "honesty" of any member of the court to whom the public good was entrusted? As Montesquieu himself argued, after all, "No one believes he is lowering himself by accepting a public function." However, the heart of man being everywhere the same, Colbert understood very well that, under any government, at any time, the honor of fulfilling the duties of an office of state can always be mixed with a certain amount of contrived interest which brings justice to tilt its balance on one side rather than the other.

For example, public opinion had it, in those days of the monarchy, that the rich were not only better off, but also better educated than the rest of the population, and because of that, they had more dignity and impartiality; and since paying for their public office was a way to bring in money for the King, they demonstrated to be less venal than others, and therefore should not pay any taxes, because the investment of their capital was obviously benefiting the kingdom more than did people with less money, and whose contribution to the common good was less than their own, and should therefore be made to pay taxes more readily. And, that is the way the balance of justice tilted for centuries.

The most famous example of abuse of public trust during that period was known as the Fouquet Affair, the scandalous case of the Superintendent of the Finances of the King. In November of 1661, Colbert forced Nicolas Fouquet to be brought before the tribunal of justice for having stolen an immense fortune from different public offices, and from the treasury of the King. Acting as a central banker and borrowing for the King and Mazarin, to whom bankers were told not to lend any money, Fouquet was playing the interest rates game in his favor, and since he had all of the controls to blur the differences between public and personal interests, he was able to hide a huge fortune, until Colbert got a whiff of it. In one instance, for example, Fouquet had managed to reassign to his own bank account the values of a loan that was never made, but that the State paid him 6,000,000 pounds. During the last four months before his trial, he had managed to siphon off a total of 4,000,000 pounds in amounts of between 10,000 to 140,000 pounds that he stole from the different tax-farms of the Charente, Pied-Fourche, Lyon, Bordeaux, the Dauphine, etc. Fouquet had even prepared himself a fortified refuge in Belle-Isle, in case of a disgrace. In 1661, the government brought him to trial where he was found guilty of massive embezzlement. All of his goods were confiscated, he was condemned to exile, and then later imprisoned for life in the fortress of Pignerol. Clement wrote:

"When Mazarin died in 1661, leaving France in a state of peace on the outside, freed from the factions on the inside, but tired out, without resources, and scandalously exploited by any man who had a hundred thousand ecus to lend to the treasury at 50 percent interests; Colbert who, for a long time, was following with diligence the progress of corruption, who knew all of its ruses and weaknesses, and who was revealing them to Louis XIV; Colbert whom the King consulted first in secret, because the need he had of him was so great, necessarily had to be brought into the Council and occupy the first place. His special skills, his antecedents, his character, his hard work, the important fortune of Mazarin that he administered so wisely during fifteen years, but most of all the modesty of the functions he had held under the Cardinal, everything pointed him toward Louis XIV..." <note> (Pierre Clement, Op. cit., p. 94. In his article on {Colbert's Legacy to the American System}, EIR, January 1992, historian Anton Chaitkin appropriately likened Colbert 's 1661 bold intervention as a real {coup d'etat}.)

In March of 1661, the 23 year old King Louis XIV replaced Nicolas Fouquet by Colbert as the Superintendent of the Finances. If Louis XIV was so upset by the corruption, it was not due to moral indignation but because it was happening under his watch. Colbert recognized that and did not miss the opportunity to make radical changes.

Never was there a more universal minister such as Colbert in the entire history of France. Formed at the school of Sully and Mazarin, Colbert served during twenty two years successively as the Superintendent of Finances, Superintendent of Building Trade, Comptroller General, Secretary of State, Secretary of the Navy, Minister of Trade and Commerce, and last but not least, he was also the equivalent of a Minister of Sciences and Technology. He made profound reforms in all of these public domains, including Criminal, Commercial, Police, Fine-Arts, Water and Forest, etc.

After the scandalous trial of Fouquet was over, Colbert became a popular hero and was given the green light for the creation of a Chamber of Justice that he had already proposed to Mazarin, back in 1659. This Chamber of Justice was composed of the different presidents of the Parliament of Paris, top counselors of the Parliament of Paris, of Toulouse, Grenoble, of Bordeaux, of Dijon, of Rouen, etc. In all, Colbert had commissioned twenty-seven judges, to clean up the biggest financial mess the nation had ever seen. The edict which had circulated in every city of the kingdom stipulated that all of the financial officers of the nation who had been in exercise since 1635 were required to establish a justification for all of their legitimate goods, including their inheritances, the acquisitions they had made, the amounts given to their children either for their weddings, or by acquisition of offices. If the information was not given to the attorney general within eight days, all of their goods and properties were to be seized and confiscated.

Colbert established all sorts of means to force the truth out in the open. The edict stipulated that the King would reward a denunciator with the value of 1/6 of the fine given to anyone convicted of fraud, financial abuse, or embezzlement. On Sunday, December 11, 1661, as well as on the following three Sundays, Colbert had all of the parish priests of the Paris churches make the announcement that the parishioners, under threat of excommunication, were obliged to speak out about all known financial abuse in their parish. The first operations of the Chamber of Justice had created total panic throughout Paris. Friends of Fouquet, such as Vatel, Braun, and Gourville, left for London, other were tried and sentenced. After a few financiers were sent to the Bastille, the whole nation began to realize that Colbert really meant business. Then a lot of people began to be identified to the Chamber of Justice.

After Colbert's made a public showcase of this insane system, the idea of buying a public office became so unpopular that people circulated Colbert's quip that said: "Each time the King creates an office, a new idiot was created to buy it." The reforms were so sweeping that, during the period of only a few years, a sum total of 419,000,000 pounds had been recuperated from the income of venal offices, and no less than 40,000 noble families had been affected by this axiomatic change. All of those funds went for the development of industries, and slowly, but surely, the balance of justice began to tilt towards the common good.

THE ROYAL ACADEMY OF SCIENCES

The greatest achievement of Colbert was the creation of the Royal Academy of Sciences and its technological projects. This was not just another academic teaching institution, but rather, a research center for scientific and technological development that had the mission of creating innovations in specific areas of scientific activities to improve economic development in the fields of astronomy, chemistry, optical physics, geometry, geography, industrial engineering, canal building, agriculture and navigation. Each area was to be oriented toward technological advances with the application of new discoveries of physical principles. This Colbertian Academy of Sciences became the model institution from which Leibniz later created his own academies in Berlin and Saint Petersburg.

In 1662, Colbert's good friend and collaborator, the Toulouse Counselor of parliament and mathematician, Pierre de Fermat, joined with Blaise Pascal, Gilles de Roberval, Pierre Gassendi, and a few others, to form the core of a society that met regularly, and in private with Colbert, in the Royal Library, until the time the Academy was to be officially located in the Louvre Museum, in 1699. Scientists and mathematicians from all over Europe were invited to join the new institution, all of whom had been challenged, in 1658, by the young Pascal into discovering a geometric construction for determining the characteristics of the cycloid curve.

The offer of salaries and pensions were very attractive, and the prospects of collaborating with the best scientists of Europe was even better. Colbert sent out personal invitations to the Dutch astronomer and geometer, Christian Huygens, to the Italian astronomer and civil-military engineer, Gian Domenico Cassini, to the young German Philosopher and future creator of the Calculus, Gottfried Leibniz, to the young Danish astronomer, Ole Roemer, to the German mathematician Tschirnhauss, to the German astronomer Johann Hevelius, to the Florentine geometer, Vincent Viviani, and even to the British mathematician, Isaac Newton. Huygens, Cassini, and Roemer immediately accepted the invitation, others accepted a little later. On December 22, 1666, Huygens was nominated as the President of the Royal Academy of Sciences. (See picture of early meeting of the Academy on Internet at {Longitude and the Academie Royale.})

Colbert believed that the most important means of securing the future of France was to persuade the young King to fund and support great scientific and technological projects that would both increase the power of the nation internally, as well as extend its contributions abroad. There were several great projects of note. One was the determination of {longitude}, a project in continuation with the Platonic Academy of Alexandria following through the astronomical discoveries of Erasthenes and Hypparchus. This caused a major advance in the geographic knowledge of Europe by improving the accuracy of maps and sailing charts through the introduction of new geodesic studies, a precursor to the revolutionary study that Karl Gauss made two centuries later. This effort resulted into the first accurate knowledge of the Earth's

geography. Parallel to this were the creation of the Paris Observatory, and the successful grinding of very powerful telescope lenses, hand polished by Huygens himself.

The second and most significant and far reaching scientific breakthroughs came with new discoveries in the field of optical physics, especially the revolutionary discovery of principle by Roemer in the determination of the finite speed of light (reference to Poul Rasmussen's piece on Roemer), by Huygens in the discovery that light propagates in spherical waves, by Fermat who had demonstrated {the principle of least time} in light refraction, and by Leibniz with the revolutionary application of his least action principle to optical processes by means of his calculus. <note> (See G.W. Leibniz, {The discoveries of Principle of the Calculus in Acta Eruditorum}, unpublished translations by Pierre Beaudry.)

A third project, involving the special collaboration of Huygens and Leibniz, was the development of a successful steamboat invented by Denis Papin. (see illustration of Papin's steam machine. Reference to the piece of Philip Valente on Papin.) The Papin project was unfortunately sabotaged by British intelligence, as a result of which the implementation of the steam engine was suppressed for another hundred years. In 1673, Leibniz had also built a working model of a calculating machine with the collaboration of the Royal Librarian Pierre de Carcavy, and Huygens. It became such a success that he was immediately asked to build three models, one for the new Observatory, one for the King, and one for Colbert. (Illustrations of the Pascal and Leibniz calculating machines.)

After Colbert died, in 1683, a new witch-hunt began against the Protestants of France, and the Academy suffered greatly when, in 1685, under the revocation by Louis XIV of the Edict of Nantes, which had guaranteed freedom of religion for Protestants since Henry IV, Ole Roemer and the other "undesirable Protestant" Christian Huygens, were forced out of the country. The Academy survived for a hundred years under Fontenelle, Condorcet and Lavoisier, but it was ultimately destroyed in 1793 by the Jacobin counter-revolution. It was restored after Napoleon, but without its Colbertian soul. When the great chemist Lavoisier was brought to the guillotine, in 1794, Danton declared: "the revolution has no need of scientists." However, the most direct and powerful industrial result of Colbert's Academy projects was the realization of the greatest hydraulic engineering masterpiece of the period: the Languedoc Canal.

THE ECONOMICS OF GENEROSITY: THE LANGUEDOC CANAL

The Languedoc Canal (1667-1681), known also as the {Canal du Midi}, was a typical example of how Jean-Baptiste Colbert, and his protege-engineer, Pierre Paul Riquet, gave a new meaning to the Mazarin principle of the Peace of Westphalia. In fact, the Languedoc Canal represented, for several hundred years, the most advanced form of hydraulic technology in the world, and the most economical route for the transport of merchandise between the northern nations of Sweden, Denmark, Poland, Northern Germany, Belgium, and the southern nations of Italy, Greece, Venice, the Balkan States,

Turkey, Africa and the Orient. The construction of the canal provided a short cut of 240 km across France, an economy of 3,000-km represented by the detour around Spain, and an economy of taxes by avoiding the Habsburg Empire tolls at the choking point of Gibraltar. Had the British and Dutch monopolies of the time been reasonable in their trade negotiations with France, this {fair-trade} system would have also brought their costs of goods down. This Colbertian {fair trade} strategy of political economic offered the Peace of Westphalia more unity and more strength than any other economic bilateral treaty agreement that may have been signed during that time. In point of fact, the Peace of Westphalia principle of {the Advantage of the other} was proving itself to be tailor made for grand designs of infrastructure projects such as the Languedoc Canal.

As far as external commerce was concerned, Colbert always extended the same {fair trade} policy to all nations, including Holland and England. But neither the Dutch nor the English accepted the Colbert policy of {fair trade}. That is why Colbert had to send his toughest Ambassador to England, his own younger brother, Charles Colbert de Croissy, the same brother who had served as a Peace of Westphalia ambassador to Vienna, under Mazarin, in 1660.

After a number of tough negotiating years in which Charles Colbert was forced to make a certain number of sacrifices, an amusing point of contention came up, that could serve as a precursor to the antics of Lewis Carol in {Alice in Wonderland}. This anecdote is a testimony to the "greatness" of England, and a tribute to her constant attempts at gaining recognition for its maritime supremacy over the rest of the world. In 1669, Colbert reminded his ambassador "not to be duped" by British pretensions on the high seas; the issue related to the British admiralty requesting the right to be saluted first, on all of the seas of the globe.

In a letter dated July 21, 1669, Colbert wrote his brother a note in which he stated: "...As far as the Ocean is concerned, even though they are the more powerful, we have not, until now, come to the view that their pretended sovereignty has been recognized; therefore it pertains to the common good of the two nations, and of the interest of the two kings, to establish this parity on all of the seas... As for the treaty on commerce, the ideas of Lord Arlington are very reasonable, since they tend to establish a reciprocal treatment between the two kingdom." Colbert ended up recommending that salutes be considered optional, but the liberal {free trade} looting policy of England maintained a steady course.

The point here is that for the first time, in 50,000 years, the control of sea-lanes by financial oligarchies was being put into check. The maritime powers of Venice and the British-Dutch East India company monopolies were being challenged by Colbert's emphasis on continental infrastructure as the growth principle for economic development of the sovereign nation-state. The same principle is applicable today, with the LaRouche Eurasian Landbridge concept, in which all European governments see the benefit of Asiatic nations as the natural outlet for their export of technologies. The soon to be signed agreements for the extension of the German-Chinese Magnetic levitated

Transrapid train, already commercialized in Shanghai since January 1, 2003, is a prime example of this type of {fair trade} policy.

The Languedoc Canal Project was the greatest project of the seventeenth century; a triumph of engineering skills, built by a self-made geometer-engineer, Pierre-Paul Riquet. This Herculean task, which had been deemed impossible since the Roman times, was a gigantic water infrastructure work that Charlemagne himself had dreamed of building. In 1516, Francois I had asked Leonardo da Vinci's opinion on the feasibility of a canal in that region of France. Leonardo spent his last years in Amboise, painting and studying possible canal connections between the Loire and the Seine Rivers. Other studies had been made for a canal through the Languedoc region during the reigns of Charles IX, Henry III, Henry IV, and Louis XIII. It was not until Colbert that a solution, to what had become known as the impossible canal du Midi, was discovered.

There were four main reasons for the construction of this great canal. First of all, coming out of the Thirty Years War, this canal project corresponded to a greatly needed change of strategy and of political economy for the entirety of Europe. As we have said, the crossing of France between the Atlantic Ocean and the Mediterranean Sea, provided French and allied ships with a strategic by-pass of Gibraltar, an area that had become very dangerous, and quite costly, during the interminable wars with Spain and the Austrian Habsburg Empire.

Secondly, the canal set the example for joint public and private infrastructure development projects along waterways of any nation, providing improvements for land-locked areas, and opening them up to increasing exchange of cultures with other regions and other nations. Moreover, both the King and Riquet were to receive a regular income stream from low cost tolls. The canal was going to pay for itself in a very short period of time, and provide for a small margin of profits for repairs and for the introduction of new technologies. Riquet made it explicit that he had no intention of building the canal for the purpose of financial gains. Thus, the Peace of Westphalia trade and commerce studies, made earlier by Mazarin for the benefit of the seven river regions of the Habsburg Empire, began to enter into a renewed focus of interest. The canal was going to create the greatest import-export capabilities ever imagined for that time. <note> (The Mazarin plan for developing rivers and canals in Germany was begun under the reigns of the Grand Elector Frederick William I (1620-1688), the founder of the German Nation-state, and pursued by his successor, the Great Frederick II (1712-1786). According to Scherer, it was Frederick II who fully succeeded in creating a real internal economic system centered on a whole series of canal connecting rivers from east to west. After Frederick William I built the great trench that connected the Oder and the Elbe rivers, in 1668, Scherer reports of the following continuation:

"In order to spur internal commerce, Frederick II continued the canal works of his predecessor. In Westphalia the Rhur was made navigable, and an outlet was created to the saline Unna. The canal of Plauen established the most direct connection between the Elbe, the Havel, and the Spree; the Finow canal connected the Havel and the Oder; the Bromberg canal connected the Oder and

the Vistule. These navigable channels soon gave a tremendous impulse to the commerce of the Steps and to the neighboring provinces with the basin of the Elbe, Silesia and Poland, and thus contributed greatly to the rise of Berlin as a commercial city."(Scherer, Op. cit., p.581.)

These canal routes correspond today to the different sections of the Mittelland Canal crossing Germany from West to East connecting all of its main rivers from the Rhine to the Oder and the Vistule, and linking the main cities of Bonn, Munster, Osnabruck, Hanover, Braunschweig, Magdeburg, Berlin, as well as Bydgoszcz (Bromberg), in Poland.

Thirdly, the canal provided for an extraordinary increase of economic activities in the Languedoc province itself, where the High-Languedoc wheat production could be shipped easily eastward to the wheat starved Lower-Languedoc region. In exchange, the Lower-Languedoc production of excellent wines could be shipped easily westward, while the Lyon linen and silk goods could also travel the same route. This corridor of communication also provided the entire region from Toulouse to Beziers with the development of new olive groves, vineyards, greater expansion of granaries in the Lauragais region, new trade companies and mills, and prospects for mining. The more farsighted citizens of Castelnaudary, for example, even paid Riquet to divert the canal toward their town. Riquet had also projected the creation of new towns along the canal route.

Fourthly, and not least, the entire course of the 240 km long canal was going to be carved within one of the most beautiful landscapes in the world, and was going to be covered with 130 arched bridges built by the "beautifying engineers" of the {Ponts et Chaussees}. Colbert and Riquet were both of the conviction that {if it is beautiful, it is useful!}

THE RIQUET PARADOX: THE "PARTING OF THE WATERS."

However magnificent the idea was, and however great the advantages were anticipated to be, all of the proposals to link the two seas with a canal, during a period of a thousand years, were demonstrated to be totally impracticable, and one plan after the other presented by the best engineers in the world, were rejected, each time. There were two ostensible reasons why this project was considered to be impossible. One was that the two rivers flowing respectively into the Atlantic and into the Mediterranean, the Garonne River and the Aude River, could not be connected because of difficulties of terrain between the two rivers, and the technology to raise any great quantity of water upwards of 190 meters above sea level was not feasible. The other reason was that there was no other visible source of water in this quasi-desert region of Languedoc that could provide the canal with the required amounts of water.

However, there was a third and more profound and subjective reason. All of the canal plans were rejected because none of them reflected the necessary discovery of principle that would make it work. Just as Brunelleschi had discovered the physical geometric principle of the catenary for the erection of the "impossible" Duomo of the Florence cathedral, Riquet had discovered the required physical geometric principle that solved the problem of the "impossible" Languedoc Canal.

Pierre-Paul Riquet was a descendent of a Florentine family by the name of Arrighetti that was changed into Riquetty, and then to Riquet. His father, Count of Camaran, who was a public prosecutor for the Crown, educated his son in public management and got him a post in the administration of the Languedoc region, as a Tax-Farmer in Beziers. As a young man, Riquet attended the council meetings of the Counts of Languedoc with his father, at which there were several presentations of canal projects "linking the two seas." After witnessing several unsuccessful debates on the question, Pierre-Paul Riquet became absolutely passionate about finding a solution to this "impossible problem."



Figure. Pierre Paul Riquet (1604-1680)

Here, I must pause for a moment, and ask the reader for his indulgence, because the hypothesis I am about to develop has no written evidence to support it. However, since Riquet did make the discovery, and the canal did get built, it must be the case that the following description relative to his process of discovery must hold some truth with respect to what must have happened in the mind of this great man.

One day, a paradox must have struck Riquet like a sudden flash of lightning in a clear blue sky; something like a miracle, or a revelation in the form of a simple question must have struck him such as: "How can the flow of a canal go into two directions at once?" In a way, it was a very simple question, but no one else seemed to have approached the problem quite like this before him. The question might appear quite insignificant to some readers, but it must not have been so insignificant to Riquet, since he had a drawing made, some times after his discovery, to commemorate a pedagogical reconstruction of his principle, showing himself exposing to the Commissioners of the King and of the States, the solution to the problem that he had called, in a not so disguised reference to the Moses miracle at the Red Sea: "the parting of the waters."

The drawing simply shows how a stone placed before the water rising from the Fontaine La Grave, on the Plateau de Naurouze, divided the stream of water into two opposite directions, one part flowing toward the Atlantic Ocean and the other flowing toward the Mediterranean Sea. Riquet's paradox had become a metaphor for what he then began to call the "canal of the two seas," or the "communication of the two seas." Thus, Riquet expressed how he had found the solution of the impossible problem where nobody thought of looking before, in a paradox formulated in his own mind.

The "canal of the two seas", as he called it, had become his life's mission. Year in and year out, Riquet made experiments, and created model projects on his own land, studied different locations around Montagne Noire, traveled the distance many times, searching for the solution to the source of water that would connect the two seas. If the illustration of the "parting of the waters" makes the point obviously enough, the fulfillment of the same principle was going to be another matter altogether. What was less obvious was that there was only one ideal spot in the entire distance between the two seas where Riquet's principle could be applied, and that had to be precisely at the highest point that divided the entire region between West and the East. The problem was that when Riquet found that unique spot, there was no source of water at that location.

It was not until the ripe age of 58, after serving the government of Colbert, as a controller of the Salt Tax (Gabelle) in the region of the Languedoc for 20 years, that Riquet confirmed his hypothesis by conducting a crucial experiment. By that time, he had enough of a personal fortune to invest in his "grand design", as he called it. So, Riquet asked Colbert to let him resign from his tax-farming assignment, and to hire him as chief engineer of the canal project. Colbert agreed, and got his Toulouse Counselor, Pierre de Fermat, to authorize the project that was going to be built in his jurisdiction.

Riquet was able to solve his paradox by demonstrating how the result of its resolution was going to express itself in the increase of man's mastery over nature, a definite {increase in potential relative population density.} He knew beforehand, that the construction of the canal would create an increase of production and an expansion in markets inward and outward, which would result especially in the increase of French production of wheat, wines and fabrics, being exported toward England, Sweden, Germany, Holland, Italy, Greece, and so forth.



Figure. General map showing the different levels of the canal from Toulouse to Beziers.

A Languedoc teacher, Philippe Calas, living today near Beziers, shows on his web site called "Le Canal du Midi en Languedoc," how Riquet tackled the different engineering problems. He writes: "But there was one overwhelming problem facing all of these would-be canal builders: how to supply such an engineering work with water? One part of the route represented no such problem. The section from Toulouse to the Atlantic could be achieved by the canalization of the River Garonne, navigable along this stretch. But from Toulouse at one end of the canal proper to sea level at the other, the canal would have to rise to a summit of 190 meters. How could enough water be found to keep the canal flowing at a constant rate, and at what point should this water be supplied to it in order to distribute it evenly to the western section flowing toward Toulouse and the eastern section flowing towards Beziers?" And, I might add that, since the Languedoc, like Provence, is the country of thirst, who would be foolish enough to think that such a fantastic source of water could ever be found in the quasi-barren Mountains of that region?

As soon as he was ready to make his experiment known, Riquet wrote to Colbert who immediately saw the solution, and was won over to the project. Colbert always appreciated the character of a man who could not be shaken from a true discovery, and he knew he could absolutely count on Riquet to carry out his task in bringing the great work to success, if he gave him the necessary back up. The engineering task was to assemble enough water into a catch basin, and at the highest altitude, which could supply all of the necessary water to flow with gravity continuously into a westward slope toward the Atlantic and into an eastward slope toward the Mediterranean, at the same time, and in a controlled manner. Riquet found several hidden springs and streams in the vicinity of Montagne Noire, about halfway between Carcassone and Toulouse, which could supply a reservoir to be built at Saint Ferriol. This reservoir of water had to hold a large enough supply of water to feed the canal all year round, including during periods of extreme drought, which occurs regularly in the Languedoc. The reservoir was also to be

supplemented by three additional sources, the Sor River, the Alzau stream, and the Fresquel, plus a series of secondary basins to control the deliveries of the many flows.

In his first testing experiment, Riquet spent 200,000 pounds to build a drain trench demonstrating to the Council of the State of Languedoc how the whole system would work. At that occasion, on November 27, 1664, Riquet wrote to Colbert saying: "But in this case (the drain trench experiment), I am putting at risk both my fortune and my honor, and they won't fail me, in fact, it seems more reasonable that I shall acquire a little more of one as well as of the other, when I come out of this successfully. I hope to be in Paris during the month of January next... And then, Monseigneur, I shall have the honor of telling you, in person, and in a better fashion all my sentiments on the subject. And you will find them reasonable because I will have established precise propositions that will consequently be in accordance with your wish; and in which case I shall follow my natural inclination of frankness and freedom, and without quibbling."

On May 25, 1665, Riquet was in Paris, meeting with Colbert who gave him his copyright papers, securing him in his rights of ownership. Two months after, on the last day of July, Riquet wrote Colbert, filled with the excitement of Archimedes coming out of his bathtub. His experiment was a total success! He wrote: " Many people will be surprised to see how little time I have taken, and little expense I have used. As for the success, it is infallible, but in a totally new fashion, that no one ever thought of, including myself. I can swear to you that the pathway I have now discovered had always been unknown to me, regardless of all the efforts I had made in attempting to discover it. The idea came to me in Saint-Germain, which is quite far away, and my musing proved me right about those locations..." <note> (Pierre Clement, Op. cit., p.305)

By 1666, after Riquet had developed extensive feasibility studies and established the financial condition for the construction of the entire canal, he got permission from Colbert to begin the first phase of construction. The entire project was going to be built in three phases, and be financed both through private means and by the State. Phase one, which was to be financed entirely by Riquet himself, included the hydraulic work of a catch basin, the Saint Ferriol reservoir at the foot of Montagne Noire, with a capacity of 6,000,000 cubic meters of water, the largest manmade lake ever built up to that time, and the building of the Toulouse-Trebes section of the canal going west toward the Atlantic. This reservoir was going to supply the water for the entire work. The second phase, to be financed by the State, included the canal section from the reservoir to the fishing village of Cette (today called Set), on the Mediterranean. The third phase, also to be financed by the State, included the creation of a major sea port facility at Set.

Moreover, the canal presented several extremely difficult engineering feats, such as having to go through the Malpas Mountain in an excavated tunnel of 173 meters in length, and then flowing on top of a bridge for several hundred yards over the Ord River. The entire project originally contained 75 locks, took 14 years to build, and cost the royal treasury a total of more than 7,700,000 pounds, not including the 4,000,000 pounds invested by Riquet personally. Louis XIV and Jean-Baptiste Colbert inaugurated the canal at Set, on May 24, 1681. Although, Riquet, who died eight months earlier, had not

lived to see his masterpiece of engineering completed, he had lived and communicated to others his joy of immortality, and was comforted in the knowledge that he had brought a great contribution to mankind. At the turn of the 18th century, the great military engineer and admirer of Riquet, Marshal de Vauban made some important improvements and a number of significant additions to the canal. Today, the canal is still in operation, for both trade and tourism. <note> (Sebastien Le Prestre, marquis de Vauban (1633-1707) was a Marshal of France and a military engineer who had studied Leonardo da Vinci and especially the great works of Pierre Paul Riquet. A member of the Academie des Sciences, he distinguished himself by establishing the most advanced form of modern fortification, and surrounded France with a defensive shield by rebuilding more than 300 fortified cities, and creating 37 new ones. (Fort Mc Henry, in Baltimore Md. is a Vauban type of construction.) Vauban was also a Colbertian economist who was preoccupied mostly in improving the conditions of work of labor, and who considered that "work is the principle of all wealth." Louis XIV unjustly disgraced him, but it was in honor of Vauban that Saint-Simon had created the French word {patriote.} A more extensive report on Vauban is currently in preparation.)

Riquet had also broken new grounds in fostering "the advantage of the other" by providing exceptional working benefits for his own workers. The Canal Company had a 12,000-man workforce divided into 240 brigades of 50 men each. These represented the best-paid workers of the period for this type of construction work. No {free-trade} wages were allowed. The salary of 10 pounds a month per worker included inexpensive living quarters, days off on Sundays and during religious and national holidays, plus complete medical coverage and full disability in case of illness. Many of Riquet's enemies were very upset because other workers in the region of Languedoc began to demand similar working conditions. Against all odds, and especially against his rivals and enemies, the Commissioner General for French Defense, M. de Clerville, and his military engineer, Francois Andreossy, Riquet was able to surmount all of the difficulties. Riquet even had Colbert grant him a Royal Chart for the protection of his labor force, the first of its kind in the history of Europe. Thus, Riquet's workforce was getting the equivalent of union wages.

Even as part owner of the canal, Riquet was not interested in making money. He always said that he did not want to leave his children any great wealth, but honor and immortality. Indicating how much he was committed to the common good, Riquet once said to Colbert: "I look at my work as the dearest of my children: which is so true because, having two daughters to marry, I prefer keeping them in my house a little longer, and spend for my works the expense which would otherwise serve as their dowry." ({Pierre Clement, {Histoire de la vie et de l'administration de Colbert}, Paris, Guillaumin, Librairie, 1846, p. 209.)

How was Riquet's canal plan going to guarantee success, when all of the others had failed? How can you guarantee that the LaRouche project of the Eurasian Landbridge will succeed, when all free trade proposals have miserably failed? The answer to these questions lies in the fact that both Riquet and LaRouche understand the principle of discovery while others don't. Riquet concentrated on finding the answer to a simple

paradox: What is the principle that makes a canal flow into two different Seas at once, but with no source of water in sight? The irony of Riquet's discovery was that while everybody else was trying to use the waters of two rivers whose flows were contrary, and could not be made to climb up to 190 meters above sea level, Riquet solved the problem by tapping the waters of far away desert streams, up to 65 km away, and sent them flowing into the only spot from which "the parting of the waters" could send the flows down into two directions at once. The idea was brilliant and the fruit of a true genius.

It is amazing how apparently unsolvable problems get resolved when they are viewed from outside of the domain of sense perception. The project of Riquet was so successful, that when Marshal de Vauban visited the sight a few years after its completion, he remarked: "There is however, something missing here: there is no statue of Riquet." In May of 1788, a year after visiting the South of France, Thomas Jefferson sent some notes about the construction of the Canal of Languedoc to George Washington. Jefferson wrote: "Having in the spring of the last year taken a journey through the southern parts of France, and particularly examined the canal of Languedoc, through it's whole course, I take the liberty of sending you the notes I made on the spot, as you may find in them something perhaps which may be turned to account some time or other in the prosecution of the Patowmac canal." This is one more example showing how the economics of the Peace of Westphalia had found its Manifest Destiny in America. <note> (Roy and Alma More, {Thomas Jefferson's Journey to the South of France}, Stewart, Tabori & Chang, New York, 1999, p.157.)

France had once again embraced God's eternal principle of benevolence that Louis XI had instituted from the sublime courage of Jeanne d'Arc, and whose mission had reached as far as the shores of America. The so-called "religious wars" which had decimated Europe for over a century and a quarter had been defeated, the ambitions of the Habsburg Empire and the Venetian policy of mistrust had been overwhelmed by a simple economic program of generosity that was able to change the political map of the World forever. Never, during such a short period of the Sully-Mazarin-Colbert reforms, had so much evil been defeated by such a simple and humble principle as {the Advantage of the other}. Could there be a greater historical example before us today, than that of a truth by which a handful of men and women, regardless of all of the vicissitudes and hardships, were to be able to persist, against all odds, in establishing such great economic conditions as the Peace of Westphalia once offered? Can a God be more just than the One who makes us see, "through a glass darkly," that this best of all possible historical events is about to overwhelm the world one more time?

FIN