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Economics and politics in submarine telegraph cables (XIX[TH] and XX[TH] centuries). A global perspective between history, heritage and preservation
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STORIOGRAFIA

LOCALITY IN THE GLOBAL WORLD: FACTS AND REFLECTIONS ON THE LUSITANIAN LAND. EXAMPLES OF THE HERITAGE OF SUBMARINE CABLES

Introduction

Telegraphs played a central role in building European empires, as well as in «Europeanizing the world» and thereby shaping both the nineteenth and twentieth centuries, as Jorma Ahvenaien[1], Daniel Headrick[2], Pascal Griset[3], Peter Hugill[4], and others have suggested. Telegraphs were a paramount «tool» assuring long-distance communication and therefore the circulation of intelligence around the globe in areas news, prices, and political decisions.

The processes involved were complex at many levels, and brought together the action of a plethora of actors scattered around the world, with some based at the centres and some on the peripheries. In fact, Portugal played a critical role in sustaining the British network of submarine cables and relied for a long time on the revenue derived there from, which points to a mutual inter-imperial dependence. On the one hand, this interdependence came about from a need to overcome constraints relating to cable materials – namely the attenuation effect of the electric current – in the process of building a worldwide infrastructure. For this, reinforcement of the electric impulse carrying the message across long submarine telegraph lines was required, and therefore relay stations were built. On the other hand, the old Anglo-

[1] J. Ahvenaien, *The Far Eastern Telegraphs: the history of telegraphic communications between the Far East, Europe, and America before the First World War*, Helsinki 1981.

[2] D. Headrick, *The tools of empire. Technology and European imperialism in the nineteenth century*, New York 1981; Id., *The tentacles of progress. Technology transfer in the age of imperialism, 1850-1940*, New York 1988; Id., *The Invisible Weapon. Telecommunications and International Politics 1851-1945*, New York 1991.

[3] P. Griset, *Les Télécommunications Transatlantiques de la France*, Paris 1996.

[4] P. Hugill, *Global Communications Since 1844*, Baltimore/London 1999.

Lusitanian political alliance, the location of the Portuguese territories and the country's financial needs led to a number of interconnections, which later became peripheral but prominent communication hubs that remained in operation for about a century, and whose local impact has yet to be identified and studied.

The fact is that the vivid life keeping these hubs in operation took various forms in relation to material and immaterial heritage. This article intends to highlight this heritage. The analysis is focused on two sites, Carcavelos and Horta, in which locality and globalization, identity and diversity, uniqueness and homogenization coexist and interact. Among others, David Harvey[5], Neil Smith[6], Greg Downey[7], and, inspired by these authors, Ana Paula Silva[8], have written about the need to analyze the «places» in which the «global» is rooted in order to better understand the world we are living in. In those places we find not only elements of openness and cooperation, cosmopolitan and universal values, but also particularities and specificities. In fact, these elements are the signal that reveals how «locals» appropriate the so-called «global». Against the temptation of homogenization it is necessary to seek ways of simultaneously ensuring the acknowledgement of cultural differences and the preservation of common values. Studying the local heritage of submarine cables provides a means by which to do so. In open societies such as those we live in, physical and social

[5] D. Harvey, *Between Space and Time: Reflections on the Geographical Imagination*, «Annals of the Association of American Geographers», 80 (1990), pp. 418-434.

[6] N. Smith, *Spaces of Vulnerability: The Space Flows and the Politics of Scale*, «Critique of Anthropology», 16 (1996), pp. 63-77.

[7] G. Downey, *Virtual Webs, Physical Technologies, and Hidden Workers. The Spaces of Labour in Information Internetworks*, «Technology and Culture», 42 (April 2001), pp. 209-235.

[8] A.P. Silva-M.P. Diogo, *Host and Hostage: Portugal, Britain and the Atlantic Networks*, in *Networking Europe. Infrastructures and the Shaping of Europe, 1850-2000*, edited by E. van der Vleuten and A. Kaijser, Sagamore Beach 2006, pp. 51-69; A.P. Silva, *Portugal and the Building of Atlantic Telegraph Networks: the role of a loser or a winner?*, «Journal of History of Science and Technology», 2 (2008); Ead., *Portugal, os cabos submarinos e a globalização: 1869-1939*, in the proceedings of *Scientiarum Historia II-Encontro Luso-Brasileiro de História das Ciências*, Rio de Janeiro, 28-30 October 2009; Ead., *Interconnectivity in the European Periphery: Portuguese Telegraphs as Global Links*, in *Asymetries of Technological Globalization: the Electric Telegraph*, edited by J. Harvard and F. Schipper, Comparativ, Jg. 21, H. 6, Leipzig 2011, pp. 68-86; Ead., *Anfitrião ou Refém: O Papel da Rede Telegráfica Portuguesa no Xadrez Mundial (da Regeneração ao Estado Novo*), in *A outra face do Império. Ciência, tecnologia e medicina (sécs. XIX-XX)*, edited by M.P. Diogo and I.M. Amaral, Lisboa 2012, pp. 109-129.

borders should be taken both as places of distinction and lines of proximity. Memory must be cherished. Too often, historical amnesia has led to submission and irrelevance. But history allows us to understand that tradition and modernity can be seen as two sides of the same coin.

Besides the operation of telegraphs, which demanded very specific skills, facilities and equipment also required maintenance, and therefore other expertise; thus, different jobs were created and performed either by foreign companies' workers coming from abroad, or locals. In this way, the companies' staff became a melting pot that changed life in remote localities, turning them into unexpected cosmopolitan places, as Neves[9] has stressed. Foreign languages started to be spoken, new habits were imported, and international marriages took place, merging behaviours and values of all kinds. The daily human interaction over about a century in those places produced diverse material and immaterial cultural heritage, which calls for academic attention.

Identity of open societies

Addressing Portugal using the expression «Lusitanian land» intends to inscribe reflection within a specific problem – that of Portuguese national identity. Though Portugal possesses one of the oldest mainland fixed borders in Europe since the twelfth century, it underwent numerous invasions of different peoples from the North and the South to the Iberian Peninsula for centuries before that. In spite of being heir to the genetic and cultural legacy of those peoples, the Portuguese are believed to have had an autochthon ancestral origin in the people inhabiting Lusitania, a territory located within the center of the current borders.

According to Sobral[10], national identity is not given at the beginning, but is rather an outcome of a building process lasting a long time, which in the case of the Portuguese dates from the pre-historic period. Throughout this building process, several dichotomies such as self and otherness; out and inside; continuity and discontinuity very often dramatically interrelate at different structural levels and groups within a society. Therefore, referring to Portugal using such an expression

[9] K. Neves, *A dual coiled phenomenon: Atlantic telegraphic cable companies and the dynamics of cosmopolitanism in Horta-Azores*, Horta 2000, pp. 81-93.

[10] J.M. Sobral, *Portugueses: uma identidade nacional*, Lisboa 2012.

aims at problematizing national identity as a historically complex issue that is particularly relevant nowadays, since we are living in a so-called global world.

Making a global world was, and still is, a process that raises tensions between centers and peripheries, centripetal and centrifugal processes, as Kellerman[11] pointed out, and resulting in new dichotomies such as homogenization and uniqueness.

This article intends to contribute to highlighting a certain «locality»; it starts by invoking the «facts», for example the host service provided by Portugal to the very first material infrastructure built around the planet – the submarine cable network, and in particular two vertices of the «Atlantic strategic triangle» composed of the three most relevant hubs of that network built upon and operating for about a century in Portuguese territories: Carcavelos, Mindelo and Horta.

Within these territories we find elements that form an interpretative synthesis which reveal how «locals» appropriate themselves of the so-called «global». Gavroglu (et al.)[12] problematize circulation of knowledge and technology not as a question of transfer or dissemination, but rather as one of «appropriation». This, in fact, is the most interesting phenomena to be analyzed, because it overcomes the homogenization versus uniqueness dichotomy by highlighting the creative process, and the human capacity for creation and recreation. This in turn brings us to the question of the «Lusitanian land»: how much of Portugal overlaps the Lusitania? And how much of what constitutes the Portuguese identity coincides with the Lusitanian? As Oliveira Martins points out, referring to the Portuguese people,

> [w]e acknowledge us as one single people in spite of the geographical and ethical diversity. The cohesion was made of the melting pot coexistent within the hospitality of the ending land. (…) And it was that plural cohesion that allowed the adventure of the Discoveries. We departed because we felt incomplete. We departed because we were used to living with the unexpected and with the diverse[13].

[11] A. Kellerman, *Telecommunications and Geography*, London/New York 1993, pp. 30-33.

[12] K. Gavroglu, M. Patiniotis, F. Papanelopoulou, A. Simões, A. Carneiro, M.P. Diogo, J.R. Bertomeu Sánchez, A. Garcia Belmar, A. Nieto-Galan, *Science and Technology in the European Periphery: Some Historiographical Reflections*, «History of Science», XLVI, June 2008.

[13] Discoveries mean the 15th and 16th century maritime voyages, which resulted in the Portuguese Empire that lasted until 1999 (G. d'Oliveira Martins, *Património, Herança e Memória*, Lisboa 2009, p. 115).

As Gavroglu (et al.) also pointed out, Portugal was, during the imperial age, a periphery that was a centre to other peripheries, namely the islands and colonies. Portugal, which nowadays returned to its centre, in Eduardo Lourenço's words, is «confined to the modest centre from which the Portuguese departed to see and acknowledge that there is only a single world, Portugal is now in the situation of accepting itself as it was and is, just a people among other peoples. That went around the world to measure its marvellous imperfection»[14].

Relevance of Carcavelos' and Fayal's hubs

Portugal started to host submarine cable relay stations in 1870, 15 years after having received the first request to grant cable landing rights, which in its turn preceded the first transatlantic cable, laid in 1858. The first requests involved plans to lay cables across the Atlantic by fastening them in Portuguese territories. However, the first concession given by Portuguese authorities was to lay cables heading to Bombay in India, the pearl of the British Empire, which were fastened on the shore by the mouth of river Tagus in the Vila of Carcavelos, near Lisbon, and proceeded towards the Mediterranean Sea.

In 1874, a new cable heading to Brazil started in Carcavelos and proceeded with moorings in Madeira and St Vicente, Cape Verde (the latter was a Portuguese colony at that time). Later, the Atlantic cables proceeded via the coasts of Africa, and were fastened in other Portuguese colonies such as Mozambique and Angola, located respectively on the eastern and western coasts of Africa.

In the meantime, and just after having received over 40 requests for cable landing rights in Azores, the Portuguese authorities had those islands connected to the mainland in 1893. Once set, the Azorean hub gained huge relevance. As written in the *New York Times* in September 1922:

> It can be said that because of their possession of the Azores and St. Vincent, our fellow republicans of Portugal are imposing a tax of approximately $ 1,000,000 year upon the transmission of intelligence between Europe and the America, and the other sections of the globe whose channels of communication touch the Azores or the Cape Verde Islands, and, of course, all of these quarters of the globe are involved[15].

[14] Ivi, p. 116.

[15] «New York Times», 17 September 1922, *Cramped Cable Service. Forces That Are Holding Back Development of Our World Communications*, p. 16.

This was not the first time that the Portuguese possession of Azores[16] was questioned; in the previous month another article published in the same newspaper had stressed that «the Azores (were) ideally located for becoming a great cable centre, with cables radiating to various places in Europe, Africa, South and North America», and should thus be «internationalized as a cable centre», in order «to permit a wide extension of American cable», and thus become «easily available and free from interference by foreign companies or their Governments for cable relay purposes»[17].

In fact, by the 1920s, Azores was a radiating centre of submarine cables owned by different companies. But a question worth raising here is what was meant by «internationaliz(ing) the Azores as a cable centre». It seems that one interpretation was that those places were international in the sense that they hosted foreign people, because the companies that set their relay stations on foreign territories sent their national staff to move abroad. Furthermore, keeping those relay stations operational required many different tasks besides operating transmitting-receiving equipment, which was the reason why employees of all kinds were recruited locally; thus, the staff of cable companies came to comprise more than one nationality, and therefore the places hosting relay stations became international very quickly.

It seems that the *New York Times* expressed American wishful thinking of a «center» to eliminate the opposition of a «periphery», which in fact was something very different from what was occurring locally. In reality people of different origins coexisted, mingling their lives in such a way that a new culture was being produced.

Relay stations surrounding life by-products as cultural heritage today

Neither Portugal coincides with the Lusitania nor the other way around is true, even if that is a partial overlap. But it seems that the Lusitanian part is invoked any time Portuguese identity is questioned, in the context of either its dignity or territorial integrity. In addressing either of these aspects, the tendency has been to assert the inner core

[16] This Atlantic archipelago has been part of Portugal since the early 1400s. It was not inhabited when the Portuguese discoverers arrived. The archipelago was settled over the centuries largely from mainland Portugal, from 1436 onwards.

[17] «New York Times», 16 August 1922, *Warnings of British Control of Cables. Walters S. Rogers Urges That the Azores Be Made Free Landing Stations.*

of its identity. However, the inner core of Portuguese identity, as Oliveira Martins has stressed, is «the cohesion» of «the melting pot coexistent within the hospitality of the ending land»[18].

Against the temptation of homogenization, which is a current trend, it is necessary to seek ways in which to simultaneously ensure the acknowledgement of divergent interests and cultural differences, as well as the preservation of common values. Studying local testimonies of submarine cables is a way of doing this. As pointed out above, the surrounding and supporting life of cable stations, like those set in Portuguese territories, produced various forms of material and immaterial culture that deserve scholarly attention.

Carcavelos' cable station

Carcavelos was the first submarine cable station to be set in Portuguese territory[19]. It was both a transmitting and retransmitting telegraph station located in Quinta Nova (New Farm), in the Vila of Carcavelos, Municipality of Cascais, very close to Lisbon. It was inaugurated on 12 June, 1870, by the *Falmouth, Gibraltar and Malta Company*[20].

Fastening the India cable in Carcavelos ended the connection between Bombay (India) and Porthcurno (England) via Aden, Suez, Alexandria, Malta, Gibraltar and Carcavelos. Opening this station not only put in place an «advanced hard technology», but also had also an important impact on the local society by introducing habits and customs that became fashionable, such as sports (tennis, football, cricket, cycling), and the worship of sportsmen. This phenomenon gave origin to a previously unheard of cultural core in Portugal. Thus, a new identity started to be built in Carcavelos and its surrounding areas (Fig. 1).

Quinta Nova, the place by the sea that hosted the submarine cable station, had been a unit of agricultural holding at least since the

[18] D'Oliveira Martins, *Património, Herança e Memória*, p. 115.

[19] For a detailed description and analysis of this process see Silva-Diogo, *Host and Hostage*; Silva, *Portugal and the Building of Atlantic Telegraph Networks*; Ead., *Portugal, os cabos submarinos e a globalização*; Ead., *Interconnectivity in the European Periphery*; Ead., *Anfitrião ou Refém*.

[20] In 1872 the submarine cable companies operating in the Mediterranean Sea and Indian Ocean were merged into a single company that took the name *Eastern Telegraph Company (ETC)*.

fourteenth century. Several of its owners are still known today. José Francisco da Cruz acquired the estate in 1764, and built a manor there in the baroque style. «Hands' Man» of the Marquis of Pombal, enlightened despot of the Portuguese *ancien régime*, José Francisco was one of the principal executors of Pombal's developmental policies, having been in charge of several important positions in the kingdom's administration. In Carcavelos, he restructured the farm with new water lines, tanks, cellars, mills and agricultural facilities, thereby strongly imprinting his presence via the recovery of what would become the major farm in Carcavelos.

The Quinta Nova is located within the demarcated area of Carcavelos' wine region, which continued its wine production until the second half of the 1800s. The multi-centuries tradition of Carcavelos' wine came to bring a special character to the region and a deep impact on landscape, with vineyards, partitions made up of dry stone walls, cellars, wineries, and farms for leisure and production. Carcavelos' wine is a generous wine in line with Oporto, Madeira and the Setubal Muscat, which has a strong alcoholic content and a level of sugar regulated by law. It is enjoyed as either an aperitif or digestive, and should be served fresh (at around 14 degrees). This wine was widely popular, especially in the eighteenth and nineteenth centuries, in Portugal, England, the United States, Brazil and the Portuguese colonies[21]. The first documentary reference to the production of wine in Carcavelos dates from the first half of the fourteenth century[22] (Fig. 2).

From a patrimonial perspective, a reading of Quinta Nova provides relevant meanings or significance at the local, national and international levels, and on different scales. While wine production was important to the local population and domestic consumption, the international dimension of the *Carcavelos* brand gave it a cosmopolitan character that was well expressed by Thomas Jefferson in his comments about it and his cellaret. Even the «English men of submarine cable» tried to restart the production of Carcavelos' wine in the late 1800s, but it was not successful[23].

[21] E. Carvalho-S. Canas-M.E. Lisboa, *O Vinho de Carcavelos. Perspectiva histórica e a actual produção na Quinta do Marquês de Pombal em Oeiras*, Oeiras 2009.

[22] M.I.N. Miguéns, *O Tombo do hospital e Gafaria de Sintra*, Cascais 1997, pp. 113-116 and 180.

[23] M.E. Lisboa, *O Solar do Morgado da Alagoa. Os Irmãos Cruz e os Significados de um Património Construído*, Lisboa 2009.

When the Quinta Nova started to host the submarine cable in 1870, the train line from Lisbon to Cascais, which passed through Carcavelos, was not yet in existence, and transport to the capital was made in slow and cumbersome carriages, *Char-á-Bancs*, resulting in the isolation of the cable workers. For employees' leisure, there was only a library and billiards hall nearby. But when the submarine cable to Pernambuco in Brazil (starting in Carcavelos and passing Madeira and Cape Verde) was laid, the staff numbers doubled, and they formed a cricket club in 1874. Conditions for gymnastics and football were created, and the turf cricket field also served as a playground. The first tennis court was installed in the central courtyard in 1876, and later replaced by three others to the west of the manor. A cycling track was also built. This was probably the first sports centre in Portugal (Fig. 3).

Football was practiced among the Englishmen in Carcavelos from 1889. On 22 January of that same year the «Submarine Cable» team, with elements of Graham House (a trade company) faced a Portuguese team from Cascais, near the Campo Pequeno in Lisbon, in the second football game documented in Portugal (the first, played between Portuguese teams, had happened in October 1888 in Cascais). But the Carcavelos' team of Englishmen (Carcavelos' Cricket and Football Club) dominated the national football scene with consecutive victories, manifesting it as the most competitive team, which won consistently until 1908-1909 (Fig. 4).

In fact, the Englishmen working on the submarine cable imposed their presence and culture not only in Carcavelos, but nationally. The submarine cable football team significantly influenced the Portuguese sport scene by becoming a brand name in domestic football.

Tennis also became widely spread throughout this community at the local level. In the tourist shore of Estoril, the lifestyles were more «refined» and tennis was ideal for the sportsmen and stylish women. The ladies played in skirts and the men in pants, and often ties. Several courts were built in neighbouring Cascais, Estoril and Parede, but, in fact, those who knew how to play best were the Englishmen of the cable company, who were often invited to parties and tea afternoons involving tennis matches (Fig. 5).

Quinta Nova was also a great stage for political action, being integrated into the Republican revolutionary plan of 5 October, 1910. The local Carbonari, commanded by Emidio Almeida, who was working as a barber in Carcavelos, and the son of a barber from the neighbouring Parede, was given the mission of taking the submarine

cable station in Carcavelos by force, and neutralizing the transmissions on 4 October, 1910. This mission was successful, and helped to install the Republican regime in Portugal the following day. Months before, João Chagas, intellectual, journalist and republican, in highlighting the need for a coup in Lisbon and the lack of critical mass in terms of people, said, according to Raul Brandão: «Should I care the province? What does even Oporto matter? We do the Republic later by telegraph»[24].

Space requirements for cable transmission services, such as support rooms for leisure, bedrooms, kitchens, toilets, etc. led to the gradual occupation of the agricultural facilities to the north of the manor by the telegraph station. Therefore, in the third decade of the 1900s new housing blocks were built from scratch (Fig. 6).

During this time, the company *Cable and Wireless (C&W)*, heir to the ETC, had a large number of employees, and there was a need to provide a school for the children of the English staff to prevent them having to go to boarding schools in England. Thus, the Saint Julian's School was opened in 1932, and is still open today in the central nucleus of the Quinta Nova.

This school sees itself as heir to the English presence supporting, as of 2013, a cosmopolitanism student body of about 40 different nationalities. The school has three sections, each with its own director: the Primary School, the Secondary School and the Portuguese Section. Students from three to 15 years of age may opt for the English or the Portuguese curriculum. Older students, from 16 to 18, follow the Baccalaureate Diploma Programme to pursue university studies. The Saint Julian's School assumes academic excellence as its mission, with a balance between academic activities and sports; cultural social activities; the development of social responsibility, moral sense and environmental responsibility; deepening the sense of belonging to the community of Saint Julian's School; increasing tolerance and respect; and defending the value of cultural diversity.

Not only telegraphy matters but everything that revolves around the cable, such as the architecture and the experienced and personal, social and institutional inter-relationships, i.e., the cable circumstances and interactions achieved within patrimonial readings from a Historical and Cultural perspective.

From these perspectives, the urban core of Quinta Nova was

[24] R. Brandão, *Memórias*, I, Projecto Vercial, Universidade do Minho, Braga 1998, p. 104.

submitted to a classification process that ended in 2013, and took into account the area's architectural value as a strategy to protect the memory of the elements built. This process was carried out by the Department of Culture of the Municipality of Cascais and resulted in the assignment of a classification of the urban core of Quinta Nova and the avenue that provides access to the manor as a Set of Municipal Interest. This process of classification, which covered the whole of Quinta Nova, protected its architectural assets while a detailed plan was being prepared by the municipal services. This plan was accompanied by technicians of the Department of Culture of the Municipality of Cascais, and took into account the need to expand Saint Julian's School. From this point onwards, the subdivision of areas outside the urban core may be constructed in accordance with the regulations of the detailed plan.

Horta: the submarine cables in the history of communications

The city of Horta is located on the island of Faial, an archipelago of Azores (currently an autonomous region of Portugal) in the north Atlantic, about 1,700 km (two hours by plane) off the European continent and 4,100 km (four and a half hours by plane) off the American continent (Fig. 7).

The archipelago run east-west, roughly parallel with Lisbon-Washington, with the city of Horta at 38.5° N latitude and 28.6° W longitude which, for the present purposes, may be considered as being located in the north Atlantic, halfway between the old and the new world (Fig. 8).

On 23 August, 1893, via the English ship *Seine*, the city of Horta came to get its first submarine telegraph cable, whose venture was granted by the Portuguese Government on 17 June of that same year. The cable was implemented by the company *British Telegraph Construction and Maintenance* (TC&MC)[25]; this was 23 years after the country had been connected to the international network which then began to spread around the planet, surpassing a thousand difficulties, sweeping borders, and indelibly contributing to the construction of the global village as it stands today. With the connection of the nine

[25] For a detailed description and analysis of this process, see SILVA-DIOGO, *Host and Hostage*; SILVA, *Portugal and the Building of Atlantic Telegraph Networks*; EAD., *Interconnectivity in the European Periphery*.

islands of the Azores to the Portuguese mainland, it was intended to address a longstanding aspiration not only domestic oriented, but also envisaging international assertion of sovereignty by the central government, in an area heavily contended by the great powers of the time. In fact, the connection of the submarine cable network to the Azores was one of the last steps in a long process of aspirations, promises and contracts signed and unfulfilled over two decades before the event in order to connect the various islands of the archipelago to the mainland, and from there to the rest of the world. This indeed served to extend this medium of communication, and the vehicle of political, economic and cultural actions, whose aim was to liberate «the valiant Azorean people» from an isolation that had lasted for centuries, to which was voted since the beginning of the colonization of the islands in mid-fifteenth century. The establishment of the link between the mainland and the islands was received with «pomp and circumstance», and formally inaugurated at the highest level with the presence of the royal family and the highest dignitaries of the kingdom, who travelled to Carcavelos on 27 August, 1893, the official opening date of the event.

From this date onwards, backstage struggles relating to political, diplomatic and business strategies between England, France, Germany, and the United States intensified, as they fought to obtain the right to use the «route of the Azores» as an alternative to the «northern route», i.e. Newfoundland-Ireland (Fig. 9), which had already been traced to the beginnings of the second half of the nineteenth century. Business triumphed and the interested countries, Germany with *Deutsche Atlantische Telegraphengesellschaft* (DAT) and the United States with the *Commercial Cable Company* (CCC), won the right to subcontract the new route with England. The contract with the Portuguese government provided a grant of exclusivity for 25 years, subject to certain rules, namely that all the cables installed on the island converged to a single central station, popularly known as «Trinity House», which would house the first three companies settled in Horta. Thus, a nucleus, around which all companies settled their residential areas, sports and leisure facilities, was created (Fig. 10).

From this multitude of interests and convergence, Horta turned from a quiet and remote part of the country, which was lost in the north Atlantic, into a foreground stage of international «chess game», thereby contributing to the development of the concept of globalization.

This orientation gave rise to the occupation of an area peripheral to the urban center with the acquisition of existing properties of

notable size, and construction of new buildings, which, with the cessation of the business activities of cable companies in 1970, came to be absorbed into the urban tissue with the expansion of the city area, and converted for various uses such as private housing, education, regional administration and hotel business, thus leading to a new center of urban sprawl whose use continues to the present day.

About 40 years after the end of the activity of cable telegraphy, the local community, through a core of former cable telegraphists (some of whom remained residents, and others dispersed via diaspora) who have subsequently evolved into a group entitled *Friends of the Submarine Cables of Horta* has developed several actions either approaching local and regional authorities and the population in general.

This civic movement has submitted work plans, compiled inventories of equipment (Fig. 11), established contacts and partnerships with other communities also touched by the world of telegraphy through submarine cables, proposed classifications of buildings, set itineraries, created memorials, exhibitions and conferences, celebrated 120 years (Fig. 12) of the mooring of the first cable tied on Faial. These initiatives aim to safeguard the heritage legacy left on the island by the cable telegraphist community, composed of officials, operators of cutting-edge technology, and their families, whose quantity peaked at 150 families at the end of the 1920s, on a small island with about 20,000 inhabitants and an urban population of approximately 5,000 citizens.

Thus, the regional government classified the residential area of the German company (popularly known as «German Colony») as «real estate property of public interest» by resolution on 28 June, 2012. One of those buildings (Fig. 13) has a panel of high-quality stained glass installed in 1912 (Fig. 14), which was recently restored, alluding to the heraldic insignia of the German Empire that preceded the First World War.

Between 1900 and 1906, the first five cables were moored in Horta (Fig. 15); this framework remained until the early 1920s, including the period of the First World War (1914-1918), which can be considered the first phase of internationalization of the «route of the Azores» with the presence of the English TC&MC, later *Europe and Azores Telegraph Company* (EATC), the German DAT, and the American *Commercial Cable Company* (CCC), thus establishing direct links between the Northern and Southern American continent, as well as Africa (via Cape Verde) and Europe (Fig. 16).

In the wake of the military conflict of the First World War, the German cables were cut off and their anchor points diverted, having

been put to the service of the opponents of Germany, notably Britain and France.

With the Treaty of Versailles of 1919, these cables were definitively assigned to those countries, with Britain having two more cables than France. France arrived this way on the scene in the route of the Azores, through the *Compagnie Française des Cables Télégraphique* (TFCC), but never got to have facilities or personnel on the island of Faial, because the service was operated by the English company EATC (Fig. 17).

It was during that period, between the late 1890s and the first decades of the 1900s, that the effective settlement occurred of the new inhabitants of the island, who came from different parts of the world, and comprised an elite of individuals, who were carefully selected and carried new values of reference that gradually became interspersed within the local community.

The «second phase» of the internationalization of the route of the Azores roughly corresponds to the 1920s (1923-1928), and should have been the heyday of the «Horta of the Submarine Cables» (Fig. 18). The North American CCC strengthened its presence in Horta with two new cables, to Canso in Nova Scotia and Waterville in Ireland. Two new cable companies, one from the United States, the *Western Union Telegraph Company* (WU) and another from Italy, the *Compagnia Italiana del Cavi Sottomarini* (Italcable) (Fig. 19), managed to fasten two cables, whose mooring and operation was in the care of WU, therefore Italcable did not keep any physical presence in relation to mooring cables or installing personnel in Horta. Another German cable was also launched by DAT.

This period corresponds to the emergence of a new generation of cables, which were safer and faster, and simultaneously the assertion of a physical presence of great local impact.

New facilities were built in the residential area of WU, which today have been converted into a hotel business unit, the Hotel Fayal. The operating area was enlarged with the construction of a space adjacent to Trinity House, now adapted into an educational institution. The so-called «joint station» became almost triple the initial area of the central station. CCC, WU and DAT all settled there with different operational areas, contrary to what was in place in the previous phase, where the three companies worked in the same room, the «operating room», which was simply divided by panels, and remained allocated during this stage to the English company, the EATC, predecessor of Cable and Wireless (C&W) (Fig. 20).

Although physically forming distinct bodies connected by a stairway, the operational activity of the four companies remained under one roof, despite the competing interests and political strategies of their countries of origin. They lived day by day in an atmosphere of harmony and technical cooperation, which was subordinate to the primary goal of the system, whose aim was to provide effective communication between different continents and their respective peoples around the world.

During this period, in 1926, there was an earthquake that shook the city of Horta; this led to several works for enhancing the existing buildings, particularly Trinity House and the residential district of DAT, the «German Colony». These works paid due consideration to the architectural layout of the various buildings, which today are classified as regional heritage buildings, given the urban and architectural quality of the buildings and their urban environment, as mentioned above.

The «third phase» of the internationalization of the route to the Azores corresponds to the period between 1930 and 1970. This period was witness not only to the technical stability of the electromagnetic telegraph system of the submarine cable installed on the island, but also its decline and death, given emergent alternative means of communication that were more versatile, economical and effective, including radio and telephone communications. The period also saw a redefinition of the geostrategic scenario within the Atlantic world, with new challenges in order to reinvent the «endless sea», and the emergence of a new space for management of the global community.

In the meantime, the Second World War took place. This did not have the devastating effects that were felt on other parts of the globe, including Europe, so that the system installed on the island remained in operation, with the exception of the DAT and *Italcable* cables, which were cut off and diverted. The first was diverted at the beginning of the war, on 3 September, 1939, and subsequently forwarded to Cherbourg on 13 November, 1944; the second cable was diverted to Gibraltar on 6 November, 1940, after its connection with Malaga was replaced on 5 August, 1947.

During the war, on 15 October, 1943, the staff of DAT departed due to the fact that the bases in the Azores were ceded to the allies, and a cable was launched from Horta to Praia da Vitoria on Terceira.

In the 1960s, a progressive closure took place of all the companies installed in Horta, and C&W, the successor to the British company that started its activity on the island, formally ended its activity on 31 December, 1969.

Thanks to more than 70 years of foreign-community presence on the island, which was thus interconnected daily with the rest of the world, the cosmopolitan spirit still lingers and influences the Faial islanders. A physical and socio-cultural space has also remained. This is embodied in aspects such as the urban areas with their complementary spaces and green areas for leisure and sporting venues; architecture that combines a novel appearance with local elements, and anti-earthquake construction; equipment that used cutting-edge technology and that is now rare, and contains in itself the ability to communicate science. It can also be seen in the exchange and generation of new social and family ties (Fig. 21), which go beyond the notion of boundaries or homeland barriers in sport (Fig. 22) and culture (Fig. 23), and challenge the assertion of global citizenship with the movement of former employees to their homelands and overseas, as world citizens.

But beyond this, it remains a record and the proud of the smallness of the «Horta of Submarine Cables», which «was the most joyful, the biggest small city in the world»[26], in the words of the poet. It participated entirely in one of the greatest challenges of science, engineering, and business entrepreneurship, as well as in the «chess game» of international politics, thereby contributing to the globalization of society.

In spite of the above, to speak of the experience of Horta with respect to its submarine cables is not an exercise in nostalgia, but rather an assertion of the vitality of a local community in the development of a global initiative, which held advantages for both parties. The great adventure of submarine cable communications was possible not only thanks to the ingenuity and science of some, but also the receptiveness and participation of the people in many small places like the city of Horta, who were touched by the passage of the worldwide submarine cable; this deserves to be recorded in the annals of historical coexistence as part of the world's community heritage.

Concluding Remarks

The first phase of rehabilitation of the memory of submarine cables on Faial Island (2009-2013), carried out by the Friends of

[26] Excert from the poem *Horta: Quase requiem* in P. DA SILVEIRA, *Fui ao mar buscar laranjas*, DRAC, 1999.

the Horta Submarine Cables, has overcome some of the inertia caused by neglect and abandonment, by undertaking an inventory of the different types of heritage, promoting historiographical deepening of, and mobilizing interest in, a new dynamic for the history of submarine telegraphy – historical heritage and museum – in political, social and academic spaces, as well as in the area of communications. The historic sites of submarine cable networks deserve attention in order to initiate partnerships such as those established with Carcavelos, Porthcurno, Heart's Content, Canso, and others under negotiation.

Thus, this civic movement will continue to evaluate the steps already taken, which will form a basis for the preparation of future guidelines focused in five areas: (1) strategic framework; (2) heritage; (3) museums; (4) historical sites; (5) institutional partnerships.

The strategic framework will consolidate the course line leading the plan of preserving the memory of submarine cables to recover the «links» between the old sites of communication partners, thus reconstituting the symbolism of nodes and networks that brought together societies around the world, and created a new era of civilizational change. The technological innovation is a central factor in the history of global communications, and it is within this paradigm of analysis that heritage assets of the submarine cable will be selected, followed by prioritization of other types of assets generated by contextual historical factors (entrepreneurial boldness, requirement for the control of empires, certain consequences remaining in the communities in which the cable passed through, etc.).

Regarding heritage, a classification of the various memories and legacies of material and immaterial scope, and technological, architectural, urban and sociocultural patrimony will be justified. An interactive museum will be planned «in situ» at Trinity House, with extensions to an urban museum space.

Institutions responsible for assets arising from the passage of submarine cables – historical sites – will be addressed to raise awareness of the need for recovery and classification of those memories, including a focus on the historical networks that became integrated during the era of submarine cables. In order to set institutional partnerships, contacts will be developed with organizations with different vocations to enable convergent actions, according to the premises stated in the guidelines.

This article has therefore aimed to call attention to the work in

progress, which welcomes the contribution of anyone who can bring expertise and a willingness to further the history of submarine cables, as mentioned in the introduction of this volume.

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Figure 1: Telegraphs operating room, circa 1880, Carcavelos.
Source: © Cable & Wireless Communications 2013, by kind permission of Porthcurno Telegraph Museum.

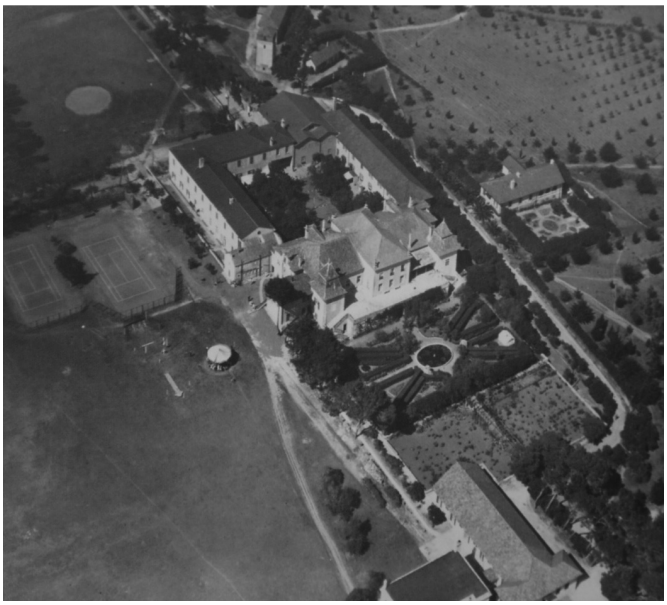

Figure 2: Aerial view of the manor and Quinta Nova's enveloping, 1937.
Source: Saint Julian's School.

Figure 3: Cricket game in Quinta Nova.
Source: Municipality of Cascais.

Figure 4: Football game in Quinta Nova.
Source: Municipality of Cascais.

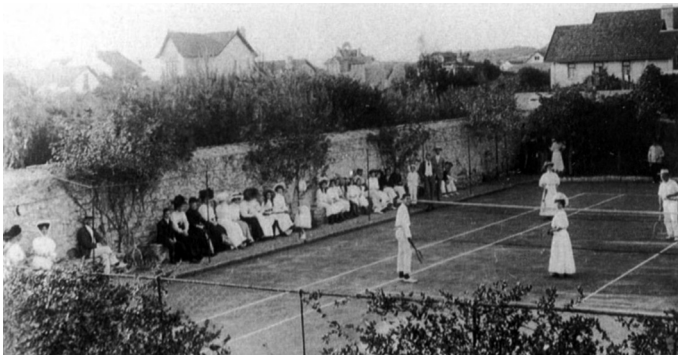

Figure 5: Tennis game in Dr. Rompana's court. Parede.
Source: collection Rompana.

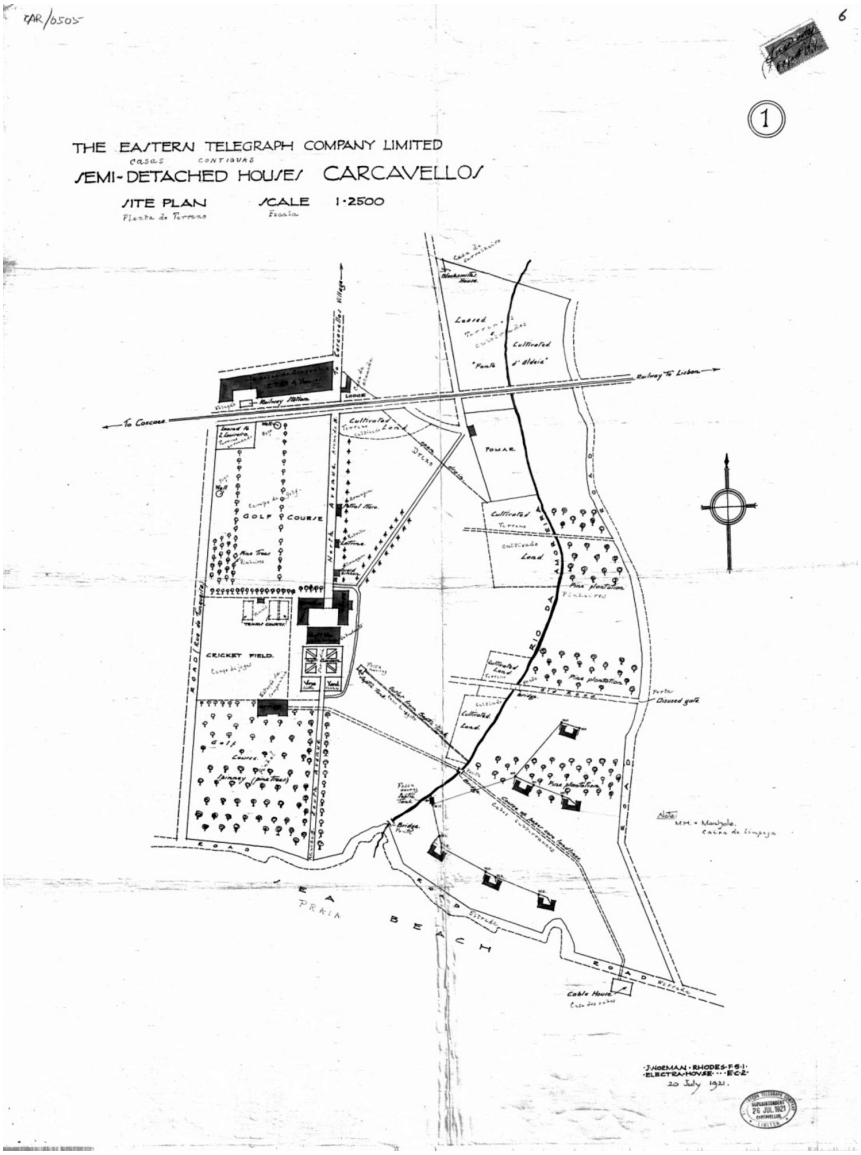

Figure 6: Topographic plan of new buildings in Quinta Nova, 1921.
Source: PT/CMC-AHMC/AADL/CMC/L-E/001-002/505.

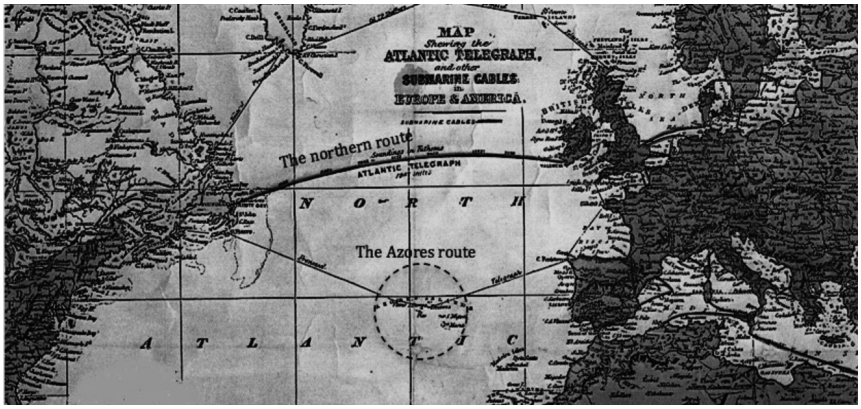

Figure 7: Map of the North Atlantic, 1865, showing the «Route of the Azores» as an alternative to the «northern route», Newfoundland/Ireland.
Source: Friends of the Horta of the Submarine Cables, Martins Naia.

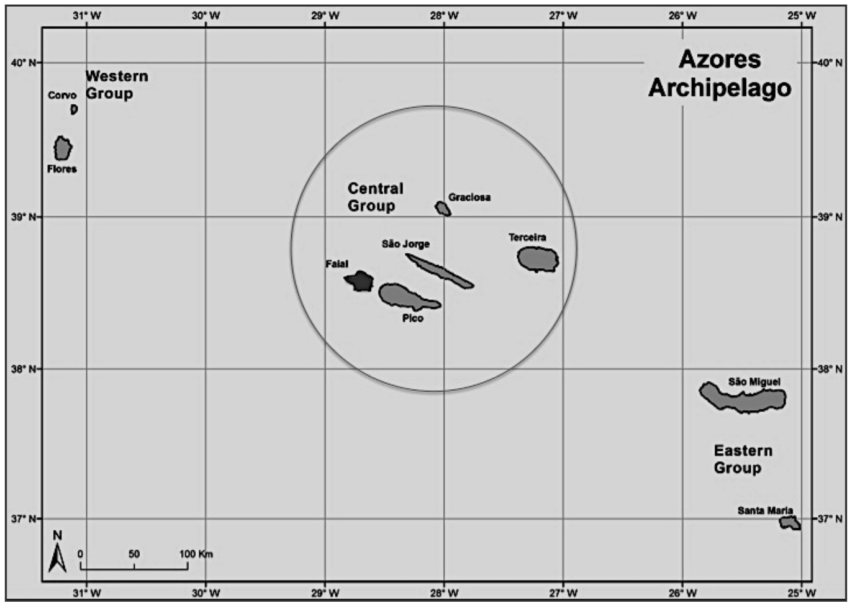

Figure 8: Map of the archipelago, indicating Faial in the Central Group.
Source: Friends of the Horta of the Submarine Cables, Martins Naia.

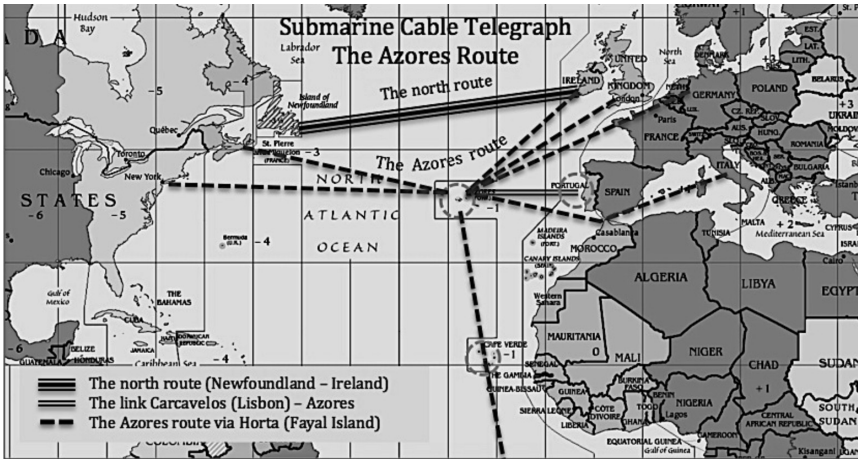

Figure 9: Map of the North Atlantic, showing the centrality of «Route Azores» in relation to the «northern route», due to major shopping destination communications. Source: Friends of Horta of the Submarine Cables, Martins Naia.

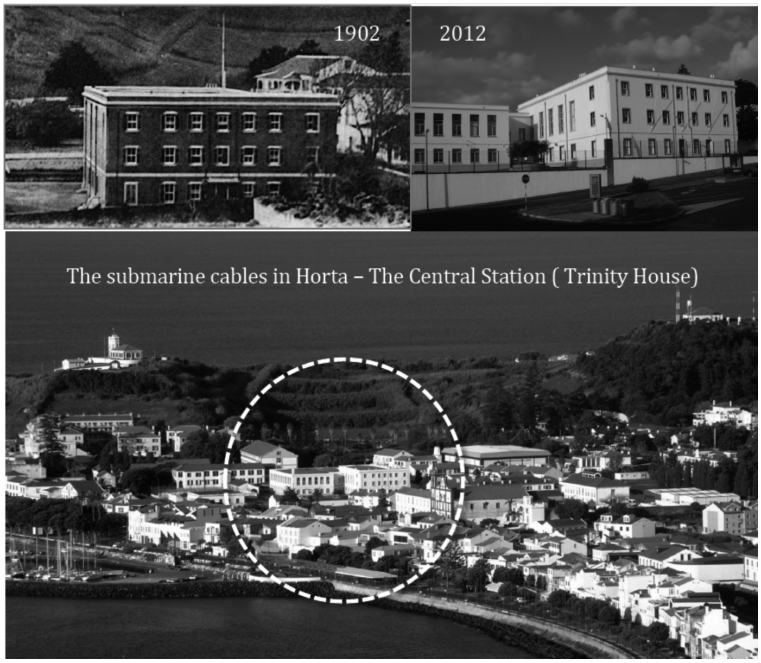

Figure 10: Early central station of submarine cables in Horta, «Trinity House» (1902/1912), and its inclusion in the current configuration of the urban tissue. Source: Friends of the Horta of the Submarine Cables, Martins Naia.

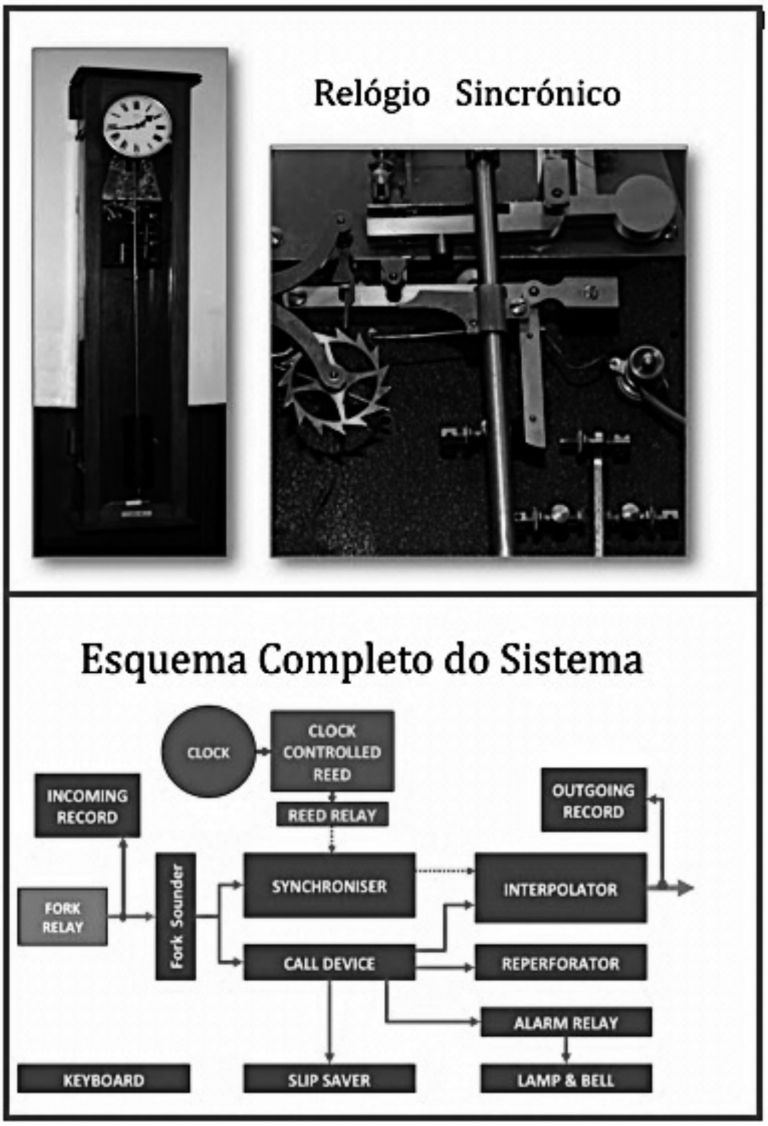

Figure 11: Sample of the work of cataloging and classification of the existing equipment on deposit in the Horta Museum, envisaging to their rehabilitation and integration in the «Museum Centre of Submarine Cables» to install in the «Operating Room» of the primitive central station «Trinity House».
Source: John Ross, *O Sistema Regenerador da Cable & Wireless*, in *O Tempo dos Cabos Submarinos na Ilha do Faial. Valor Universal do Património Local*, Horta 2013, p. 115.

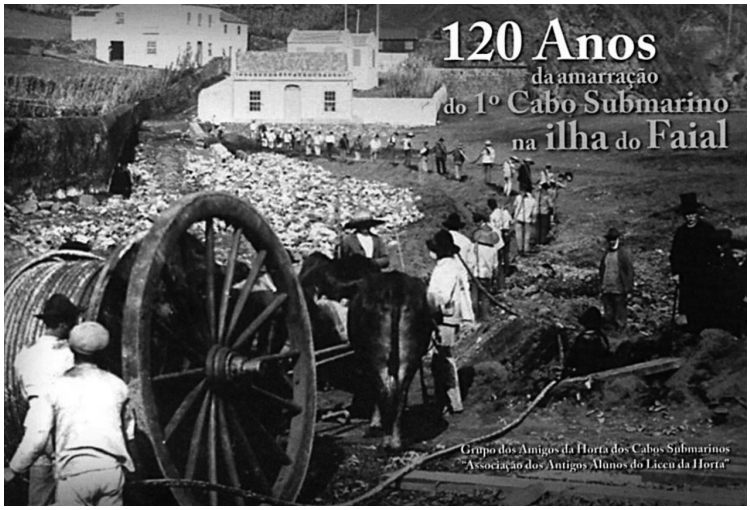

Figure 12: Photo of the mooring of the German cable of DAT, 1904, on the beach of Alagoa, which served as the basis for the issue of a postcard by CTT, on August 23th, 2013, commemorating the 120 years of the first submarine cable tied in Horta, sponsored by the «Friends of the Horta of the Submarine Cables».
Source: Friends of the Horta of the Submarine Cables and CTT.

Figure 13: Accommodation of the single staff and refectory of the residential neighbourhood of DAT, with balcony in the foreground, which have a set of stained glass panels of heraldic insignia, identifying the various German states the «Second Reich», 1912, subjected to restoration and opening to the public.
Source: Friends of the Horta of the Submarine Cables, Martins Naia.

Figure 14: Sample of the stained glass windows of DAT, manufactured in the German workshop of stained glass production, Schmolz & Schneiders, Cologne, 1912. Source: Friends of the Horta of the Submarine Cables, Martins Naia.

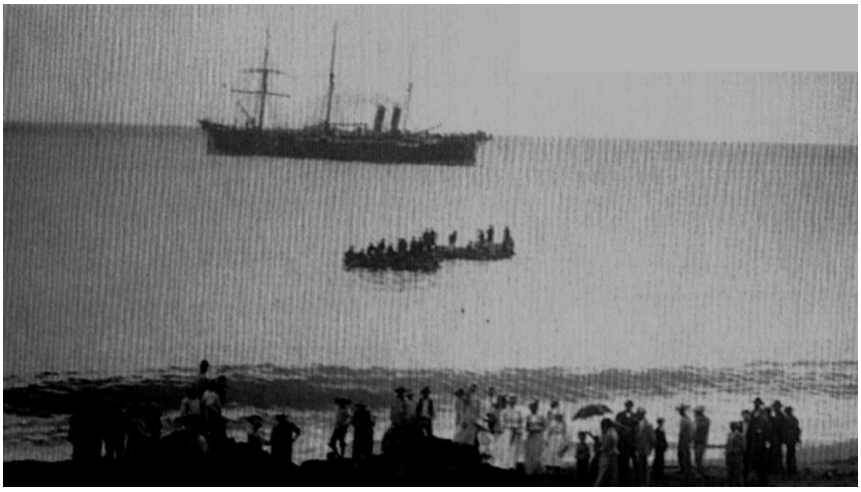

Figure 15: The arrival of the first cable to the beach of Lagoa, in Horta. Source: Carlos Silveira Ramos, *O Cabo Submarino e Outras Crónicas Faialenses*, Horta 2002, p. 96.

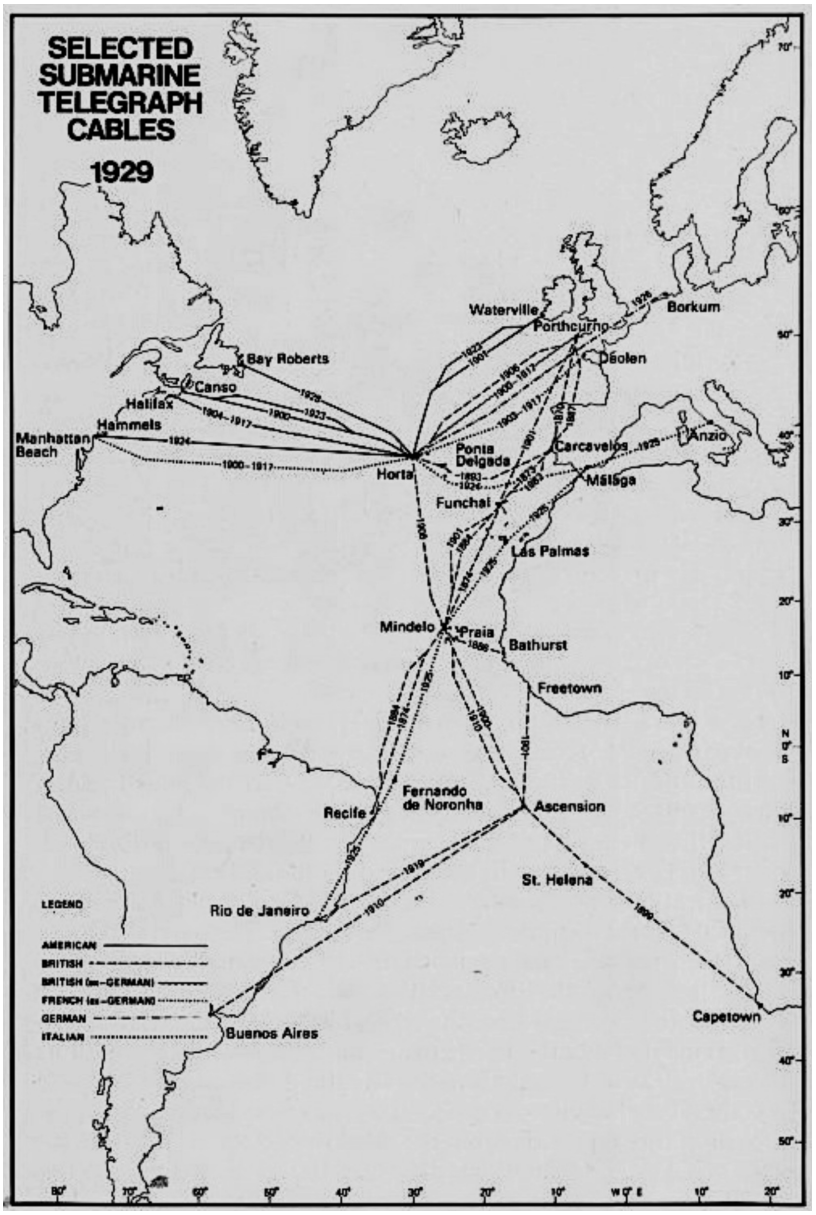

Figure 16: Map of the North and South Atlantic, with the layout of submarine cables that moored in Horta, Faial Island, in 1929.
Source: Francis M. Rogers, *Atlantic Islanders of the Azores and Madeiras*, Boston (MA) 1979, p. 176.

SUBMARINE CABLES TELEGRAPH CONNECTED IN HORTA - FAIAL ISLAND - AZORES 1893 - 1970

Year	mm/dd	Company (Country)	Cable linked to Horta	OBS
		DOMESTIC CONNECTION		
1893	Aug 23	TC&MC (Engl)	Horta/ Carcavelos (Portugal)	
1893	Aug 25	TC&MC (Engl)	Horta/ Areia Larga (Pico Island-Azores)	
		INTERNATIONAL CONECTION - FIRST PHASE		
1900	Mai 26	DAT (Germ)	Horta/Borkum (Germany)	Transfered to EATC (Engl) - WWI
1900	Jul 27	CCC (USA)	Horta/Canso (Canada)	
1900	Aug 28	DAT (Germ)	Horta/New York (USA)	Transfered to EATC (Engl) - WWI
1901	Nov 23	CCC (USA)	Horta/Waterville (Ireland)	
1903	Oct 30	DAT (Germ)	Horta/ Borkum (Germany)	Transfered to CFCT (France) - WWI
1904	Mai 25	DAT (Germ)	Horta/New York (USA)	Transfered to CFCT (France) - WWI
1906	Aug 04	EATC (Engl)	Horta/Porthcurno (English)	
1906	Aug 16	EATC (Engl)	Horta/Cabo Verde (Portugal)	
		INTERNATIONAL CONECTION - SECOND PHASE		
1923	Sept 08	CCC (USA)	Horta/Canso (Canada)	
1923	Nov 16	CCC (USA)	Horta/Waterville (Ireland)	
1924	Sept 18	WU (USA)	Horta/New York (USA)	
1924	Oct 30	ITALCABLE (Italy)	Horta/Malaga (Spain)/Rome (Italy)	Operated by WU (USA)
1926	Oct 02	DAT (Germ)	Horta/Borkum (Germany)	Transfered to C&W (Engl) - WWII
1928	Sept 02	WU (USA)	Horta/Bay Roberts (Canada)	
		INTERNATIONAL CONECTION - THIRD PHASE		
1930	Nov 19	DAT/CCC	Horta /ex-DAT cables transfered to CFCT (France)	Operated by CCC
1940	Jun 11	C&W (Engl)	Horta /Gibraltar (Italy)	Cuting of italian cable - WWII
1943	Oct 15	C&W (Engl)	Horta /Praia da Vitória (Terceira Island – Azores)	Military use - Air Base
1944	Nov 11	USA army	Horta/Cherbourg (France)	Deviation of the Emden german cable during - WWII
1947	Aug 05	ITALCABLE (Italy)	Horta/Malaga (Spain)/Rome (Italy)	Resume old connection of Italcable
		1970 END OF ACTIVITY IN HORTA- FAYAL		

TC&MC	– Telegraph Construction and Maintenance Company (Eng)
EATC	– The European and Azores Telegraph Company (Eng)
C&W	– Cable & Wireless Company (Eng)
CCC	– Commercial Cable Campany (USA)
WU	– The Western Union Telegraph Company (USA)
DAT	– Deutch Atlantisch Telegraphengeselschaft (Ger)
CFCT	– Compagnie Française des Cables Telegraphique (Fr)
ITALCABLE	– Compagnia Italiana del Cabi Sottomarinu (It)

Figure 17: Table identifying the various cables that tied in Horta between 1893 and 1970.
Source: Friends of the Horta of the Submarine Cables, Martins Naia, based on diverse documentation, including Horta Museum, Francis M. Rogers, Atlantic Islanders of the Azores and Madeiras, and Carlos Silveira Ramos in The Submarine Cable and Other Chronic Faial.

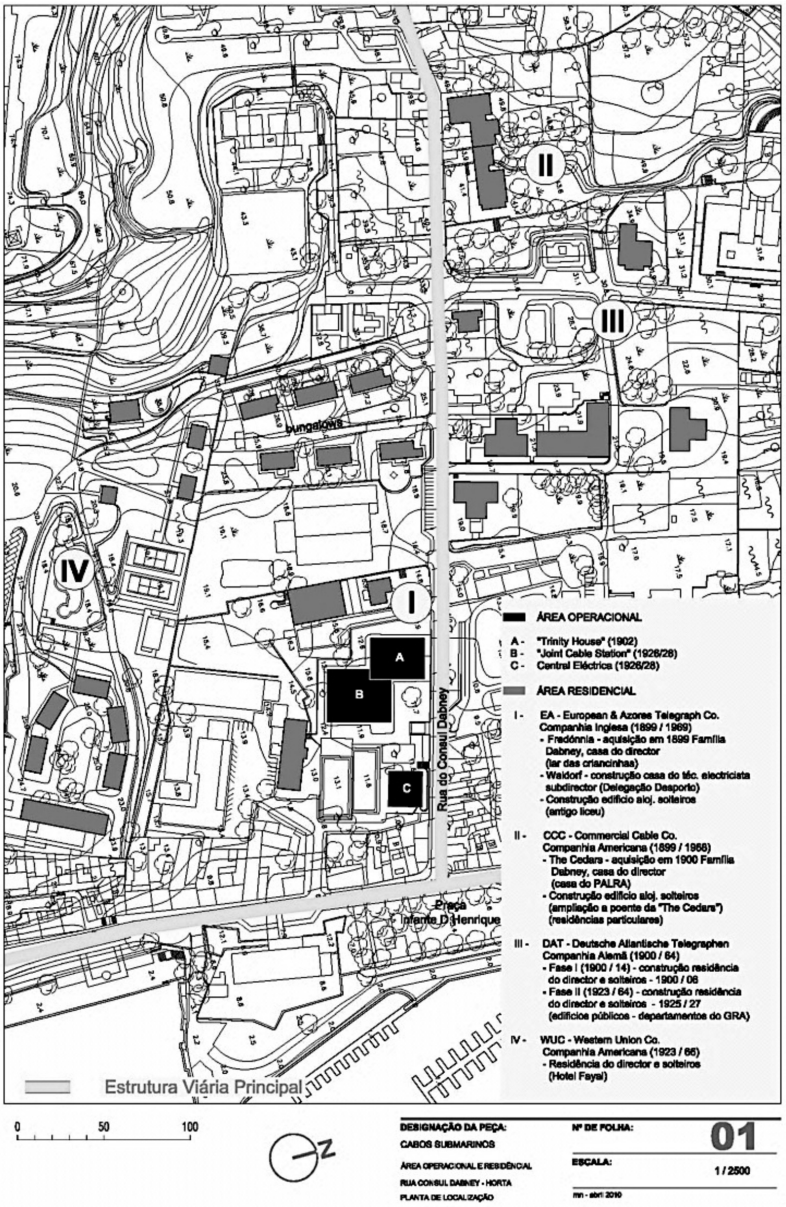

Figure 18: Partial plant of Horta indicating the street Consul Dabney, road axis from which evolved the deployment of residential and sports areas of the various companies of the cables, with the core base, the central station mooring cables, «Trinity House». Source: Friends of Horta of Submarine Cables, Martins Naia.

Figure 19: Arrival of the submarine cable Italcable to the beach of Porto Pim in Horta, Faial, on October 30th, 1924.
Source: Horta Museum.

Figure 20: Telegraph operating room (Operating Room) of the central station of the submarine cable in Horta (Trinity House).
Source: Friends of the Horta of the Submarine Cables.

Figure 21: During the 70 years, the city of Horta attended a progressive narrowing of relationships between the foreign and the local community, which came to be embodied in the establishment of a significant number of weddings. This picture shows a wedding party of an employee of the CCC, 1905.
Source: Friends of the Horta of the Submarine Cables.

Figure 22: Companies of submarine cables had an important role in the development of various modalities of sporting activity on Faial. The picture shows the starting position for a sportive race, Horta, 1912.
Source: Friends of the Horta of the Submarine Cables, Martins Naia.

Figure 23: During the presence of the cablegraphy community in Horta, beyond the performance of its professional activity, social, sporting and cultural activities of different kinds were also performed including music. The picture shows the orchestra of DAT with Portuguese elements, 1911.
Source: Friends of Horta of Submarine Cables.