

# **A History of Water**

Series II

**Volume 3: Water, Geopolitics and the  
New World Order**

Edited by

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**I.B. TAURIS**  
LONDON · NEW YORK

Thanks to the Centre for Advanced Studies at Norwegian Academy of Science and Letters, the Norwegian Research Council and the University of Bergen

Published in 2011 by I.B.Tauris & Co Ltd  
6 Salem Road, London W2 4BU  
175 Fifth Avenue, New York NY 10010  
www.ibtauris.com

Distributed in the United States and Canada Exclusively by Palgrave Macmillan,  
175 Fifth Avenue, New York NY 10010

Editorial Assistant: Terje Oestigaard

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ISBN: 978 1 84885 351 5

A full CIP record for this book is available from the British Library  
A full CIP record is available from the Library of Congress

Library of Congress Catalog Card Number: available

Designed and Typeset by 4word Ltd, Bristol, UK  
Printed and bound in Great Britain by CPI Antony Rowe, Chippenham



## 7 The Peace of Westphalia and the Water Question: A Perspective for the Benefit of the Other

Pierre Beaudry

### THE PRINCIPLE OF THE PEACE OF WESTPHALIA

The Peace of Westphalia of 1648 was the historical turning point that put an end to the devastating Thirty Years war (1618-48) in Europe, the final phase of eighty devastating years of religious and imperial wars. The Peace marked an extraordinary axiomatic change in the history of the world, as nations achieved sovereignty in the face of imperialist opposition. The Peace was established about halfway between the creation of the initial development of the first European nation-state under Louis XI of France, founded in 1477, and the establishment of the exceptional constitutional republic of the USA under Benjamin Franklin and George Washington, in 1789. At the end of the Thirty Years War, the German population had become so stupefied that no one remembered how normal relations worked; security and trust no longer existed, and everyone suspected and feared their neighbor as the enemy. Industry and commerce were dead since no one wanted any occupation that was not military in nature. The stench of a New Dark Age had penetrated every pore of German society, and several generations were required to repair the damage of such systematic destruction. The central question was: how could such a German population trust the French proposal for peace? Suspicion reigned everywhere and every day, on this soil of damnation, paradoxes grew like mushrooms fertilized and nourished by the blood of the German people.

The Peace of Westphalia represented the solution to the main consequent paradox. The paradox of the Thirty Years War first appeared on the French side of the conflict and later dawned on every party involved in the war. The paradox can be formulated as follows: France cannot win the peace with the Habsburg Empire unless the German Electors join the French forces. However, France cannot win over the German Electors to her side, unless she sacrifices her own self-interest for the benefit, honor, and advantage of the Protestant German states and principalities. In other words, if the French wanted to win, they had to lose! (1) This paradox was fundamental because it was the one that forced the principle of the Peace of Westphalia to emerge as the only possible solution to the general political and strategic breakdown of Europe at the time.

The Treaty of Westphalia of 1648 is a landmark in world peace treaties by the fact that it defined the principle of sovereignty and tolerance between nation-states, establishing a relationship between nations based on the Ecumenical principle of *agape*. The statement of the principle is found in Article I of the Treaty:

Article I: Let there be a Christian and Universal Peace, and a perpetual, true, and sincere Amity between the Sacred Imperial Majesty and the Sacred Christian Majesty, as well as between all

and every ally and follower of the mentioned Imperial Majesty, the House of Austria, and their heirs and successors, and primarily between the Electors, the Princes, and the States of the Empire on the one hand, and each and all of the allies of the said All-Christian Majesty, and its successors, and primarily the Serene Queen and the Kingdom of Sweden, on the other hand. That this Peace and Amity be observed and cultivated with such a Sincerity and Zeal **that each party shall endeavor to produce the Benefit, Honor, and Advantage of the other**; and that on all sides, each may see the rebirth and the flourishing of bounties of this Peace and of this Amity, by maintaining a neighborliness from all sides between the Kingdom of France and the Roman Empire. (Bougeant 1744: 510; translated by P.B.; emphasis added)



**Figure 1** The swearing of the Oath of Ratification of the Treaty of Munster that ended the 80-year war (1568-1648) between Spain and the Netherlands, on 15 May 1648, by Gerard Terborch (1617-81). In attendance were all of the negotiators of the Peace of Westphalia, which was signed simultaneously in Munster for the Catholics and in Osnabruck for the Protestants five months later, on 24 October 1648.

This was a major new diplomatic policy orientation initiated by Mazarin (1602 -1661) in France, based on the universal principle of that is, having the intention 'to procure the benefit, honor, and advantage of the other', a principle aimed at developing a lasting peace for the of sovereign nation-states of Europe by economic development through major infrastructure projects. More fundamentally, however, it

followed the biblical principle whereby 'man must be fruitful, multiply and have dominion over the universe'.

The principle of agape, in fact, goes back to Plato's idea of justice. It was later Christianized by Saint Paul who expressed it in his famous the Corinthians 1:13, as a personal principle of moral conduct Surpassing in power every other universal principle. However, Charlemagne was the first political leader to use the principle, politically and internationally, as an ecumenical principle among Islam, Judaism and Christianity. But the principle had never been used for resolving war conflicts, until Francois Rabelais identified the principle that he recommended to Emperor Charles V, in an attempt to stop his interminable wars with Francois I. In 1532, Rabelais elaborated his peace principle in his axiom-busting writings of the extraordinary exploits of Gargantua. In section 50 of The First Book, entitled 'Gargantua's Address to the Vanquished'. Gargantua reminded the reader that the best way to establish a durable peace was to replicate what his father, Grandgousier, had done for the benefit of his former enemy, Alpharbal: that is, be gracious and generous! Rabelais' had Gargantua say:

Whereas other kings and emperors, even such as called Catholic, would have miserably ill-treated him, harshly imprisoned him, and asked a prohibitive ransom from him, my father treated him courteously and kindly, lodged him near to himself, in his own palace, and with incredible generosity sent him back under safe conduct, loaded with gifts, loaded with favors, loaded with every evidence of friendship. And what was the result? When he got back to his country, he summoned all of the princes and estates of his kingdom, explained to them the humanity he had met with in us, desiring them to deliberate on this, and consider how to show the world an example of gracious honor to match the example we had shown of honorable graciousness. Whereupon it was unanimously decreed that an offer should be made to us of their entire lands, dominions, and kingdom, to be disposed of according to our discretion. (Rabelais 1955: 146)

When the vanquished Alpharbal attempted to return the favor, it was rejected because the purpose of the principle of that peace was **gratuitousness**; that is to say, an act of giving without expecting anything in return, like the offering of the elephant that Haroun al Raschid had made to Charlemagne. The gift was for the 'advantage of the other', not for 'mutual benefits'. Thus, Rabelais concluded with this extraordinary insight: 'Such is the nature of gratuitousness [**gratuité**]. Time, which gnaws and fritters all things away, only augments and increases the value of benefits. For one good turn freely done to an intelligent man grows continuously by his generous thoughts and remembrances' (Rabelais 1955: 147).

The point to emphasize, here, is that, as an economic principle, the principle of agape is not an expression of the self-interest of a class or a political elite organized around a social contract. The principle of agape applies to all people regardless of nationality, creed or color. The principle of agape became the underlying principle of cameralism in Germany and mercantilism in France, both of which became the source of the American system of political-economy, as it is expressed by the general welfare clause of the American Constitution.

From an economic standpoint, the point of principle to be made here is to identify the difference between a credit-fair-trade system oriented toward scientific progress and demographic growth, and a monetarist-free-trade system oriented toward the enrichment of a few. The difference will be most readily grasped when free trade is understood as being free from government regulations and not intended for the general welfare of the population, but, rather, for a small predator class of privateers. In other words, the practical significance of the economic aspect of the Peace of Westphalia

principle of agape does not lie within the parameters of free-trade speculation, but rather within the implementation of capital credits for increasing the productivity of labor, through investing in infrastructure such as water projects.

The original idea of the development of canals throughout the French and German territories after the Thirty Years War came from an attempt to shift the balance of economic power in Europe away from the Venetian monetarist maritime-based model into a Eurasian credit land-based model of national self-developing economies. From that vantage point, the grand design project of Cardinal Gilles Mazarin represented the historical basis for the creation of a new paradigmatic shift of western civilization. The maritime model, which has always been the primary European model, was not a good economic model because it was based more on trade than production. The Westphalian projects corrected that policy by improving the general welfare of the population through promoting technological advancements in the interior of the continents. Hence, the Peace of Westphalia water projects succeeded in raising the population density of the region by increasing the power of labor, and improving the standard of living of the entire population, all of it at the same time and based on the same principle.

## **THE RHINE, DANUBE AND RHONE: THE LONG HISTORICAL VIEW**

The Rhine River is the longest waterway of Europe, originating in the Swiss Alps and flowing a distance of 820 miles (1,320 km) to the North Sea. Today, it is connected to the Mediterranean Sea by the Rhine-Rhone Canal, and is connected to the Black Sea through the Rhine-Danube Canal. Four seas are therefore connected through the Rhine: the North Sea, the Atlantic, the Mediterranean and the Black Sea. The two major projects are ultimate expressions of the spirit of Westphalia, as they encompass a peaceful collaboration between no fewer than 11 nations, Germany, France, Holland, Switzerland, Austria, Hungary, the republic of Slovakia, Croatia, Serbia, Bulgaria and Romania.

The thinking behind these projects goes far back in history. The Emperor Charlemagne faced a troubled border in the east. Since his civilizing and military efforts were to the east, one of his concerns was to have access to the Danube River. So, according to the *Annales Regni Francorum 782 et remaniement* in the spring of 793 Charlemagne organized a great number of workmen to dig a canal about 2,000 feet long and 300 feet wide between the Altmuhl River and the affluent of the Rednitz River, the Schwabische Rezat situated just west of Ratisbonne and which provided him access by boat from the Rhine to the Danube in reality from the North Sea to the Black Sea (Kleinclausz 1934) Thus, the opening of the Rhine-Danube Canal did not merely provide Charlemagne with the ability to supply and reinforce his troops to conquer the Avars on his eastern border, but also gave him the tool to consolidate his domain in the south east region of central Europe, and bring civilization all the way to the Black Sea (2)

At the turn of the eighth century AD, the time had therefore come to consider instituting a grand strategy policy for exploiting the interior of the European and Asian continents with canals for the benefit of the peoples living there which meant changing the political axis of the entire world by causing a shift away from the imperial control of sea-lanes in favor of continental routes controlled by sovereign nation states. This implies that the motion of civilization has been anti-riparian in character, that is to

say, contrary to the natural flow of water on the continents much like universal history, from the future to the present as opposed to from the past to the present.



**Figure 2.** Three centuries of the Peace of Westphalia canal developments across Europe. Courtesy of *Executive Intelligence Review (EIR) Vol. 30, No. 21.*

This great water project was emphatically reflected, for example, in the fact that Charlemagne did not build a fleet of ships to compete with the Venetians, but began instituting, instead, an internal management program of expansion of Christianity through the Germanic waterways in order to steer the future of economic development internally, northward and eastward, continent-wide. For example, it was with that intention that Charlemagne and the Baghdad Caliphate of Haroun Al Raschid united their ecumenical outlook for economic development, based on the advantage and benefit of the other. The irony was that Charlemagne had entrusted his river trading capability to his Jewish Radhanite ambassadors who used the Fossa Carolina in order to reach both Islam and the Jewish Khazar Kingdom located in the North Caucasus. This was a unique opportunity in history, although for only a very brief period, when Christianity, Judaism and Islam had united the Western world behind a common economic principle of generosity and ecumenicism. A similar challenge faces us today, and the question is: are we going to have the wisdom of replacing today's bankrupt free-trade system with a return to a New Peace of Westphalia system?

## THE RHINE AND WESTPHALIA

During the early 1640s, Cardinal Mazarin saw the necessity of bringing economic development in the Rhine River region. Mazarin was conscious that his peace initiative could only succeed under the condition of bringing German commerce into an outward expansion of its foreign trade. First and foremost, this meant the elimination of the internal barriers of custom fees erected all along the principalities of the Rhine River. German historian Hermann Scherer encapsulated the general problem in the following manner:

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 Hanseatic 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. (Scherer 1857; 547-8; translated by P.B.)

This summarizes the strategic situation and the economic circumstances of the war-torn region of Germany during the preliminary negotiations for the Peace of Westphalia in Munster and Osnabruck. Scherer further reported that, in addition to the custom rights on the rivers, most of the larger cities such as Botzen, Kempten, Buchhorn, Vienna, Lunenburg or Leipzig, 'were imposing a right of halting-place and of transshipment called the right of mile or the right of route' (Scherer 1857: 548; translated by P.B.). Each oligarchical fiefdom measured its authority based on the power to raise tariffs, as if they could free themselves from servitude by granting themselves the privilege of enslaving others. As a result, the entire economy of Germany was not only devastated by war, but also collapsed under the burden of oligarchical attitudes and systematic interruptions of economic trade between northern and southern Germany.

In was under such historical circumstances that, in 1642, Mazarin called upon his negotiators in Munster to circulate an edict forbidding the use of tolls along the Rhine Rivers. (3) This edict was also accompanied with a provision that included the 'adjacent provinces'. This was the first edict that started to bring fair trade as opposed to free trade throughout Germany in the middle of the Thirty Years War. In his remarkable book, Scherer identified what Mazarin began to contemplate as the early form of the mercantile system that began to flourish with the emergence of the national economy during the seventeenth century. As Scherer put it:

On the day that the nation recognized its collective interest, where the interests of the different classes united against the foreigner, commerce became a national affair; its economic importance was no longer considered from the vantage point of the individual, but primarily from the vantage point of the nation, and society had to establish its trade balance as it had been done up to that point between individuals. The real cosmopolitan liberty, which left the wholesale merchant to himself, then disappeared and the government intervened as the regulator, by means of rules and institutions, and the national policy gave rise to national trade



systems, all originally very practical, whose theory were progressively elaborated, and were praised to this day as the foundations of the prosperity of nations. (Scherer 1857: 20; translated by P.B.)

As a result of the Peace of Westphalia, the headwaters of the Rhine River Delta no longer belonged to the Germans and their sovereignty was reverted to Holland, while Alsace and Lorraine were secured for France, around 1660. Though the borders along the Rhine had not yet been completely settled by the Peace of Westphalia, and the regional borders kept changing during the next two centuries, the general outline of the current borders, as we know them today, was established at that time.

A century later, the European north-south river axis was linked. The creation of the Rhone-Rhine Canal linking the Mediterranean with the North Sea and the Atlantic was a major initiative for peace between France and Germany, especially through the strategically sensitive area of Strasburg, where the critical arm of the canal was located. It was built between 1784 and 1833 and opened in 1834. (4) However, because it was never given the generous French-German Westphalian amity that its original intention of principle deserved, it has fallen into a neglected state.

A look back to Charlemagne, again, will give the reader a sense of the importance of the long waves of history in matters of human development. Charlemagne's *Fossa Carolina* – later called the *Ludwigskanal* (1836-46), named after King Ludwig I of Bavaria – was finally to become known as the *Rhine-Main-Danube Kanal*, when it was completed in 1992.

## **JEAN-BAPTISTE COLBERT AND PIERRE-PAUL RIQUET: THE CANAL DU MIDI**

The Canal du Midi, also known as Canal du Languedoc or Canal des deux Mers, was the greatest project of the Peace of Westphalia and served as a model for the economic expansion of Europe in peacetime. In point of fact, the Canal du Midi was the realization in miniature of Charlemagne's project of connecting the North Sea to the Black Sea with the Rhine-Main-Danube Canal. Not only was it explicitly built for the purpose of strategically bypassing the Straits of Gibraltar, but also for developing the entire south-west region of France that was often stricken with drought and famine because of grain and water shortages. As the Languedoc was one of the less developed regions of France at the time of Colbert, the canal could easily bring grain to the region in exchange for local wines and open the entire region to international trade. The bonus was that foreign trade would also become more intense, and foreign investors could easily access a more or less forgotten region of France. As a Councilor to the King, and Comptroller General of Finance, Jean-Baptiste Colbert understood the catalyzing force that the building of such a great infrastructure project would have, not just on France, but also on Europe as a whole.

The great work took 14 years to complete, from 1667 to 1681, and served as an historical marker for every water infrastructure project since that time, including George Washington's Potomac Canal in Virginia in the USA. It reflected all of the features necessary for a Renaissance project in economic development: it was beautiful, productive and profitable.

Even though only a few miles separated the Garonne River on the Atlantic side from the Aude River on the Mediterranean side, these two rivers could not be connected because the Aude was not navigable. Thus, all of the government engineers and the successive governors of the region had given up hope of finding a solution to the building of a canal in the region. However, a young magistrate of the Gabelle in Beziers, Pierre-Paul Riquet de Bonrepos (1604-80), who had inherited a few pieces of land in the vicinity of Montagne Noire, located north-east of Toulouse, worked out a completely new and revolutionary idea. After years of searching for a solution to what appeared to be an impossible task, on 26 November 1662 Riquet wrote to Colbert describing his extraordinary discovery:

Monsignor, I am writing to you from this village on the subject of a canal that could be built in this province of Languedoc for the purpose of communicating between the two seas. You will be astonished that I am concerned with something that I apparently know nothing about, ... However, if it should please you to read my narrative, you will be able to judge that this canal is feasible, that it is, in truth, difficult because of the cost, but that the concern about expenditures should be weighed against the good that it will generate...

Monsignor, that I have found easy routes and sources which can be easily diverted from their former beds and directed into this new canal by the natural gradient of their own inclination, all of the difficulties have disappeared, except that of finding the funds to cover the expenses of this work ...

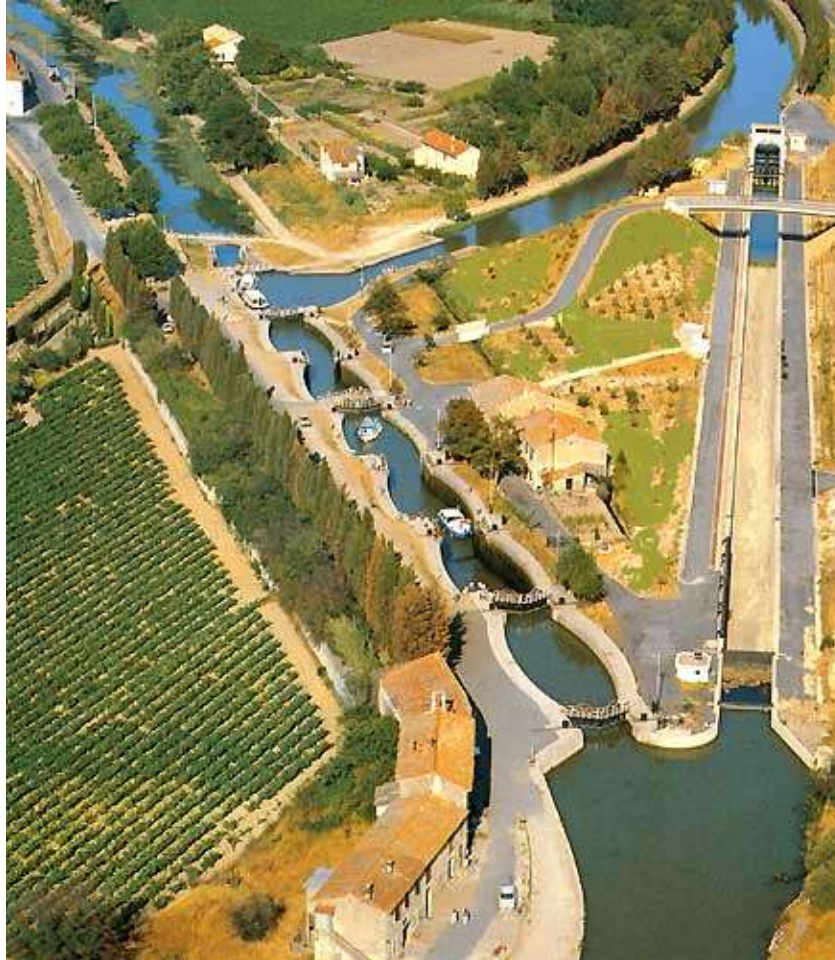
You have for this a thousand and one means, Monsignor, and I am proposing to you two new ones, in the appended memoir, so that you can become more easily acquainted with this work that you will evaluate as being very beneficial for the King and for his people, when it will please you to consider that the certainty of this navigation will be such that the Gibraltar Straits will cease to be a necessary passage, that the revenues of the King of Spain in Cadiz will be reduced, and that those of our King will increase proportionately, as much from the treasury farms and from the entries on the merchandise coming into this kingdom, not to mention the rights that will be taken on the said canal and which will amount to considerable sums, and that the subjects of His Majesty will benefit from a thousand new trading items and shall gain great benefits from this navigation. Thus, if I understand that this design pleases you, I will send it to you illustrated, with the number of locks that will be appropriate to build, and the precise calculations of the measures of the said canal, either lengthwise, or in width ... (Clement 1867: 304; translated by P.B.)

Two years after Riquet first wrote to Colbert, on 10 January 1665, a royal commission had enthusiastically endorsed the project. Colbert even proposed that the canal be built large enough to contain war vessels. But, that option was not feasible because of the restrictive conditions of the sources of water.

Previous suggestions for a Canal du Midi had been based on the 'obvious' but wrong idea of linking the Atlantic Garonne River to the Mediterranean Aude River. But given that these rivers had too many problems of navigation, actually the question was not how to connect two rivers, as in the case of the Rhine and the Danube, but of how to connect two seas. Riquet's problem was the paradox of a canal that had to shed its waters into two different seas simultaneously.

In practical terms, the difficulty was that the magnitude of water required for the entire canal simply did not exist. It had to be created. There was no way to obtain a single feeding source anywhere

from the maximum elevation of about 190 m down to the level of the sea, and the waters of the Aude and the Garonne rivers were impossible to connect directly. New sources had to be created. Riquet discovered that, instead of trying to tap the two rivers, he could connect the sources of the rivers in the region of Toulouse.



**Figure 3.** The poetry of the Canal du Midi: beautiful, useful and profitable: The [Fonserannes Locks](#) with original oval-shaped locks to prevent side walls from collapsing.

Riquet found the initial required sources at the summit of the Montagne Noire, north-east of Toulouse, and he performed the miracle of what he humorously called ‘the parting of the waters!’ He created the Reservoir de Saint-Ferréol, starting from the waters of the Sor and the Laudot feeder channels at the highest altitude. By diverting those waters into the canal, at different degrees of elevation. Riquet discovered the solution to the problem of linking the Atlantic to the Mediterranean (Figure 3). He then applied the same principle to multiple other sources with a series of feeder channels such as the Lers and the Fresquel, and to other smaller feeder channels such as the Alzau, the Orbiel, the Ognon, the Treboul, the Rubenry, the Repudre and the Cesse, all shedding their respective waters into the Garonne and into the Aude rivers. Once this unique least-action pathway was discovered, all that Riquet had to do was to get the attention of Colbert and get him to approve the project and finance it.

On 27 November 1664, Riquet demonstrated on location a feasibility test before the Council of State of Languedoc, and showed that he was able to build a great reservoir at the highest-altitude level that would provide two controlled streams of water flowing into the western direction of the Atlantic, and into the eastern direction of the Mediterranean simultaneously. When Riquet met Colbert in Paris on 25 May 1665, Colbert gave him his patent papers and secured him his rights of ownership for his construction company and for the property of the canal. In a letter dated 9 October 1663 Colbert replied to Riquet: 'There is no longer anyone who doubts the feasibility of your great design, which is what pleases me the most' (Clement 1867: 304; translated by P.B.). From that moment on, there would not be a moment of rest. Riquet would organize everything, from the detailed plans and the labor force to the expenses, as well as all of the legal aspects of building this great work. The King had a moment of hesitation as to who would be the proprietor of that great work, the crown or some private party. But, his Council decided that since such a work would require constant attention and constant repairs and improvements, it should not be in the hands of the government, but rather in private hands.

The King committed the royal treasury to fund the entire construction, and he fixed the rights of taxation on trade commodities. In 1667, there were about 2,000 workers on the terrain; a few years later, there were up to 12,000 divided into 240 brigades of 50 men each. There were 12 inspector generals who directed the different works, and Riquet and his sons oversaw the entire program. Aside from the canal, there was also, simultaneously, the infrastructure works in the port of Cete that one of Riquet's sons was responsible for directing on the Mediterranean.

The work did not progress without difficulties because Colbert was sometimes forced by the King to reduce expenses, while several extremely difficult engineering tasks increased the cost, notably the excavation of the 173 m Malpas Mountain tunnel and the crossing of bridges over the Orb and the Hérault Rivers near the Mediterranean. The complete project included 75 locks on a distance of 238 km.

Unfortunately, Riquet died only a few months before the completion of the canal. The inauguration of the great project finally arrived on 19 May 1681. After the ceremony, Colbert wrote to the Intendant Daguesseau, on 6 June 1681: 'It is such a great advantage for the benefit of the Languedoc province that this great work was a success, that I can express to you my satisfaction and assure you that the King was also very satisfied.' The canal cost 17,000,000 pounds; more than double the initial estimate of 8,000,000 pounds. Although Riquet left his children with a debt of 2,000,000 pounds, the canal was the property of his heirs who succeeded in paying back the debt and keeping their inheritance.

Because of his genial idea of 'parting of the waters', Riquet became known as the 'Moses of the Languedoc'. He even joked about it by noting that the major difference between Moses and himself was that: 'Moses had made the water spurt only from small fountains, but I disposed of water like great rivers' (Archives du Canal [www.canalmidi.com/archives.html](http://www.canalmidi.com/archives.html)).

The great enterprise had created such optimism throughout France that, in 1693, the capital city of the Languedoc region, Montpellier, commissioned the architect and engraver Francois Dorbay, to erect an Arch of Triumph to commemorate the Canal du Midi project. Although it brought tremendous growth to the region of the Languedoc through barge traffic, because it was not deep enough for seagoing vessels, the Canal du Midi never provided a short cut between the Mediterranean and Atlantic for military purposes. Today, the canal is primarily used for tourism.



**Figure 4.** The Riquet project of the Canal du Midi showing the dozens of sources and 75 locks going east and west between the two seas. Note the 'natural inclination' of the catenary function and the multiple feeder channels from dozens of brooks that are also connected to the Canal as well as the Garonne and Aude Rivers. The parting of the waters [J] from the Rigole de la Plaine [W] were fed by the Laudot and the Sor feeder channels at an altitude of 190m above sea-level. Moreover, a number of locks intersected, at decreasing levels, the waters flowing west from the Lers drain, and east from the Fresquel drain, all along the two opposite pathways of the canal. Riquet had estimated that the waters from those four main feeder channels - the Laudot, the Sor, the Lers and the Fresquel - were sufficient to create the equivalent of a new river. By comparison, the Fresquel furnishes 1,000,000m<sup>3</sup> of water per year, while the Aude River furnishes 56,000,000 m<sup>3</sup>, the Orbiel 30,000,000 m<sup>3</sup>, the Cesse 7,000,000 m<sup>3</sup>, and the Orb 7,000,000 m<sup>3</sup>. (Pierre-Paul Riquet, *Carte du Canal du Midi*, par Jasseau a Toulouse, le 21 janvier 1829, Gallica Bibliothèque numérique.)

## HOW WATER PROJECTS SERVED TO INCREASE RELATIVE POPULATION-DENSITY

During the Thirty Years War, the Habsburg Emperors were too preoccupied with the interest of their dynasty to pay any attention to the needs of the German principalities, and the German princes were too weak and too obsessed with consolidating their powers to pay any attention to the needs of the German nation, which was in gestation and about ready to be born. No one seemed to have any idea about how to put a national economy together. Yet out of this miasma of war a new idea emerged, and a higher broader vision of humanity based on a long-forgotten Christian principle was about to replace the narrow mean spirit of religious warfare.

The irony was that since there was no east-west trade to speak of, because most of the rivers ran on a north-south axis, trade was paralyzed, and the economies of the main cities of Brunswick, Erfurt, Frankfurt-am-Mein and Leipzig became crippled. The very geography of Germany had been exploited against the benefit of its own people. Thus was born the idea of freeing Germany from custom barriers, and of constructing massive infrastructure projects of canals connecting the Rhine River to the Ems River, the Ems to the Wesser, the Wesser to the Elbe and the Oder Rivers, and finally the Oder to the Vistula River.

Cardinal Mazarin made a complete study of the rivers of the European continent and had his Ambassadors discuss the matter with the Great Elector of Brandenburg, Frederick-William (1620-88), possibly as early as 1640. Frederick-William was eager to open his region for development because in the single province of the Marches the Great Elector had 'lost 140,000 souls out of a total of 330,000 souls'. In 1639, misery was such that, according to a contemporary, 'people were devouring dogs' (Sorel 1883: 241). As a result, Frederick-William had, very early on, begun an extensive development of the Marches of Brandenburg.

Mazarin's idea was to open the doors of this apparently aimless region and channel the waters into new corridors of life, eastward, as was planned with the Rhine Canal, the Elbe-Havel Canal, the Oder-Havel Canal, the Havelland Hauptcanal, and the Finow Canal. Frederick's policy was to invite Protestant foreigners to come and farm the Marches and to repopulate his devastated province. The Brandenburg region thus became a land of refuge for the outlaws of Europe, a new Khazaria for the despised and unwanted. The Hohenzollern policy went a long way toward creating a European immigration center for the French Huguenots, for example. According to French historian Lavisse:

The Great Elector recalled all of his subjects that had fled, by showing them the restored security after the Peace of Westphalia. He welcomed people without a country, the banished, the wandering soldiers, the plunderers who wished to settle down by buying land with stolen money. By repopulating his devastated States – that is to say, by fulfilling his most urgent interests – this prince had at the same time the good fortune of becoming a famous hospitalier prince, the protector of the persecuted and the defender of liberty of conscience. Brandenburg has been a land of asylum for a long time. That country may not have produced one of these ardent preachers, half-theologian and half-poet, who have awakened in the German soul an enthusiasm for the new religion, nor did it produce one of those martyrs whose blood had nurtured the words of Luther; but it is, of all of the German States, the one from which the

Reform has profited the most, because it was tolerant. (Lavisse 1883: 199 quoted by Sorel 1883: 242; translated by P.B.)

A very important part of the civilizing process of Prussia came with the collaboration of the French people, whether their leaders liked it or not. First, it was Charlemagne who, after conquering and converting the Saxons to Christianity, maintained a series of military outposts to keep the pagan Slavic Wendes population in check on the eastern border of his Franco-Germanic Empire. Those outposts were originally called borders or Marches and the leaders of these advanced eastern regions were called Margraves (*Markgraf*). Since religious persecution dominated French politics during the seventeenth century, the Margraves of Brandenburg used the freedom of religion and liberty of conscience as their best weapons of peace for developing the land and, thus, opened their doors to a multitude of exiled French people.

The great crime of Louis XIV had been to expel out of France, under his revocation of the Edict of Nantes, hundreds of thousands of the best and most intelligent subjects to Prussia, and elsewhere. The number of French Protestant refugees to be relocated in the Brandenburg region alone was 20,000 people. This had the effect of increasing the population of that German province by more than one-tenth in a very short period of time. For example, in 1640, at the beginning of the reign of Frederick-William, the Brandenburg province had a total of 2,400,000 people, including 600,000 refugees or children of refugees. Berlin only had a population of 6,000 people. When the Great Elector died in 1688, the city of Berlin had reached 20,000 souls, including 6,000 French (Sorel 1883: 243). The fact that France was expelling the best and most principled section of its population, whose work and ingenuity entirely benefited the German state, was one of the most ironic aspects of the 'advantage of the other'. As Sorel put it: 'Industry barely existed, they [the French] created it. They propagated science, reformed the military, and populated the ministries and the tribunals. They melted inside of this people who was assimilating them; but they were bringing them such a fertility of views, and such an intellectual leaven that the German value was increased tenfold. There had never been such a considerable cross-fertilization of two peoples in such a short time, and with such productive results' (Sorel 1883: 243; translated by P.B.). Of course, what was true of the French was also true of other refugees.

## **FRIEDRICH VON BRENKENHOFF: THE JEAN-BAPTISTE COLBERT OF GERMANY**

The water projects of the Great Elector, Frederick-William, were the first decisive steps toward the economic creation of the sovereign nation-state of Germany for two main reasons: first, it increased the relative population-density with immigration and, second, it increased land-based power for food production per square kilometer, reclaiming arable land from the marshes and from the sea. The water projects first established the unification of the Brandenburg Marches with the Duchy of Prussia, then the creation of the Prussian State, and lastly, the unification of Germany, as a viable nation-state. Thus, the leaders of Prussia, from the Great Elector, Frederick-William, to his great-grandson, Frederick the Great, and to Bismarck, regardless of the many mistakes they may have made along the way, became the most significant nation builders of Germany. Even Louis XIV was forced to recognize Frederick-William as 'my brother'.

Franz Balthazar Schonberg von Brenkenhoff (1723-80) was instrumental in the victories of Frederick on the battlefields of the Seven Years War (1756-63). In recognition of his extraordinary services to the King, Brenkenhoff became the Privy Councilor, engineer, surveyor and administrator of Frederick the Great's projects. Brenkenhoff was entrusted with the task of rebuilding cities, creating new settlements, encouraging commerce and industries, building canals and bringing general prosperity to the devastated provinces of Prussia.

Brenkenhoff was especially responsible for successfully operating the drainage of the Warthe and the Netze Rivers, and for reclaiming lands throughout the valley of the Oder. The idea was to expand the land capabilities as Holland had also done, by reclaiming the soil that was going to waste by the mismanagement of nature herself. According to Henderson, Frederick's plan was grandiose:

The growth of the population was a factor of major importance in promoting the economic expansion of the country. In Frederick's reign the population of his dominions rose from 2,785,000 to 5,629,000 despite the decline of about 500,000 during the Seven Years War. The density of the population increased from 18.7 % per square kilometer in 1740 to nearly 30 % in 1793...

In so far as the growth of Prussia's population at this time was due to immigration, and to the excess of births over deaths, it was necessary to expand agriculture production to provide additional food for the increasing population. To secure more farmland, the drainage of fens and the cultivation of wasteland were undertaken on a large scale. Among the most important fen districts that were reclaimed were the Oderbruch, the Warthebruch, and the Netzebruch. In 1740, the valley of the lower Oder between Oderberg and Kustrin was a vast swamp supporting only the fishermen whose cottages were situated on the highland above the marshes. A grandiose improvement scheme - drawn by the Swiss mathematician Leonhard Euler and the Engineer Von Haerlem - was undertaken in the 1740's and 1750's. Troops were used to expedite the work. The construction of a new bed for the river was completed in 1753 and some 150,000 acres of fenland were drained. (Henderson 2006: 128)

By the end of the Seven Years War, in 1763, Brenkenhoff had established over 1,000 new farming families; that is to say, over 6,000 people; 40 villages had been built from scratch, or had been improved on and expanded. Between 1755 and 1761, 20 such villages were settled with royal grants, and owners of large estates had financed another 20. On the eastern front of Poland, Brenkenhoff went even further, reclaiming fenlands on the Netze-Warthe, where between 1766 and 1776 a total of 3,500 new families had settled the newly created region, and within a very short period increased the population of the reclaimed region to 15,000.

Frederick not only financed land reclamation schemes but he also made substantial annual grants to estate owners and farmers to enable them to pay their debts and to improve their properties. He adopted a plan suggested by the Berlin Buring and set up three agricultural credit banks. The first served Silesia (1769-70), the second the Mark Brandenburg and the New Mark (1777), and the third Pomerania (1781). They provided owners of large estates with additional capital by the issue of mortgage bonds. (Henderson 2006: 130)

In 1766, three years after the end of the Seven Years War, Brenkenhoff submitted to the King his first plan calling for an initial Crown grant of 350,000 thalers to start new water projects on the Warthe and the Netze Rivers. During a period of nine years, Brenkenhoff settled a total of 690 families (7,436



people) on reclaimed land alone in those regions. All refugees were welcome: foreign immigrants such as Polish displaced people, Protestants and Jews. According to Henderson (2006), Brenkenhoff also played an important part in the work of improving communications and expanding industry and agriculture in the newly acquired Polish territories. Immediately after the first partition of Poland, Frederick decided that a canal should join the Netze and the Brahe. Brenkenhoff was responsible for the prompt construction of this new waterway (The Bromberg Canal) and it was opened in 1775. (Henderson 2006: 83).

Brenkenhoff followed Mazarin's water-management policy of cutting tariffs on the waterways, which Frederick, however, did not always favor. For example, after a successful experiment of exempting customs and excise for the expansion of Driesen, Brenkenhoff suggested the same plan for the district of the Netze River and asked that Frederick give a 12-year period of duty-free service to help the Netze District recover from long years of neglect, but the King was short of money and refused. Regardless, Brenkenhoff set the pace and people followed. For instance, he purchased the land himself, with his own money, and others did the same. As a result of Brenkenhoff's work, the reclaiming of fenlands in the region of the Netze-Warthe increased the population by 15,000 more families. Even though his enemies later tried to bankrupt him and staged a case of embezzlement against him, Brenkenhoff was ultimately exonerated.

Within a short period of only ten years that partly overlapped the Seven Years War, from 1746 to 1757, half a dozen canals were built and drove the Prussian economy forward. The reconstruction of the Finow Canal between the Oder and the Havel was completed in 1746; two new canals were built in the Uckermark region, the Templin Canal in 1745, and the Fehrbellin Canal in 1766; the Plauen Canal between the Elbe and the Havel rivers was open in 1757; these canals also linked the Elbe with the Oder, which means that all goods from the North Sea and the Baltic Sea could reach Berlin, Magdeburg, Breslau and Frankfurt an der Oder. The whole region had also been opened up for trade with Poland, especially through the port of Stettin. A special privilege was accorded to Stettin so that Polish goods could be shipped to Frankfurt an der Oder. Henderson reported:

Nearly all the staple privileges of Stettin and Frankfurt an Oder were abolished and the General Directory was instructed to equalize the tolls payable on the Elbe and the Oder. In the hope of expanding the export of Polish grain through Stettin, substantial reductions were made in the Prussian tolls charged on the Oder, the Warthe, and the Netze. In 1764-66, improvements were made in the waterways of East Prussia to facilitate the floating of logs to the Baltic. (Henderson 2006: 153)

With his successful policy on increasing relative population-density per square kilometer, Franz Balthazar Schonberg von Brenkenhoff had created 1,200 new villages and hamlets with 500,000 immigrants settled on wastelands that man had taken back from the relative economic incompetence of nature. Thus, Brenkenhoff proved to be the genuine Jean-Baptiste Colbert of Germany.<sup>(5)</sup> Frederick observed: 'Une nouvelle petite province que l'industrie conquiert sur l'ignorance et la paresse' (French in the original: 'A new little province that industry conquered over ignorance and laziness') (<http://friedrich.uni-trier.de/de/oeuvresOctavo/4/3/>).

## CONCLUSION

The water project of Ostfriesland pushed back the Ocean for hundreds of square kilometers and the Canal du Midi aimed to move ships over hills in two opposite directions at once. Those were miracles born of the scientific creative mind of man for the explicit purpose of increasing relative population-density per square kilometer, and in doing so increasing the power of man over the Universe. The most striking aspect of each and all of those water projects that one might interpret as an outcome of the Peace of Westphalia is that, in demonstrating the mastery of man over nature, each of those projects reflected, proportionately, a rate of change and of progress that had become a new measure of change for human society as a whole. One has only to compare the relative progress of the Languedoc region before the Peace of Westphalia and after the construction of the Canal du Midi, to see how the rate of change, in that region, had qualitatively increased the power of human life.

That is a direct expression of natural law, whether it is called cameralism, mercantilism, or the American system of political-economy. The most striking aspect of each and all of the water projects that came out of the Peace of Westphalia is that they demonstrated that each project represented a rate of change and of progress that had become a new measure of economic well-being for human society as a whole. As a result, both the German people and the French people demonstrated their ability to change nature and improve upon it, for the benefit of European development at large. Each one of those projects demonstrated to many that man had more creative powers than nature itself had when left to her own devices. Thus, the Peace of Westphalia's water projects, each for the benefit of the other, demonstrated that improvements in human cooperation could also be an improvement in human creativity and the environment.

## NOTES

- 1) Direct accounts expressing the truthfulness of this paradox are difficult to find; however, other paradoxes reflected the same state of perplexity, such as a letter of The Great Elector Frederick William to Mazarin dated 7 April 1659 (see Beaudry 2002: 24).
- 2) The Avars were a nomadic Mongolean people that had invaded both shores of the Danube River in the Hungarian plains during the sixth century AD and had penetrated as far west as Bavaria by the eighth century AD.
- 3) According to French historian Louis Pierre Anquetil (1783: 68), the edict stated: '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.'
- 4) Details of some of these projects have been discussed in a previous publication (Beaudry 2003).
- 5) The Brenkenhoff policy implementation is, therefore, very important because it provides a basis for what will later be known as cameralism; that is to say, the German application of the Jean-Baptiste Colbert policy of mercantilism. During his reign, Frederick William II even went as far as creating cameralism chairs in his Prussian University. The policy was already leading to the later protectionist policy of Wilhelm von Kardorff and Otto von Bismarck, in their shaping modern Germany in opposition to the British free-trade policy.

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