The Atlantic is more than just an immense mass of water sprinkled with islands, since there is a long historic tradition attached to it which goes back to Ancient Times, from whence resulted its baptismal name. Here we come across a polyfaceted group of islands and archipelagos which became prominent in the historic process of the Ocean, almost always as intermediaries between the high seas and coastal ports of the European, African and American continents. The islands are, in a general sense, arranged along the coasts of the African and American continents, since only the Azores, Santa Helena, Ascension and the Tristão da Cunha group are distant from them.

Since the pioneering study by Fernando Braudel¹, the islands have been awarded a key position in the life of the ocean and the coastal regions of the continents. Historiography has manifested a great interest in its study ever since. It should also be noted that, according to Pierre Chaunu², there was an active intervention on the part of the archipelagos of Madeira, the Canaries and the Azores, which he designated Atlantic Mediterranean, in the Castillian economy of the 15th and 17th Centuries³.

For the Portuguese Atlantic the conjuncture was different, since the performance on three fronts - the Coast of Guinea, Brazil and the Indian Ocean – widened the enclaves of domination south of the Ocean. In this context five coastal vertices of great consequence emerged – the Azores, the Canaries, the Cape Verde islands, Madeira and São Tomé - indispensible to the assertion of the hegemony and defence of the Portuguese oceanic routes. There the Portuguese Crown laid the main Atlantic pillars of its feat, turning the deserted islands into areas of shelter and repose for the shipwrecked, a safe and provisioning anchorage for the vessels and agricultural zones which dynamized the Portuguese economy. In the first case we may refer to Madeira, the Canaries, Cape Verde, São Tome, Santa Helena and the Azores, which emerge, from the beginning of the 16th Century, as the main cores of the Atlantic routes. Here there is a need to differentiate the islands that asserted themselves as important points in the intercontinental routes, such as was the case with the Canaries, Santa Helena and the Azores, and those affiliated in the littoral economic areas, such as occurred with Arguim, Cape Verde and the archipelago of the Gulf of Guinea. All lived in a situation of dependency in relation to the littoral which made them important. Only São Tome, due to the importance of sugar cane, was free of this subordination for some time.

The role of the Canary Islands and the Azores is much more evident in the layout of the oceanic routes that led to and from the West and East Indies, due to their position at the gates of the Ocean. They acted as a way of entrance and departure for the oceanic routes, which motivated a higher incidence of

piracy and corsair action in the surrounding neighbourhood region. But the two archipelagos were not just areas of support, since its fertile soil permitted an exploitation of potentialities on the part of the Mediterranean - European cultures. It was the latter aspect that projected them to a relevant place in the History of the Atlantic.

It should be borne in mind that the social-economic valorisation of the insular regions was not unilinear, depending as it did on the confluence of two factors. Firstly, the directions defined for the Atlantic expansion and the levels of their expression in each, then the propitiating conditions of each island or archipelago in physical terms, of habitableness or the existence or not of an autochthonous population. As to the last aspect it should be pointed out that only the Antilles, the Canaries and the small island of Fernão do Pó, in the Gulf of Guinea, were already occupied when the peninsular sailors arrived. People abandoned the rest - notwithstanding there being talk of sporadic visits to the islands of the archipelagos of Cape Verde and São Tomé from the coasts – which favoured the settling, when the ecosystem conditions permitted. If in Madeira this was an easy task, despite the hostile orographic conditions, the same cannot be said of the Azores and Cape Verde, where the first colonists faced various difficulties. For the already occupied islands the circumstances were different, since while in the Canaries the Castillians were confronted by the autochthonous for many years (1402/1496), in Fernão do Po it was easier to defeat the native resistance.

In the 15th and 16th Centuries this varied group of islands and archipelagos secured a place of importance in the Atlantic economy, distinguishing itself through its function as an economic or mixed port of call: in the first case we have the islands of Santa Helena, Ascension, Tristão da Cunha, in the second the Antilles and Madeira and in the third the Canaries, the Azores, São Tomé and Príncipe. In this group Madeira and the Canaries emerge due to their pioneering occupation, which for this reason were projected in the remaining Atlantic area through the Portuguese and the Castillians. Hence results the evident economic and institutional linking of Madeira to the Portuguese Atlantic area, as is the case of the Canaries to the Indies of Castille. It is for this reason too that the valorisation of the historical research into the two archipelagos assumes such importance⁴.

In short, the islands played a fundamental role in the strategy of colonial assertion in the New World, since they are outstanding pillars of this complex that began to be built in the 15th Century. They were first an image of Paradise, later to assert themselves as areas of rich economic exploration and stations of replenishment and support for intrepid sailors. Slowly they gained the merited position in the colonial strategy, projecting themselves in the close and distant continental areas. They opened the doors of the Atlantic and remained as fundamental pieces until the present time. They were doors opened to the discovery of the Ocean as well as to the assertion and control of the neighbouring continental markets, as was the case in Cape Verde and S.Tomé.

The insular protagonism in the 18th and 19th Centuries was not inferior. The islands progress from navigational and commercial ports of call to support centres and science laboratories. Scientists cross themselves with merchants and follow the routes delineated since the 15th Century. These were joined by the “tourists”, who flocked to the islands since the eighteenth Century in search of a cure for pulmonary consumption or of its discovery. This movement was the beginning of tourism in the islands that only gained its present dimension in the fifties of present Century.

All this protagonism on the part of the islands gives merit to the idea that the Portuguese created an amphibious empire. The islands were its main pillar and the sea its line of union. This omnipresence of the sea is clear in a Chinese proverb: “the Portuguese are like fish, who die if you take away the water”⁵.

1. FROM MYTH TO REALITY

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⁵ Urs Bitterli, Los "Selvajes" y los "civilizados"El encuentro de Europa y Ultramar, Mexico, 1981
Europe set out in the 15th Century in search of the biblical or Greco-Roman classical literature Eden. This was one of the motives for Columbus's and the Portuguese sailors' commitment. The (re) encounter was seen as conciliation with God and the erasure of original sin. The islands materialised this return to Eden, which little by little was lost as with the firstborns Adam and Eve. The discoveries of the 15th and 16th Centuries were followed by those of the 18th and 19th. Here the islands were once again the paradise to be rediscovered by the traveller, pulmonary consumptive and tourist, and recovered or revealed to the scientist, be he English, German or French, through the gathering or the recreation of the botanical gardens.

The biblical image of Eden is present in the majority of those who visited or bequeathed us writings on the islands. Paradise is stubbornly present and dominates all or almost all of the testimonies of those who had the privilege of rediscovering the islands since the 18th Century. As a matter of fact, in Classic Antiquity, Paradise was mistaken for the islands and to the Greek world they were synonymous with the Fortunates, Hesperides, which is to say the islands of the Eastern Atlantic. The first look is almost always complemented by others revealing of the way the relation of Man with the environment was delineated. His presence and influence in the scenario of the natural world is reason for attention.

The advertising literature of Classic Antiquity is revealing of knowledge however fleeting, of part of these islands of the Eastern Atlantic. In this mode various periplus are emphasised. The first carried out in the time of the Pharaoh Necho (610-594BC.), followed by those by Hanon of Carthagus in the 5th Century BC, Seylax in the 4th Century BC, and finally Sataspes in the 5th Century BC. In the following Centuries knowledge of the islands, however scarce, persisted in the oral memory and mixed with legend. Such was the evolution until the beginning of the 15th Century at which time they revealed themselves in their fullness to the Europeans.

2. THE FORTUNE

The fortune of the Fortunates is very evident in the role the islands assumed in the Atlantic world from the 15th Century on. As such the islands were replenishing stations after the long oceanic voyages and areas of economic exploration. From this resulted a strong bonding to the European world, which never dispensed with its possession in the strategy of expansionism and of domination of the Atlantic area.

The progress of communications did not remove their protagonism; on the contrary it increased their worth. The harbours of sailing vessels gave way to steam engines and submarine cables and finally ceded the protagonism to airports. Nowadays the islands, as autonomous and independent spaces, continue to assume this European link, with a more evident vocation as tourist resorts.

2.1. FUNCTIONS: OCEAN PORTS OF CALL

One of the islands’ privileged functions in the last five hundred years was the service of oceanic station, serving as support to all who ploughed the ocean in different directions. First, as ports of call of discoveries which opened the way for the commercial routes and then as ports of call on the course of assertion of Science through the scientific expeditions that dominated the European areopagus from the 18th Century. One and the other crossed themselves a number of times and reveal to us how important they were to Europe and the world of the islands.

2.1.1. COMMERCIAL PORTS OF CALL

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8 Soray J. Godoy, ob. cit., pp.63-76.
The Atlantic emerges, from the 15th Century, as the main area of circulation of the sailing vessels, due to which an intricate band of commercial and navigational routes, which linked the Old Continent to the African and American coasts and the islands, was defined. This multiplicity of routes, which resulted from the economic complementation of the insular and continental areas, emerges as a consequence of the forms of economic exploitation adopted there. All this is completed with the geophysical conditions of the ocean, defined by the currents and winds, which delineated the sketching of the routes and directions of the voyages.

The most important and enduring of all routes was without doubt that which linked the Indies (East and West) to the Old Continent. It galvanised the commitment of the monarchs, riverside populations and above all the pirates and corsairs, expressed by multiple stations based in the islands which sprinkled the eastern and western coasts of the sea: firstly the Canaries and rarely Madeira, then Cape Verde, Santa Helena and the Azores. In the three archipelagos, defined as Atlantic Mediterranean, the intervention in the great routes is undertaken from some islands, with reference to Madeira, Gran Canaria, La Palma, La Gomera, Tenerife, Lanzarote and Hierro, Santiago, Flores and Corvo, Terceira and São Miguel. For each archipelago an island asserted itself, served by a fine seaport, as the main core of activity. In the Portuguese insular world, for example, the islands of Madeira, Santiago and Terceira stood out, in different ways, as the main centres.

The Portuguese and Castillian routes presented a different sketch. While the former branched out from Lisbon, the Castillian route departed from Seville in the direction of the Antilles, containing as important points along its sphere of action the archipelagos of the Canaries and the Azores. Both centres of support were under separate sovereignty: the first was Castillian since the 15th Century, while the second Portuguese, which did not facilitate the indispensable support. But for a lapse time (1585-1642) the territory entered the sphere of Castillian domination, not that it came to mean additional security for the fleets. Only during this period did the French, English and Dutch operations of retaliation intensify. The expeditions - which we will have the opportunity of referring to later on – organised by the Spanish crown in the Eighties which had as destination Terceira had a double mission: defend and escort the Indies fleets to a safe port, in Lisbon or Seville, and occupy the island to install a base of support and defence of the oceanic routes. The Azorian station was justified more by the necessity of protecting the fleets than the replenishment and repair of the vessels. It was at the entrance to the Azorian seas, close to the island of Flores, that the fleet vessels gathered and proceeded with the escorting until a safe port in the peninsula, escaping the greed of the corsairs, who infested the seas.

Since the beginning the security of the fleets was one of the more evident concerns of the Atlantic navigation and accordingly both peninsular crowns delineated, in separate, a plan of defence and support. In Portugal we had, first, the directive for the vessels of India in the Azores, promulgated in 1520, in which rules were established to prevent merchandise from falling into the hands of contraband and corsair greed. The need to efficiently guarantee such support and defence of the fleets led to the Portuguese crown creating, before 1527, the Purveyor's Office of the Fleets, with headquarters in the town of Angra 9. The appointment in 1527 of Pero Anes do Canto as purveyor of the fleets of India, Brazil and Guinea, marks the beginning of the turning point. The purveyor was responsible for the superintendence of all defence, replenishment and support to the vessels that stopped at or passed through the Azorian seas. Also under his orders was the islands’ fleet, created expressly to escort, from Flores to Lisbon, all those originating from Brazil, India and Mina. In the period from 1536 to 1556 there is news of the dispatching of at least twelve fleets with this mission. Later, attempts were made to guarantee a safe anchorage in the coastal ports with the construction of the necessary fortifications.

This Castillians were lacking in such a support structure in an area considered crucial to Atlantic navigation, and for this reason they requested the help of the Azorian authorities. But the inefficiency or the

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necessity of a more active guard and defence forced them to reorganise the line, creating the system of
fleets. Since 1521 the fleets began to enjoy the usufruct of a new organising and defensive structure. At first
it was the system of annual fleets furnished with artillery or escorted by an armed convoy. Then from 1555
the establishment of two fleets for the American trade: Nueva Espana and Terra Firme.

The active protagonism of the Azorean archipelago and, in particular, route planners and sailors who
related their voyages or Azorian scholars who witnessed the reality refer to the island of Terceira with some
frequency. All speak of the importance of the port of Angra, which, in the words of Gaspar Frutuoso, was
the “universal port of call of the western sea”10

The participation of the Madeiran archipelago in the great oceanic routes was sporadic, its absence
justified by its marginal positioning in relation to the ideal sketch. But the island did not become alien to the
Atlantic itinerary, occasionally standing out as an important port of call of the Portuguese voyages bound
for Brazil, the Gulf of Guinea and India. Countless times the Madeiran port of call was justified by the
necessity of supplying wine for on-board consumption rather than the need for water and fresh provisions. It
should not be forgotten that wine was an essential element of the on-board diet, for its qualities in the
struggle against scurvy. Moreover it had the guarantee of not deteriorating in the tropical heat, on the
contrary it gained a premature ageing.

It was the so-called wine of the round, so popular in the following Centuries. This same reason led to
the assiduous presence of the English, from the end of the 16th Century. The proximity of Madeira to the
harbours of the peninsular coast associated to the conditions of the winds and maritime currents was the
main obstacle of the island's valorisation in the context of the Atlantic navigation. The Canaries due to being
better positioned and spread over seven islands in different latitudes, were in a better position to offer the
adequate support service. However the troubled situation which existed there, as a consequence of the
dispute for possession between the two crowns, and the slow pacification of the indigenous population,
resulted in Madeira emerging in the 15th Century as one of the main cores of Portuguese domination and
navigation in the Atlantic. As Zurara points out, the island was since 1445 the main port of call for sailing
vessels along the African coast. But a wider knowledge of the sea and the technological and nautical
progresses lost Funchal its hinge position in the Atlantic navigation, which was replaced by the Canaries or
Cape Verde. From the beginning of the 16th Century Madeira appears only as a point of reference for
Atlantic navigation, an occasional port of call for repairs and provisioning of wine. Only the island's
economic boom was able to attract the attention of the fleets, navigators and adventurers. In summary, the
islands are the doors of entry and departure and for this reason assumed an important role in the Atlantic
routes. But to plough long distances on course to Brazil, the African coast or the Indian Ocean, it was
necessary to possess additional ports of call, since the trip was long and hard.

The commercial areas of the port of Guinea and, later, with the rounding of the Cape of Good Hope,
those of the Indian Ocean, made the existence of intermediary stations absolutely indispensable. First
Arguim which served as a trading station and port of call for the area of the coast of Guinea, then, with the
revelation of Cape Verde, it was the island of Santiago which asserted itself as the main port of call in the
route of departure for the Portuguese and could very well replace the Canaries or Madeira, which is what in
fact happened. Other islands were revealed and occupied a prominent place in the route sketches. This is the
case of São Tome for the area of navigation of the Gulf of Guinea and of Santa Helena for the caravels of
the Cape route. Also the projection of the archipelagos of São Tome and Cape Verde across the
neighbouring spaces of the African coast led the crown to create two trading stations (Santiago and São
Tomé) with the aim of controlling, from there, all the commercial transactions of the African coast. In this
way in the South Atlantic the main ports of call of the Indian Ocean routes lay in the ports of the islands of
Santiago, Santa Helena and Ascension. There the fleets were replenished with water, timber and supplies or
undertook repairs. Furthermore we should point out Santa Helena as a station of re-assembly of the fleets
arriving from India after rounding the Cape, that is, an identical mission to that of the Azores at the end of

10 Livro sexto das Saudades da Terra, Cap.II.
the oceanic crossing. This function of the island of Santiago as a port of call of the Ocean Sea was ephemeral. From the Thirties in the 16th Century onwards, the stops are less assiduous. The sea was by now known and the larger deep-going vessels made longer voyages possible. Only the shipwrecked appeared there seeking refuge.

The positioning of the islands in the sketch of the commercial and Atlantic navigational routes led to the crowns applying their full diligence in the initiatives of support, defence and control of commercial dealing in that direction. The islands were in this way advanced bastions, props and symbols of the peninsular hegemony in the Atlantic. The dispute for the riches in circulation took place on land or in the neighbouring sea, since this was where the pirates and corsairs struck, hungry for even a thin slice of the treasure. Therefore one of the authorities’ greatest concerns was the defence of the vessels. But in the case of the islands of Guinea this was never achieved, the delineation of a defensive system on land and sea being too tardy, contrary to what happened in Madeira, the Azores and the Canaries. This explains the extreme vulnerability of these ports, evident in the numerous attacks by the English and Dutch in the first half of the 17th Century.

The Century is marked by a total change in the Atlantic system of routes. The progresses in the development of the steam engine led to the elaboration of a new plan of ports of call, capable of serving as support to navigation as suppliers of trading products and coal for the working of the machines. In the Azores the port of Angra relinquished its place to the ports of Horta and Ponta Delgada, while in Cape Verde the island of São Vicente replaced Santiago, a place it disputed with the Canaries. Meanwhile Funchal was strengthened by its double as a coal harbour and supplier of island wine, which attracted numerous English and American vessels. Besides this the privileged position the English enjoyed in the island led to their using the port of Funchal as a base for corsair activities against the French and Castillians. This new commitment to the area of support to commercial and passenger navigation will depend on another policy that of the free ports.

Funchal in the 18th Century was a key centre of the social-political transformations that then occurred, on both sides of the ocean, the result of the strong presence of the English community and the fact of their having transformed it, from the 17th Century, into an important centre for their maritime and colonial assertion. This link of the island to the British Empire is quite evident in the everyday life and historic turnout of the Madeirans in the 18th and 19th Centuries. Madeira, during the 18th Century, secured its Atlantic vocation to, which contributed the fact that the English did not dispense with the port of Funchal and the Madeiran wine in its colonial strategy. The various acts of navigation (1660, 1665), corroborated by the treaties of friendship, among which Methuen’s (1703) deserves special mention, were the means that paved the way for Madeira to enter the area of influence in the English world. Little by little, this community gained a position of respect in Madeiran society, which, at times, became bothersome.

The presence and importance of the English trading station, in the course of the 18th Century is an indubitable reality. The English community began to enjoy a differentiated status, which provided it with the possibility of possessing its own cemetery, since 1761. It also had the right to its own church, infirmary, registry office and private judge. This option, although at first taking the Governor by surprise, seems to have been a desired one, as in 1898 the Governor of São Miguel, after taking knowledge of the occurrence, manifested the desire that the same should happen in the Azores, to avoid the threat of the French. The presence of the English fleets in Funchal was constant and the relationship with the local authorities

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12 Public Record Office, FO 811/1, letters of the privileges of the British nation with Portugal from 1401 to 1805.
14 In 1754 the Governor Manuel Saldanha Albuquerque regrets the monopoly of British commerce in the island (AHU, Madeira e Porto Santo, nº.48-49).
15 Public Record Office, FO 811/1, fs.278, 31st January 1724.
friendly, where the Governor with all hospitality received them\textsuperscript{17}. Of these, relevance is given to those of 1799 and 1805, composed, respectively of 108 and 112 vessels\textsuperscript{18}. Apart from this the presence of an English squadron patrolling the Madeiran Sea was constant that of 1780 commanded by Johnstone\textsuperscript{19}.

From mid 19th Century Funchal specialised as port of call for passenger liners, with special relevance to the English. To this contributed the traditional British presence and the assertion of the island as a tourist resort. Consequently the Funchal harbour did not see its protagonism in the Atlantic navigation broken, on the contrary it-recovered strength and new duties in light of the new challenges of oceanic navigation.

In the Azores we witness in the course of the 17th Century a clear change of the harbour areas of intercontinental dimensions. Accordingly, Horta due to its hinge position in the central group and the relevance it assumed in the aid to the American whaling efforts, came to assume the position of oceanic harbour of support to the fisheries, the American trade and supply of coal, taking away importance from Angra. This position was reinforced in the second half of the 19th Century with the mooring of submarine cables. On the other hand the great economic centre of the archipelago was the island of São Miguel, which implies the valorisation of the sea harbour.

Identical changes occurred in Cape Verde too, which led to the depreciation of Santiago in favour of São Vicente. The oceanic harbour transformed itself into an oceanic oasis for steam vessels that drew their necessary supply of coal and into an outstanding core of moorings of submarine cables. This process becomes evident from 1838 with the creation of the town in the proximity of Porto Grande and the installation of the first coal deposit by the English consul, John Rendall. The situation changes from 1883, as the Spanish aggressiveness with the free ports of Las Palmas and Santa Cruz of Tenerife associated to the modernisation of the French port of Dakar led to the depreciation of the Portuguese ports in the islands.

The present Century, on the other hand, grants a different dimension to the islands. Thus, the game of interests between the European and American continents led to some islands being transformed into key pieces of the economic hegemony. Hence resulted the evident dispute between Germany and England in trying to gather them to their sphere of influence. It should be noted that the sanatorium policy was the subterfuge used by the Germans to conceal their expansionist pretensions in the Atlantic. At the bottom of this is the conflict generated by the problem of the sanatoriums, of which England was the instigator\textsuperscript{20}. Here, once again England enjoys a favoured position when invoking the historical tradition of the alliance\textsuperscript{21}.

The understanding of this importance of the islands in the assertion of the British maritime hegemony led Thomas Ashe (1813)\textsuperscript{22} to claim the transformation of the Azores into a British protectorate.

In the Twenties the steam vessels began to give way to the “flying machines” and little by little civil aviation went on to conquer the passenger transport market. Even so, the islands continued for a long time to maintain their supporting role to the transatlantic routes. In the Azores we had the island of Santa Maria, while in Cape Verde an identical role was granted to the island of Al since 1939\textsuperscript{23}.

Until the appearance and vulgarisation of the wireless telegraph the strategy of information circulation lay with the islands. Madeira, Horta and São Vicente were again cause for dispute between English and Germans\textsuperscript{24}. Horta rapidly became a knot of moorings of submarine cables that linked Europe,
America, South Africa and Brazil, marking in 1926 the existence of fifteen cables. The same happened in the island of São Vicente where the first English cable was moored in 1874.

2.1.2. SCIENCE STATIONS AND TOURISM

Since the 18th Century scientific and travel literature have clearly defined this group of islands as a unit worthy of attention. They are the Western Islands that head the titles of publications. The understanding here would almost always be the Azores, but frequently the Canaries and Madeira would be associated and, very rarely, Cape Verde. This unity was established in the designation of Macaronesia, granted to the islands to merit the most ancient designation of Classic Antiquity. Gaspar Frutuoso (1522-1591), written in the last quarter of the 16th Century should note. In fact he can be considered the precursor of the 18th Century naturalists. Here it is possible to go through all the islands and witness their natural wealth and that which resulted from the action of the European settler. Even so the tracing is not exhaustive making it difficult for the scientist to know exactly which vegetal and animal elements are indigenous and which resulted from the European occupation. This is a tardy discovery, as we will see. Only the 18th Century man felt the need to do it and it is from this time onwards that we have news of the natural picture-frame of the islands. But meanwhile three centuries of European presence had gone by during which species from the old continent had mixed with those from the new.

The islands rapidly entered the universe of European science of the 18th and 19th Centuries. Both Centuries were moments of outstanding discoveries of the World through a systematic study of the fauna and flora. Hence two types of literature resulted with distinct publics and thematic incidences. The tourist texts, guides and travel memoirs, which appealed to the reader's dream trip of rediscovery of this corner of paradise which stands out from the rest for the incomparable beauty of its scenery, variety of flowers and plants. The scientific treaties, on the other hand, were concerned with the divulging through that which identified it. The techniques of classification of the species of fauna and flora have an ideal working space here. Some collections were made to the delight of the appreciators, which appear in a list that precedes the publication.

The 20th Century announces itself as the ecological moment. The concerns with the preservation of the little forestall mantle and the recovery of the wild spaces was accompanied by merciless criticism of those responsible. It will not be inopportune to recall that the environmental concerns, which aim to establish a balance of the natural picture-frame and check Man's devastating impulse, are not attributes solely of 20th Century Man. In Madeira as in other islands rules and attitudes ensue which regulate this relation. In the Canaries and the Azores the situation of the different islands was not unvarying. The problems of deforestation were felt with more acuteness in the islands of the first archipelago. Thus in Gran Canaria already in the beginning of the 16th Century the lack of wood and timber was evident, as the attitudes and interventions of the local authorities and the crown demonstrate. The solution was to resort to the other islands, namely Tenerife and La Palma. But even in these the same difficulties began to be felt. In the Azores the fact that the sugar-cane culture did not attain the same success as in Madeira and the Canaries saved the forestall space from this predatory effect.

Madeira appears, on the dawn of the 15th Century, as the first occupation experience in which products, techniques and institutional structures were tested. All this was then used, on a large scale, in other islands and in the African and American littorals. The archipelago was thus the irradiation centre for the

pillars of the new society and economy of the Atlantic world: first the Azores, then the other archipelagos and coastal regions where the Portuguese put into port.

In the sketch of the oceanic routes the Atlantic Mediterranean was provided with a fundamental role in the maintenance and support of the Atlantic navigation. Madeira and the Canaries were in the 15th and 16th Centuries like trade emporiums in the African, American and Asian littorals. The main ports of Madeira, Gran Canaria, La Gomera, Hierro, Tenerife and Lanzarote busied themselves in diverse ways with the support to navigation and commerce in the departure routes, while the Azores, with the islands of Flores, Corvo, Terceira, and São Miguel, were the necessary and fundamental ports of call for the return routes. The islands were the advanced bastions, pillars and symbols of the peninsular hegemony in the Atlantic. The dispute for the wealth in movement on the ocean took place in the area defined by them and attracted English, French and Dutch pirates and corsairs greedy for the circulating riches. One of the greatest concerns of the peninsular crowns was the defence of vessels from the attacks of the European corsairs. The area defined by the Iberian Peninsula, Canaries and Azores was the main focus point of the European corsair's intervention against the vessels carrying sugar or pastel to the Old Continent. On the other hand, the protagonism of the islands is not limited to the 15th and 16th Centuries, as the oceanic navigation's and explorations in the 18th and 19th Centuries led them to assume a new function for the Europeans. From first discovered lands they progressed to test fields and replenishment stations for navigation on the departure and return routes.

Finally, in the 18th Century a new vocation was discovered: the islands as a test field for the techniques of experimentation and direct observation of nature. The assertion of Science in Europe turned them into ports of call for the constant European scientific expeditions. The encyclopaedism and the classifications of Linneo (1735) had in the islands a fine experimentation field.

18th Century Man lost his fear of the surrounding environment and began to look at it with a larger curiosity and, as master of Creation, was granted with the mission of scrutinising its hidden secrets. It is this impulse which justifies all the scientific eagerness which explodes in this Century. Science is then based on direct observation and experimentation. The insatiable search and discovery of the surrounding nature captivated all of Europe, but it was the English who marked their presence among us, less so the French and Germans. Here the protagonists are the Canaries and Madeira. All this is a result of their function as port of call for navigation and trade in the Atlantic. It was also in Madeira that the English established the base for the corsair war in the Atlantic. If the trade vessels and military expeditions had a compulsory port of call here, all the more reason for the scientific expeditions to perform an obligatory stop. The islands, through the endemism that characterises them, their geo-botanical history permitted the first test of research techniques to be followed in other distant quarters. They too were revealing means of the incessant quest for knowledge of Geology and Botany.

Secular institutions, such as the British Museum, the Linnean Society and the Kew Gardens, sent specialists to gather specimens. The studies in the domains of Geology, Botany and Flora are a result of the fortuitous or intentional presence of European scientists. This 18th Century fashion resulted in the European scientific institutions becoming trustees of some of the most important collections of the islands’ fauna and flora: the British Museum, the Linnean Society, the Kew Gardens, the University of Kiel, the University of Cambridge, the Paris Museum of Natural History. And through these islands passed some of the most distinguished specialists of the age, with emphasis to John Byron, James Cook, Humboldt and John Forster. Darwin was in the Canaries and Azores (1836) and sent a follower to Madeira. But in the Azorean archipelago the most illustrious scientist will have been Prince Albert I of Monaco who called at port in 1885. James Cook stopped in Madeira twice, in 1768 and 1772, in a replica of the circumnavigation voyage but with a scientific interest only. The scientist who accompanied him intruded into the interior of the island in search of botanical rarities for classification and later revelation to the scientific community. In 1775 the navigator was in Faial and the following year in Tenerife.
The archipelagos of Madeira and the Canaries, due to their strategic position on the route that linked Europe to the colonial world, were active protagonists in the courses of Science in the 18th and 19th Centuries. For the Azores, on the other hand, was reserved the role of safe anchorage before sighting Europe. It was this role played by the archipelago that catapulted it into a privileged position in the history of navigation and trade in the Atlantic. In the Canaries the first and oldest reference to the presence of English naturalists is from 1697, the year in which James Cunningham was in La Palma. The 18th Century reveals a strong presence namely of the French. The scientist's contact with the Azorian archipelago is almost always made on the return route from Africa or America. To the Americans the islands were the first stations of discovery of the Old World. On the other hand the Azores stirred the curiosity of the European scientists and institutions. The geological aspects, namely the volcanic phenomenons were the main targets of attention. Even so the volume of studies did reach the dimensions of those concerning Madeira and the Canaries which led Maurício Senbert to state in 1838 that the “flora of these islands have been for so long disdained”, which led him to dedicate himself to its study31.

The islands recreated the ancient myths and reserved the visitor a paradisiacal and calm environment for repose, or, as was the case in the 18th Century, the ideal laboratory for scientific studies. The insular endemism propitiated the latter situation. The islands were the main targets of attention for botanists, ichthyologists and geologists. Alfredo Herrera Piqué describes the situation when considering them “the scientific station of the Atlantic”32. The English were the first in discovering the qualities of the climate and scenery and divulging them to their countrymen. It is this almost forgotten dimension as the awakening motive of Science, which is important to emphasise.

In Madeira what impressed the 15th Century navigators most were the tree groves, while for the scientists, writers and other visitors from the 18th Century onwards it was, without doubt, the exotic aspect of the gardens and country-houses that populated the city which above all called their attention. In the Canaries the attention was turned to the millenary dragon trees of Tenerife. Funchal became an authentic botanical garden and followed a European secular tradition. These began to surge in Europe in the 16th Century: in 1545 we have Padua’s, followed by Oxford’s in 1621. In 1635 Paris’s preluded the art of Versailles in 1662. In all of them the intention to draw back Paradise is clear33. The islands had no need for it, as they already were a Paradise. The attitude of 18th Century Man is different. In fact, from the second half of the 17th Century his relationship with plants changed. In 1669 Robert Morrison publishes *Præcludia Botanica*, considered the beginning of the system of classification of plants, which has in Carl Von Linné (Linnaeus) (1707-1778) its main protagonist. The vision of the world of plants was never the same again. A contemporary of his is the Comte de Buffon who published between 1749 and 1804 the “Histoire Naturelle, Générale et Particuliére “ in 44 volumes. In sight of this the botanical gardens of the 18th Century ceased to be a recreation of Paradise and became spaces of botanical investigation. The *Kew Gardens* in 1759 are the true expression of this. It should be noted that Hans Sloane (1660-1753), chairman of the *Royal College of Physicians*, the *Royal Society of London* and founder of the *British Museum*, was in Madeira in the course of the expeditions, which took him to the English Antilles34.

The acclimatisation of plants with economic, medicinal or ornamental value gained ever more importance. In fact, it was fundamentally the medicinal interest, which from the 17th Century gave rise to an unusual keenness in its study 35.

Thus in 1757 the Englishman Ricardo Carlos Smith founded in Funchal one of the gardens where he gathered various species with commercial value. In 1797 Domingos Vandelli (1735-1816) and João Francisco de Oliveira in their study of flora presented a project for a nursery garden. The nursery was created in Monte and remained until 1828. The French naturalist, Jean Joseph d’Orquigny, who in 1789

34 Raymond R. Stearns, Science in the British Colonies of America, Urban, 1970
settled in Funchal, was the mentor for the creation of the Sociedade Patriótica, Económica, de Comércio, Agricultura, Ciência e Artes. In the island of Tenerife too, in Puerto de la Cruz, Alonso de Nava y Grimón created in 1791 a Plant Acclimatisation garden.

In Madeira we had Frederic Welwistsch’s proposal for the creation of an acclimatisation garden in Funchal and Luanda. The island would fulfil its role of liaison between the colonies and the gardens of Lisbon, Coimbra and Porto. This German botanist, who undertook some studies in Portugal, passed through Funchal in 1853 on his way to Angola. Now the presence of another German, Father Ernesto João Schmitz, as professor of the diocesan seminary, led to the creation in 1882 of a Museum of Natural History, which today is integrated in the present Botanical Garden. Only after a century did this theme again deserve the attention of the specialists. And various voices were raised in favour of the creation of a botanical garden. In 1936 reference is made to a frustrated attempt in creating a Zoological and Acclimatisation Garden in the Quintas Bianchi, Pavão and Vigia, which counted on the support of the Hamburg Zoo. The creation of the Botanical Gardens - by deliberation of the General Council of the Autonomous District of Funchal on the 30th of April 1960 - was the consequence of the secular defence of the island's conditions for the creation and demonstration of the scientific importance revealed by distinguished botanical investigators who undertook studies.

In the Azores the commitment to acclimatisation gardens was evident. One of the main enterprisers was José do Canto who since mid 19th Century created various nursery gardens of various species, which he acquired from all over the world. In the Seventies his estates were filled with cryptomerias, pine trees, eucalyptus and acacias. Account should be taken of the contacts with French acclimatisation and scientific societies and the visits to the most recognised European gardens. All this made it possible for him and some of his Micaelan compatriots to transform the island's landscape into dense tree groves and paradisiacal gardens of exotic flora. To José do Canto we can associate Antonio Borges who in 1850 launched the park of the Seven Cities, eight years after the Ponta Delgada garden, which bears his name. Another nature enthusiast was José Jácome Correia who bequeathed us the garden of Santana. We should consider the fact that Antonio Borges remained eight years in Coimbra from 1861 where he worked in the Botanical Garden and maintained close contacts with the university, thanks to the support of the patrician Carlos M. G. Machado. From this a close co-operation resulted with the sending of Edmond Goeze to the island with the aim of gathering arboreal species for the Coimbran garden greenhouse.

In the Canaries the fundamental concern was the policy of reforestation. To this contributed the 18th Century the Sociedades Economicas de los Amigos del Pais in Gran Canaria (1777), Tenerife (1776) and La Palma. From the record of proceedings of the Las Palmas society we can rapidly deduce the concern and pledge on the policy of reforestation. Here the botanical gardens appear from the Forties of our Century onwards: in 1943 the Puerto de la Cruz in Tenerife and in 1953 the Viera y Calvijo in Gran Canaria.

In any of the moments pointed out the islands fulfilled their role of bridge and adaptation of the colonial flora. The acclimatisation gardens were the fashion that in Madeira and the Azores had as stage the ample and paradisiacal country-houses. The Marquis of Jácome Correia identifies for Madeira the country-houses of Palheiro Ferreiro and Magnolia as botanical gardens. These are nursery gardens for plants, hospitals for taking in sufferers of pulmonary consumption and other visitors. The dazzling accompanied the scientific interest and the two lived sides by side in the countless publications in the 19th Century, which bear it, witness. The gardens, through the arboreal harmony and the bright colours of the

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37 "um Jardim de Aclimatação na ilha da Madeira", in Das Artes e da História da Madeira, nº. 2, 1950, pp.15-16
38 César A. Pestana, A Madeira Cultura e Paisagem, Funchal, 1985, p.65
40 Fernando Aires de Medeiros Sousa, José do Canto. Subsídios para a História micaelense (1820-1898), Ponta Delgada, 1982, pp.78-113
41 A Ilha de S. Miguel e o Jardim Botânico de Coimbra, in O Instituto, 1867, pp.3-61.
42 Jose de Viera y Clavijo, Extracto de las Actas de la Real Sociedad Económica de amigos del Pais de las Palmas(1777-1780), Las Palmas de Gran Canaria, 1981.
43 A Ilha da Madeira, Coimbra, 1927, p.173, 178
flowers had an evident development in the 17th and 18th Centuries. The woods ceased to be spaces of malediction and trees entered the daily life of the upper classes. The gardens acquired the dimension of biblical paradies and as such of spiritual spaces. They are the expression of human domination over nature. 19th Century England popularised the gardens and flowers. The ambience reached the island through these same subjects of Her Majesty. The islands exerted a special fascination over all visitors and seem to have never lost the immortal characteristic of gardens on the edge of the ocean. We can therefore state that the islands were gardens and that the gardens continue to enchant all who seek them, be they tourists or scientists.

In the 18th Century the islands assumed a new role in the European world. Thus from economic areas they began also to contribute to the easing and curing of illnesses. The rural world loses importance in favour of the area around Funchal, which becomes a hospital for the cure of pulmonary consumption and quarantine in the passage from the torrid heat of the colonies to the cloudy and cold days of the old city of London. This function catapulted the islands of Madeira and the Canaries to an evident affirmation. The debate of the therapeutic potentialities of the climatology propitiated a number of studies and generated a frequent stop of scholars. The health resorts first appeared in the European Mediterranean basin and later expanded in the 18th Century to Madeira and only in the following Century arrived in the Canaries.

Of the visitors to the islands three distinct groups merit special attention: invalids, travellers, tourists and scientists. While the first were fleeing the European winter and found soothing for their illnesses in the mild temperature of the islands, the rest were attracted by the taste for adventure, for new emotions, the search for the picturesque and the knowledge and discovery of the endless secrets of the natural world. The traveller differs from the tourist by the pomp and intentions that follow him. He is a wanderer who travels through every nook of the islands in his eagerness to discover the most picturesque aspects. In his luggage there was always a note pad and a pencil. Through writing and drawing he registers the impressions of what he sees. Thus results an extensive travel literature, which became a fundamental source of knowledge of the 18th Century Society Islands.

To the historian is conferred the task of interpreting these impressions. Here two women are worthy of prominence: Isabella de França for Madeira and Olivia Stone for the Canaries. The tourist on the contrary is little of a wanderer, preferring the bonhomie of the country-houses, selfishly keeping to him all the impressions of the trip. Thus the testimony of his presence is documented solely by the Customs anonymous, followed by those by Robert White, E. V. Harcourt, J. Y. Johnson and E. M. Taylor.

The presence of travellers and “invalids” in the islands led to the creation of infrastructures of support. If at first they resorted to the hospitality of the islanders, at a later stage the ever-increasing influx of foreigners forced the setting up a supporting hotel structure. For the former a letter of recommendation opened the doors. To this was combined the publicity from travel literature and guidebooks. The guidebooks supplied information indispensable for accommodation in Funchal and inland travel, accompanied by brief notes on History, customs, fauna and flora. For Madeira, one of the oldest known guidebooks is anonymous, followed by those by Robert White, E. V. Harcourt, J. Y. Johnson and E. M. Taylor.

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49 *Journal of a visit to Madeira and Portugal (1853-1954)*, Funchal, 1970. However, the first traveller on the island was Maria Riddel who in 1788 visited the island for 11 days: *A Voyage to The Madeira...*, Edinburgh, 1792.
50 *Teneriffe and its six Satellites*(1887).
51 *A Guide to Madeira Containing a Short Account of Funchal*, Londres, 1801.
52 In Madeira the authorizations for residence are registered for the years 1869 to 1879 and 1922 to 1937.
53 *Madeira its Climate and Scenery containing Medical and General Information for Invalids and Visitors; a tour of the Island*, Londres, 1825.
The first combined guidebook of the archipelagos is by William W. Cooper\textsuperscript{57} and A. Samler Brown\textsuperscript{58}. This became a best seller, having reached 14 editions. We should take into account to which people these works were aimed at. Thus in 1851 James Yate Johnson and Robert White\textsuperscript{59} appeal to the “invalids and other visitors”, while in 1887 Harold Lee\textsuperscript{60} addresses the “tourists” and in 1914 we have the first tourist guide book by C. A. Power\textsuperscript{61}. This should mark the end of the so-called therapeutic tourism and the beginning of the present. To these two groups a third was joined which also deserves the attention of these guidebooks, that is, the naturalist or scientific tourism\textsuperscript{62}.

Madeira asserted itself from the second half of the 18th Century as a resort for therapeutic tourism, thanks to the prophylactic qualities of its climate in the cure for tuberculosis, which caught the attention of the new foreigners\textsuperscript{63}. In fact, the island was considered by some to be the first and principal resort for cure and convalescence in Europe\textsuperscript{64}. It should be noted that in the period from 1834 to 1852 the annual average of invalids oscillated between 300 and 400, mostly English. In 1859 the first sanatorium was built. The last investment in this field was by the Germans who in 1903, through Prince Frederik Charles de Hohenlohe Oehringen, constituted the Companhia dos Sanatórios da Madeira. From this controversial initiative only the building of the present Hospital dos Marmeleiros resulted\textsuperscript{65}.

We have no trustworthy data regarding the development of the hotel industry, since the available data is sundry\textsuperscript{66}. The hotels are referred to in mid 19th Century but since the beginning of the 15th Century these harbour towns of active foreigner movement must have possessed inns. Official documentation echoes this reality as can be proved by the by-laws and town council records of proceedings of the municipalities served by harbours. In the case of Madeira we point out the existence in 1850 of two hotels (the London Hotel and Yate`s Family Hotel) to which another ten were joined in 1889\textsuperscript{67}. In the beginning of the 20th Century the hotel industry capacity had risen, with 12 functioning hotels, which could lodge about eight hundred visitors\textsuperscript{68}. The concern of these visitors in getting to know the island's interior, namely the northern slope led to the launching of a network of inns which had its visible expression in S. Vicente, Rabaçal, Boaventura, Seixal, Santana and Santa Cruz\textsuperscript{69}. We should also take into account the series of improvements that took place in Funchal for the usufruct of the foreigners. Thus, since 1848 with José Silvestre Ribeiro we have the delineation of a modern system of roads, to which new means of locomotion were added: in 1891 the Monte Train, in 1896 the American Car and finally the automobile in 1904.

The Canaries, namely Tenerife and Fuerteventura, joined Madeira in therapeutic tourism from mid 19th Century\textsuperscript{70}. Note that in 1865 Nicolás Benitez de Lugo built “un establecimiento para extranjeros
enfermos” in La Orotava (Tenerife). It was probably at that time that the island of Tenerife made its debut as a health resort and entered into competition with Madeira, having in its favour better climatic conditions.\(^{71}\) The Vale of La Orotava, through its harbour (today Puerto de la Cruz), asserts itself as the main health resort of the archipelago. This led to the development of the hotel industry, which then spread to the city of Santa Cruz de Tenerife.\(^{72}\) Various factors permitted this rapid rise of the islands of Tenerife and Gran Canaria in the second half of the 19th Century, quickly taking the lead over Madeira. The assertion of Santa Cruz de Tenerife as coal supplying harbour to steamships and the declaration of the free ports in 1852 attracted all the French and English navigation and trade lines of the Atlantic. This commitment to tourism and harbour services offered the archipelago a way out of the economic crisis and a privileged position in relation to competition from Madeira and the Azores.\(^{73}\)

In the Azores tourism had a more recent appearance. Notwithstanding Bullar (1841) referring to the presence of American patients in Horta, its activity in the archipelago was minor. However, this led to the appearance of the first known hotel in Faial, in 1842. In 1860 the first group of North Americans arrived, but they were only known as tourists from 1894 on.\(^{74}\)

From the end of the 19th Century tourism, as know it today, took its first steps. And it was as a consequence of this that the first hotel infrastructures were established and that tourism became an organised activity with an important function in the economy. And once again the Englishman is the main protagonist. This moment of influx of foreigners coincides also with the age of euphoria of Science in the European Academies and Universities. From the end of the 17th Century scientific expeditions became quite common and Madeira (Funchal) or Tenerife (Santa Cruz de Tenerife and Puerto de la Cruz) were ports of call for English, French and Germans.

### 2.2. THE FORTUNE OF THE EUROPEANS

The definition of the political spaces was first made according to the parallels and then, with the advance of the discoveries Westwards, in the direction of the meridians. The Royal expression resulted only from the favourable conjuncture and the acceptance by the rest of the European states. But the ocean and surrounding lands could still be subdivided into new spaces according to their economic protagonism. On the one side the Eastern and Western Islands and on the other the littoral of the American and African continents.

The partition did not result from a negotiated pact. It resulted from the confluence of the real economic potentialities of each of the areas in question. In this context the internal and external conditions of each area assumed particular importance. The first were the result of the geo-climatic aspects, while the latter derived from the vectors defined by the European economy. From the higher or lesser intervention of both conditions we find ourselves before agricultural spaces, endowed towards surplus production. This enabled the subsistence of those who had left and those who had stayed in Europe, of products suitable for an active system of intercontinental exchange which sustained a strong link between the old and the new world. Sugar and pastel were the products that embodied the latter conjuncture.

Accordingly we may define multiple and varied agro-mercantile spaces: agricultural areas directed to trading with the exterior and assuring the subsistence of the residents; areas of intense commercial activity, endowed to the rendering of support services as ports of call or trading markets. In the first case are

\(^{71}\) Be noticed that in 1861 Richard F. Burton (Viajes a las Islas Canarias I. 1861, Puerto de La Cruz, 1999, p.26) that in its trip all the tuberculous ones were in the Madeira island.


\(^{73}\) Madeirans soon became aware of this reality blaming the Lisbon authorities. See: João Augusto d'Ornellas, A Madeira e as Canárias, Funchal, 1884; João Sauvain de Vasconcelos, Representação da Câmara Municipal da Cidade do Funchal ao Governo de S. M. sobre Diversas Medidas Tendentes a Conservar e Atrair a Navegação de passagem neste Porto dos Paquetes Transatlânticos, Funchal, 1884; Visconde Valle Paraizo, Propostas Apresentadas pela Comissão Nomeada em Assembleia da Associação Comercial do Funchal de 14 de Novembro de 1894 para Estudar as Causas do Desvio da Navegação do Nosso Porto e do Afastamento de Forasteiros, Funchal, 1895; Maria Isabel João, Os Açores no século XIX, Economia, Sociedade e Movimento Autonomista, Lisboa, 1991.

included the eastern and Western Islands and the coastal fringe of South America, known as Brazil. In the second case, worthy of reference are those islands which, due to the reverie position of the coast (Santiago and S.Tomé) or the strategic positioning in the sketch of the oceanic routes (the case of the Canaries, Santa Helena and Azores), made the economic process depend on it.

The strategy of domination and economic valorisation of the Atlantic necessarily includes the small spaces that sprinkle the ocean. It was in the archipelagos (Madeira and Canaries) that the Atlantic expansion was initiated and it was there that Europe laid the whole strategy of economic development, which was in progress in the 15th and 16th Centuries. Nobody understood this reality better than the Portuguese, who for this reason defined an amphibious character for the Lusiad emporium. Deserted or occupied islands well or badly positioned, were the real pillars of the Portuguese emporium in the Atlantic.

The definition of the economic areas did not result solely from the political and economic interests that derived from the European expansionist conjuncture but also from the internal conditions offered by the environment. They become quite evident when we are faced by a group of islands scattered over the ocean. On the whole, we are in the presence of islands with the same geological origin, with no traces of human occupation, but with striking differences on the climatic level. The Azores presented themselves as a Temperate Zone, Madeira as a Mediterranean replica, while in the two meridian archipelagos the influences of the geographical position, which determined a dry or equatorial climate, were evident. Hence the diversity of forms of social and economic valorisation resulted.

For the first Europeans who settled there, Madeira and the Azores offered finer requisites due to its similarities with the Portuguese climate, than Cape Verde or S.Tomé. In these two archipelagos the difficulties of adaptation of Man and the European-Mediterranean cultures were countless. Room was made for the African culture and the Mediterranean subsistence cultures were replaced by trading exchanges with the neighbouring African coast. The concern with the exploitation of local resources appears at a later moment.

Finally it is necessary to take into account the morphological conditions, which establish the specifics of each island and make the delimitation of space and the form of economic exploitation possible. Here the coastal relief and contour were important. The possibilities of access to the exterior through adequate anchorage were an important factor. Henceforth Madeira's situation, defined by the excessive importance of the southern slope in detriment of the northern, becomes understandable as does the fact that, in the islands of the Gulf of Guinea, the island of Fernando do Pó is passed over in favour of S.Tomé. In an overall sense, we face the full dominance of the littoral as a privileged settling area, although it was not always so in economic terms. In the islands in which the orographic conditions provided an easy penetration of the interior, as was the case in S. Miguel, Terceira, Graciosa, Porto Santo, Santiago and S.Tomé, the human presence spread and produced cleared spaces. For the rest the omnipresence of the littoral is evident and dominates the islanders’ lives, with the sea as privileged route. The examples of Madeira and S. Jorge are paradigmatic.

According to the geo-climatic conditions it is possible to define the area of human and agricultural occupation of the islands. This led to a variety of economic functions that were at times complementary. Thus in the archipelagos composed by a larger number of islands, the articulation of the subsistence vectors with those of the market economy was more harmonious and did not cause great difficulties. The Azores presents itself as the more perfect expression of this reality, while Madeira is the reverse.

The change of centres of influence was responsible for the archipelagos assuming an important task. To all this can be added the constant presence of the reverie populations of the Mediterranean, interested in establishing products and the necessary economic back up. The constant prominence of the Mediterranean at the start of the Atlantic expansion may be held responsible for the mercantile dominance of the new land clearing experiences. Certainly the Peninsular and Mediterranean peoples, when compromising themselves with the Atlantic process, did not set aside the agricultural traditions and the commercial incentives of the markets of origin. Therefore in the first island diggers’ luggage the vine plants, the cane bulbs, some grains of the precious cereal, together with artefacts and tools were indispensable. The assertion of the Atlantic areas resulted from this human and material transplant of which the islanders were the first executors.
process was the first experience of adjustment of the land clearing practices to the directives of the new market economy.

The preferential priority was more on agriculture capable of making up for the shortages of the Old Continent, either cereals or paste and sugar, than on the usufruct of the novelties offered by the environment. Here we are reminded of Cape Verde and São Tomé where the failure of a European subsistence culture was not easily compensated by the offer of African products such as maize and yam. In Cape Verde, the impossibility of the profitable culture of cane plantations was soon recognised. But there was tardiness in valorising cotton as a substitute product; such was the obsession with sugar and trading with the coast of Guinea.

The insular society and economy appear in the confluence of the external vectors with the internal conditions of the multifaceted insular world. Its materialisation was not simultaneous nor did it follow the same organisational principles due to the fact that it derived from the partition between the peninsular crowns and island landlords. On the other hand the island economy is a result of the presence of various factors, which intervene directly in production and commerce.

It is not enough to possess a fertile soil or a product of permanent demand, since to this should be added the distribution means and the existence of techniques and means of exchange suitable to the mercantile level achieved by the commercial circuits. Thus, to understand the production and trade aspects of the insular economies it becomes necessary to refer the factors that are at its source. On the production sector level we should take into account the importance assumed, on the one hand, by the geophysical conditions and, on the other, by the policy of crop distribution. It is from the conjugation of both that the necessary hierarchy is established. The richest soils were reserved for cultures of higher economic profitability (wheat, sugar cane, pastel), while the average were for horticultural products and fruit growing, with the remaining poorer soils going to pasture and areas of support for the first two. To this hierarchy defined by soil conditions and market persistence we can add another for Madeira, according to the island's geography and the microclimates it generates.

The Azorian archipelago and the rest of the islands in the Guinea area appear at a late period, with a delayed economic valorisation process due to various factors of internal nature to which the mesological conditions were alien. The climate and arid soils, on the one hand, earthquakes and volcanoes on the other, were not very alluring bills for the first settlers. In both cases the launching of the sugar cane crop was linked to the Madeirans. Madeira, which was little more than half a century into its existence as an insular society, was in a condition to offer contingents of colonists qualified for the opening new land clearings and the launching of new crops on the islands and neighbouring lands. Thus it happened with the transplant of sugar cane to Santa Maria, S. Miguel, Terceira, Gran Canaria, Tenerife, Santiago, S.Tomé and Brazil.

The standardising tendency of the insular area's agricultural economy ran into various obstacles which led to a readjustment of the economic policy and the definition of the complementation between the same archipelagos or islands. Under these circumstances the islands were able to create in they’re midst the means necessary to the solving of everyday problems – based almost always on the ensuring of the components of the alimentary diet -, and its affirmation in the European and Atlantic markets. Thus it happened with the cereals which, produced only on some islands, were sufficient, in normal conditions, to satisfy the necessities of the insular diet, with a great surplus remaining to make up for the Kingdom's needs.

One of the initial objectives, which guided the settling of Madeira, was the possibility of access to a new cereal producing area, capable of making up for the Kingdom's needs and those of the African market-places and trading stations of the coast of Guinea. The last situation was defined by what became known as the “Guinea bag”. Meanwhile the interests around the sugar cane culture increased and the commitment to its cultivation was obvious. This change only became possible when a substitute market was found. It happened so with the Azores, which from the second half of the 16th Century took over Madeira’s place. Cereal was the product that led to a harmonious bonding of the insular spaces, but the same did not happen with sugar, pastel and wine, which were responsible for the stifling and a critical disarticulation of the economic mechanisms. Alongside this, all the products were the more than evident base for the powerful
European domination of the insular economy. First sugar, then pastel and wine exercised a devastating activity on the latent balance of the economy of the islands.

A different situation occurred with the Portuguese colonists when they arrived in Santiago and S.Tomé. Thus there was a necessity of structuring, in a different way, the peopling of the islands and the cultures to be implanted. Resorting to Africans, as slaves or not, was the most fitting solution to overcoming the first obstacle. They had a different alimentation from the Europeans, based on maize, rice and yam, crops which there, on the islands or the neighbouring African coast, grew easily. In the face of this, the few Europeans who settled there were always dependent on wheat, biscuit or flour, sent from the islands or kingdom, or had to adapt to the African diet. Together with cereal, vine sprigs were also planted from which was extracted the savoury wine of common consumption or used in liturgical acts.

This extreme dependency on the continental spaces, with special reference to the European, was not only characteristic of the beginning of the islands’ occupation. The situation persisted for more than four centuries. This way they remained on the periphery of the European economy and its colonial market operating according to the rules which governed the colonial policy. The dominating cultures almost always in a monoculture system follow these requisites. It happened this way with cloth and sugar cane in Cape Verde, with cacao in S.Tomé and Principe, with orange in the Azores and wine in Madeira.

The second half of the 19th Century may be considered one of the most troubled phases of the insular economy. Here the capacity demonstrated by the island of S. Miguel in the readjustment of its economy is evident. Thus the orange crisis is promptly supplanted with a variety of crops (sweet potato, tea, tobacco and pineapple) and industries (tobacco and alcohol). It should be noted that this is a moment of heated debate. This readjustment of the agricultural exploration process is partner to political discussion in the way of doing away with the hindrances to the economic development. These were orientations from the discussion of the traditional system of property to the new regime of free ports.

2.2.1. WINE ISLANDS

The Christian ritual valorised bread and wine, which, for this very reason, accompanied the advance of Christianity. In both cases the adaptation to the islands on this side of the Bojador was easy, but the same cannot be said of the islands of Guinea. Thus, viticulture was reserved to the islands of the Atlantic Mediterranean, where wine attained an important place in exports.

The evolution of the Madeiran viticulture harvest of the 15th and 16th Centuries can only be understood through the testimony of foreign visitors, as information from diplomatic sources is scarce. Documentation and visitors, between the 18th and 19th Centuries, are unanimous in considering wine as the main and sole wealth of the island, its only bartering Cony. Madeira did have with which to hail the ships that passed, or made for land, other than the glass of wine. All this increased the dependency of the Madeiran economy.

Since the XVI Century the islander traced the route in the international market, accompanying the colonialist in the expeditions and settlement in Asia and America. The English trader, established here since the 17th Century, was able to exploit the product, making it reach the hands of his compatriots spread across the four corners of the European colonial world in voluminous quantities. The Madeira wine trade movement through the 18th and 19th Centuries overlaps in a direct way the outline of the colonial maritime routes that had a compulsory passage through the island. Added to these fundamental routes are other subsidiary routes, almost all under English control. They are the routes of colonial England which made of Funchal a harbour of refreshment and uplifting of wine on their course to the East and West Indian markets, from whence they returned, via the Azores, with the colonial contents; they are the Portuguese ships on the route to India, or Brazil, which scale the island where they receive the wine which they convey to the Lusitanian marketplace; they are, further, the English ships which head for Madeira with manufactures and make the return trip calling at Gibraltar, Lisbon, Porto; and, finally, the North Americans who bring flour and return laden with wine. Thus the island wine conquered, from the 16th Century, the colonial market in Africa, Asia and America asserting itself until mid 19th Century as the colonialists’ and colonial troops’
drink “par excellence”. Back in his home country, after the surge of the independence movement, the colonialist brought in his luggage the island wine, which he made to appreciate by his patricians.

In this context the position of the American market is highlighted, dominated by the West Indies colonies and the North American ports. This last destination sedimented itself, from the second half of the 17th Century, thanks to an active relationship. Ever since then Madeira wine was an assiduous presence in the Atlantic ports – Boston, Charleston, New York and Philadelphia, Baltimore, Virginia – where it was bartered for flour. This exchange reinforced the commercial relationship and acted as a favouring circumstance in the progress of the viticulture economy. Thus, if in the 15th and 16th Centuries the assertion of the cane plantation culture was managed through the suppression of Azorean and Canarian cereals, from the end of the 17th Century it is in North America that the Madeiran barn is situated. Soon Madeira entered the sphere of North American interests, with wine as its calling card.

In the rest of the archipelagos it was only in the Canaries and the Azores that the vine cultivation and wine trade attained a position similar to Madeira. The markets were the same and disputed with extreme competition. Note that these, the archipelagos of the Azores, Canaries and Madeira, became known in official American documents as the islands of wine. In this case Madeira and the Azores, in view of the privileges conceded by the British Crown in the post-Restoration period --- the acts of navigation of 1660 and 1665 and the Methuen treaty of 1703 --- were able to secure a relevant position in this market. But in the following Centuries these differences were erased and the island wine entered the harbours and tables of the Americans on equal terms.

2.2.2. SUGAR ISLANDS

Sugar cane, for its high economic value in the European and Mediterranean market, was one of the first and main products that Europe bequeathed and defined for the new areas of occupation in the Atlantic. The course initiated in Madeira, spreading later to the rest of the islands and American continent. In this first experience beyond Europe, sugar cane demonstrated the possibilities of development way from the Mediterranean habitat. This evidence catalysed the interests of national and foreign capital, which banked on the growth of its culture and trade. If in the first years of life in the insular soil sugar cane presented itself as subsidiary, from the mid 15th Century it appeared as the dominant product, a situation that lasted through the first half of the following Century.

The period of complete assertion of this culture is situated between 1450 and 1521. During these years the cane plantations dominated the Madeiran agricultural panorama and sugar was the main product of trade with the external market. The rhythm of growth of this culture is only broken in the years 1497-1499, with a momentary crisis in its commercialisation. From 1516 on, the effects of competition were felt on the island and led to a slow abandoning of the cane plantation. The first half of the 16th Century is defined as the peak moment of the insular sugar cane culture and by the increase of the difficulties, which hindered the promotion in some areas, like Madeira where the cultivation was burdensome and production levels nose-dived. In this period the islands of Gran Canaria, La Palma, Tenerife and São Tomé were better positioned to produce sugar at more competitive prices. This happened in the 1620’s and advanced as the new production markets reached the maximum of production.

In Madeira the tradition of sugar related industries was maintained, that is confectioneries and preserves, preventing the disappearance of sugar cane which returned every time there were difficulties in supply from the Brazilian market. In the last quarter of the 19th Century the cane plantations returned and...
again covered the Madeiran soil and the brandy and sugar-manufacturing industry maintained itself with some vigour until the Seventies of the present Century\textsuperscript{78}.

The primitive diggers took the Madeiran cane bulbs to the Azores, and its cultivation promoted in Santa Maria, São Miguel, Terceira and Faial. Here the cultivation was tried various times, without producing the desired results. The geophysical conditions added to the inexistence or reduced extent of foreign capital hindered its development. The Azorian sugar will only gain importance from the beginning of our Century, but only with the transformation of beetroot.

In the archipelagos of Cape Verde and São Tomé the cane plantations arrived much later and as in other areas the Madeiran experience was important. In the first only on the islands of Santiago and São Nicolau, but without ever having been a profitable culture or competitive with Madeiran sugar. The morphological and orographic conditions were unfavourable to it. The introduction would have been made in the beginning of the settling in the Sixties, despite the first reference dating from 1490. On the other hand the sugar produced in the archipelago, as was the case in São Tomé, did not present the quality of the Madeiran, since as Gaspar Frutuoso tells us “nada destá chega ao da ilha da Madeira”, (“none of this reaches that of Madeira”). In the 19th Century the cane plantations expanded to the islands of Santiago, Santo Antão, Brava, São Nicolau and Maio. Here its valorisation had to do with the solicitation of brandy for the treatment of slaves on the coast of Guinea\textsuperscript{79}.

In S.Tomé the cane plantations stretched across the North and Northwest of the island, bringing to mind, according to a testimony from 1580, the Alentejan fields\textsuperscript{80}. One of the facts, which contributed to its becoming competitive with Madeiran sugar, was the high productivity. According to Jerónimo Munzer\textsuperscript{81} it was three times as high as the Madeiran. From the last quarter of the 16th Century the unrestrained competition of Brazilian sugar defined a marked fall in the period of 1595 to 1600. To this should be added the revolt of the slaves (1595), aggravated by the destruction of the engines caused by the Dutch plundering. From here on the archipelago of São Tomé came to depend solely on the slave trade and the little harvest of manioc and maize. The crisis in the slave trade from the beginning of the 19th Century led to a radical change in the economy. New cultures then surged (cocoa, coffee, ginger, coconut, copra and palm oil), which provided a new agricultural opportunity and generated a new situation of dependency.

2.2.3. DYE AND PASTEL ISLANDS

Until the 17th Century with the introduction of indigo in Europe it was the main plant of European dyeing, from which black and blue colours were extracted. Alongside this the availability of other dye-plants, such as cudbear (from which a reddish-brown hue was obtained) and the blood of the dragon plant, led to the appearance of Italians and Flemings, interested in trade, who in turn bequeathed us a new dye-plant: pastel. As with the sugar in Madeira, the Crown granted various incentives to the promotion of its culture, which with the incessant quest by the Nordic markets, made its cultivation advance rapidly. In 1589 Linschoten referred that “the most frequent business of these islands is pastel” from which the peasants made the “principal mister”, with trade being “the main profit of the insular”\textsuperscript{82}. While in 1592 the governor of São Miguel blamed the lack of bread on the almost exclusive domination of the soil by the cultivation of pastel\textsuperscript{83}. It should be noted that this island was a traditional flax producing market with exportation to the European market, a situation that lasted until the beginning of the 19th Century.

In the archipelagos beyond the Bojador the presence of pastel was unknown, despite the importance that the culture of cotton and the consequent manufacture of cloth assumed. The climate and the ignorance of dyeing techniques, demonstrated in the handing over of the exploration of cudbear to the Spaniards João

\textsuperscript{78} Alberto Vieira, \textit{A Rota do Açúcar na Madeira}, Funchal, 1986
\textsuperscript{81} Monumenta Missionária Africana, IV, 1954, nº 6, 16-20.
\textsuperscript{82} \textit{Ob. cit.}, 152-154.
\textsuperscript{83} Arquivo dos Açores, II, 130
and Pero Lugo, favoured this conjuncture. But here the African coastal markets, in need of thread for textile industry imposed the culture of cotton. In the course of the 16th and 17th Centuries cotton presented itself as fundamental to the Capeverdian economy, being the main incentive, together with salt, for the commercial exchanges with the African coast, namely Casamansa and the river of São Domingos. In the beginning only cotton with exportation to Europe was produced, but later the cloth industry began to develop, in view of the great demand, which existed in the African coast in exchange for slaves. In the 18th and 19th Centuries the exploration of cudbear remained active in some of the islands, being worthy of relevance the case of Cape Verde. In these islands the exploration of this resource follows side by side with that of physic-nut oil for illumination.

2.2.4. AN EDEN OF RESOURCES

The nourishment of the islanders was not resumed to just these two basic products of the economy, since to these could be added vegetables and fruit, which participated in the struggle in favour of subsistence. Fruit growing and horticulture were defined as important components in the subsistence economy, being referred to with great insistence by Gaspar Frutuoso at the end of the 16th Century. The vegetables and fruit, apart from their use in daily consumption, were also valued by the provisioning of the ships that assiduously docked at the island ports. This last situation arises in Madeira and the Azores but also in Cape Verde (Santo Antão and Santiago) and São Tomé. But it is in the Azores that the stake on fruit growing assumes great significance in the economy of the archipelago. Oranges and pineapples are examples of this. The orange, which had been introduced in the 16th Century, only assumed this dimension during the 19th Century. The period from 1840 to 1875 is known as the orange cycle, having its epicentre in São Miguel. The main destination market continues to be England.

The island's diet was completed with the exploitation of the resources available in the surroundings and which acquired nutritious value, i.e. game and fishing and the by-products of cattle breeding, such as meat, cheese and milk. Fishing would have been an important activity of the riverine populations, who disposed of a great variety of seafood and fish. In Cape Verde can be highlighted the exploration of salt and amber: the first was collected in the island of the same name, Maio and Boavista, used for the archipelago's important salting industry and export the African coast, while the second appears in São Nicolau, Brava and Sal. Salt, as the chronicler remark, is spontaneous, of which a famous example is the great marine saltpan of the island of Sal, which gave it its name.

Cattle acquired in the islands, especially in the Azores and Cape Verde, a fundamental importance in the economy. This resulted from its double function, for apart from its use as a traction force in transport and farming, it was valued by the availability of by-products for nourishment (meat and cheese) and in the handcraft industries (skins and tallow). However it was in the Azores that since the 19th Century it asserted itself as a dominant activity. This position was strengthened in the Twenties of the present Century giving rise to what became known as the “monoculture of the cow”.

In Cape Verde, except in the islands of Santiago and Fogo, contrary to what happened in Madeira and the Azores, there was no connection between cattle breeding and agriculture, as it was a different form of exploitation. There is an evident specialisation in the rest of the islands in extensive cattle breeding, based on bovine and caprine livestock. The islands were leased out to privates, who by their initiative took charge of exploiting these revenues. Fundamentally, the aim was solely to explore that which was most profitable, i.e. leather and tallow. Therefore in the grants mention was almost always made to the taxation of these and very rarely to meat. However, use was made of it, under the form of butchering to supply the fleets and

forward to the Kingdom and to Madeira. This was, from mid 16th Century, an additional product activating its foreign exchanges.

Salted meat, under the form of butchering, was for a long time an important source of wealth serving to replenish the ships bound for Brazil, Madeira and the Kingdom. More important than those were the skins and tallow which, too, were an important source of income and activators of the trade with European ports, from Santiago.

A fact of particular significance was the breeding, namely in the island of Santiago, of equine livestock for exportation to the African coast. Cadamosto, Valentim Fernandes and Duarte Pacheco Pereira attest the importance of the horse in the everyday life of the African populations, as a question of honour and ostentation, which was cause for the Capeverdians obtaining a new return in their trade relations with this region. For a horse up to 14 slaves could be obtained in return. However in the beginning of the 16th Century the slow devaluation of the horse in this exchange for slaves led to the decrease of its importance in the Capeverdian economy.

2.3. THE INVOLVING WORLD: ROUTES AND MARKETS

The islands assumed an evident role in the sketch of the Atlantic commercial routes, being the main pillars of its evolution. Their strategic position in the middle of the Atlantic valorised them in the oceanic transactions. At the same time their wealth strengthened the link to the Old Continent through the uncontrolled exploitation of their resources or through the imposition of cultures destined for the European markets, as in the case of sugar cane and pastel. Further south the trade posts of Santiago, Príncipe and São Tomé, apart from centralising commercial traffic in each archipelago, established themselves, for some time, as the main warehouses of trade with the African littoral. Santiago maintained, until mid 16th Century the control over the relations between the coast of Guinea and islands of the archipelago, and the exterior. It was also the centre for redistribution of artefacts and European provisions and for the dispatching of salt, hides, cloth and cotton. While the first situation, with the evolution of the economic conjuncture, began to lose importance, the second remained for a long time, defining a complicated web of routes.

Trade between the islands of the three Atlantic archipelagos resulted not only from their economic complementation, defined by the asymmetries caused by the orography and climate, but also from the proximity and assiduity of the contacts. The exchange of men, products and techniques dominated the system of contacts between the archipelagos. Madeira, due to its privileged position between the Azores and the Canaries and the partial alienation of the Indian and American routes, presented better possibilities for the establishment and maintaining of this type of interchange. Contacts with the Azores resulted from the strong Madeiran presence in the settling and from the necessity of cereal supply, of which the archipelago of the Azores was one of the main producers. With the Canaries the immediate links were a result of the presence of Madeirans, at the service of Prince Henry the Navigator, in the dispute for the possession of the archipelago and the attraction it exerted over them. All this contrasted with Azorean hostilities in relation to the cereal supply routes to Madeira. Furthermore, Funchal was for a long time a support harbour for the contacts between the Canaries and the Old Continent. This assiduity of contacts between the archipelagos, demonstrated by the permanent migratory flow, is a constant in the archipelagos’ historic process, up until the moment when political and economic confrontations separated them. The latter situation emerges in the second half of the 17th Century as a result of the competition of the wine produced simultaneously in the three archipelagos.

Wheat was, undoubtedly, the main motive of the inter-island connections. Trade between Madeira and the Canaries were very prior to the establishment of the first contacts with the Azores. The relationship had begun in mid 15th Century, activated by the availability of slaves, meat, cheese and tallow. But the Madeirans’ insistence on contacts with the Canaries was not to the liking of Prince D. Fernando, lord of the island, who was interested in promoting contacts with the Azores. In spite of this, they continued and the route gained a relevant place in the island's external relations, aided by the availability of cereal and meat, which were exchanged for artefacts, sumach and black slaves. This last and peculiar situation came about in
the first half of the 17th Century, with particular evidence in the contacts between Madeira, Lanzarote and Fuerteventura.

Somewhat different were the commercial contacts between the Azores and the Canaries, which never assumed the same importance as those with Madeira. Little facility in communications, the distance between the two archipelagos and the difficulty in finding products that justified interchange caused these exchanges to be seasonal. Only the cereal crisis of the Canaries archipelago caused the Azorean wheat to arrive there in 1563 and 1582. At times the exchange was made from Madeira, as was the case in 1521 and 1573. The Canaries for this trade was based on wine, European cloth and pitch.

On another level were the inter-island relations with archipelagos beyond Bojador. Firstly the difficulties in settling only led to the immediate and complete peopling of one island in each area – Santiago and São Tomé -, which began to act as axe of the internal and external relations. Furthermore, the economic exploration was not unvarying and according to the solicitations of the insular market this side of the Bojador, assuming, at times, as was the case with São Tomé, a competitive position. Finally, it should be noted that these spaces existed mostly for the satisfaction of the neighbouring African littoral's necessities than for its internal economic importance. From the relationship of the two archipelagos with those of the Atlantic Mediterranean the commitment of the latter to the slave trade is evident, with prominence to the Madeirans and Canarians. The Madeirans who appear here were favoured by the involvement with the exploration and trade voyages along the African coast and the presence, albeit temporary, of the port of Funchal in the routes’ sketch. On the contrary, the Azores remained for a long time as welcoming ports for the vessels that made the return route to the Old Continent.

The contacts with the islands of the Gulf of Guinea were exiguous, as they for a long time fell short of the necessities of the Atlantic Mediterranean peoples. Indeed if we remove the probable presence of the Madeirans for the transmittance of the secrets of sugar cultivation, this appearance is tardy and is governed by the need to capture slaves in the neighbouring coasts, a situation common with the Canaries. Malaguetta (Indian pepper), pepper and ivory were not products capable of spiking the interest of the insular peoples and, apart from that, they had as compulsory destination the Casa da Mina (Minehouse) in Lisbon.

The peripheral positioning of the insular world conditioned the subjugation of its trade to the hegemonic interests of the Old Continent. The Europeans were the pioneers, responsible for the agricultural transmigration, but also the first to benefit from the quality of the products sown and to enjoy the revenue provided by trade.

Hence resulted the total dependence of the insular spaces on the Old Continent, with the economic co-existence moulded according to the necessities, which, at times, were quite strange. For this reason the Old Continent's preference for contacts with the exterior of the archipelagos is quite obvious. Only later did the neighbouring islands and the African and American continents appear. From the corner of origin came the products and instruments necessary for the land clearings, but also the institutional and commercial directives, which materialised them. The usufruct of the possibilities of a relationship with other continental areas, in the case of the Atlantic Mediterranean, was the result of an advantageous exploitation of the geographic position and in some cases an attempt to break way from the omnipresent European route. In this context, the presence of the Canaries, Azores, Cape Verde and São Tomé became the most evident, and, although for different reasons, Madeira too.

The Canarian archipelago, due to the position and specific conditions created after the conquest, was of the three the one, which took the greatest advantage of trade with the New World. The proximity to the African continent, as well as the correct positioning in the Atlantic routes, permitted its intervention in the international trade.

88. Manuel Lobo Cabrera, "Relaciones entre Gran Canaria África y América a través de la trata de negros", in II Colóquio de Historia Canario Americana, Las Palmas, 1977, 77-91; idem, La esclavitud en las Canarias orientales en el siglo XVI, negros, moros y moriscos, Las Palmas, 1979, 104-110; Elisa TORRES SANTANA, "El comercio de Gran Canaria con Cabo Verde a principios del siglo XVII", in II Coloquio Internacional de História da Madeira, Funchal, 1990, 761-778.
For the Azores, the fact that the islands were situated in the final leg of the great oceanic routes enabled them to profit from the provision of innumerable services of support and probable smuggling. Madeira was out of this picture, from the end of the 15th Century. For a long time this trade was only a delusion. And only became a reality when wine became a favourite for those who embarked on the Indian and American adventure. As a result, Madeiran wine asserts itself completely from the second half of the 16th Century.

The archipelagos of São Tomé and Príncipe and Cape Verde took a different direction: the proximity of the African coast and the permanent commercial activity defined the undeniable linking to the African continent. For a long time both archipelagos were little more than connecting ports between America or Europe and the trading posts of the African coast.

The islands’ trade with the African littoral, with the exception of Cape Verde and São Tomé, was made with more assiduity from the Canaries than from Madeira or the Azores. Even so Madeira, due to its hinge position in the sketch of the 14th Century routes, played an important role. The Madeirans participated actively in the trade and geographical exploration voyages in the African littoral, with Funchal appearing, in the last decades of the 15th Century, as an important emporium in the trade of elephant tusks. Furthermore the Madeiran initiative bifurcated. On the one hand the Moroccan market places for whom the islands would provide men for defence, materials for the construction of the fortresses and cereals for the nourishment of the men quartered there. On the other hand the areas of the Rivers and Gulf of Guinea, where it would provide itself with slaves, so essential for ensuring labour force in the harvesting of sugar.

Contrary to what happened with the Canaries, Cape Verde and São Tomé, the islands of the archipelago of Madeira and the Azores were, until the 17th Century, absent from the trade with the American continent.

All that remained was to await the arrival of the vessels that originated there and aspire to smuggling or occasional exchange. Note that some of these also arrived at the port of Funchal. The detour was considered by the Crown to be intentional, so that smuggling could be performed, and therefore prohibitive measures were determined but with little practical application.

The islands of Santiago and São Tomé, due to the proximity of the African coast, asserted themselves as important slavery emporiums in the 16th Century, with the new American continent as its main destination.

The first trading post dominated a vast area, known as the Rivers of Guinea, while the second stretched from São Jorge da Mina to Angola, passing through Axem and Benim. As we have referred the settling was only possible at the cost of facilities conceded to the inhabitants for trade in this coast. São Tomé assumed a relevant place in the Gulf of Guinea trade until the last quarter of the 16th Century, with the crisis, from 1578, a result of the deviation of the routes to the African littoral. In Santiago, the main island of the archipelago of Cape Verde and trading post of the slave trade of the Rivers of Guinea, trade was defined in another direction. In the beginning it resulted from the supply of local productions but later, with the opening of new slave markets, it was external solicitations, which motivated it. They were now led, first to Europe and the Atlantic islands and then to Brazil and the Antilles. For the latter destination trade was conducted under the form of contracts between the Crown and the merchants. The importance of these markets in the slave trade bound for the American continent was demonstrated at the end of the 16th Century, at which time foreign nations launched themselves into the attack on the main slave trade emporiums, with particular relevance to the Castilians.

The following Centuries were not characterised by significant changes in this web of routes and markets. The link to the traditional markets was maintained and only the barter activating products changed.

Certainly the most significant changes occurred in São Tomé and Príncipe and Cape Verde. The abolition of the slavery trade from 1811 brought an end to the tradition of dependency of these archipelagos on the African market and the connecting route to the other side of the Atlantic, and led to a strengthening of the presence of and link to the metropolis. All the economic exploration is undertaken with the aim of supplying products and natural resources indispensable to the industrial development of the metropolis that in turn would supply them with manufactured goods.\(^{90}\)

### 2.4. THE ENVY OF FORTUNE

The 15th Century marks the beginning of the Atlantic's assertion, a new oceanic space revealed by the peninsular peoples. The sea, which until mid 14th Century had kept itself alienated from the European world, attracted its attention and in no time came to replace the Mediterranean market and road. The English, French and Dutch, who at first were only attentive spectators also entered the dispute to claim a *mare liberum* and the usufruct of the new routes and markets. In these circumstances the Atlantic was not only the market and commercial lane, “par excellence”, of Europe, but also one of the main stages where the conflicts that defined the political choices of the European Crowns unfolded frequently expressed in the corsair wars.

In 1434, the Bojador Cape having been rounded, the main problem was not in the advance of the trips, but in the form of assuring the exclusiveness from there on, as in the area on this side of that limit this had not been achieved. First was the concession in 1443 to Prince Henry of exclusive control of the navigation and the right to wage war south of said Cape. Then the seeking of papal assent, in the quality of supreme authority established by the “republica christiana” for these situations.\(^{91}\)

The presence of foreigners was considered a disservice to the above-mentioned Prince, as was the case with Cadamosto, António da Noli, Usodimare, Valarte and Martim Behaim, or a form of usurping the domination and an affront to the papacy. From the Seventies the Castillians attempted to intervene in the coast of Guinea as a form of reprisal against the Portuguese aspirations to the possession of the Canaries. Notwithstanding the repressive measures defined in 1474 against the intruders in the Guinea trade the Castillian presence continued to be a problem of difficult solution, only achieved by mutual yielding through the treaty registered in 1479 in Alcáçovas and later confirmed on the 6th of March of the following year in Toledo. Another later succeeded this partition of the ocean, according to the parallels, was later succeeded by another in the direction of the meridians, and brought about by Columbus's voyage. The navigator's meeting in Lisbon with King John II, on his return from the first voyage, immediately set off a diplomatic litigation, as the Portuguese monarch considered the discovered lands to be in his dominion. A solution to the conflict was only found through a new treaty, signed on the 7th of July 1494 in Tordesilhas and ratified by Pope Julius II on the 24th of January 1505. From then on a new ocean dividing line was established, 370 leagues from Cape Verde. The limits of the Iberian Sea were defined.

For the rest of the European peoples little remained but a reduced fringe of the Atlantic, to the north, and the Mediterranean. All this would be true if the force of international law were granted to the papal bulls and the choices of the Peninsular Crowns, which in reality did not happen. The obstinacy of the West, on the one hand, and the disentailing of some communities from papal jurisdiction, on the other, removed the medieval “Potestatis” plenitude from the juridical acts. Thus in opposition to the *mare clausum* defining doctrine is set that of the *mare liberum*, which had in Grocio its main theoriser. The latter vision of the oceanic reality guided the intervention of the French, Dutch and English in this space.\(^{92}\)

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91. The bulls of Eugenie IV (1445), Nicholas V (1450 and 1452) preluded what came to be defined dy the bull "Romanus Pontifex" of 8 January 1454 and "inter coetera" of 13th March 1456. In it the exclusive possession of the seas beyond Cape Bojador by the Portuguses was legitimized, with the result that its rouding by nationals and foreigners would only be possible with the agreement of Prince Henry.

The corsair war was the main response and had a preferential incidence in the circum-neighbouring seas of the Strait of Gibraltar and islands, and led to the domination of numerous spaces on both margins of the Atlantic. We can define two spaces of permanent intervention: the Azores and the coasts of Guinea and Malaguetta. The English began in 1497 the successive incursions into the ocean, with the voyages of W. Hawkins (1530), John Hawkins (1562-1568) and Francis Drake (1578,1581-1588) becoming famous. Meanwhile the French settled on America, first in Brazil (1530, 1555-1558), then in San Lorenzo (1541) and Florida (1562-1565). The Huguenots of La Rochelle asserted themselves as the terrors of the seas, having raided the city of Funchal in 1566.

The latter form of fighting the exclusiveness of the peninsular Atlantic was the one that gained the biggest adhesion of the European states in the 16th Century. From the beginning of the Century the main danger to the caravels did not result from the geo-climatic conditions, but from the presence of intruders, always willing to attack them. Thus navigation was rendered difficult and the trade routes had to be adapted to a new reality. The necessity arose to furnish the vessels with artillery and to escort them to safe harbours. The insistent complaints, namely on the part the of the neighbours of Santiago in Cape Verde, led the Crown to establish armed fleets for the protection and defence of the trade areas and routes: the fleet of the Western coast of the Kingdom, of the Algarvian littoral, of the Azores, of the coast and gulf of Guinea and of Brazil

Soon the French began to infest the seas close to Madeira (1550,1556), the Azores (1543, 1552-1553, 1572) and Cape Verde, and were later followed by the English and Dutch. The formers’ actions were preferentially aimed at the archipelagos of Madeira and the Azores evident in the first half of the 16th Century, as in Cape Verde only a few attacks are known, in 1537-1538 and 1542. The navigators from the North chose the Western seas or the area of the Gulf and coast of Guinea, with the islands of Santiago and São Tomé their main centre of operations.

In the archipelagos of Cape Verde and São Tomé, to the initial danger posed by the French and Castillians, was added the English and, fundamentally, the Dutch. In the Sixties the English corsair activity there was exercised by John Hawkins and John Lovell. It should be pointed out that the English did not tarnish Madeira, as they had an important resident community there committed to their trade. Their action was aimed, preferentially, at the Azores (1538, 1561, 1565 and 1572) and Cape Verde.

The presence of the corsairs in the insular seas should be articulated, on the one hand, according to the importance these islands assumed in the Atlantic navigation and, on the other, by the wealth they generated, which awoke these foreigners’ greed. But if these conditions defined the incidence of the attacks, the political conflicts between the European Crowns were justified in light of the jurisdiction of the time. Thus in the second half of the 15th Century the confrontation between the peninsular Crowns defined the presence of the Castillians in Madeira or in Cape Verde, while the conflicts between the ruling families granted the necessary legitimacy to these initiatives, making them progress from mere robbery to acts of reprisal: first there was, 1517, the conflict between Charles V of Spain and Francis I of France, then from 1580 the problems deriving from the Iberian union. This last situation is a another fact in the confrontation between the Castillian and English crowns, which had broken out in 1557.

The effort of the European diplomacy in obtaining a solution for the corsair seizures is quite evident. In this sense Portugal and France had agreed in 1548 to the creation of two arbitration courts, whose task it was to annul the reprisal authorisations and corsair charts. But its existence did not have evident reflexes in the corsairs' actions. It should be noted that it is precisely in 1566 that we have news of the most important French attack on a Portuguese space.

In October 1566 Bertrand de Montluc in command of a fleet composed of three vessels perpetrated one of the most terrible assaults on the Baleira village and the city of Funchal. Similar an incident only that of the Algerians in Porto Santo and Santa Maria in 1616, or of the Dutch in São Tomé. The incessant assaults of the corsairs on sea and land created the necessity of defining a strategy of adequate defence. On

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sea it was decided to furnish the commercial vessels with artillery and create a fleet for the defence of ships in transit. It became known as the island fleet, based in the Azores and from there it would escort the ships to a safe harbour. On land there was the delineation of an incipient line of defence of the main harbours, anchorage and bays, capable of preventing the possible disembarkation of these intruders.

The insular space cannot be considered an inexpugnable fortress, as the scattering of islands, served by an extensive coastal border made a concerted defence initiative impossible. Whichever solution was considered, besides being very onerous, did not fulfil a necessary policy of defence. In the face of this, it was always prolonged until the appearance of threats capable of impelling its materialisation. The coastal defence system appears in this context with a double purpose: disbanding or blocking the invader's way and a refuge for the population and possessions. Therefore the norm was the construction of fortresses after a threat and never a preventive measure, with the result that after an assault of great proportions a campaign would almost always be undertaken for the fortification of the harbours and localities and the organising of militias and orderlies.

The instability caused by the permanent threat of the corsairs, from the last quarter of the 15th Century, conditioned the delineation of a plan of defence of the archipelago based, on a line of coastal fortifications and a service of watchmen and orderlies. Until the assault of 1566 little or no attention was paid to this matter and the island and its peoples were left to their fate. In terms of defence this assault had the merit of committing the Crown and the locals to the definition of an adequate plan of defence. Thus it happened that through the order of 1572 a plan of defence was established to be executed by Mateus Fernandes, fortifier and master of works. Hence resulted the reinforcement of the fortified enclosure of the old fortress, the construction of another close to the pillory, a tract of wall between the two and the Castle of São Filipe do Pico (1582-1637).

The plan of defence of the Azorean islands began to be sketched in the mid 16th Century by Bartolomeu Ferraz, as a form of response to the recrudescence of corsair activity, but only saw complete materialisation in the last quarter of the Century. Bartolomeu Ferraz presented the Crown with his research: the islands of São Miguel, Terceira, São Jorge, Faial and Pico were exposed to any corsair or heretic eventually; the harbours and villages clamoured for more adequate security conditions. According to him the Azoreans needed to be prepared for this, since “ome percebido meo combatido” (a man seen is half defeated). From this resulted the reorganisation of the defence system undertaken by King John II and King Sebastian. It was they who reformulated the system of vigilance and defence through new directives. The construction of the castle of Sao Brás in Ponta Delgada and, after twenty years, the castle of São Sebastião in Porto de Pipas (in Angra) and a bulwark in Horta, these were the most evident results of this policy.

Worse was the state in which the islands of the coast and Gulf of Guinea remained since the insistent actions of pirates and corsairs were not sufficient persuading the islanders and authorities in advancing with an adequate system of defence. There are few references to the defence of these islands but sufficient to attest to its precariousness. It was limited to small bulwarks, frequently without any utility. In São Tomé Captain Âlvaro Caminha, who called it simply a tower, concluded by his successor Fernão de Melo, erected the first fortress in Povoação. In the time of King Sebastião, the constant attacks by French corsairs – the one in 1567 became famous – led to the construction of the fortress of São Sebastião, concluded in 1567 and reformulated in 1596. However it was rendered inefficient in the Dutch assault of 1599 and therefore another was erected in Nossa Senhora da Graça. In Cape Verde the commitment to the defence of the population and coastal ports was belated as the corsairs’ main target was at sea. More than the construction of fortresses there was necessity in cleaning the seas and routes of the presence of these intruders. To this end and in response to the inhabitants’ incessant requests, the Crown created a fleet for the guarding and defence of the sea and coast. Besides this the petition by the inhabitants of Ribeira Grande in 1542 pointed to the necessity of furnishing the city's harbour with an adequate defence system. The assaults by Francis

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95. Saudades da Terra, livro segundo, 109-110.
Drake on Santiago (1578 and 1585) led to the construction of a fortress in Ribeira Grande supported by a tract of wall, in the Philippine period.

The changes in the political and economic spheres, which occurred during the 18th and 19th Centuries, did not remove the islands' primal function as ports of call and space of dispute of the Ocean Sea. The frequency of calling vessels was maintained while the corsair activity was marked by a strong increase, between the end of the former Century and the next. The Americans from the North and South joined the traditional corsairs from France, England and Holland. From the Seventies until the beginning of the following Century the conflicts, which had the American and European continents as stage, spread to the Atlantic. Indeed, at this time the ocean was an active protagonist in the disputes between the three main belligerents: Spain, France and England. For this reason Mario Hernandez Sánchez-Barba96 defines the 18th Century through three realities: war, diplomacy and trade. Between them there is a perfect tuning. To all this is added the permanent concern with military organisation and the defence of the coast, because danger lurks in the ocean at any moment.

It is in accordance with this atmosphere that the presence of the corsairs should be considered. In that sense two moments can be highlighted: the period which runs from 1644 to 1736 defined by England's confrontation with France and Spain; the age of the great transformations of the Century, with the proclamation of independence of the English colonies in North America (and the consequent War of Independence until 1783), the French Revolution (1799) and the convulsions which followed it in 1815.

In this last interval of time new alterations followed in the American continent with the Spanish colonies' fight for independence, which produced a new interlocutor for the corsair war. Between 1763 and 1831 the islands of Madeira and Azores were confronted with the threats and intervention of the European (French, English and Spanish) and American corsairs, with relevance in the latter to the Argentinean insurgents. Both archipelagos stood out as the crossroads of interception of the fire resulting from the American and European wars of reprisal. The European corsair concentrated preferentially on the Spanish and French vessels and motivated a violent response from the molested parties, as was the case with the French assault on the English in 1793, 1797 and 1814. But the latter were of all, those who acted with greatest security, since they had set up a plan of domination of the Atlantic, using Funchal as main port of support for their incursions.

The Azorean Sea was the preferential target of the American corsairs and therefore that is where most of their attacks took place. Their main victims were the Portuguese and Spanish. The presence of the American corsairs appears as a consequence of the War of Independence of the United States of America (1770-1790) to whom, from 1816, the insurgents of the Spanish colonies allied themselves. While in Madeira the insurgents' activity is more evident in the eighties of the 18th Century, in the Azores they stand out in the period from 1814 to 1816, with the famous naval battle of Horta in 1814.

In Cape Verde something different was taking place, with the corsair presence deriving from the French reprisal, of which the two invasions of the city of Praia (1712 and 1781) and one of Santo Antão (1712) and Brava (1798), are notorious.

The permanent threat of the corsairs redoubled the commitment to the defence works, which resulted in various campaigns, between the end of the 18th Century and the beginning of the next. The incidence was greater in the islands of Madeira, São Miguel and Terceira; those most punished by the presence and actions of the corsairs. With the conclusion of the fortress restoration works and the pacification of the corsairs' impetus, there was, from the Thirties, a period of relative calm, followed in the Fifties and Sixties by new campaigns of rectification of the fortified enclosures, in accordance with the Military Engineering's guiding principles. This has no parallel in the islands of Cape Verde, where the economic difficulties, which the population faced, made such measures unfeasible, notwithstanding the interest demonstrated by some governors.

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1. El mar en la Historia de América, Madrid, 1992, p. 239.
Since the last quarter of the 18th Century, the Military Engineering had acquired new breath, seeking to adapt the fortified enclosures to the advances of poliorcetics and pyroballistics. In the diverse studies and surveys undertaken the urgency of its rectification was acknowledged. In 1798, it was enunciated that the Azorean fortifications were unaware of the most elementary principles of the art of fortifying, while simultaneously strict measures were taken in relation to the restoration and conversion, punishing those who acted in a way contrary to the established. With the dawning of the 19th Century, the interventions of the Military Engineering went in the direction of adapting them to the principles of the theory of fortification and insular conjuncture. In 1815, in a memorial on the port of Angra, it was said that a plan of defence should take into account the following aspects: knowledge of the terrain, quality and disposition of the fortified enclosure, forces, artillery and available munitions. And, thirty nine years later, it was stated, in a peremptory fashion, that “it is not enough to have great batteries and many works of fortification, it is necessary that all this should be arranged and built according to the fundamental laws of science and art in harmony with the means of aggression”, therefore the necessity for the referred visit and of an adequate defence plan.

The 20th Century had the diverting conflicts between the various powers away from the Atlantic. Even so the repercussions of the two world conflicts on the islands was evident. And once again the role of the islands as pillars of assertion of the belligerents was demonstrated. First it was the English and then the North-Americans who targeted on these some of their hegemonic stakes.
CONCLUSION

The islands seem to have returned to the dazzlement of the past. With their natural resources exhausted all that remains is that which distinguishes them from the continental spaces and is in the origin of their name in Classic Antiquity. The Fortunates still continue as the Atlantic paradise that attracts the European. And in the millennium which now comes to an end it is not proven that they will lose the protagonism which marked them, since the European will continue to make the sedimentation of his protagonism depend on these pillars erected on the Atlantic. Yesterday as today the islands did not shy away from the challenges of their historic destiny.

In the last five Centuries the islands were granted various roles. From economic spaces they rapidly progressed to beacons of the Atlantic, which accompanied the innumerable vessels, which ploughed the vast Atlantic Ocean. The islands were indispensable ports of call for the supply of fresh provisions, water and coal, but slowly transformed themselves into pleasant spaces, first for the cure of pulmonary consumption and then for the repose and enjoyment of aristocrats and adventurers. Tourism is today an evidence of the end of the millennium but it is convenient to mention that it was in the Atlantic islands, and in a special way in Madeira, that the present leisure industry took its first steps.

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