

Host and Hostage: Portugal, Britain and the Atlantic Telegraph Networks

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By the end of the nineteenth century and the beginning of the twentieth, a flow of tensions and allegiances among world nations ran in the telegraph cables as quickly as information itself. Most of the existing studies on submarine cables are built from a national point of view, stressing how the great European powers, namely Great Britain, France, Germany and the United States struggled to secure their circles of influence.¹ In this context, the economical and political agenda which lay behind the network of submarine cables is stressed and questions related to rivalry between hegemonic nation-states are brought forward.

However, the majority of these studies seem to neglect the fact that the 19th century submarine cable technology had a constraint – the need for relay. Therefore, although the worldwide submarine cable network could be mastered by a few powerful states it could only be built by using other countries to land the cables. This inherent transnational feature of the submarine cable network created new links between European nations, shaping both their national and international strategies as well as the relationship between the so-called central and peripheral countries.

By bonding countries with very different political and economic status, the building of the worldwide telegraph network exposed tensions and ambiguities as far as the balance of profits and losses for each of the network builders is concerned.

¹ See Daniel Headrick, *The Invisible Weapon*, New York and Oxford: Oxford University Press, 1991; Pascal Griset, *Les Télécommunications Transatlantiques de la France*, Paris: Éditions Rive Droite, 1996; Peter Hugill, *Global Communications Since 1844*, Baltimore and London: The Johns Hopkins University Press, 1999.; Pascal Griset, *Les Télécommunications Transatlantiques de la France*, Paris: Éditions Rive Droite, 1996; Peter Hugill, *Global Communications Since 1844*, Baltimore and London: The Johns Hopkins University Press, 1999.

Although it is still a question of nations states negotiating a transnational network for their own benefit, a new perspective concerning the overall design of power structures in Europe has to be taken into account. In this “game of winners and losers”², of integration and exclusion³, there is, nevertheless, a gradation of what is perceived as a successful strategy. By focusing our paper on Portugal, a peripheral country in the industrialized Europe, we aim to understand the diversity of roles played by less powerful states in the complex process of networking Europe and the world through transnational infrastructures.

In the footsteps of progress: from the *Ancien Régime* to the “possible capitalism”⁴

During the first half of the nineteenth century, Portugal was torn apart by unending fights between liberals and absolutists and among different liberal parties⁵. This political instability prevented the Portuguese economy to grow and to build a consistent path towards industrialization. It was only in 1850, with the *Regeneração*,⁶ that Portugal found its way to a true policy of industrialization, based on a new economic strategy, aiming at developing the industrial sector. The core of this

² Erik van der Vleuten e Arne Kaijser, “Networking Europe”, in *History and Technology*, 21,1 (March 2005), 21-48, 34.

³ Aharon Kellerman states that the submarine cables network contributed to increase the gap between centres and peripheries through what he called the paradoxical centrifugal/centripetal and decentralising/centralising effect of telecommunication technologies. Aharon Kellerman, *Telecommunications and Geography*, London and New York: Belhaven Press, 1993, p. 30-33.

⁴ The expression “the possible capitalism” was coined by the Portuguese historian Oliveira Martins, who used it in his book *Contemporary Portugal* (1881) to analyse the second half of the nineteenth century. From then on it is commonly used by Portuguese historians. There are few books on Portuguese history translated to English. For a general overview see A.H. Oliveira Marques, *History of Portugal*, New York: Columbia University Press, 1972; D. Birmingham, *A Concise History of Portugal*, Cambridge: Cambridge University Press, 1993; J.H. Saraiva, *Portugal: A Companion History (Aspects of Portugal)*, Manchester: Carcanet Press, Ltd. 1998.

⁵ When the Napoleonic army invaded Portugal, the Portuguese king, Don João VI, took refuge in Brazil (1807), then still a colony. Following the defeat of the French troops, the Portuguese Liberal Party led a revolution that ended the absolutist regime (1820). When Don João VI returned to Lisbon he pledged his obedience to the new Liberal Constitution. However, the Absolutist Party did not accept the constitutional monarchy easily. Led by Don Miguel, the King's youngest son, the Absolutist Party tried to overthrow the Liberal government. The subsequent civil war ended with the defeat of the absolutists (1834). However, rivalry between factions within the Liberal Party (those defending the original 1820 Constitution against those who advocated its moderate version – the *Carta Constitucional*) led to political instability until 1850.

⁶ The *Regeneração* (the Regeneration period) is a period of Portuguese history in which the implementation of an industrial strategy was considered the way for Portugal to attain European economic standards. Although in its strict meaning the *Regeneração* goes from 1850 to 1877, its spirit lasts during all nineteenth century and also during the twentieth.

strategy was to increase the efficiency of the network of communications in order to enhance the circulation of goods and spur the growth of factories.

The agenda of the *Regeneração* based on public works has to be understood as a way of legitimizing Portugal both in the national and in the international arenas: on the one hand, it was important to assert a clear relationship between the idea of progress, well being and technical growth; on the other, railways, roads, harbors and communication systems were the tools to rebuild the Portuguese empire, strongly shaken by the independence of Brazil and the end of the slave-trade.

As the interest of the great European powers for Africa grew, Portugal became more and more aware of its African “treasure”, which had until then remained in the shadow of the Brazilian gold. Since the early 1860s, it was possible to foresee the deep changes that were to take place in the traditional colonial order. One should recall in this respect the political agendas of Disraeli and Cecil Rhodes for the British Empire, of Leopold II of Belgium for Congo, of the conflicts between the Boers and Great Britain (Orange and Transvaal), of France for its African possessions and of Bismark for the colonial expansion of Germany. The Berlin Conference (1885) was the natural consequence of the voracious appetite of European industrial powers for new sources of raw materials and markets, imposing the principle of the effective occupation of overseas territories, instead of the traditional rule of historical prerogatives.

Confronted with the intention of dividing Africa among the great powers of Europe, Portugal was forced to rethink its political agenda of exploration and effective occupation. The strategy for Portuguese domination was soon associated with technological domination: as in the mainland, railways, roads, harbors and telegraphs were envisaged as preferential marks of the Portuguese presence in the overseas territories. However, the difficult financial situation of the country imposed constraints on how to get the necessary investments.

From 1850 to 1880 the Portuguese government was easily able to raise foreign funds for building national infrastructures, supported by its own credibility (Portugal was part of a selected group of countries using gold as its monetary standard) and by the interest of British capitalists in investing their money in “material structures”. By 1880, this euphoric atmosphere in the international financial market began fading away and it was no longer possible for Portugal to get loans in the

European markets.⁷ In 1891-92, in the context of an international crisis, Portugal collapsed both in financial and monetary terms (the country faced bankruptcy in 1892 and the republicans tried to take control of the government in Oporto). Portugal returned, after forty years, to the so-called “Latin group” of European nations (together with Spain and Italy) known by their bad reputation concerning financial balance and organization⁸. On the verge of World War I, this climate of suspicion still hung over the Portuguese government.

The 80s were also a turning point as far as the political situation was concerned. From 1850 to 1880, Portugal lived a period of peace, mostly due to the positive effects of a policy of material improvement,⁹ which brought the country material development and confidence. By 1880, the Republican Party, already a strong group, anchored its political opposition to the Portuguese monarchy in the colonial policy: Portuguese historical rights in Africa were being threatened by England and the *ultimatum* proved the weakness of the monarch. The Portuguese “Pink Map” (1886) that linked Angola to Mozambique, creating a zone of Portuguese influence stretching from coast to coast, met a strong English opposition. In 1890, the British government sent an *ultimatum* to Portugal: the “Pink Map” should be forgotten or Portugal had to face the British army. When the Portuguese government accepted the English demands a wave of patriotism shook-up the country. The Republican Party was the fiercest critic of the government attitude and used both the *ultimatum* and the economic difficulties to pave its way for the Republican revolution. On 5 October 1910, the republicans eventually took the power.

The I Republic (1910-1926) was a tumultuous period: political fights (between republicans and monarchists and between moderate and radical republicans)¹⁰; social riots (both the *bourgeoisie* and the workers soon lost their faith in the republican policy); economic weakness (the republicans were not able to solve the

⁷ Rui Pedro Esteves, “Finanças Públicas” in Pedro Lains e Álvaro Ferreira da Silva, *História Económica de Portugal*, Lisbon, ICS, 2005, pp. 305-335.

⁸ See Gabriel Tortella, *El Desarrollo de la España Contemporánea, Historia Económica de los Siglos XIX e XX*, Madrid, Alianza Editorial, 1999, quoted by Esteves, op. cit. (3). p. 311. There is an English translation: *The Development of Modern Spain: an Economic History of the Nineteenth and Twentieth Centuries*, Cambridge (MA), Harvard University Press, 2000.

⁹ Esteves, op. cit. (7), p.322.

¹⁰ The monarchists tried to overthrow the Republican government in a series of unsuccessful military coups from 1911 to 1919. On the other hand, as far as the Republican Party was concerned, not only were there various factions within it, from the left wing to the moderate, but also different charismatic leaders. Soon after the Republican revolution, the Republican Party broke into three different parties, leading to a period of constant mutual attacks on each other policies. The political and social instability, the economic difficulties, and a general climate of discontent shaped the face of Portugal until 1926, when a military coup opened the door to the dictatorship regime of the *Estado Novo* that lasted until 1974.

long-term crisis); religious conflicts (there was a very strong anti-clerical feeling among the republicans). The situation got worse with the outbreak of World War I. The political and social instability, the economic difficulties, and a general climate of discontent shaped the face of Portugal until 1926, when a military coup opened the door to the dictatorship regime of the *Estado Novo* that lasted until 1974.

The relationship with Spain was never easy. From 1850 to 1926, some outbreaks of *iberismo*¹¹ can be found. From 1868 to 1875, those who considered that Portugal and Spain should become an Iberian nation were encouraged both by the Italian and German reunifications (1861 and 1871) and by the Spanish political crisis after Queen Elisabeth II was overthrown, opening the possibility of either a monarchic unification or a republican federate state.

Later, from 1911 to 1913, the ghost of *iberismo* came back to haunt the Portuguese republic. The republicans reached the power by force two years after King Carlos I was murdered. The atmosphere of concealed disorder and very often of street riots that indeed characterized the Republic was exaggerated by those who had been in Lisbon just after the revolution and described the Portuguese political situation as similar to the French period of terror. Portugal was completely ostracized by its traditional allies and Spain nourished the possibility of invading the country. In fact, in February 1913, the Spanish king Afonso XIII informed the British ambassador in Spain, that if Great Britain and Germany should take possession of the Portuguese African colonies, Spain would invade Portugal. The British attitude towards these plans was quite dubious. Britain never assumed a position against Spain, but warned Afonso XIII that it would be difficult to take Lisbon and the British government should be informed of any specific actions. Even during World War I, the tension between the two nations was never cleared and Spain considered that the Portuguese participation in the war effort was part of a hidden plan to incorporate Galicia.¹²

¹¹ The concept of *iberismo* is one of the most recurrent themes of Portuguese history. Portugal is a narrow band in the western part of the Iberian Peninsula. It is an independent nation since the beginning of the twelfth century and its present frontiers date back to the 1267. It is, however a small country when compared to Spain. From the twelfth century onwards the relationship between the two nations has always been complex, difficult and sometimes even conflicting. The *iberismo* is an ideology, built mostly during the nineteenth century and early twentieth which aims at unifying Portugal and Spain. The dream of a powerful Iberian culture/nation was quite popular among some Portuguese and Spanish intellectual elites (both monarchists and republicans), and in the Spanish case, was also a very pragmatic political project.

¹² The Portuguese participation in World War I is still a polemic issue. See Rui Ramos, *História de Portugal: a Segunda Fundação*, in José Mattoso, *História de Portugal*, vol.6, Lisbon, 2001. pp.377-461.

It is in this political, economic and financial context that the choices concerning telegraph cables and above all the “inevitability” of some of the Portuguese choices must be understood.

Under London’s surveillance: building the “Atlantic strategic triangle”

By 1850, when the British telegraph cable network began to grow, Portugal took advantage of its geographical and geopolitical situation for landing the cables and establishing relay stations¹³, both in its European territories (mainland; Madeira and Azores) and in the African colonies (Cape Verde Islands, São Tomé and Príncipe, Guinea, Angola, Mozambique).

The nodes of the international submarine cable network in Portuguese territories channeled the telegraphic traffic between several points in Europe (European regime) and between Europe and other continents (extra-European regime). The central axe of this network was the so-called “Atlantic strategic triangle”: Lisbon, Cape Verde and Azores

MAP

The construction of the Atlantic triangle was, from the beginning, not only a technical enterprise but, above all, a political, economic and financial negotiation: on the one hand Britain wanted to use the Portuguese territories as the central part of its “telegraph empire”, calling upon the old alliance between the two countries¹⁴ and the British strong financial power; on the other, Portugal needed to raise funds and attract foreign investors in order to implement its policy of material improvements.

The first vertex: Lisbon

¹³ Telegraphic messages were transmitted between two points by an electrical impulse that decreased along the cable. The attenuation effect of electric current compelled to the reinforcement of the electric impulse under water. The message had therefore to be retransmitted along the way towards its destination and the cables had to land for relay purposes. See Ken Beauchamp, *History of Telegraphy*, London, The Institution of Electrical Engineers, 2001, p. 160-161.

¹⁴ George Canning stated that “Portugal was, still is and will always be the best support for Great Britain in continental Europe” in Report written by the Portuguese ambassador in London, 16 August 1860, in 2.º PISO, A2, M2, AHMNE, Lisbon.

Lisbon, the apex of the Atlantic strategic triangle, was the first node to be established. In 1869, John Pender created the *Falmouth, Gibraltar and Malta Telegraph Company* to link Great Britain with the British naval bases in the Mediterranean, “without crossing foreign countries.”¹⁵ In that same year, and fourteen years after having received the first proposal (1855), the Portuguese government finally granted a concession to build “the submarine telegraph lines that were of national interest”¹⁶. In 1870, *Falmouth* built and started to exploit two cables linking Portugal to Great Britain and to Gibraltar, thus protecting the British interests in the Mediterranean and establishing a fast and secure connection with India. Although the initial purpose of avoiding foreign countries was not achieved, both the Ottoman and the Russian empires were indeed avoided and the inevitable Portuguese points of landing were considered absolutely reliable.

The contract with the British company was a decisive changing point in the Portuguese policy for telecommunications. Until then, the state had held the exclusiveness of the construction and management of the telegraph network: the transoceanic connections should be established by granting concessions to private foreign companies, but the Portuguese government would remain in charge of all the lines in Portuguese territory. Also the regulation and the supervision of the telegraph services, even if provided by foreign companies, were under the Portuguese administration.

The contract with the *Falmouth, Gibraltar and Malta Telegraph Company*, following the rules of International Telegraphic Convention of Paris (1865), ascribed more duties than rights to Portugal, as the Portuguese government was obliged to zeal for the non-interruption of the international traffic.¹⁷ The Portuguese “public interest” was satisfied not in monetary terms, as the traffic between Falmouth and Gibraltar did not pay any transit taxes for passing through Lisbon¹⁸, but in “geopolitical money”. In fact, Portugal had from now on, an important alternative for its international communications, avoiding dependence on the Spanish network,

¹⁵ Daniel Headrick, *The Invisible Weapon*, Oxford, Oxford University Press, 1991, p. 24.

¹⁶ Article 1, Law issued on 14 August 1869, in *Diário do Governo* nº 189, 25 August 1869.

¹⁷ The adherents to the convention were forced to guarantee technical and organisational conditions for a quick and non-interrupted service (articles 1, 2 and 3), which was recognised as a universal public right (article 4).

¹⁸ Report of the engineer P. B. Cabral, Document 50, in Archive nº 3.7.2/Pr 5.93/M2, Cabos Submarinos (1886-1892). Contratos de Concessão. AHFPC, Lisbon.

which, as we have already mentioned, was quite embarrassing not only in technical terms¹⁹, but mainly in political ones.

In the meantime, the British company kept building alternative lines that landed in other Portuguese locations, but which were all linked to the Lisbon relay station, that became one of the most important nodes in the overall network. In the last three decades of the nineteenth century, the Indian and Brazilian routes were the busiest lines going through Lisbon to the United Kingdom.²⁰

The second vertex: Cape Verde Islands

Cape Verde was the second vertex of the Atlantic strategic triangle to be established. In 1872, the Portuguese government allowed two British companies, the *Construction and Maintenance (Telcon)* and the *Falmouth* to build a cable to link Great Britain to Brazil via Portugal and landing in Madeira and Cape Verde (St. Vincent)²¹. Both companies were also allowed to build a cable between Cape Verde and the Western Coast of Africa.²² In 1874, the connection with Brazil was ready²³, linking Great Britain to South America, and thereby improving its commercial relations with Brazil and Argentina, and giving Portugal the opportunity to link the mainland to the islands of Madeira and Cape Verde.

The connection to Africa was built ten years later already in the context of the “African rush” that took place after the Berlin Conference. In 1885, a set of cables ran from Cape Verde towards the Western shores of Africa, linking Europe to the French and British possessions along the African coast. Once again these cables landed in Portuguese colonies, such as S. Tomé, Guinea and Angola, towards Cape Town. By 1887 Africa was encircled by telegraph cables.

The construction of the Cape Verde relay station was quite a success to Portugal: it extended the Portuguese telegraph network to Madeira and to the African colonies (including both the islands and the western (1885) and eastern (1887)

¹⁹ Probably due to the difficulties of development of the Spanish network, whose density was 3,5 times inferior to the Portuguese. See A. Calvo, “Los Inicios De Las Telecomunicaciones En España: El Telégrafo”, *Revista de Historia Económica*, 3, (Otoño-Invierno 2001), 613-635, 617.

²⁰ Headrick, op.cit (11), p. 40. “(...) the route to India was (...) handling not only Indian traffic, but also that of Australia, Southeast Asia, and parts of the Far East.”

²¹ Law issued on 11 May 1872, in *Diário do Governo*, nº 114, 22 May 1872.

²² *Diário do Governo*, nº 261, 18 November 1872.

²³ On 24 December 1874 another company was established, which received all the rights and obligations of this exploitation, the *Brazilian Submarine Telegraph Company Limited*, in *Diário do Governo*, nº 273, 28 December 1874.

coasts of Africa) and it gave the Portuguese Treasury an important source of income from the transit taxes passing through Cape Verde.

The third vertex: Azores

The Azores were the third vertex of the Atlantic strategic triangle to be built, though the first request to land a submarine cable in Portugal dated from 1855. It aimed precisely at building a cable between Europe and North America through the Portuguese archipelago, but the Portuguese government never answered. However the use of Azores the third relay station, linking Lisbon to the United States, was a troubled affair.

By the beginning of the 1890s, the atmosphere of suspicion and tension among the European nations had increased dramatically. In Portugal, the “ordinary man” felt that Portugal was being despoiled of its African colonies by the Berlin Conference agreements, by Treaty of Congo²⁴ and finally by the British *ultimatum*.²⁵ In this new context, the Azores regained its strategic importance, not only for Portugal that understood the urgency to link the archipelago to the capital, but also for other European countries. For the first time, and as a direct consequence of the *ultimatum*, Great Britain lost its unchallenged ascendancy over the Portuguese government, who was eager to show its national pride and inclined to consider new proposals, especially from France and Germany.

The construction of the cable Lisbon-Azores-United States had two phases: the first one, between 1890 and 1893, linking Lisbon to the Azores; the second, from 1897 to 1900, linking the Azores to the United States of America.

For the first phase, the Portuguese government decided to open, in June 1890, a public competition to build up the cable between Lisbon and the Azores, at Portuguese expenses. Two proposals were presented: one by an Italian company, *Pirelli & Ca*; a second by a French company, the *Société Française des Télégraphes Sous-Marin*, which was to be the winner. However, the Portuguese catastrophic

²⁴ As all the others European colonial nations, Portugal promoted several expeditions in the context of the civilizing mission in Africa. The aim of these expeditions was to assert the Portuguese sovereignty over the inland territories of Angola and Mozambique. One of the vulnerable areas was the southern part of Congo considered by the Portuguese government as national territories, but also claimed by Great Britain and Belgium. In 1884, the Portuguese and the British governments signed a peace treaty known as Treaty of Congo. However, as both Portuguese and British businessmen disapproved the treaty and the Belgium King, Leopold II, also opposed it, it was put in practice.

²⁵ See heading In the footsteps of progress...

financial situation led to the cancellation of the agreement. In December 1891, the *Telcon*, the British company that had already built up the cable in Cape Verde, presented a new proposal to build up the cable between Lisbon and the Azores, Lisbon and France, and the Azores and the United States. In exchange for its investment, Telcon claimed the renewal of the contracts of 1870, with the *Eastern Company* (to open the Indian route) and of 1872, with the *Brazilian Company* (to open the South America route). The British cartel aimed at decreasing the effects of French competition, preventing the telegraphic traffic from being diverted from their lines to the French cables between Senegal and Brazil (Pernambuco) and from Brazil to the United States. The Portuguese government evaluated the proposal with distrust, considering that it should be revised in order to ensure the national interest, namely “the benefits coming from the geographical location of the country”.²⁶ The Portuguese position reflected not only the national distrust towards Great Britain and the *ultimatum*, but also the suspicion regarding the fairness of the relationship between Portugal and the United Kingdom.

In 1892, when the British proposal was still being analyzed, Portugal received a second proposal, again by a French company, which was surprisingly accepted. The decision was clearly political, because the technical report was undoubtedly against the French proposal, which was considered financially weak: for a total budget of 20 million French francs needed for the project, the company was only capitalized at 11 millions). Nevertheless, the Portuguese government kept its decision, showing to the world, the national opposition and public opinion that Portugal did not bend to the British interests.

However, once again the agreement with the French company was a complete flop and the contract expired even before the first stone was laid down. In June 1893, the Portuguese government was compelled to ask the Parliament's permission for signing the contract with the British *Telcon* for building the cable Lisbon-Azores, exactly on the same bases of the proposal that had been refused one year before. The contract was signed on 17 June, and the relay stations in the Azores opened to the traffic in August. The concession to the *Europe and Azores Telegraph Company*, a company founded to exploit the cable, was signed in April 1895, also after a difficult process of negotiation.

²⁶ Document 50, in Archive nº 3.7.1/Pr 5.93/M2. Cabos Submarinos (1886-1892). Contratos de Concessão. AHFPC, Lisbon.

The second phase of the cable Lisbon-Azores-United States, the construction of the cable from the Azores to the United States, was also a very difficult process. At the end of the nineteenth century, German entrepreneurs and business men wanted a more effective channel to communicate with the United States, which was then a growing market and a new world power. Like France, Germany wanted to have their own cables free from British influence and scrutiny. The British company *Europe & Azores*, supposedly responsible for extending the cable from the Azores to the United States, confessed that its financial resources were not enough to support such an expensive project and requested in July 1897, permission to transfer the concession of the cable to a German company, the *Felten & Guilleaum*. This company had a concession from its government to lay a cable from Germany to the United States. The agreement seemed to be convenient both for the British and the Germans and among several changes to the original contract, asked for permission to build up a direct cable between the Azores and Vigo (Spain)²⁷.

On the contrary, Portugal strongly disagreed with this proposal. According to the initial contract signed between the Portuguese government and the *Europe & Azores*, the British company was not allowed to transfer to a third party its rights and duties. Also, as far as the American policy towards telegraphs was concerned, the fact that the German company had privileges back home was an impediment for landing cables in the United States. Apart from these juridical issues, the Portuguese administration also suspected the German company for economic and political reasons. A cable Azores-Vigo was a real threat to the Portuguese strategy: (i) the cable would divert traffic from Portugal to Spain, thus weakening the Portuguese *status* as a preferential negotiator and threatening the crucial geopolitical and economic role of Lisbon as an international telegraph center; (ii) *Europe & Azores* would almost certainly be taken over by the German company, as it was unlikely that a company with such a short cable and scarce traffic could keep its position as a mediator between the Eastern Europe traffic and Africa via Lisbon; (iii) the maintenance of the cable between Lisbon and the Azores could be easily neglected, causing severe damages to the Portuguese telegraph network.

Moreover, there were two “hot” political questions left to be solved: on the one hand the Azores-Vigo cable would enhance the Spanish position in the world telegraph network; on the other, the well-known German zeal could interfere with the

²⁷ Document 1 in Archive n.º 3.7.1/Pr 11.16/M2. Cabos Submarinos (1894-1899). Contratos de Concessão. AHFPC, Lisbon.

telegraph service provided by relay stations under Portuguese jurisdiction, causing diplomatic incidents.

The negotiation was dragged for almost a year and in September 1898, the Portuguese government denied the permission asked by the *Europe & Azores* to lay the cable Vigo-Azores, but accepted to alter other articles of the initial contract of 1893.

In this context the *Europe & Azores* presented a new request to transfer the concession, by asking permission to land three cables in Azores: one to New York, for the German company *Atlantische Telegraphen Gessellschaft*, a second to Canada (Canso), for the American *Commercial Cable*, and a third to Germany (Emden). This request aimed at three objectives: (i) to answer the *Commercial Cable* needs to have an additional Atlantic cable between Canada and Great Britain, separated from the existing ones; (ii) to provide *Commercial Cable* with a direct path for the traffic from North America to South America, Africa, India, China and Australia through the connection with the cables Azores-Lisbon, Lisbon-Cape Verde-Brazil and Cape Verde-Cape Town; (iii) to establish a direct cable between Emden and New York serving the traffic between the United States and Germany, including the countries that used the German line.

The Portuguese Telegraph Administration advised the government to grant the request, pointing out its advantages: the cable Lisbon-Azores was valued and became a significant source of income, “without any charges for the Treasury.”²⁸ In July 1899, a provisional agreement authorized *Europe & Azores* to transfer the concessions to the German and American companies. The definitive contract, signed in December 1899²⁹, imposed on the German and American companies to be under the supervision of *Europe & Azores* that was held responsible for paying the Portuguese government the transit taxes.

At last, from 1900 onwards, Azores joined Lisbon and Cape Verde, becoming all together one of the most important crossroads on the international submarine cable networks.

The “all-red” cables

²⁸ Archive n.º 3.7.1/Pr 11.16/M2. Cabos Submarinos (1894-1899). Contratos de Concessão. AHFPC, Lisbon.

²⁹ Document 1 in Archive n.º 3.7.1/Pr 11.16/M2. Cabos Submarinos (1894-1899). Contratos de Concessão. AHFPC, Lisbon.

At the turn of the century the power of telecommunications was indisputable evidence. The global hegemony agenda, pursued by countries such as Great Britain, France, Germany and the United States demanded a world network of communication, the most efficient technical tool to link the European and American economic and political centers between themselves and from there to the non-Western territories, which were part of their imperial dominance. This awareness of the power of the telegraph network led to a “cable boom”, once again pioneered by the British who were engaged in “turn their cable network into an invulnerable global communication system.”³⁰

To achieve this purpose three new cable lines had to be build: one to fulfill a lack in the British network – the connection to the Pacific Ocean; the other two were alternative routes, a duplication of the cable linking Cape Verde with Cape Town, and the cable Durban-Singapore-Australia. By then, there were already two cables linking South Africa and Europe, one surrounding Africa by East that landed at Mozambique and another by West, landing at Cape Verde. The duplication of the western cable Cape Verde-Cape Town, aimed at avoiding the landing of the eastern cable in the African coast, which was too exposed to French and German acts of hostility.

For building this supposedly “invulnerable all-red cables” (that should only touch British territories), the British government relied on the depth of the ocean, and once again on Portugal to guarantee its security, since the new “all-red” cables still landed in Portuguese territory. The proposal presented by the *Eastern Company* in July 1899, explicitly stated that (i) the option of landing in Madeira and Cape Verde replaced the possibility of the cable “to touch exclusively at British possessions”; (ii) the “present transit taxes for telegrams exchanged with South Africa” were ascribed to Portugal; (iii) an increase of the traffic through the “proposed new route” was expected, but in any case a minimum income estimated upon the traffic registered in that year was ensured. In order to reinforce the proposal it was also stressed that the new route would “be declared via normal for South Africa” and Australia.³¹ In spite of the urgency requested by *Eastern*, the negotiations lasted more than a year, as the Portuguese authorities tried to increase the amount offered by the British company. On 22 September 1900, the contract was at last signed; the cable was completed in February 1901.

³⁰ Headrick, op.cit (15), p. 93.

³¹ Denison-Pender in a letter addressed to Madeira Pinto, General Director of the Post and Telegraphs of Portugal, dated from July 25, 1899. Documents 1 to 41 in Proceedings 3.7.1. Pr. 9.42/M2 Cabos Submarinos (1893-1910). Contratos de Concessão. AHFPC, Lisbon.

The British government tried to devaluate the fact that the new “all-red” cable was not truly “all-red”, as it still landed in a foreign territory. Cape Verde was undoubtedly an important international communication center both for Great Britain and the United States,³² guaranteeing an alternative link from London to South Africa, South America, India, the Far East and Australasia, in case of a conflict in the Mediterranean. It is therefore quite surprising that in December 1911 the Standing Subcommittee of Imperial Defense stated that the “dependence of the United Kingdom on cable stations situated upon foreign territory for the transmission of telegrams has been generally eliminated.”³³ The British concept of “generally” was at least doubtful, as the relay stations of Lisbon, Cape Verde and Azores not only were ever “eliminated”, but also were in fact reinforced, as it is clear during and after World War I.

A Shift in Power: Challenging British Leadership

On 4 August 1914, the British government ordered the disruption of the two German cables that linked Germany (Emden) to the United States (New York) via Azores. A month later, the Portuguese authorities sealed the German station, thus interrupting the traffic between Azores and America.

On 27 September 1916, the British minister in Lisbon sent the Portuguese government a “very confidential” letter informing that his government had decided, after consulting with France, that the German cables should be fully operational again. Both cables would link Europe to Canada via the Azores: one cable going from the British coast (Porthcurno, Cornwall) to the Canadian coast of Nova Scotia (Halifax); a second cable linking the French coast (Brest) to the Canadian coast of Newfoundland (S. Pierre). Portugal would, therefore, recover an important source of income, as the British and French authorities obviously had to pay the previously agreed transit taxes³⁴. On the next day, a new letter from the British ambassador added a second request, asking the Portuguese government to allow the *Eastern Telegraph* to use the telegraphic apparatuses and the cables in stock at the relay

³² The interest of *Commercial Cable* in the Azores cable shows how important it was to the American strategy. Using this cable the United States would be linked to Cape Verde and through Cape Verde to Africa, South America, India, China and Australasia.

³³ Headrick, op.cit (15), p. 99.

³⁴ The cable landing rights in Azores were 5 cents of franc per word as stipulated in the contract with the German company on 29 July 1899.

station of Faial (Azores). Roughly six months later, as a sign of collaboration among allies, the Portuguese government authorized the use of the cables and of the material requested by "His Majesty's Government that was anxious that the Eastern Telegraph Company at Faial should be authorized to unseal the cable (...) and to use it for communication with the United Kingdom."³⁵ On 18 July 1917, the cable linking Great Britain to Canada was already operational.

Meanwhile, unlike the British government, the French authorities unilaterally diverted the second German cable to Brest and from there to Canada, using the cable without paying the due telegraph taxes to Portugal, which exceeded the amount of thousands of hundreds of francs per year.³⁶

The United States of America step in

During and after World War I the use of the German cables was a very complex affair. Great Britain and France were not alone in their interest for the Azorean cables; the United States of America soon claimed their rights to use on equal terms the Atlantic strategic triangle, and in particular the Azores relay station. For the American entrepreneurs and businessmen the Azorean link was pivotal to their expansionist agenda, since it enabled them to reach the central European markets, without being under their rivals' surveillance. The importance of the Azorean cable became even more obvious when political conflicts in Ireland interrupted the communications between the Irish coast and the United States, preventing the Americans to reach Europe.

The landing of telegraph cables in Azores was also important for technical reasons. The old American transatlantic cables, which had been built without relay points were so slow that they became almost useless. The construction of submarine cables had proved that the cable length should not exceed 2000 miles, in order to assure the volume and the speed required by the transatlantic business traffic. The Azores were indispensable for the American telegraph network.

Therefore, the government of the United States decided to put an end to the British hegemony and actively engaged in a political and diplomatic battle to support the quest of American telegraph companies for European concessions. In 1919, when the American companies *Commercial Cable* and *Western Union Company*

³⁵ 3.º PISO, A1, M28, AHMNE, Lisbon.

³⁶ According to the estimation of Portuguese Administration of Post and Telegraphs, in 3.º PISO, A10, M101, AHMNE, Lisbon.

asked Portugal permission for using the Azores relay station for their new cables, the *New York Times* was particularly sarcastic when commenting on the delay of the Portuguese authorities to reply. They added that it was quite a mystery why their “fellow republicans”³⁷ took so long to give the official approval, and drew attention to the links that should unite the republican brotherhood against the British monarchy.

The Portuguese answer took almost two years and a half. For the Americans it was a clear sign of the British dominant position in relation to Portugal, and of the “opposition of British companies that fear American competition (...), but American prestige makes itself felt.”³⁸ In fact, the United States were very busy using their embassy in Lisbon and addressing the Portuguese ambassador in Washington in order to lobby for a positive reply, which finally arrived in April 1922.

The Portuguese official answer stated that Portugal was completely available for an agreement with the American companies, and pointed out that the provisional contract with the *Western Union* in 1921 was a token of the Portuguese engagement in forging transatlantic friendship. In the same letter the Portuguese government promised a positive answer to the *Commercial Cable* requests,³⁹ provided that the American company settled an old dispute with the *Europe & Azores*.⁴⁰

The contracts established with the American companies strongly displeased the British government. The ambassador of Great Britain in Lisbon sent a note to the Portuguese government stating that in order to protect the interests of *Europe & Azores* and of its associates, a representative of the British government (and not a Portuguese one) should be chosen as a mediator between the British and the American companies. The Portuguese government replied that there were no reasons for using a mediator as Portugal had the right to negotiate directly with the

³⁷ *New York Times*, in Headrick, op.cit (15).

³⁸ *Ibidem*.

³⁹ In November 1919, *Commercial Cable* requested permission to deliver telegrams from North America in Azores, which was against the contract already established with *Europe & Azores*. The Portuguese administration consulted the British company, which informed that the American company owed £ 20000 to the British. This situation led the Portuguese authorities to decline the request. In December 1919, *Commercial Cable* submitted to the Portuguese authorities an application to land four cables in Azores, which was supported by the American ambassador in Lisbon.

⁴⁰ The contract between *Deutsche Atlantische* and *Europe & Azores* ended with the declaration war in August 1914, but the contract between the German company and *Commercial Cable* remained valid. This situation caused a juridical difficulty. If the American company sustained the traffic with the British company it would be held responsible before the German company. Nevertheless, by its own request *Commercial Cable* pursued the traffic with *Europe & Azores* from 4 August to 19 October 1914. It was then understood that the two companies would make an arrangement that secured *Commercial Cable* against eventual German complaints. However the deal was never put in practice and when the war ended, the German company paid to *Europe & Azores* all the taxes in debt.

companies of a third country, since *Europe & Azores* had no exclusive landing rights in Azores from 1918.⁴¹

On behalf of *Europe & Azores*, the British diplomat explained that his request was only based on the "close and friendly relationship" with Portugal, as the company was aware that it no longer held exclusive rights. Given the circumstances *Europe & Azores* decided to "acquiesce with regret in this decision. It does, however, beg that in order to protect its South American traffic, the working of the proposed cables of the American Companies should be limited to their North American traffic."⁴² This restriction was obviously against the interests of the American companies and it broke the traditional rules of telegraph concessions, by disclosing, once again, the political character of this dispute. The financial and technical support given by Great Britain to the Portuguese policy of material improvements forced the Portuguese government to take into consideration the "old alliance" when deciding on cable-landing rights. The long-lasting service provided by Portugal to the British telegraph empire and together with the network of economic, financial and political bonds between the two nations allowed the British government to interfere in Portuguese internal affairs and decisions.

When the final contract with the *Western Union Company* was approved by the Portuguese Parliament both Americans and British showed their disapproval and even rage. The British considered that the article, which forced the traffic to South America to go through Cape Verde, was useless, "as far as the British interests of the British Company are concerned."⁴³ In addition, the Americans considered that the restrictions imposed to their cables were an insult, and accused Portugal of being "yielding to British influence exerted in opposition to American interests."⁴⁴ The United States considered the amendment illegal, as it was against rule 41 of the

⁴¹ The service provided by Portugal to submarine cable networks had a double legal frame: the contracts of cable landing rights and exploitation of the traffic, conceded to private companies by Portuguese authorities; the International Telegraphic Conventions established in that the adherent parts had the right to make particular contracts of any nature, in order to secure and improve the conditions of international telegraphic communications. These agreements could be permanent, but the parts were free to act on an individual basis. The contracts of concession granted by Portugal abide these conditions. A company holding a concession had to settle in Portugal, usually through an individual or collective commercial company, according to the Portuguese rules of trade in order to enjoy some significant privileges. The material needed to land the cable and to install the relay stations, namely telegraphic devices were free from importation taxes; the facilities of cable companies were free from taxes; the traffic revenues were also free from taxes. The single income for the Portuguese Treasury was the transit telegraphic taxes.

⁴² Note dated from June 1922, from Lancelot Carnegie, in 3.º PISO, A10, M101, AHMNE, Lisbon.

⁴³ Note dated from 5 August 1922, from Grant Watson (substitute of Lancelot Carnegie), in 3.º PISO, A10, M101, AHMNE, Lisbon.

⁴⁴ Notes dated from 11 and 12 August 1922, from the ambassador of the United States in Lisbon, in 3.º PISO, A10, M101, AHMNE, Lisbon.

International Telegraphic Convention (subscribed by both Portugal and Great Britain), revised in Lisbon in 1908, which stipulated that “when the sender has prescribed the route to be followed the respective offices are bound to conform to his instructions.”⁴⁵

Quite suddenly, and against its initial position, the British ambassador in Lisbon informed the Portuguese authorities that the amendment was sufficient to satisfy the British interests,⁴⁶ adding that the suggestion previously made was not illegal (as the Americans claimed) because it only referred to “to unrouted traffic”,⁴⁷ upon which the Portuguese administration had the right to establish the most convenient routes taking into account its expected revenues. The Americans rejected the British argument retorting that the “profit coming to the telegraph companies transmitting the unordered messages is so insignificant (...). But it should be noted that in such a maneuver, Portuguese interests are ignored or sacrificed.”⁴⁸

In July 1923, rumors circulated that the *Eastern* and *Western Union* had reached an agreement, but they were firmly denied by the British minister in Lisbon, who reasserted the British support to the amendment. However, in November the two telegraph companies did meet in London and reached an agreement.

The British company used the diplomatic channel to thank Portugal for its “benevolent interest” that had allowed a mutually advantageous deal.⁴⁹ In the following month, the Portuguese government was informed that the opposition of “His Majesty’s Government” to the “contract between the Portuguese Government and the Western Union Company of America in regard to the landing of a cable at the Azores”⁵⁰ was withdrawn.

In its first note to the Portuguese dictatorship government established by a military coup in 1926,⁵¹ the United States expressed their resentment at the way American companies had been treated by Portugal between 1919 and 1924, implying that, as far as the world telegraph network was concerned, the republicans were

⁴⁵ Note dated from 23 August 1922, from the ambassador of the United States in Lisbon, in 3.º PISO, A10, M101, AHMNE, Lisbon.

⁴⁶ One of the Portuguese deputies, Carlos Santos Silva, was the representative of the *Eastern* in Lisbon.

⁴⁷ Memorandum of the British Legation in Lisbon dated from 28 February 1923, in 3.º PISO, A10, M101, AHMNE, Lisbon.

⁴⁸ 3.º PISO, A10, M101, AHMNE, Lisbon.

⁴⁹ Note dated from 30 November 1923, from Lancelot Carnegie, in 3.º PISO, A10, M101, AHMNE, Lisbon.

⁵⁰ Note dated from 20 December 1923, from Lancelot Carnegie, in 3.º PISO, A10, M101, AHMNE, Lisbon.

⁵¹ The military coup opens a period, which will lead to the Estado Novo, a dictatorship that lasted until 1974.

hostage to British influence. According to this note American companies were forced to agree on the British terms due to the “inaction of the Portuguese Government (...) in view of this situation that I asked (...) whether Your Excellency thought it likely that an untrammelled landing license in the Azores would be granted an American company if it should apply for one.”⁵² The Portuguese Minister of Foreign Affairs replied that the American accusation was unfair, because it did not take into consideration that the bonds between Portugal and Great Britain dated back to the fifteenth century. Considering the vital importance of the telegraph network, the Portuguese preferential relationship with Great Britain was not a question of servility but of loyalty. The Portuguese authorities saw the American note, which was considered too severe, as the result of the long dissatisfaction felt by the Americans regarding the usual delays of the Portuguese government in evaluating their proposals, which from then on were speeded up.

The American concerns regarding Portuguese sovereignty were, in fact, a pretext to assert its own national interests in the new global world. The British hegemony, largely unchallenged during almost two centuries, was now facing forceful opponents, not only the traditional ones, such as France and Germany, but also the newcomer United States of America: “Great Britain (...) must yield to the rational demands of the United States and other nations”⁵³. It was clear that those who controlled the information controlled the world. In this context the Atlantic strategic triangle, one of the crucial parts in the transnational network of telegraph, had to be considered a “free zone”, available to all countries willing to negotiate with the Portuguese government⁵⁴.

German and Italy cables to the United States

The British government also issued a note in which the terms of the agreement between Portugal and the German company *Deutsch Atlantische Telegraphengesellschaft* were accepted without reserve. This was surprising

⁵² 12 April 1927, 3.º PISO, A10, M101, AHMNE, Lisbon.

⁵³ *New York Times*, 16 August 1922, “Warns of British Control of Cables. Walters S. Rogers Urges That the Azores Be Made Free Landing Stations.”

⁵⁴ In 1865 it was established that the adherents to the International Telegraph Union would meet every three years to review the International Telegraphic Convention in order to improve the international telegraphic service. In 1875, a particular alteration was introduced. Until then, article 1 imposed the adherent parts to provide material, technical and organisational conditions to ensure the efficiency of the international telegraphic system. From 1875 on article 1 stated the universal right to use the international telegraph network. The main question concerning the telegraph network shifted from maintenance to use.

information because the Portuguese government had not yet informed Great Britain about the possibility of a contract with the German company. In fact, in October 1922, the *Deutsch Atlantische Telegraphengesellschaft* had requested permission to land a cable in Azores linking Germany (Emden) to the United States through the cables of the *Commercial Cable Company*. As usual, Portugal regarded the German proposal with some reluctance, but the intensity of the telegraphic traffic between Germany and the United States showed the urgency of the new links between the two countries. The Portuguese ambassador in Berlin was even pressed to send again the German proposal to Lisbon. However as the *Deutsch Atlantische* project implied the use of the cables owned by the *Commercial Cable*, the German request could not be met until the dispute between the *Commercial Cable* and the *Europe & Azores* was settled. Only after the surprising note of the British ambassador were both questions decided.

The British apparently bizarre attitude was undoubtedly related to the renewal of the contract between Portugal and *Europe & Azores* (6 February 1924), which brought an end to an old dispute with the *Commercial Cable Company*.⁵⁵ This contract gave the British company the rights to land two more cables in Azores, and to transfer the concession to the American company.

Also in 1924, the *Western Union* finished building its cable Azores-United States; the contract with the German company to use it was signed on the 6 September.

Besides the British, the French, the Germans and the Americans, a fourth country was willing to enter the telegraphic competition: Italy. In August 1923, during the difficult process of negotiation between Portugal and the American telegraph companies (under the surveillance of Great Britain), the Italian government informed the Portuguese counterpart that the difficulties raised by Portugal to the *Western Union* project of landing a cable in Azores were intolerable. The Italians already knew that the British government opposed the American project, claiming that its interests

⁵⁵ In April 1913, *Commercial Cable* required permission to land in Azores a cable from New York to a point in Europe. The Portuguese government granted the concession in October 1913, stipulating that the company should complete the cable between New York and Azores until December 1916, and between the Azores and the chosen point in Europe until December 1918. This concession was not given directly to the American company but to *Europe & Azores* that later on transferred the rights to the former. *Commercial Cable* was unable to fulfil its plans and the concession expired. In 1917, the American company requested a renewal of the contract, but had no response from the Portuguese. In November 1919, *Commercial Cable* asked permission to deliver telegrams from North America in Azores, and started the struggle to become independent from *Europe & Azores*.

would be damaged. The alternative to Azores, the Spanish town of Cadiz, would affect both Italian and Portuguese interests in the telegraphic traffic: Italy would lose part of the traffic, because the range of the cable would be reduced, and Portugal would lose the total amount of traffic.

Moreover, the Italians also wanted to build up their own cables lines, namely between Italy and South America. In April 1921, the Italian company *Italcable* asked permission for landing cables in Cape Verde; as usual the negotiations were not easy and in November 1923, the representative of *Italcable* came to Lisbon to try to settle an agreement. The Portuguese authorities considered that the concession could be granted, but not exclusively. Some other restrictions were added later to the Italian proposal: the relay station should have Portuguese staff and a compensation of £ 5000 was due to the government of the province of Cape Verde. Even so, the Italian government kept its interest in building up the cable Italy–Cape Verde–South America, as it would secure an independent link between Italy and the large community of Italian emigrants in South America⁵⁶.

In the meantime, *Italcable* bought the rights of the cable Azores-Malaga-Italy from the *Western Union Company*. On 12 March 1925, Mussolini inaugurated the cable Anzio-Malaga-Azores-New York, and sent a telegram to the Portuguese government thanking for its collaboration. In July, the Italian company tried to build the connection between Azores and Cape Verde that had already been granted in the previous year⁵⁷. This cable would encircle with Italian cables the Atlantic strategic triangle (Lisbon-Azores-Cape Verde), until then exclusively British. Obviously, Portugal informed the British government about this project, but no reply was given. A new diplomatic note was sent to the embassy of Great Britain in Lisbon, explaining in detail the Italian plan. The British answer was not convincing as it just suggested the Portuguese government should safeguard its economic status, by verifying if the volume of traffic justified the construction of a new cable.⁵⁸ Although the British position was surprisingly evasive, the Portuguese authorities had to assume that there was no political inconvenience and granted the requested concession. However, instead of the cable Lisbon-Azores, Portugal gave its permission to a cable Italy-Azores in order to prevent the Atlantic triangle from being closed with Italian

⁵⁶ When the United States restricted European emigration, South America became the main destination of Italian emigrants. Italian emigrants in Argentina, a large and rich community, would pay the expenses of this cable.

⁵⁷ *Diário do Governo*, 10 April 1924.

⁵⁸ Note dated from 6 October 1925, from Lancelot Carnegie, 3.º PISO, A10, M132, Pr. Nº 296/21, AHMNE, Lisbon.

cables, and in this way promote the channeling of new traffic to Azores, thereby maximizing the income of the Portuguese Treasury.

Later on *Italcable* made a new proposal to build up a cable between Lisbon and northern Europe. This time, the British government reacted violently, complaining that it had not been informed nor heard on this matter. Following Chamberlain's direct instructions, a note from the British embassy in Lisbon stated that "His Majesty's Government feel bound to place on record their regret that this omission should have occurred and they confidently expect that the Portuguese Government will adhere in future strictly to their undertaking that no concessions or other facilities in Portuguese Atlantic ports will be granted to a foreign power without previous consultation with them."⁵⁹ The terms used in this diplomatic note are quite harsh, showing that the British government would not tolerate any Portuguese attempts to define its own independent strategy.

Host and hostage: marginal strategies in a global world

As shown the telegraph network nodes in Portuguese territories became important centers for the distribution of the international telegraphic traffic among European countries and between them and other continents, turning thereby Portugal into an important gateway of Europe both to the Mediterranean and to the Atlantic.⁶⁰ Portugal, a peripheral country in the industrialized Europe, squeezed between its traditional alliance with Great Britain and the growing demands of other powerful nations tried to find its own place in this changing geometry of power.

The dominance of the British cable network depended on foreign territories and Portugal was almost the ideal ally: (i) the Portuguese mainland offered good conditions for landing the telegraph cables; (ii) Portugal had two archipelagos (Azores and Madeira) in the Atlantic Ocean, between Europe and America, with an excellent location for landing intermediate cables; (iii) Portugal had a large African colonial empire, including islands and territories in the western and eastern coasts of Africa, also available for telegraph cables; (iv) Portugal was a trustful country, politically quite stable; (v) Portugal needed foreign investments to develop a policy of

⁵⁹ Note dated from 1 September 1927, from Grant Watson, 3.º PISO, A10, M132, Pr. Nº 296/21, AHMNE, Lisbon.

⁶⁰ Even today, with the latest generation of optical cables, Portugal continues to be an important node in the communication worldwide network.

material improvements; (vi) Portugal couldn't negotiate in equal terms with Great Britain.

In addition, Portugal profited from the alliance with Great Britain, by using the technical resources provided by the British telegraph network of cables to manage and control its empire. In fact, Portugal took advantage of its host role at different levels: (i) at the economic and financial level, because the Portuguese government engaged in a policy of material improvements did not have to ask for more loans to build its own telegraph network; on the contrary, it received a considerable income for owning telegraph infrastructures which had been built free of charges; (II) at the political level, because the telegraph network allowed Portugal to establish links to all its colonies, and therefore to assert its role as a colonial nation, not only in the African arena, but also in the European scene; moreover, together with the railways the telegraph network was one of the most effective tools for building a modern country, both on the mainland and in the colonies; (III) at the technical level, because there was a transfer of technology not only concerning the apparatuses, but also in terms of expertise both at an intermediate level and a higher level (engineers).

The Portuguese case also shows a paradox that is probably an inevitability of transnational technological systems built on a nation state basis:⁶¹ the balance of power between nations is unequal. The fact that all the participants of a transnational technological network, such as the telegraph, may profit from its presence in the network does not mean that all of them have the same negotiating status. Economic and political hierarchies extended their influence upon the technological world: a peripheral country such as Portugal could not stand against Britain's interests, thus becoming its hostage. In fact, it is quite clear that the Portuguese policy concerning telegraph cables was always determined by the British interests.

However, behind this apparently "plain surface" of British domination we find a much more rich reality. At a first glance, Portugal may seem a foolish pawn in the British chess, but behind the servility there was a hidden political agenda, crucial to the Portuguese strategy of development. In this context, a new type of win-win scenario can be envisaged: by hosting the British cables and the British plans for controlling the telegraph, Portugal was able to secure its position as a partner in the transnational cable network and thus avoid deepening its peripheral status in the European arena.

⁶¹ Erik van der Vleuten e Arne Kaijser, op.cit. (2), 34.