UNITED NATIONS EDUCATIONAL, SCIENTIFIC
AND CULTURAL ORGANIZATION

CONVENTION ON THE PROTECTION OF THE UNDERWATER CULTURAL HERITAGE

REPORT AND EVALUATION

Mission of the
Scientific and Technical Advisory Body to Haiti

Based on the
RAPPORT PRELIMINAIRE DE LA MISSION EFFECTUEE SUR
CAP-HAITIEN PAR LES EXPERTS DE L’UNESCO, DU MINISTERE DE LA CULTURE ET DU BUREAU
NATIONAL D’ETHNOLOGIE

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Introduction

In May 2014, American researcher Barry Clifford announced the discovery of a site that he believed to be the wreck of the *Santa Maria*, Christopher Columbus’ flagship on his first voyage to the Americas. This announcement subsequently made headlines in both the national and international press. This document reports on the first investigative mission of the Scientific and Technical Advisory Body (STAB) of the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage (2001 Convention) to this site and also contains an evaluation of the site.

The National Context

Before addressing the specific case of the researched wreck site, the overall issue of archaeological and underwater cultural heritage in Haiti should be considered.

Kenrick Demesvar of the Ministry of Culture of Haiti, who accompanied the mission of the STAB, summarizes it as the following:

‘Haiti, like many other Caribbean Island States, possesses a rich variety of underwater cultural heritage within its territorial waters, owing to strong historic ties to the sea. Since the earliest days that humans have inhabited the island, they have relied on the sea for food, transport and communication; these maritime connections only intensified during the contact and colonial periods that followed the European discovery of the islands in 1492, leading to a wealth of cultural material being deposited on the seafloor surrounding the island.

As is also the case with many Caribbean States, the heritage of Haiti consists of various elements marking three great historic periods (Amerindian, Colonial and Haitian), and leaving both physical traces and intangible memories. The situation of the archaeological and underwater cultural heritage of Haiti does not differ from the general situation of Haitian heritage as described above.2

It was not until the end of the American occupation of Haiti (1915-1934), that the conservation and development of natural and cultural resources became a concern for the Haitian State. The process of developing the natural and cultural heritage of the state was, however, initially part of a process of recovering the historic memory of the state from the American occupiers. Following this initial phase, the conservation and development of heritage was used as a pretext in the campaign against Voodoo to seize Indian and African objects from the sacred temples. Finally, the Law of 23 April 1940 and the Decree of 31 October 1941 set out the main legal provisions concerning the protection of cultural heritage, in particular the archaeological heritage, of Haiti.

The first archaeological excavations in Haiti were conducted by Jacques Roumain, the first Director General of the Bureau of Ethnology (now the National Bureau of Ethnology, the decentralized technical body of the Ministry of Culture), in 1941. Today, this body possesses the legal prerogatives for the management, protection and development of heritage in Haiti. The Institute of Ethnology (now the Faculty of Ethnology at the State University of Haiti) only offers theoretical courses in archaeology. As such, there is currently no specific training program for archaeology, let alone underwater archaeology, at the State University of Haiti.

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1 Centre Pétion Bolivar, 1995.
It should also be noted that archaeological research initiatives in Haiti have frequently involved foreign researchers, both as individuals and with the institutional backing of a University. Several cooperative agreements have therefore been signed in the past between the Haitian Government, through the Ministry of Culture, and foreign researchers. These contracts, however, have generally not been very beneficial for Haiti.

As a result of institutional, legal and material shortcomings, particularly in relation to the technical expertise and financing required for archaeological research, the Haitian Government, through the Ministry of Culture, published a public notice on 21 November 2006, stipulating that, “all archaeological research activities, terrestrial and underwater, shall be suspended throughout the territory”; no official agreements related to archaeological research have been signed since then.

As such, there is currently little assembled knowledge related to the terrestrial and underwater archaeological potential of Haiti. The Ministry of Culture could study the results of previous research efforts and collect a wide range of information concerning the known terrestrial and underwater archaeological resources of the country (names, locations and even maps in certain cases). This would certainly be the case for certain caves, as well as Taino and other sites, many of which are currently threatened by pillaging. The Government of Haiti, however, has very limited technical and financial resources to devote to archaeological research. As such, research is limited to sites at which artefacts bearing witness to the great history of the state can be found lying on the surface of the ground. Even these rare interventions remain very limited; the intention has generally been to leave the sites in situ, which constitutes the best available strategy considering the present state of knowledge and technological and financial development in the country.

The current legislation regarding heritage in general, and archaeological heritage in particular, remains outdated, and deserves to be adapted to current needs. The National Commission of Heritage, created by the Decree of 10 May 1989, no longer exists. The National Office of Marine Archaeology (OFNAM) created by the Presidential Decree of 26 September 1995 is not operational.

Haiti has nevertheless signed, sanctioned or ratified several international conventions including:

- The UNESCO 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage – 18 January 1980
This implies that the Haitian Government is bound by a number of recommendations specifying specific manners in which interventions on terrestrial and underwater archaeological sites must be carried out. Therefore, the Ministry of Culture should be concerned with assuring the effective and efficient exploitation and development of the archaeological resources of the country, in conformity with the defined international standards; notably, the Ministry should work in collaboration with UNESCO, which can furnish technical and financial resources to accommodate requests by States Parties.’

On 9 November 2009, Haiti took a stand to protect its underwater cultural heritage by ratifying the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage, which came into effect in the country on 9 February 2010. Despite the strong desire to protect underwater cultural heritage that Haiti displayed in this ratification, there is yet little capacity to research, valorise or protect underwater cultural heritage in the country. Haiti must therefore rely on outside assistance. In this way, the STAB of the 2001 Convention has been asked to assist by the Minister of Culture of Haiti, H. Exc. Madame Monique Rocourt.

Having laid out the present state of cultural heritage management in Haiti, the case of the supposed wreck of the Santa Maria can be considered, bearing this context in mind.

**The Santa Maria**

The *Santa Maria* was the flagship of Christopher Columbus’ first voyage to the Americas, and one of three ships that formed the fleet of this historic journey. Historic documents³ indicate that during this voyage, as Columbus was travelling along the northern coast of the island of Hispaniola, the ship ran aground, and was lost on a reef or sandbank off what is now the Republic of Haiti on the night of 24 to 25 December 1492. According to these sources, Columbus ordered the construction of a fort at or close to a nearby Taïno village, which he later baptised as ‘La Navidad’ or ‘La Nativité.’ He left a number of crew members at this fort before returning to Spain. By the time Columbus returned the next year, the fort had been burned, and the crew he had left, had died or disappeared. Although the wreckage of the *Santa Maria* is mentioned in the account of his second voyage the next year, it subsequently vanishes from historical record. It is possible that, due to the heavy sedimentation along the coast brought about by various rivers, the wreck has been buried during the past centuries. The ship may also, however, have been slowly worn down by the waves, potentially leaving remains on a reef or sandbank in the bay.

It is on the basis of this second hypothesis that Mr Barry Clifford, an explorer from the United States, has affirmed to have discovered the remains of the ship on Coque Vieille Reef.⁴ Clifford announced his discovery to the media⁵ before officially informing the Government of Haiti of his intention to continue his research in the bay of Cap-Haïtien. According to data available to the Ministry of Culture, more than seven wrecks dating between the 16th and 20th centuries are located in this area. Many more might not yet have been recorded and are likely to be present, given the high importance of the Cap Haïtien port area during Spanish and later French colonisation and beyond.

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³ Consulted were among others the Ship’s Log and Diary of Christopher Columbus as reflected by Bartolomé de las Casas, Kathleen Deagan’s text concerning Puerto Real, data from Moreau de Saint Mery, Spanish archaeological studies conducted between 1990-1991 in the area of Puerto Reál, En Bas Saline and La Navidad, work by Loic Ménanteau etc.

⁴ The larger reef being called Grand Mouton Reef.

⁵ 12 June 2014
Mr Clifford first encouraged the Government of Haiti to conduct an emergency intervention on the site, alerting that certain objects had already been looted since he first surveyed the area. Furthermore, he solicited the government for authorisation to continue his research. Accordingly, the Minister of Culture, Monique Rocourt, requested that he submit a written request, including all relevant technical details. He did this several weeks later, stating that his team would be directed by Dr Charles Beeker, a researcher from the University of Indiana, USA.

The Assistance of the UNESCO Scientific and Technical Advisory Body

Under the terms of the UNESCO 2001 Convention, ratified by Haiti in 2009, and following Mr Clifford’s declaration in the international press on 12 June 2014, the Ministry of Culture of Haiti requested the assistance of the STAB. This advisory body assists the State Parties to the UNESCO 2001 Convention through advice and missions of assistance. It consists of 12 internationally acclaimed experts, and it may also involve designated experts of particular knowledge in certain areas as well as accredited NGOs.

The Ministry requested the following:

- To evaluate the project proposed by Mr Barry Clifford and Dr Charles Beeker;
- To assist in evaluating Haiti’s underwater cultural heritage resources; in particular to evaluate the site claimed to be The Santa Maria;
- To assist in drafting a national plan for underwater cultural heritage management.

The President of the Conference of States Parties to the 2001 Convention, H. Exc. Khalil Karam, responded favourably to this request on 19 June 2014 by confirming the support of the UNESCO STAB. Exchanges then began between the Ministry of Culture, the Secretariat of the 2001 Convention, the STAB, and the UNESCO Office in Haiti concerning the requested support.

Initially, the Ministry requested technical advice from UNESCO concerning the project proposed by Mr Clifford and Dr Beeker. The members of the STAB studied the proposal, and concluded that the project, in its current state, lacked many elements required for the appropriate underwater archaeological research on the concerned site. They also demonstrated that the project did not conform to the standards defined in the Annex to the Convention.

The Haitian Government also requested that the STAB prepare a comprehensive research plan for the area in which the Santa Maria would presumably be located. Furthermore, the parties decided that an initial exploratory mission would be

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6 The first Meeting of States Parties to the 2001 Convention established in 2009 a Scientific and Technical Advisory Body in accordance with Article 23, paragraph 4 of the Convention. The Scientific and Technical Advisory Body is composed of twelve expert members. The Meeting of States Parties may increase this number up to twenty-four. Experts are nominated by State Parties. The election of the members of the Advisory Council is conducted with respect to the principle of an equitable geographical distribution, the desirability of a gender balance and the need for a balance between various fields of competence. Furthermore, members must have a scientific, professional and ethical background at the national or international level in one of the following fields: underwater archaeology, international law, materials science (metallurgy, archaeobiology, and geology), conservation of underwater cultural heritage sites or objects.
organized in order to evaluate the hypotheses advanced by Mr Clifford and the archaeological potential of the zone, and to make recommendations concerning the potential success of a broader expert mission organized by UNESCO. This initial preparatory mission was entrusted by UNESCO’s STAB to the internationally recognized expert Dr Xavier Nieto, underwater archaeologist from Spain.

Xavier Nieto, former head of the National Museum for underwater archaeology of Spain, has a particularly broad knowledge of Iberian shipwrecks, and has led numerous field excavations. He has the highest professional reputation, and was also one of the authors of the internationally acclaimed UNESCO Manual on Activities directed at Underwater Cultural Heritage, the official UNESCO manual explaining the Annex of the 2001 Convention.

Dr Nieto arrived in Haiti on 5 September 2014. The additional members of the research team were Tatiana Villegas, Programme Specialist for Culture at the UNESCO office in Haiti and underwater archaeologist by training, Kenrick Demesvar, representative of the Ministry of Culture, and Maksaeon Denis of the National Bureau of Ethnology.

On 6 and 7 September, the documents collected by the different institutions involved, much of which had previously been sent to the experts (nautical charts and maps of the area, old and modern archival documents), were studied. The team left for Cap-Haïtien on 8 September, and the work of studying the documentary evidence continued with the assistance of the departmental authorities, historians of Cap-Haïtien and maritime experts from the area.

The dives took place 9-14 September 2014. There were two primary objectives:

1) To confirm or deny the hypotheses of Mr Clifford concerning the site presumed to be the Santa Maria in a neutral and scientific manner by applying the most modern archaeological methodologies.

2) To survey the surrounding area to locate other historic wrecks that should be researched archaeologically and to evaluate the future needs for a larger project as well as a national plan.

Report

Historic Descriptions of the wrecking of Santa Maria, and related events

Before discussing the findings of the mission, it is important to briefly review the historic descriptions of the wrecking of the Santa Maria, as well as the events of the following days. These accounts have served as the basis for most searches for the wreck of the Santa Maria, and provide an important context within which to discuss the evidence or contradictions related to identifying the Coque Vieille Site as the Santa Maria.

The primary document containing information related to these events is the diary of Christopher Columbus from his first voyage. The original diary has been lost today, and only a transcription by Bartolomé de la Casas exists. The first important point is the location of the vessel when they began sailing on the night of the wreck: ⁷

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⁷ The full text of the relevant diary entries for days surrounding these events can be found in Annex 2.
Tuesday 25 December

“Navegando con poco viento el día de ayer desde la mar de Santo Tomé hasta la Punta Santa, sobre la cual a una legua estuvo así hasta pasado el primer cuarto, que serían a las once horas de la noche, acordó echarse a dormir, porque había dos días y una noche que no había dormido.”

“Sailing yesterday with little wind, from the sea of Santo Tomas to the Punta Santa, a league off of which he stood until the first quarter, which would be at eleven o’clock at night, he decided to get some sleep because he had not slept for two days and a night.”

Columbus then reports that the prevailing current carried the ship onto a sandbank:

“Quiso Nuestro Señor que a las doce horas de la noche, como habían visto acostar y reposar el Almirante y veían que era calma muerta y la mar como en una escudilla, todos se acostaron a dormir, y quedó el gobernalle en la mano de aquel muchacho, y las aguas que corrían llevaron la nao sobre uno de aquellos bancos.”

“Our Lord willed that at twelve o’clock at night, seeing that the Admiral had gone to bed to rest and that it was dead calm and the sea like water in a bowl, they all lay down to sleep, and the rudder was left in the hands of that boy, and the currents which were running took the ship on to one of those banks.”

The only information provided in the account related to the location of the wreck is the distance between the wreck site and a nearby Taíno village:

“Primero había enviado el batel a tierra con Diego de Arana, de Córdoba, alguacil de la Armada, y Pedro Gutiérrez, repostero de la Casa Real, a hacer saber al rey que los había enviado a convidar y rogar el sábado que se fuese con los navíos a su puerto, el cual tenía su villa adelante obra de una legua y media del dicho banco.”

“First of all he had sent the boat ashore with Diego de Arana, from Córdoba, the bailiff of the fleet, and Pero Gutiérrez, chamberlain in of the royal household, to inform the chieftain who had sent the invitation on Saturday to take the ships to his harbour and whose town was a matter of a league and a half beyond the sandbank.”

In the days following the event, Columbus reports that he had a fort constructed there, and later renamed the village La Navidad:

“El cual como lo supo dicen que lloró, y envió toda su gente de la villa con canoas muy grandes y muchas a descargar todo lo de la nao. Y así se hizo y se descargó todo lo de las cubiertas en muy breve espacio: tanto fue el grande aviamiento y diligencia que aquel rey dio. . . Mandólo poner todo junto con las casas entretanto que se vaciaban algunas cosas que quería dar, donde se pusiese y guardase todo.”

“As soon as he heard the news they say that he wept, and he sent all his people from the town with many very large canoes to offload the ship. This was done and everything was offloaded from the holds in a very short space of time, so great was the expeditiousness and diligence that the king displayed. . . He ordered everything to be put next to the houses while
some which he wanted to make available were emptied and everything could be put there and safeguarded.”

Wednesday 26 December

“Ahora tengo ordenado de hacer una torre y fortaleza, todo muy bien, y una grande cava... y así tendrán tablas para hacer todas las fortalezas de ellas y mantenimientos de pan y vino para más de un año...”

“Now I have ordered a tower and fortress to be built, all in good order, with a large moat... they will have planks from which to build the whole fortress and supplies of bread and wine for more than a year...”

Friday 4 January

“Salendo el sol, levantó las anclas con poco viento, con la barca por proa el camino del Noroeste para salir fuera de la restinga, por otra canal más ancha de la que entró, la cual y otras son muy buenas para ir por delante de la Villa de la Navidad...”

“At sunrise he weighed anchor with a light wind on a NW course; the boat went ahead of him to find a way out through the shoals by a wider channel than that through which he entered. This channel and others are fine for approaching the town of Navidad...”

Description of the site

As noted previously, Mr Clifford was the first to suggest to the Ministry of Culture of Haiti that a site on the Coque Vieille Reef 8 (Site CV1) could be the wreck of the Santa Maria. Before discussing the arguments for and against this identification, the site will be described as it was recorded by the present mission.

The site is located at 19°46.554’ N, 72°10.171’ W on the Coque Vieille Reef. In that place the reef slopes gently towards the coast, and the surface lies at a depth of approximately 2 meters. The site consists of two mounds of ballast stones, one of which is largely intact, and one of which has been widely dispersed, forming a tumulus of irregular surface. The whole of the ballast is oriented southwest/north, with a total length of approximately 30m, and an average width of 6m. The primary mound is heavily concreted, and measures 15m x 4m. The second mound, connected to the first, represents a bigger concentration of stones 3/4m northeast of the primary mound. The stones of the second group are dispersed over a 10m x 8m area, forming a low and irregular surface. (See plan below)

The site, being at such a shallow depth, has been significantly altered by waves and anthropogenic activities. It is therefore in a very poor state of conservation. The reef itself is rocky, with little sediment; the lack of sediment significantly decreases the likelihood that any large wooden remains have been preserved.

With the help of locals who had accompanied Mr Clifford for his operations on the site in 2003 and 2014, the team was able to locate the archaeological remains on the first day of the mission,

8 The larger Reef is called Grand Mouton Reef and referred to as such by Barry Clifford and Charles Beeker.
Wednesday 9 September 2014. To ensure that there was no error, the experts compared their findings, as well as the GPS coordinates of the site, with the description and location data facilitated by Dr Beeker’s email communication with Dr Ulrike Guerin, responsible specialist at the Secretariat of the UNESCO 2001 Convention, on 9 September 2014. The GPS coordinates were also compared with those presented in the Project Document submitted by Mr Clifford and Dr Beeker on 12 June 2014 to the Haitian Authorities. It can thus be declared that there is no doubt that the STAB team evaluated the same site declared by Mr Clifford to be the *Santa Maria*.

**Planimetry**

A planimetric map of the site (see photo) was created to accurately depict the current state of the remains. This was completed in three phases using the appropriate advanced methodologies:

- Complete video coverage of the site was achieved through parallel lines of navigation over the site;
- Overlapping zenith photographs were taken to achieve full photographic coverage of the site;
- Overlapping photographs of the profile of the primary mound were taken to create a vertical section of the site (this was not carried out for the secondary mound due to its low profile and irregularity).

Each day, the data collected from these activities was sent over the internet to Spain to be processed by specialists, and was returned the following day for analysis.

**Recovered Artefacts**

There are very few artefacts on the site due to the overall poor state of conservation. Only a small number of artefacts were thus recovered, but these are highly significant. The artefacts were
catalogued using the designation CV1 (Coque Vielle 1) and have been numbered from 1 to 14 (see photos and annexed inventory):

- CV1-1 – CV1-6 are fragments of bronze pins. These cylindrical pins have a variable diameter, due largely to corrosion, which measures between 2-2.5cm. It is not possible to determine the original length of the pins given their fragmented state. All six fragments preserve a disc-shaped head at one extremity, with a variable diameter from 3-4cm.

- CV1-7 is a fragment of coal.

- CV1-8 is a fragment of the bottom of an amber-coloured glass bottle.

- CV1-9 is a nearly complete square nail in copper/bronze (approx. 1cm wide) with a circular head; this type of nail is known as “Carvel Type.”

- CV1-10 is two small copper plates (approx. 1mm thick). One of the two presents a nail-hole. Given their small size, it is difficult to positively identify the function of these objects, but they could be fragments of copper sheathing from the exterior of the ship.

- CV1-11 is a fragment of a carvel type nail similar to CV1-9

- CV1-12 – CV1-14 are fragments of wood displaying green staining from bronze or copper and show that they have been transverses by fixations (CV1-1 – CV1-6) or nails (CV1-9).

Some artefacts are shown below; there is a complete inventory in Annex 1.

Several artefacts, equally in copper/bronze could not be recovered, as they were firmly embedded in coral. This fact shows that they have already been present at this site for a long time period and did not come later on this location. Also no evidence of any over-layering second wreck has been found.
Detail of wood fragment pierced by a nail of carvelles type solidly attached to the concretion of the ship ballast
Evaluation

Having described site CV1 as it has been recorded during the mission, arguments for and against its identification as the Santa Maria can now be considered.

Before the mission took place, the UNESCO Secretariat of the 2001 Convention was presented with 16 lines of evidence in favour of identifying the site as The Santa Maria. These lines of evidence were provided by the journalist David Keys from the notes of his interview with Barry Clifford on the subject. The arguments presented therein ranged from the weak, such as the sound that the waves make when breaking on the reef, to the potentially strong, such as the distance between site CV1 and the supposed site of La Navidad. Rather than addressing all 16 points here, this evaluation will focus on a selection of the most relevant points.

The Location of Site CV1 and the Journal of Christopher Columbus

There are two arguments that can be made in relation to the location of site CV1. The first is in relation to the distance between the site and the supposed location of the village of the indigenous chief Guacanacaric. The second relates to the distance between the site and the shoreline of the island.

The location of Guacanacaric’s village

When the Santa Maria wrecked, it was on its way to the Taíno chief Guacanacaric’s village. The first argument is based on the note in Columbus’ entry for 25 December that the village of Guacanacaric was “One and a half leguas” from the wreck site (“de una legua y media del dicho banco”). Taking this measurement into consideration, it would be possible to pinpoint an area in which one would expect to find the wreck of the Santa Maria, if the location of the village were known. There is, however, a problem with this, as the location of the village has not yet been identified with certainty9 nor is it sure which length a league has.

The location of Guacanacaric’s village is not easy to determine, and remains a matter of scholarly debate. In Columbus’ journal entry for 25 December, it is noted that:

“El Almirante estaba seguro de bancos y de peñas, porque el domingo, cuando envió las barcas a aquel rey, habían pasado al Este de la dicha Punta Santa bien tres leguas y media, y habían visto los marineros toda la costa y los bajos que hay desde la dicha Punta Santa al Este bien tres leguas. . .”

“The Admiral felt safe from sandbanks and rocks because on Sunday, when he sent the boats to that chief, they had passed a good three and a half leagues to the E of Punta Santa, and the sailors had seen the whole coast and the shoals from Punta Santa to the ESE for a good three leagues. . .”10.

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10 Columbus’ also indicated that Point Picolet is about 18 leagues from Monte Cristi, both landmarks that still exist and that are approx. 40 to 44 km away from each other (depending on the point of measurement):
Based on these measurements, one would expect to find the village 3-3.5 leguas from Punta Santa.

Punta Santa is today called Point Picolet and well identified. As the legua is not a well-defined unit of measurement, however, this has led to different conclusions, ranging from the village being located at Caracol\textsuperscript{11} to locating it at Limonade Bord de Mer/En Bas Saline\textsuperscript{12} or at La Petite-Anse.\textsuperscript{13}

Potential locations of Guacanacaric’s village (”A” indicates approx. Punta Santa/Pointe Picolet), the peninsula between Petit Anse and Limonade did not exist at Columbus’ times.

Thus he sailed E on course for a very high hill which looks almost like an island but is not because it is joined to the land by a very low-lying isthmus. This hill has the shape of a very beautiful pavilion and he named it Monte Cristo. It is about 18 leagues due E of Cabo Santo. Navegó así al Este, camino de un monte muy alto que quiere parecer isla pero no lo es, porque tiene participación con tierra muy baja, el cual tiene forma de un alfaneque muy hermoso, al cual puso nombre Monte Cristi, el cual está justamente al Este del Cabo Santo, y habrá dieciocho leguas.


\textsuperscript{12} Morison, S.E. (1940). "The Route of Columbus along the North Coast of Haiti, and the Site of Navidad." Transactions of the American Philosophical Society 31 (4): 239-85

\textsuperscript{13} According to Loic Ménanteau, an expert contacted by UNESCO.
En Bas Saline/Bord de Mer de Limonade
The site of En Bas Saline, 1 km from Limonade, is a Taino village, which appears to have been occupied from 1300 – 1500 C.E. Numerous European artefacts have been discovered on the site, suggesting that it was occupied during the early contact period. Most European artefacts were discovered in what appear to be the remains of a large wooden structure destroyed by an extremely hot fire. Carbon dating of that wood places it during the early contact period. Furthermore, a pig tooth was discovered on the site, and has been shown to be from a pig born in Spain. This tooth places the site firmly between 1492 and 1503, because all importation of pigs from the old world ended when the local pig population exploded in the late 1490s. Based on this evidence, the site can be identified as an early contact period site, and the presence of a burnt wooden structure with European artefacts would seem to correspond to fort La Navidad, a fort built by Columbus in 1492 and burnt to the ground by Taíno natives before his return in 1493. Dr Kathleen Deagan, director of the excavations at En Bas Saline contends that La Navidad was constructed within the village of Guacanacaric, and that this site represents both the village and the fort.14

Caracol
In 1940, Samuel Eliot Morrison made an expedition along the Haitian coast in order to identify landmarks and locations mentioned in Columbus’ diary. He identified three offshore reefs that he believed were the likely location of the wreck of the Santa Maria. He then compared the location of these reefs to numerous other distances documented in contemporary sources in order to predict the locations of La Navidad and the village of Guacanacaric, and, unlike Deagan, Morrison argued that the two, fort and village, were not in the same location. Morrison then placed the village on the bay of Caracol, well east of En Bas Saline. Based on a number of other distances reported in slightly later sources, however, Morrison placed La Navidad in the vicinity of Limonade, which is in fact very close to the site of En Bas Saline. So according to Morris the village of Guacanacaric and the Santa Maria wreckage would be near Caracol.

14 Deagan, consulted by the UNESCO STAB, remarked however that: “although I still consider En Bas Saline to be the best and only potential location for La Navidad [Columbus’ fort built in the village] so far located, I would not assert unequivocally that this is La Navidad.”
La Petite Anse

The French scientist Loic Menanteau argues that Columbus’ league was actually significantly shorter than has been estimated before, as he was not using leguas españolas or marinas (6349 m) used by Spanish ships on the high seas, but what were known as leguas costeras or menores (1/3 Spanish league = 2116.40 m).15 Considering this fact, the wreck of Santa Maria could be expected to be found off La Petite Anse, as Guacanacarí’s village would have to be located at that part of the ancient beach, and the measurement of distance to be applied should locate the wreck not further than approx. 3 km from the ancient village location (of course these distances are approximate as Columbus only uses whole or half leagues). Attention must here be paid to the fact that the ancient coastline was further inland as today.

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In summary, the scholarly arguments around the location of Guacanacarí’s village are complex.

While the descriptions above are by no means a complete summary of the arguments pertaining to the locations of the village of Guacanacarí and La Navidad, they demonstrate that these are not facts set in stone, but rather are still matters of scholarly debate. While En Bas Saline is in a probable location of La Navidad, and can be placed in the right time period, evidence also exists to argue that the village could be found at La Petite-Anse. More detailed information on all archaeological sites of this period is thus indispensable to solve this question.

For the purposes of the present report it is therefore essentially impossible to argue for or against a given wreck being that of the Santa Maria based solely on the distance of the wreck from the supposed location of the village.

The distance of the wreck from the shore

The second argument relates to an event in which Columbus fired one of his Lombards (an artillery piece) towards the Santa Maria. The image below demonstrates the distances between site CV1 and the closest shorelines. To the north, the distance between the site and the Eastern end of Cap Haïtien is approximately 2.1km. To the south, the distance between the site and the mouth of the Grand Rivière du Nord is approximately 3.1km. To the southeast, the distance between the site and the stone marking the supposed site where an (potential) anchor of The Santa Maria was found is approximately 7.3km

An examination of Columbus’ diary entry for 2 January 1493 shows that these distances are well beyond where the Santa Maria should be located. In this diary, Columbus describes firing one of his

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15 Loïc Ménanteau seeks to solve the question of the exact length of Columbus’s legua. He suggest that a comparison of contemporary maps and the distances Columbus gives in leguas in his description of the north coast of Haiti, from his arrival at Môle Saint-Nicolas (Puerto de San Nicolás) on 8th December 1492 as far as Pointe Picolet (Punta Santa), leaves no doubt that the Admiral was not using leguas marinas (5586 m) used by Spaniards on the high seas, but what were known as leguas costeras or menores (2116.40 m). These distances are approximate as Columbus only uses whole or half leagues. A detailed correlation gives values which are below that of the legua costera: about 1630 m. for Le Môle Saint-Nicolas, 1530 m and 1678 m for the Bay of l’Acu. As a first hypothesis, in the framework of the Marien 92 project, Dr. Ménanteau applied a lower value for the legua in accordance with his observations when correlating the distances. In this case the Santa María would have run aground on a coral reef (possibly Le Belier) within the Bay of Cap-Haitien, Guacanagari’s village would be along the former (late fifteenth century coastline) between La Petite Anse, to the West and, to the East, the Rivière du Quartier Morin which is the former mouth of the Grande Rivière du Nord, while Fuerte Navidad, would have been further southwest along this former coastline. Nevertheless, he says, the hypothesis should be confirmed through archaeology.

16 The coast has considerably advanced due to sedimentation, but the ancient coastline remains clearly distinguishable on satellite images.
Lombards into the side of the ship, or alongside it, towards the sea\textsuperscript{17} to impress the natives. “In the morning he went ashore to take his leave of Guacanagarí. . .” He “sent for a Lombard to be loaded and fired towards the side of the ship which was aground. . .” (y tirar al costado de la nao que estaba en tierra\textsuperscript{18}). As the term “en tierra” is still commonly used by Spanish sailors to designate a vessel that is very close to the coast in contrast to one that is farther away, it can be assumed that the ship towards which he fired was the\textit{ Santa Maria} and not his other ship, the\textit{ Niña}.\textsuperscript{19} This can also concluded from his use of the word ‘nao’ and not ‘caravella’. Columbus used to call the\textit{ Santa Maria} in his diary ‘nao’, while he called the\textit{ Niña} caravella. Finally, the journal mentions that, “he saw the range of the Lombard and how the shot passed the side of the ship and went into the sea way beyond.”

It is subject of interpretation if the shot was fired from land or from the second ship that Columbus had with him at that moment. If it was, however, fired from land, and much speaks in favour of this, the wreck must have lain very close to the shore otherwise the exercise would have been impossible.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{distances.png}
\caption{Distances between Site CV1 and the Shore (Xavier Nieto)}
\end{figure}

The exact range of a Lombard remains the subject of scholarly debate, but a commonly accepted estimate of the effective range is 300m, with the maximum range being about 500m. Based on these estimates, the\textit{ Santa Maria} must have wrecked within 500m of the shore, otherwise the cannonball would not have touched or passed it. This alone would rule out site CV1 as being the wreck of the\textit{ Santa Maria}, as the nearest shoreline is more than four times further away than the maximum range of a Lombard. Furthermore, the present-day shoreline has been formed by the accumulation of

\textsuperscript{17} The Spanish term ‘al costado’ does rather indicate that the ship was not shot at but that Columbus fired the lombard so that the cannonball would pass it, however this is subject of debate.

\textsuperscript{18} y mostróle la fuerza que tenían y efecto que hacían las lombardas, por lo cual mandó armar una y tirar al costado de la nao que estaba en tierra, porque vino a propósito de platicar sobre los caribes, con quien tienen guerra, y vio hasta dónde llegó la lombarda y cómo pasó el costado de la nao y fue muy lejos la piedra por la mar

\textsuperscript{19} The\textit{ Pinta} had sailed away at the moment of the wreckage.
sediments deposited by the Grande Rivière du Nord after a heavy coastal erosion set in due to the cutting down of forests. The shoreline at that time would have been even further away from the site than it is now (see photo) and the Santa Maria might indeed now lay covered under coastal sediment.

**Evolution of the Delta of the Grande Rivière du Nord (Loïc Ménanteau), the ancient shoreline is clearly visible in white.**

**Size and shape of site**

Another argument in favour of identifying the site as the *Santa Maria* was that the length of the site (15m) corresponds to estimates of the length of the *Santa Maria* (17.5-20m). Similarly, it has been argued that the depth of the site (3.3m) corresponds to the estimated draft of the *Santa Maria* (2.13-4.26m). The mission confirmed the size of the ballast pile (15x4m), consisting of two groups of relatively scattered material. This finding does not speak for or against the identification of the site as the *Santa Maria*. The estimates of the size of the vessel appear however to be based on the 1892 reproduction of the *Santa Maria* by Monleon and Castellote, and they are not exact enough to allow any firm conclusions to be drawn from the size and shape of the site alone.

**Arguments related to the ballast pile**

Other arguments relate to the nature and contents of the ballast pile. It has been noted that the pile is well articulated, which would fit with the description that the *Santa Maria* remained in one piece during and after the wrecking event, and was only slowly destroyed over time. As has been previously noted, the ballast pile is, in fact, not well articulated, and many of the stones have been dispersed over a wide area. This will however most probably be due to storm and wave movement and is as such not conclusive.

Furthermore, it has been argued that the ballast pile on the site consists primarily of permanent rather than temporary ballast, which indicates a vessel that was full of cargo. This would correspond to the *Santa Maria*, which would have been filled with supplies for the expedition. The stones were
also tentatively identified as basalt, which could possibly be traced to a specific location in Spain, perhaps even Galicia, the location where the Santa Maria was constructed.

The expert mission noted that the stones could in fact be basalt. However, lengthy study would be required to determine the exact nature of the stones, and the place from which they were quarried. Furthermore, it was suggested before the mission that microbiological research could help to determine the place of origin of the ballast stones. Given the overwhelming nature of the evidence provided by the artifacts (discussed in the next section), however, such time-consuming and costly study would not be merited.

The artefacts

The strongest argument against identifying site CV1 as the Santa Maria is found in the artefacts recovered during the mission.

As mentioned previously in the description of the artefacts, the majority of those recovered were bronze fasteners. Six cylindrical bronze pins were recovered during the mission; all six preserved one extremity intact, with the other having been broken.

Indeed, this type of bronze fastener was only from that moment on commonly used to attach various structural components of a ship, particularly those related to the axial structure (the keel and the floors, or the frames and the axial elements). This system of construction is well documented in the naval architecture of the modern period. The same dating is suggested by the carvel type nails, which were used primarily to attach the outer planking to the frames. The technique of ship construction that utilised these particular fasteners did not exist before the late 17th century, and did not become common until the 18th century. For this reason, and the fact that such fasteners were made exclusively with iron, if not of wood, during the 15th and 16th centuries, it can be said with little doubt that site CV1 dates to sometime in the late 17th to 18th centuries.

Dr Eric Rieth, specialist in medieval and post-medieval ship construction, has provided his expert opinion on the artefacts recovered from site CV1 and wrote the following:

“I am truly convinced that the site [CV1] cannot be that of a ship of the 16th, let alone the 15th century. A very significant indicator is that fact that, in addition to the different nails (square section Carvel Type) and pins (circular section) made of bronze, the preserved wood fragments all present green traces that reveal the phenomenon of the corrosion of bronze or copper. There does not seem to be any trace of iron concretions. However, in ship construction at the end of the Middle Ages and into the 16th century, nails and pins were made of iron. A final point comes in the form of a question: one photo shows two fragments of copper “sheet,” one of which has been pierced by a nail (ref. CV-1 10). It would undoubtedly be hazardous to associate these fragments with a protective copper sheathing. If one considers this hypothesis, however, with all possible caution, the dating of the wreck would be placed at the end of the 18th century. In short, I believe that the archaeological arguments in favour of [identifying the site as] the Santa Maria . . . are very tenuous.”

As mentioned by Dr Rieth, the possibility that the small copper fragments of CV1-10 are part of a protective copper sheathing would push the date of the wreck well into the 18th century, as the
practice of sheathing ships in copper was first tested by the Royal Navy in the 1760s. Based on the fasteners alone, however, the wreck at site CV1 cannot be dated to any time before the late 17th century.

The same opinion is expressed by Michel L’Hour, Chairperson of the STAB and Director of the Département des Recherches Archéologiques Subaquatiques et Sous-Marines of France:

"These are a collection of pins and fasteners, which could be from the seventeenth – eighteenth century. The sheet of copper or bronze with a hole is enigmatic "..." it may suggest a doubling of a copper hull. This method of doubling occurs only during the eighteenth century, first in England and then in France in 1780 and the use of bronze fasteners was also retained in shipbuilding until very recently. For now, one thing seems absolutely clear, bronze fasteners and pins will certainly not come from a Galician ship from the late fifteenth century."

This opinion is confirmed by Francisco Alves, long-time head of the Portuguese underwater cultural heritage authority:

"I do not know of any wreck from the fifteenth century in which the hull planks are fastened with bronze nails, this is because this practice was not introduced into the European shipbuilding tradition (Including therefore the Iberian tradition) until the eighteenth century. "..." I know of no exception. In the wrecks of the fifteenth to seventeenth centuries, notably Iberian wrecks, the fasteners are always made of iron, often alternated with wooden pegs. This is often the case in other European traditions as well."  

Missing artefacts

One final note should be made in regards to the Lombard that Mr. Clifford affirms to have seen on the site in 2003. In his press releases, Clifford maintains that in his 2003 survey of the site, he had located a metal tube that he believes to be a Lombard. He also affirms, however, that the object has disappeared since that time.

This object raises the question how a cannon that was firmly concreted to the ballast pile could disappear without trace. Separating a metal object from the ballast pile would require hard work, as well as technical means. It may however have been indeed present and may have been looted, as the UNESCO team itself encountered a pillager in action close to the site. In any case however, the mission did not turn up any evidence that

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21 More evidence confirms the above: the Mollasses Reef Wreck used treenails; Emanuel Point – Iron fasteners and treenails; Red Bay – Iron fasteners and treenails; Newport Medieval Ship (http://newportship.org/ships-construction.aspx) – Iron fasteners; Calvaire-Sur-Mer – Iron Fasteners and Treenails. Additional documentary evidence: Recent Advances in Ship History and Archaeology, 1450-1650: (http://journals.hil.unb.ca/index.php/MCR/article/view/17791/22170) – Iron Fasteners and Treenails; Angra A Wreck (http://nautarch.tamu.edu/shiplab/angra06-angraa.htm) – Copper Fasteners were not used between the Roman era and the late 18th century, they were introduced as a result of the introduction of copper sheathing.
such a large object had been removed from the site.

This is not to say that it was never there, but it is no longer available for investigation. Given the heavily concreted nature of the object in the photograph, and the fact that it is not available for examination, it would be impossible to say if it was in fact a Lombard, or an artillery piece from a later period. It could also not be excluded that an older canon was transported on a younger ship, as has been observed on other shipwrecks.

Conclusions

In summary, although before the mission took place, there were some arguments to be made in favour of identifying site CV1 as the *Santa Maria*, there is now incontestable proof that the wreck is that of a ship of a much later period.

- Although the site is located in the general area where one would expect to find the *Santa Maria* based on contemporary accounts of Columbus’ first voyage, it is further away from shore than one should expect.
- Furthermore, and even more conclusively, the fasteners found on the site indicate a technique of ship construction that dates the ship to the late 17th or 18th century rather than the 15th or 16th century. In addition, if artefact CV1-10 is indeed the remains of protective copper sheathing, than the ship could even not be dated to a time before the late 18th century.

These facts rule site CV1 out as a candidate to be identified as the *Santa Maria*.

Recommendations

1. **Further archaeological investigations in the area off Cap Haïtien are recommended.** The area was subject to heavy ship traffic for centuries, and the large volume of wrecks in the area means that a broad multi-disciplinary approach will be needed to:
   A. locate the *Santa Maria*;
   B. to inventory and research other, highly significant and scientifically important wrecks (a separate report on the shipwrecks identified by the UNESCO mission will be made available to the Haitian authorities);
   C. better estimate the location of the wreck of the *Santa Maria*. For this it will be important to understand more precisely the geomorphological evolution of the coastline, as well as the major human-induced changes, both direct and indirect, to the coastline from the time of the wrecking event until the present. Other indicators such as nearby archaeological sites and remains from other periods should be taken into account and researched. It will also be important to understand the hydrography of the Plaine du Nord as it was at the time of Christopher Columbus, as it has been heavily modified by later hydraulic work during the French Colonial Period.

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22 This did not find unanimous support, as Alexzandra Hildred, Curator of Ordnance at the UK based Mary Rose Trust affirms that ‘the (iron) banded gun is clearly visible in both your images’. (see image above)
23 The *Nuestra Señora de las Mercedes* was for instance identified due to the two, much older, culebrinas, she had in her ballast.
2. **It is recommended to adapt Haiti’s national law to fully implement the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage.** UNESCO has facilitated a Model Law for Caribbean States, which can be utilized as a basis.

Attention is also drawn to **RESOLUTION 6 / MSP 3 of the Meeting of States Parties to the 2001 Convention**, which, in its third session, encouraged “the States Parties to the Convention, and in particular Small Island States, to review their national legislation protecting underwater cultural heritage. Such legislation should consider, among others:

a. The adoption of clear national rules for the authorization of interventions on underwater cultural Heritage sites, which include also rules concerning activities only incidentally affecting these sites and areas where such sites could only possibly be located and which require the approval of national competent authorities (Art. 22.1 of the Convention) for interventions;

b. The obligation of national authorities, ministries and departments undertaking activities on the seabed or riverbed, as for instance coast guards, the navy, dredging services, research services, fisheries monitoring, etc., to confidentially communicate information on underwater cultural heritage found or on activities concerning or affecting such heritage to the competent national authorities (Article 22.1 of the Convention);

c. The application of Article 16 of the Convention so that States Parties take all practicable measures to ensure that their nationals and vessels flying their flag do not engage in any activity directed at underwater cultural heritage in a manner not in conformity with the Convention.”

Especially in the case of the bays of Cap Haïtien it is recommended to pay attention to paragraph (a) and to also include in the national law regulations on preventive archaeological investigations to be facilitated and paid for by the entrepreneur in the course of industrial operations, port works or constructions impacting potentially on underwater cultural heritage.

3. **To implement the UNESCO 2001 Convention it is recommended to elaborate a national plan for underwater cultural heritage.** In order to adopt a long-term sustainable plan for the management of underwater cultural heritage in Haiti a consideration of all possible types of heritage, all kinds of situations and all kinds of objectives is needed. This should also contain the aim of providing for the establishment, maintenance and updating of an inventory of underwater cultural heritage, the effective protection, conservation, presentation and management of underwater cultural heritage, as well as research and education and the creation of a competent authority.

In the long term, it should also allow for an increase in the public benefits of underwater heritage sites, for instance, through the creation of underwater museums, museums on land, and heritage routes.
4. **It is recommended to augment national capacity.** Only trained and capable underwater archaeologists, site managers and legal experts can in the long term ensure the protection of Haiti’s underwater cultural heritage. Here, international cooperation is of crucial importance and it is recommended to make use of the network provided through the UNESCO 2001 Convention.

5. **It is recommended to augment the security and surveillance of underwater cultural heritage.** Haiti in its current situation can only accord little capacity to this task, which is however of crucial importance. The UNESCO Advisory Body does therefore take the occasion to recommend to all States Parties to the 2001 Convention to assist in this matter.

6. **All States, Parties to the Convention of 2001, are reminded to keep in mind their obligations under Article 19 and 20 of the Convention.** This includes the obligation to cooperate and assist each other in the protection and management of underwater cultural heritage under this Convention, including, where practicable, collaborating in the investigation, excavation, documentation, conservation, study and presentation of such heritage. It also encompasses the obligation that each State Party shall take all practicable measures to raise public awareness regarding the value and significance of underwater cultural heritage and the importance of protecting it under this Convention.
Annex 1 – Artefact Photographs

CV1 – Pin fragment (Bronze)

CV2 – Pin fragment (Bronze)
CV3 – Pin fragment (Bronze)

CV4 – Pin fragment (Bronze)
CV5 – Pin fragment (Bronze)

CV6 – Pin fragment (Bronze)
CV7 – Coal Fragment
CV8 – Fragment of Amber Glass Bottle

CV9 – Square Nail, Carvel Type (Bronze)
CV10 – Fragments of Copper Plate with nail-hole, 1mm thick
CV11 – Fragment of Carvel Type Nail (Bronze)
CV13 – Fragment of Wood
Annex 2 – Relevant Entries from Columbus’ Journal

English

Monday 24 December

Before sunrise he weighed anchor with the wind off the land. Among the many Indians who had come to the ship yesterday and who had given them indications that there was much gold on that island, and had named places where they collected it, he saw one who was more amicably disposed or more inclined to speak to him, and he paid him the compliment of asking him to go with him and show him the gold mines. This man brought another companion or relative with him, and, among the other places they named where gold was collected, they spoke of Cipango, which they call Cibao. And they declare that there is a great quantity of gold there and that the cacique carries banners of beaten gold, but it is very far to the east. At this point the Admiral says the following words to the Monarchs: Your Highnesses may believe that in the whole world there can be no better or more docile people. Your Highnesses should be very pleased because in due course you will make them Christians and will have taught them the good customs of your kingdoms, for there can be no better people or land, and in such quantity that I do not know how to describe it. For I have spoken in superlative terms of the people and the land of Juana which they call Cuba, but there is as much difference between those people and that land and all of this as there is between day and night. Nor do I believe that anyone else who had seen this would have done or said less than what I have said, and I say that the things here and the great peoples of this island of Española, as I have called it, and which they call Bohio, are truly marvellous. They all have a most exceptionally charming manner and are softly spoken, not like the others who seem to threaten when they speak; and they are of good stature, both men and women, and not black. It is true that they all paint themselves, some black and others another colour, mostly red. I have established that they do it because of the sun, so that it does not do them so much harm, and their houses and villages are so beautiful, and all well-regulated, with a kind of judge or overlord; and they all obey him marvellously. All these chieftains are of few words, and very good manners, and their way of governing is usually by gestures of the hand which are marvellously well understood. These are all the Admiral's words. Anyone wishing to enter the sea of Santo Tomás should station himself a good league above the mouth of the entrance by a flat island which is in the centre, which he named Amiga, and should steer for that. And after arriving within a stone's throw of it, he should pass to the W, leaving it to the E, and should not pass it on the other side because there is a very large reef to the W and even in the sea beyond it there are three shoals and this reef stretches to within a lombard-shot of Amiga. He will be able to pass between them and will find a minimum depth of seven fathoms and gravel beneath. Inside he will find a harbour for all the ships in the world and they may lie unmoored. There is another reef and shoals from the E towards the island of Amiga and they are very large and extend far out into the sea reaching almost within two leagues of the cape; but among them there seemed to be an entrance two lombard shots away from Amiga, and at the foot of Monte Caribatán to the W there is a very good, large harbour.

Tuesday 25 December, Christmas Day

Sailing yesterday with little wind from the sea of Santo Tomás to the Punta Santa a league off which he stood until after the first quarter, which would be at eleven o'clock at night, he decided to get
some sleep because he had not slept for two days and a night. Although it was calm, the sailor who was steering the ship decided to go to sleep and left the tiller to a young ship's boy, which the Admiral had always strictly forbidden throughout the voyage, whether it was windy or calm; that is, they should not allow the boys to steer. The Admiral felt safe from sandbanks and rocks because on Sunday, when he sent the boats to that chief, they had passed a good three and a half leagues to the E of Punta Santa, and the sailors had seen the whole coast and the shoals from Punta Santa to the ESE for a good three leagues, and they saw where it was possible to pass; this was something he had not done on the whole of this voyage. Our Lord willed that at twelve o'clock at night, seeing that the Admiral had gone to bed to rest and that it was dead calm and the sea like water in a bowl, they all lay down to sleep, and the rudder was left in the hands of that boy, and the currents which were running took the ship on to one of those banks. Although it was night-time the sea sounded against them so that they could be heard and seen a good league away, and it went aground so gently that it was hardly noticed. The boy who felt the rudder and heard the sound of the sea gave a shout, at which the Admiral came out, and happened so quickly that no one had yet realised that they were aground. Then the Master, whose watch it was, came out and the Admiral told him and the others to launch the boat they carried astern, and take an anchor and drop it astern of the ship, and he and many others jumped into the boat, and the Admiral thought that they were doing what he had ordered; they were concerned only to escape to the caravel which stood half a league off to windward. The caravel with every good reason would not take them aboard and so they returned to the flagship; but the caravel's boat got to her first. When the Admiral saw that they were fleeing and that they were his crew and that the tide was ebbing and that the ship was broadside on to the sea, seeing no other remedy, he ordered the mast to be cut down and everything they could to be jettisoned from the ship to see if they could get her refloated; and as the waters were still receding, she could not be saved, and she settled on her side, broadside on to the sea, although there was little or no sea. And her seams opened though she stayed in one piece. The Admiral went to the caravel to put the ship's crew safely on the caravel, and as there was now a light breeze off the land, and much of the night still left, and they did not know how far the banks extended, he stood off until daybreak, and then went inside the reef to the flagship. First of all he had sent the boat ashore with Diego de Arana, from Córdoba, the bailiff of the fleet, and Pero Gutiérrez, chamberlain in of the royal household, to inform the chieftain who had sent the invitation on Saturday to take the ships to his harbour and whose town was a matter of a league and a half beyond the sandbank. As soon as he heard the news they say that he wept, and he sent all his people from the town with many very large canoes to offload the ship. This was done and everything was offloaded from the holds in a very short space of time, so great was the expeditiousness and diligence that the king displayed. He in person, with his brothers and family, worked diligently both on the ship and on safeguarding what was taken off so that everything would be fully secure. From time to time he sent one of his relatives weeping to the Admiral to console him, saying that they should not be upset or distressed because he would give him everything he had. The Admiral assures the Monarchs that nowhere in Castile would such good care have been taken about everything that not a lace was missing. He ordered everything to be put next to the houses while some which he wanted to make available were emptied and everything could be put there and safeguarded. He ordered armed men to be placed around everything and to guard it all night. He and all his people were crying; they are (says the Admiral) so loving a people and so lacking in cupidity and so willing to do anything, that I assure Your Highnesses that I believe that there are no better people in the world, and no better land. They love their neighbours as themselves, and have the softest speech in the world, and are docile and always
laughing. They go naked, men and women, as their mothers bore them. But Your Highnesses may believe that their dealings with each other are very good, and the king has a most marvellous bearing and such a sober manner that it is a pleasure to see it all, and their memory, and they want to see everything and ask what it is and what it is for. The Admiral says all this in these words.

Wednesday 26 December

Today at sunrise the king of that land who was in that village came to the caravel Niña where the Admiral was and almost in tears told him not to be upset because he would give him everything he had, and that he had given the Christians on shore two very large houses and that he would give them more if necessary, and as many canoes as could load and unload the ship and put ashore as many men as he wished; and that he had done so yesterday, without a crumb of bread or anything else being taken, so trustworthy are they (says the Admiral) and respectful of other people's property; and that king was even more honest than the others. While the Admiral was talking with him, another canoe came from another village carrying certain pieces of gold which they wanted to give for a hawk's bell, for they desired nothing so much as hawks' bells, and the canoe scarcely reached the shore before they called out and showed the pieces of gold, saying "chuq chuque", meaning "hawks' bells"; they nearly go mad over them. Having seen this, and with the canoes from the other villages about to leave, they called the Admiral and asked him to have a hawk's bell kept for them until the following day, because they would bring four pieces of gold as large as a hand. The Admiral was pleased to hear this, and afterwards a sailor returning from the shore told the Admiral that it was amazing to see the pieces of gold which the Christians on shore were bartering for nothing; for a shoe-lace they were giving pieces which would be worth more than two castellanos, and that this was nothing to what it would be like within a month. The king was very pleased to see the Admiral happy, and understood that he wanted much gold, and told him by signs that he knew where there was a very great deal nearby, and that he should be of good heart because he would give him as much gold as he wished. The Admiral says that he gave him information about it and told him in particular that there was so much gold in Cipango, which they called Cibao, that they attach no value to it at all and that he would bring some of it even though there was much more on that island of Española, which they call Bohío, and in that province of Caribata. The king ate on board the caravel with the Admiral, and afterwards went ashore with him, where he did the Admiral great honour, and gave him a meal of two or three types of ajes and shrimps and game and other kinds of food which they had, and some of their bread which they call cassava. Then he took him to see some groves of trees near the houses, and a good thousand people, all naked, went with him. The chief now wore the tunic and gloves which the Admiral had given him, and was more excited by the gloves than by anything else he had given him. From his eating habits, his decency and delightful cleanliness, he showed clearly that he was of good birth. After eating, for they remained at table for a fair while, they brought certain herbs which he thoroughly rubbed into his hands; the Admiral thought that he did so to soften them, and they gave him water for his hands. After they had finished eating, he took the Admiral to the beach and the Admiral sent for a Turkish bow and a handful of arrows, and the Admiral had one of his men who was skilled in archery shoot some arrows; and the chief thought it was wonderful since he does not know what weapons are as they neither possess or use them; he says, however, that what started it all was some talk about the people from Caniba whom they call Caribs and who come to capture them and carry bows and arrows without iron tips, for in all those lands there was no knowledge of iron or steel nor of any other metal except gold and copper, although the Admiral had only seen a little copper. The Admiral told him by signs that the
Monarchs of Castile would order the Caribs to be destroyed and brought to them with their hands tied. The Admiral ordered a lombard and a musket to be fired, and seeing the effect of their force and the extent to which they penetrated, he was amazed. And when his people heard the shots they all fell to the ground. They brought the Admiral a great mask which had large pieces of gold in the ears and eyes and in other places, which they gave him, together with other gold ornaments, which the king himself placed on the Admiral's head and neck; and he also gave many ornaments to other Christians who were with him. The Admiral took great pleasure and consolation from these things which he saw, and the anguish and pain he had suffered from the loss of the flagship was mitigated, and he knew that Our Lord had caused the ship to run aground there so that he might establish a settlement. So many things came to hand (he says) that in truth it was not a disaster but a great piece of good fortune. Because it is certain (he says) that if I had not run aground I would have kept out to sea without anchoring in this place; because it is tucked away inside a great bay with two or more sandbanks. Nor would I have left men here on this voyage, and if I had wanted to leave them I could not have provided them with such thorough preparation, nor so much equipment or supplies or materials for a fort. And it is true that many of the men with me had pleaded for permission to stay. Now I have ordered a tower and fortress to be built, all in good order, with a large moat, not that I think this is needed for these Indians, (because I am sure that with these men I have with me I could subdue the whole of this island, which I believe is larger than Portugal and with twice the population) and they are naked, unarmed and timid beyond redress. But it is right that this tower should be built as it should, so that the Indians, although so far away from Your Highnesses, will realise the skill of Your Highnesses' subjects and see what they can do, so that with love and fear they will obey you. And so they will have planks from which to build the whole fortress and supplies of bread and wine for more than a year, and seed to sow, and the ship's boat, and a caulker and a carpenter and a gunner and a cooper, and many among those men who desire to serve Your Highnesses and to please me by finding the mine where the gold is collected. Thus everything has happened so that this beginning can be made, particularly since, when the ship went aground, it was so gently that no one felt it and there was neither wave nor wind. All this the Admiral says. And he adds more to show that it was good fortune and the determined will of God that the ship should run aground there so that he should leave men behind, and that if it were not for the treachery of the Master and the crew who were all or mostly from his region not wanting to drop the anchor astern to pull off the ship as the Admiral had ordered, the ship would have been saved and he would not have learned about the land (he says) all that he learned in those days that he was there, and will learn from those whom he intended to leave there, because it was always his intention to explore and not stop anywhere more than a day, unless through lack of wind, because he says that the ship was very heavy and not suited to exploration. And (he says) the people of Palos caused him to take such a ship by not fulfilling the promise they had made to the King and Queen: to give him suitable ships for that expedition, and they did not do so. The Admiral concludes by saying that not a shoe-lace was lost from what was on the ship, nor a plank nor a nail, because she remained as sound as when she left, except that she was somewhat cut and split in order to get at the barrels and the cargo which they put ashore and kept under guard as has been said. And he says that he hopes to God that, on the return journey which he intended to make from Castile, he would find a barrel of gold which those he was to leave behind would have bartered for, and that they would have found the gold mine and the spices; and in such quantity that the Monarchs would be able in three years to undertake preparations for the conquest of the Holy Land, just as (he says) it was my declared intention to Your Highnesses that the whole of the profit from this my enterprise should be spent on
the conquest of Jerusalem and Your Highnesses laughed and said you were pleased and that, even without this expedition, that was your intention. These are the Admiral's words.

Thursday 27 December

At sunrise the king of that land came to the caravel and told the Admiral that he had sent for gold, and that he wanted to cover him with gold before he left, but that he would rather he did not leave, and the king ate with the Admiral together with a brother of his and another close relative, both of whom told him that they wanted to go with him to Castile. Meanwhile, there came news that the caravel Pinta was in a river at the end of that island; the cacique immediately dispatched a canoe, because he was so wonderfully fond of the Admiral, and the Admiral sent a sailor off in it. The Admiral was now preparing with all possible speed for the return to Castile.

Friday 28 December

In order to direct and hasten the completion of the fortress, and to brief the men who were to remain, the Admiral went ashore and it appeared to him that the king had seen him in the boat, and pretending not to have done so, quickly went into his house and sent a brother of his to receive the Admiral. And he took him to one of the houses which he had given to the Admiral's men, which was the biggest and best in that town. In it they had prepared a platform made from the inner bark of the palm tree, where they bade him sit down. Then the brother sent a page to tell the king that the Admiral was there, as if the king did not know that he had come, although the Admiral believed that he was pretending so that he could do him much greater honour. When the page told him, as he says, the king came running towards the Admiral, and put a great plate of gold which he was carrying around his neck. He stayed there with him until the afternoon, deciding what needed to be done.

Saturday 29 December

At sunrise one of the king's nephews came to the caravel, very young and intelligent and full of beans (as the Admiral puts it). And as he always strove to find out where the gold came from, he asked everyone, for he could now understand something by signs; and so this young man told him that four days' journey away to the east there was an island called Guarionex, and others called Macorix, and Mayonic and Fuma and Cibao and Coroay, where there was gold without end. The Admiral wrote the names down, and when one of the king's brothers found out what he had told him, he was very angry with him, as far as the Admiral could tell. The Admiral had understood at other times that the king was trying to prevent him from finding out where the gold came from so that he would not go and barter or buy elsewhere. But there is so much of it and in so many places, and on this island of Española itself (says the Admiral), that it is amazing. After dark, the king sent him a great mask of gold with a request for a jug and bowl; the Admiral believed that he wanted them to have another set made, and so he sent them to him.

Sunday 30 December

The Admiral went ashore to eat and arrived just as five kings, who were subjects of this one called Guacanagari, had arrived, all with their crowns indicating their high rank, and the Admiral tells the Monarchs that Their Highnesses would have been very pleased at their bearing. On reaching the shore, the king came to meet the Admiral and took him by the arm to the same house as yesterday where he had a dais and chairs on which the Admiral sat and then he took off his crown and put it on
the Admiral's head, and the Admiral took off a collar of good bloodstones and very beautiful beads of very fine colours which looked good in every way, and put it around the king's neck, and took off a cloak of fine scarlet cloth which he had worn that day, and put it on him, and sent for some coloured boots which he made him put on, and placed on his finger a large silver ring, because they said that they saw a sailor with a silver jewel and he had tried hard to obtain it. He was very happy and content and two of the kings who were with him came to where the Admiral was beside him and brought the Admiral two large plates of gold, one each. At which there came an Indian saying that two days before he had left the caravel Pinta in a harbour to the east. The Admiral returned to the caravel and Vicente Yáñez, her captain, declared that he had seen rhubarb, and that there was some on the island of Amiga which is in the entrance to the Mar de Santo Tomás six leagues away, and that he had recognized the stems and root. They say that rhubarb sends out small branches above ground and bears fruits like green mulberries, almost dry, and the stem near the root is yellow and as fine as the best possible colour for painting, and under the soil the root grows like a large pear.

Monday 31 December

This day was spent in getting water and wood fetched for the departure for Spain, to inform the Monarchs quickly so that they could send ships to discover what remained to be discovered, because now the enterprise seemed so great and of such importance that it is a marvel (said the Admiral). And he says that he did not wish to leave until he had seen all that land to the east and sailed the whole coast (he says) to be sure also of the route from Castile to there, so as to bring cattle and other things. But since he had been left with only one ship, it did not seem to him sensible to risk the dangers which exploration might entail. And he complained that all those problems and difficulties resulted from the caravel Pinta having left him.

Tuesday 1 January

At midnight he sent the boat to the island of Amiga to fetch the rhubarb. It returned at vespers with a large basketful; they did not bring more because they had no spade for digging; he took it as a sample for the Monarchs. The king of that land had sent, he says, many canoes for gold. The canoe that went to enquire after the Pinta returned, together with the sailor, but they did not find her. The sailor said that twenty leagues from there they had seen a chief with two large plates of gold on his head, and as soon as the Indians in the canoe spoke to him he took them off; he also saw other people with much gold. The Admiral believed that the king Guacanagarí have forbidden anyone to sell gold to the Christians, so that it would all pass through his hands. But he had learned of the places where, as he said the day before yesterday, there was so much gold that they attach no value to it at all. Also, the spices they eat (says the Admiral) are many and worth more than pepper and allspice. He had ordered those whom he wanted to leave behind that they should obtain as much as they could.

Wednesday 2 January

In the morning he went ashore to take his leave of Guacanagarí, and to set out in the name of the Lord, and he gave him one of his shirts. He also showed him the power of the lombards and the effect they produced. For this purpose, and arising out of a conversation about the Caribs with whom they are at war, he ordered a lombard to be loaded and fired at the side of the flagship which was aground. And he saw the range of the lombard and how the shot passed through the side of the ship.
and went into the sea some way beyond. He also had some men from the ships arm themselves and stage a mock battle, telling the cacique that he should not be afraid of the Caribs even if they did come. The Admiral says that he did all this so that the king would treat the Christians he was leaving behind as friends, and to inspire fear of them. The Admiral took him and the others who were with him to eat with the Admiral at the house in which he was lodging. The Admiral entrusted him to Diego de Arana, Pedro Gutiérrez and Rodrigo de Escobedo whom he left in joint charge of the men he was leaving behind, so that everything would be well administered in the service of God and Their Highnesses. The cacique showed the Admiral great affection and great regret at his leaving, particularly when he saw him going to embark. One of the king's counsellors told that Admiral that he had ordered a statue of pure gold to be made, as large as the Admiral himself, and that it would be brought in ten days' time. The Admiral embarked with the intention of leaving directly but the wind did not allow him to do so. He left on that island, which he says the Indians called Bohío, thirty-nine men with the fort and, he says, they were very friendly with king Guacanagarí. In charge of them were Diego de Arana from Córdoba, Pedro Gutiérrez the King's chamberlain and servant of the chief steward, and Rodrigo de Escobedo from Segovia, nephew of Fr. Rodrigo Pérez, entrusted with all the powers given to him by the Monarchs. He left them all the cargo which the Monarchs ordered to be bought for trading, of which there was a substantial amount, so that they could exchange and barter it for gold, along with everything from the flagship. He also left them a year's supply of biscuit and wine and much artillery, and the ship's boat so that, being sailors as most of them were, they could go when the time seemed right, in search of the gold mine, so that on his return the Admiral would find much gold, and a place where they could establish a settlement, because that harbour was not to his liking, especially as the gold they brought there came, as he says, from the east, and the further east they went the nearer they were to Spain. He also left them seed to sow and his officials, the secretary and the bailiff, and among the company a ship's carpenter and caulker and a good gunner with a knowledge of machinery and a cooper and a doctor, and a tailor, all of whom he says were seamen.

Thursday 3 January

He did not set out today because he says that last night three of the remaining Indians he had brought from the islands came to him and said that the others and their wives would come at sunrise. Moreover, the sea was rather rough and the boat could not go to the shore; he decided to leave tomorrow, the grace of God permitting. He said that if he had had the caravel Pinta with him, he would certainly have taken back a barrel of gold, because he could have risked following the coasts of these islands, which he dare not do alone in case any accident should befall him and prevent his return to Castile with the news which he had to give to the Monarchs of all the things that he had found. And if he were certain that the caravel Pinta would arrive safely in Spain under Martín Alonso Pinzón's command, he said that he would not abandon what he wished to do. But because he had no news of him, and because, if he were to go, he could lie to the Monarchs so that they would not punish him as he deserved for all the harm he had done and was still doing in having gone off without permission and preventing all the benefits and knowledge which could be had at once, says the Admiral, he was confident that Our Lord would give him fair weather and everything could be put right.

Friday 4 January
At sunrise he weighed anchor with a light wind on a NW course; the boat went ahead of him to find a way out through the shoals by a wider channel than that through which he entered. This channel and others are fine for approaching the town of Navidad. The least depth he found throughout was from three to nine fathoms. These two channels run from NW to SE through the large shoals that stretch from Cabo Santo to the Cabo de Sierpe, more than six leagues, and a good three leagues into the sea. A league above Cabo Santo the bottom is no more than eight fathoms, and inside that cape to the E there are many shoals and channels by which to pass through them. All that coast runs NW to SE and is all beach and the terrain is very flat for a good four leagues inland. Then there are very high mountains, and it is all thickly populated with large villages and good people, to judge from their treatment of the Christians. Thus he sailed E on course for a very high hill which looks almost like an island but is not because it is joined to the land by a very low-lying isthmus. This hill has the shape of a very beautiful pavilion and he named it Monte Cristo. It is about 18 leagues due E of Cabo Santo. Because the wind was very light he could not get within six leagues of Monte Cristo that day. He found four very low sandy islets with a sandbank which stretched far to the NW and to the SE. Inside there is a large gulf which runs a good twenty leagues SE from the hill, which must be all very shallow and with many banks. Inside the gulf the whole coast has many rivers, none of them navigable, although that sailor whom the Admiral sent in the canoe to seek news of the Pinta said that he had seen a river which ships could enter. The Admiral anchored six leagues from Monte Cristo in nineteen fathoms, having put out to sea in order to steer clear of the many shoals and sandbanks in that area, and there he stayed that night. The Admiral advises that anyone wanting to go to the town of Navidad should first sight Monte Cristo and stay two leagues offshore, etc., but since the land is well known up there, I will not write it here. He concludes that Cipango was on that island, and that there is much gold and spices and mastic and rhubarb.
Antes de salido el sol, levantó las anclas con el viento terral. Entre los muchos indios que ayer habían venido a la nao, que les habían dado señales de haber en aquella isla oro y nombrado los lugares donde lo cogían, uno parece que más dispuesto y aficionado o que con más alegría le hablaba, y halagólo rogándole que se fuese con él a mostrarle las minas del oro. Este trajo otro compañero o pariente consigo, los cuales, entre los otros lugares que nombraban donde se cogía el oro dijeron de Cipango, al cual ellos llaman Cibao, y allí afirman que hay gran cantidad de oro, y que el cacique trae banderas de oro de martillo, salvo que está muy lejos al Este. El Almirante dice aquí estas palabras a los Reyes: «Crean Vuestras Altezas que en el mundo todo no puede haber mejor gente, ni más mansa. Deben tomar Vuestras Altezas grande alegría porque luego los harán cristianos y los habrán enseñado en buenas costumbres de sus reinos, que más mejor gente ni tierra puede ser, y la gente y la tierra en tanta cantidad que yo no sé ya cómo lo escriba; porque yo he hablado en superlativo grado la gente y la tierra de la Juana, a que ellos llaman Cuba; mas hay tanta diferencia de ellos y de ella a ésta en todo como del día a la noche, ni creo que otro ninguno que esto hubiese visto hubiese hecho ni dijese menos de lo que yo tengo dicho, y digo que es verdad que es maravilla las cosas de acá y los pueblos grandes de esta isla Española, que así la llamé y ellos la llaman Bohío, y todos de muy singularísimo trato amoroso y habla dulce, no como los otros que parece cuando hablan que amenazan, y de buena estatura hombres y mujeres y no negro. Verdad es que todos se tiñen, algunos de negro y otros de otra color, y los más de colorado. He sabido que lo hacen por el sol, que no les haga tanto mal, y las casas y lugares tan hermosos, y con señorío en todos como juez o señor de ellos, y todos le obedecen que es maravilla, y todos estos señores son de pocas palabras y muy lindas costumbres, y su mando es lo más con hacer señas con la mano, y luego es entendido que es maravilla.» Todas son palabras del Almirante. Quien hubiere de entrar en la mar de Santo Tomé, se debe meter una buena legua sobre la boca de la entrada sobre una isleta llana que en el medio hay, que le pusieron el nombre la Amiga, llevando la proa en ella. Y después que llegare a ella con el tiro de una piedra, pase de la parte del Oeste y quédale ella al Este, y se llegue a ella y no a la otra parte, porque viene una restinga muy grande del Oeste, y aun en la mar fuera de ella hay unas tres bajas, y esta restinga se llega a la Amiga un tiro de lombarda, y entremedias pasará y hallará a lo más bajo siete brazas, y cascajos abajo, y dentro hallará puerto para todas las naos del mundo y que estén sin amarras. Otra restinga y bajas vienen de la parte del Este a la dicha isla Amiga, y son muy grandes y salen en la mar mucho y llega hasta el cabo casi dos leguas; pero entre ellas pareció que había entrada a tiro de dos lombardas de la Amiga, y al pie del Monte Garibatan de la parte del Oeste hay un muy buen puerto y muy grande.

Martes, 25 de diciembre, día de Navidad

Navegando con poco viento el día de ayer desde la mar de Santo Tomé hasta la Punta Santa, sobre la cual a una legua estuvo así hasta pasado el primer cuarto, que serían a las once horas de la noche, acordó echarse a dormir, porque había dos días y una noche que no había dormido. Como fuese calma, el marinero que gobernaba la nao acordó irse a dormir, y dejó el gobernario a un mozo grumete, lo que mucho siempre había el Almirante prohibido en todo el viaje, que hubiese visto o que hubiese calma: conviene a saber, que no dejases gobernar a los grumetes. El Almirante estaba seguro de bancos y de peñas, porque el domingo, cuando envió las barcas a aquel rey, habían pasado al Este de la dicha Punta Santa bien tres leguas y media, y habían visto los marineros toda la costa y
los bajos que hay desde la dicha Punta Santa al Este bien tres leguas, y vieron por dónde se podía pasar, lo que todo este viaje no hizo. Quiso Nuestro Señor que a las doce horas de la noche, como habían visto acostar y reposar el Almirante y veían que era calma muerta y la mar como en una escudilla, todos se acostaron a dormir, y quedó el gobernante en la mano de aquel muchacho, y las aguas que corrían llevaron la nao sobre uno de aquellos bancos. Los cuales, puesto que fuese de noche, sonaban que de una grande legua se oyeran y vieran, y fue sobre él tan mansamente que casi no se sentía. El mozo, que sintió el gobernante oyó el sonido de la mar, dio voces, a las cuales salió el Almirante y fue tan presto que aún ninguno había sentido que estuviesen encallados. Luego el maestre de la nao, cuya era la guardia, salió; y dijéole el Almirante a él y a los otros que halasen el batel que traían por popa y tomasen un anda y la echasen por popa, y él con otros muchos saltaron en el batel, y pensaba el Almirante que hacían lo que les había mandado. Ellos no curaron sino de huir a la carabela, que estaba a barlovento media legua. La carabela no los quiso recibir haciéndolo virtuosamente, y por esto volvieron a la nao; pero primero fue a ella la barca de la carabela. Cuando el Almirante vio que se huían y que era su gente, y las aguas menguaban y estaba ya la nao la mar de través, no viendo otro medio, mandó cortar el mástil y alijar de la nao todo cuanto pudieron para ver si podían sacarla; y como todavía las aguas menguasen no se pudo remediar, y tomó lado hacia la mar traviesa, puesto que la mar era poco o nada, y entonces se abrieron los conventos y no la nao. El Almirante fue a la carabela para poner en cobro la gente de la nao en la carabela y, como ventase ya vientecillo de la tierra y también aún quedaba mucho de la noche, ni supiesen cuánto duraban los bancos, temorejó a la corda hasta que fue de día, y luego fue a la nao por de dentro de la restiga del banco. Primero había enviado el batel a tierra con Diego de Arana, de Córdoba, alguacil de la Armada, y Pedro Gutiérrez, repostero de la Casa Real, a hacer saber al rey que los había enviado a convidar y rogar el sábado que se fuese con los navíos a su puerto, el cual tenía su villa adelante obra de una legua y media del dicho banco; el cual como lo supo dicen que lloró, y envió toda su gente de la villa con canoas muy grandes y muchas a descargar todo lo de la nao. Y así se hizo y se descargó todo lo de las cubiertas en muy breve espacio: tanto fue el grande aviamiento y diligencia que aquel rey dio. Y él con su persona, con hermanos y parientes, estaban poniendo diligencia, así en la nao como en la guarda de lo que se sacaba a tierra, para que todo estuviese a muy buen recaudo. De cuando en cuando enviaba uno de sus parientes al Almirante llorando a lo consolar, diciendo que no recibiese pena ni enojo, que él le daría cuanto tuviese. Certifica el Almirante a los Reyes que en ninguna parte de Castilla tan buen recaudo en todas las cosas se pudiera poner sin faltar una agujeta. Mandó poner todo junto con las casas entretanto que se vaciaban algunas cosas que quería dar, donde se pusiese y guardase todo. Mandó poner hombres armados en rededor de todo, que velasen toda la noche. «El, con todo el pueblo, lloraban; tanto -dice el Almirante-, son gente de amor y sin codicia y convenibles para toda cosa, que certífico a Vuestras Altezas que en el mundo creo que no hay mejor gente ni mejor tierra: ellos aman a sus prójimos como a sí mismos, y tienen un habla la más dulce del mundo y mansa, y siempre con risa. Ellos andan desnudos, hombres y mujeres, como sus madres los parieron. Mas, crean Vuestras Altezas que entre sí tienen costumbres muy buenas, y el rey muy maravilloso estado, de una cierta manera tan continente que es placer de verlo todo, y la memoria que tienen, y todo quieren ver, y preguntan qué es y para qué.» Todo esto dice el Almirante.

Miércoles, 26 de diciembre

Hoy, al salir del sol, vino el rey de aquella tierra que estaba en aquel lugar a la carabela Niña, donde estaba el Almirante, y casi llorando le dijo que no tuviese pena, que él le daría cuanto tenían, y que
había dado a los cristianos que estaban en tierra dos muy grandes casas, y que más les daría si fuesen menester, y cuantas canoas pudiesen cargar y descargar la nao, y poner en tierra cuanta gente quisiese; y que así lo había hecho ayer, sin que tomase una migaja de pan ni otra cosa alguna; «tanto -dice el Almirante- son fieles y sin codicia de lo ajeno»; y así era sobre todos aquel rey virtuoso. En tanto que el Almirante estaba hablando con él, vino otra canoa de otro lugar que traía ciertos pedazos de oro, los cuales quería dar por un cascabel, porque otra cosa tanto no deseaban como cascabeles. Que aún no llega la canoa a bordo cuando llamaban y mostraban los pedazos de oro, diciendo chuq chuq por cascabeles, que están en puntos de se tornar locos por ellos. Después de haber visto esto, y partiéndose estas canoas que eran de los otros lugares, llamaron al Almirante y le rogaron que les mandase guardar un cascabel hasta otro día, porque él traería cuatro pedazos de oro tan grandes como la mano. Holgó el Almirante de oír esto, y después un marinero que venía de tierra dijo al Almirante que era cosa de maravilla las piezas de oro que los cristianos que estaban en tierra rescataban por no nada; por una agujeta daban pedazos que serían más de dos castellanos, y que entonces no era nada al respecto de lo que sería dende a un mes. El rey se holgó mucho con ver al Almirante alegre, y entendió que deseaba mucho oro, y dijole por señas que él sabía cerca de allí donde había de ello muy mucho en grande suma, y que estuviese de buen corazón, que él le daría cuanto oro quisiese; y de ello dice que le daba razón, y en especial que lo había en Cipango, a que ellos llamaban Cibao, en tanto grado que ellos no le tienen en nada, y que él lo traería allí, aunque también en aquella isla Española, a quien llaman Bohío, y en aquella provincia Caribata lo había mucho más. El rey comió en la carabela con el Almirante, y después salió con él en tierra, donde hizo al Almirante mucha honra y le dio colación de dos o tres maneras de ajes y con camarones y caza y otras viandas que ellos tenían, y de su pan que llamaban cazabí; dende lo llevó a ver unas verduras de árboles junto a las casas, y andaban con él bien mil personas, todos desnudos. El señor ya traía camisa y guantes que el Almirante le había dado, y por los guantes hizo mayor fiesta que por cosa de las que le dio. En su comer, con su honestidad y hermosa manera de limpieza, se mostraba bien ser de linaje. Después de haber comido, que tardó buen rato estar a la mesa, trajeron ciertas hierbas con que se fregó mucho las manos; creyó el Almirante que lo hacía para ablandarlas, y diéronle aguamanos. Después que acabaron de comer, llevó el Almirante a la playa al Almirante, y el Almirante envió por un arco turquesco y un manjo de flechas, y el Almirante hizo tirar a un hombre de su compañía, que sabía de ello, y el señor, como no sepa qué sean armas, porque no las tienen ni las usan, le pareció gran cosa; aunque dice que el comienzo fue sobre el habla de los Caniba, que ellos llaman caribes, que los vienen a tomar, y traen arcos y flechas sin hierro, que en todas aquellas tierras no había memoria de él ni de otro metal, salvo de oro y cobre, aunque cobre no había visto sino poco el Almirante. El Almirante le dijo por señas que los Reyes de Castilla mandarían destruir a los caribes y a todos se los mandarían traer las manos atadas. Mandó el Almirante tirar una lombarda y una espingarda, y viendo el efecto que su fuerza hacían y lo que penetraban, quedó maravillado. Y cuando su gente oyó los tiros cayeron todos en tierra. Trajeron al Almirante una gran carátula que tenía grandes pedazos de oro en las orejas y en los ojos y en otras partes, la cual le dio el rey puesto al Almirante en la cabeza y al pescuezo; y a otros cristianos que con él estaban dio también muchas. El Almirante recibió mucho placer y consolación de estas cosas que veía, y se le templó la angustia y pena que había recibido y tenía de la pérdida de la nao, y conoció que Nuestro Señor había hecho encallar allí la nao porque hiciése allí asiento. «Y a esto -dice él- vinieron tantas cosas a la mano, que verdaderamente no fue aquél desastre, salvo gran ventura. Porque es cierto -dice él- que si yo no encallara, que yo fuera de largo sin surgir en este lugar, porque él está metido acá dentro en una grande bahía y en ella dos o tres restigas de bajas, ni
este viaje dejara aquí gente, ni aunque yo quisiera dejarla no les pudiera dar tan buen aviamento ni tantos pertrechos ni tantos mantenimientos ni aderezos para fortaleza. Y bien es verdad que mucha gente de ésta que va aquí me habían rogado y hecho rogar que les quisiera dar licencia para quedarse. Ahora tengo ordenado de hacer una torre y fortaleza, todo muy bien, y una grande cava, no porque crea que haya esto menester por esta gente, porque tengo dicho que con esta gente que yo traigo sojuzgaría toda esta isla, la cual creo que es mayor que Portugal, y más gente al doble, mas son desnudos y sin armas y muy cobardes fuera de remedio. Mas es razón que se haga esta torre y se esté como se ha de estar, estando tan lejos de Vuestras Altezas, y porque conozcan el ingenio de la gente de Vuestras Altezas y lo que pueden hacer, porque con amor y temor le obedezcan; y así tendrán tablas para hacer todas las fortalezas de ellas y mantenimientos de pan y vino para más de un año y simientes para sembrar y la barca de la nao y un calafate y un carpintero y un lombardero y un tonelero y muchos entre ellos hombres que desean mucho, por servicio de Vuestras Altezas y me hacer placer, de saber de la mina donde se coge el oro. Así que todo es venido mucho a pelo para que se haga este comienzo; y sobre todo que, cuando encalló la nao fue tan paso que casi no se sintió ni había ola ni viento.» Todo esto dice el Almirante. Y añade más para mostrar que fue gran ventura y determinada voluntad de Dios que la nao allí encallase porque dejase allí gente, que si no fuera por la traición del maestre y de la gente, que eran todos o los más de su tierra, de no querer echar el anda por popa para sacar la nao, como el Almirante los mandaba, la nao se salvara, y así no pudiera saberse la tierra, dice él, como se supo aquellos días que allí estuvo, y adelante por los que allí entendía dejar, porque él iba siempre con intención de descubrir y no parar en parte más de un día si no era por falta de los vientos, porque la nao dice que era muy pesada y no para el oficio de descubrir. Y llevar tal nao dice que causaron los de Palos, que no cumplieron con el Rey y la Reina lo que le habían prometido: dar navíos convenientes para aquella jornada, y no lo hicieron. Concluye el Almirante diciendo que de todo lo que en la nao había no se perdió una agujeta, ni tabla ni clavo, porque ella quedó sana como cuando partió, salvo que se cortó y rajó algo para sacar la vasija y todas las mercaderías, y pusiéronlas todas en tierra y bien guardadas, como está dicho; y dice que espera en Dios que a la vuelta que él entendía hacer de Castilla, había de hallar un tonel de oro que habrían rescatado los que había de dejar y que habrían hallado la mina del oro y la especería, y aquello en tanta cantidad que los Reyes antes de tres años emprendiesen y aderezasen para ir a conquistar la Casa Santa, «que así -dice él- protesté a Vuestras Altezas que toda la ganancia de esta mi empresa se gastase en la conquista de Jerusalén, y Vuestras Altezas se rieron y dijeron que les placia, y que sin esto tenían aquella gana». Palabras del Almirante.

Jueves, 27 de diciembre

En saliendo el sol, vino a la carabela el rey de aquella tierra, y dijo al Almirante que había enviado por oro y que lo quería cubrir todo de oro antes que se fuese, antes le rogaba que no se fuese; y comieron con el Almirante el rey y un hermano suyo y otro pariente muy privado, los cuales dos le dijeron que querían ir a Castilla con él. Estando en esto, vinieron ciertos indios con nuevas cómo la carabela Pinta estaba en un río al cabo de aquella isla; luego envió el cacique allá una canoa, y en ella el Almirante un marinero, porque amaba tanto al Almirante que era maravilla. Ya entendía el Almirante con cuánta prisa podía por despacharse para la vuelta de Castilla.

Viernes, 28 de diciembre
Para dar orden y prisa en el acabar de hacer la fortaleza y en la gente que en ella había de quedar, salió el Almirante en tierra y parecióle que el rey le había visto cuando iba en la barca; el cual se entró presto en su casa disimulando, y envió a un su hermano que recibiese al Almirante y llevólo a una de las casas que tenía dadas a la gente del Almirante, la cual era la mayor y mejor de aquella villa. En ella le tenían aparejado un estrado de camisas de palma, donde le hicieron asentar. Después el hermano envió un escudero suyo a decir al rey que el Almirante estaba allí, como que el rey no sabía que era venido, puesto que el Almirante creía que lo disimulaba por hacerle mucha más honra. Como el escudero se lo dijo, dio el cacique dice que a correr para el Almirante, y púsole al pescuezo una gran plasta de oro que traía en la mano. Estuvo allí con él hasta la tarde, deliberando lo que había de hacer.

Sábado, 29 de diciembre

En saliendo el sol, vino a la carabela un sobrino del rey muy mozo y de buen entendimiento y buenos hígados (como dice el Almirante); y como siempre trabajase por saber adónde se cogía el oro, preguntaba a cada uno, porque por señas ya entendía algo, y así aquel mancebo le dijo que a cuatro jornadas había una isla al Este que se llama Guarionex, y otras que se llamaban Mocorix y Mayonic y Fuma y Cibao y Coroay, en las cuales había infinito oro, los cuales nombres escribió el Almirante; y supo esto que le había dicho un hermano del rey, y riñó con él, según el Almirante entendió. También otras veces había el Almirante entendido que el rey trabajaba porque no entendiese dónde nacía y se cogía el oro, porque no lo fuese a rescatar o comprar a otra parte. «Mas es tanto y en tantos lugares y en esta misma isla Española -dice el Almirante-, que es maravilla.» Siendo ya de noche le envió el rey una gran carátula de oro, y envióle a pedir un bacín para mandar hacer otro, y así se lo envió.

Domingo, 30 de diciembre

Salió el Almirante a comer a tierra, y llegó a tiempo que habían venido cinco reyes sujetos a aqueste que se llamaba Guacanagarí, todos con sus coronas, representando muy buen estado, que dice el Almirante a los Reyes que Sus Altezas hubieran placer de ver la manera de ellos. En llegando en tierra, el rey vino a recibir al Almirante, y lo llevó de brazos a la misma casa de ayer, donde tenía un estrado y sillas en que asentó al Almirante; y luego se quitó la corona de la cabeza y se la puso al Almirante, y el Almirante se quitó del pescuezo un collar de buenos alaqueques y cuentas muy hermosas de muy lindos colores, que parecía muy bien en toda parte, y se lo puso a él, y se desnudó un capuz de fina grana, que aquel día se había vestido, y se lo vistió, y envió por unos borceguíes de color que le hizo calzar, y le puso en el dedo un grande anillo de plata, porque habían dicho que vieron una sortija de plata a un marinero y que había hecho mucho por ella. Quedó muy alegre y muy contento, y dos de aquellos reyes que estaban con él vinieron adonde el Almirante estaba con él y trajeron al Almirante dos grandes plastas de oro, cada uno la suya. Y estando así vino un indio diciendo que había dos días que dejara la carabela Pinta al Este en un puerto. Tornóse el Almirante a la carabela, y Vicente Yáñez, capitán de ella, afirmó que había visto ruibarbo y que lo había en la isla Amiga, que está a la entrada de la mar de Santo Tomé, que estaba seis leguas de allí, y que había conocido los ramos y raíz. Dicen que el ruibarbo echa unos ramitos fuera de tierra y unos frutos que parecen moras verdes casi secas, y el palillo que está cerca de la raíz es tan amarillo y tan fino como la mejor color que puede ser para pintar, y debajo de la tierra hace la raíz como una grande pera.

Lunes, 31 de diciembre
Aqueste día se ocupó en mandar tomar agua y leña para la partida a España por dar noticia presto a los Reyes para que enviasen navíos que descubriesen lo que quedaba por descubrir, porque ya «el negocio parecía tan grande y de tanto tomo que es maravilla», dijo el Almirante. Y dice que no quisiera partirse hasta que hubiere visto toda aquella tierra que iba hacia el Este y andaría toda por la costa, por saber también dice que el tránsito de Castilla a ella, para traer ganados y otras cosas. Mas, como hubiese quedado con un solo navio, no le parecía razonable cosa ponerse a los peligros que le pudieran ocurrir descubriendo. Y quejábase que todo aquel mal e inconveniente haberse apartado de él la carabela Pinta.

Martes, 1 de enero de 1493

A media noche despachó la barca que fuese a la isleta Amiga para traer el ruibarbo. Volvió a vísperas con un serón de ello; no trajeron más porque no llevaron azada para cavar: aquello llevó por muestra a los Reyes. El rey de aquella tierra dice que había enviado muchas canoas por oro. Vino la canoa que fue a saber de la Pinta y el marinero y no la hallaron. Dijo aquel marinero que a veinte leguas de allí habían visto un rey que traía en la cabeza dos grandes plastas de oro, y luego que los indios de la canoa le hablaron se las quitó, y vio también mucho oro a otras personas. Creyó el Almirante que el rey Guacanagarí debía de haber prohibido a todos que no vendiesen oro a los cristianos, porque pasase todo por su mano. Mas él había sabido los lugares, como dije anteayer, donde lo había en tanta cantidad que no lo tenían en precio. También la especiería que, como dice el Almirante, es mucha y más vale que pimiento y manegueta. Dejaba encomendados a los que allí quería dejar que hubiesen cuanta pudiesen.

Miércoles, 2 de enero

Salió de mañana en tierra para se despedir del rey Guacanagarí y partirse en el nombre del Señor, y diole una camisa suya y mostróle la fuerza que tenían y efecto que hacían las lombardas, por lo cual mandó armar una y tirar al costado de la nao que estaba en tierra, porque vino a propósito de platicar sobre los caribes, con quien tienen guerra, y vio hasta dónde llegó la lombarda y cómo pasó el costado de la nao y fue muy lejos la piedra por la mar. Hizo hacer también una escaramuza con la gente de los navíos armada, diciendo al cacique que no hubiese miedo a los caribes aunque viniesen. Todo esto dice que hizo el Almirante porque tuviese por amigos a los cristianos que dejaba, y por ponerle miedo que los temiese. Levólo el Almirante a comer consigo a la casa donde estaba aposentado y a los otros que iban con él. Encomendóle mucho el Almirante a Diego de Arana y a Pedro Gutiérrez y a Rodrigo Escobedo, que dejaba juntamente por sus tenientes de aquella gente que allí dejaba, porque todo fuese bien regido y gobernado a servicio de Dios y de Sus Altezas. Mostró mucho amor el cacique al Almirante y gran sentimiento en su partida, mayormente cuando lo vio ir a embarcarse. Dijo al Almirante un privado de aquel rey, que había mandado hacer una estatua de oro puro tan grande como el mismo Almirante, y que dende a diez días la habían de traer. Embarcóse con propósito de se partir luego, mas el viento no le dio lugar. Dejó en aquella isla Española, que los indios dice que llamaban Bohío, treinta y nueve hombres con la fortaleza, y dice que muchos amigos de aquel rey Guacanagarí, y sobre aquélíos, por sus tenientes, a Diego de Arana, natural de Córdoba, y a Pedro Gutiérrez, repostero de estrado del Rey, criado del despensero mayor, y a Rodrigo de Escobedo, natural de Segovia, sobrino de fray Rodrigo Pérez, con todos sus poderes que de los Reyes tenía. Dejóles todas las mercaderías que los Reyes mandaron comprar para los rescates, que eran muchas, para que las trocasen y rescatasen por oro, con todo lo que traía la nao.
Dejóles también pan bizcocho para un año y vino y mucha artillería, y la barca de la nao para que ellos, como marineros que eran los más, fuesen, cuando viesen que convenía, a descubrir la mina de oro, porque a la vuelta que volviese el Almirante hallase mucho oro, y lugar donde se asentase una villa, porque aquél no era puerto a su voluntad; mayormente que el oro que allí traían venía dice que del Este, y cuanto más fuesen al Este tanto estaban cercanos de España. Dejóles también simientes para sembrar, y sus oficiales, escribano y alguacil, y un carpintero de naos y calafate y un buen lombardero, que sabe bien de ingenios, y un tonelero y un físico y un sastre, y todos dice que hombres de la mar.

Jueves, 3 de enero

No partió hoy porque anoche dice que vinieron tres de los indios que traía de las islas que se habían quedado, y díjeronle que los otros y sus mujeres vendrían al salir del sol. La mar también fue algo alterada, y no pudo la barca estar en tierra; determinó partir mañana, mediante la gracia de Dios. Dijo que si él tuviera consigo la carabela Pinta tuviera por cierto de llevar un tonel de oro, porque osara seguir las costas de estas islas, lo que no osaba hacer por ser solo, porque no le acaeciese algún inconveniente y se impidiese su vuelta a Castilla y la noticia que debía dar a los Reyes de todas las cosas que había hallado. Y si fuera cierto que la carabela Pinta llegara a salvamento en España con aquel Martín Alonso Pinzón, dijo que no dejara de hacer lo que deseaba; pero porque no sabía de él y porque, ya que vaya, podrá informar a los Reyes de mentiras porque no le manden dar la pena que él merecía, como quien tanto mal había hecho y hacía en haberse ido sin licencia y estorbar los bienes que pudieran hacerse y saberse de aquella vez, dice el Almirante, confiaba que Nuestro Señor le daría buen tiempo y se podría remediar todo.

Viernes, 4 de enero

Saliendo el sol, levantó las anclas con poco viento, con la barca por proa el camino del Noroeste para salir fuera de la restinga, por otra canal más ancha de la que entró, la cual y otras son muy buenas para ir por delante de la Villa de la Navidad, y por todo aquello el más bajo fondo que halló fueron tres brazas hasta nueve, y estas dos van de Noroeste al Sudeste, según aquellas restingas eran grandes que duran desde el Cabo Santo hasta el Cabo de Sierpe, que son más de seis leguas, y fuera en la mar bien tres y sobre el Cabo Santo bien tres, y sobre el Cabo Santo a una legua no hay más de ocho brazas de fondo, y dentro del dicho cabo, de la parte del Este, hay muchos bajos y canales para entrar por ellos, y toda aquella costa se corre Noroeste Sudeste y es toda playa, y la tierra muy llena hasta bien cuatro leguas la tierra adentro. Después hay montañas muy altas y es toda muy poblada de poblaciones grandes y buena gente, según se mostraban con los cristianos. Navegó así al Este, camino de un monte muy alto que quiere parecer isla pero no lo es, porque tiene participación con tierra muy baja, el cual tiene forma de un alfanaque muy hermoso, al cual puso nombre Monte Cristi, el cual está justamente al Este del Cabo Santo, y habrá dieciocho leguas. Aquel día, por ser el viento muy poco, no pudo llegar al Monte Cristi con seis leguas. Halló cuatro isletas de arena muy bajas, con una restinga que salía mucho al Noroeste y andaba mucho al Sudeste. Dentro hay un grande golfo que va desde dicho monte al Sudeste bien veinte leguas, el cual debe ser todo de poco fondo y muchos bancos, y dentro de él en toda la costa muclios ríos no navegables, aunque aquel marinero que el Almirante envió con la canoa a saber nuevas de la Pinta dijo que vio un río en el cual podían entrar naos. Surgió por allí el Almirante seis leguas de Monte Cristi en diecinueve brazas, dando la vuelta a la mar por apartarse de muchos bajos y restingas que por allí había, donde estuvo aquella
noche. Da el Almirante aviso que el que hubiere de ir a la Villa de la Navidad, que conociere a Monte Cristi, debe meterse en la mar dos leguas, etc.; pero porque ya se sabe la tierra y más por allí no se pone aquí. Concluye que Cipango estaba en aquella isla y que hay mucho oro y especiería y almáciga y ruibarbo.
ANNEX 3 – Team and Curriculum Vitae

Designated Expert and Head of Mission:
Xavier Nieto Prieto, Underwater Archaeologist, Spain

Members of the Mission:
Tatiana Villegas, Programme Specialist – Culture, UNESCO-Haiti
Kenrick Demesvar, Heritage Advisor, Ministry of Culture, Haiti
Maksaens Denis, Representative of the Bureau of Ethnology, Haiti

Statutory Oversight:
Khalil Karam, Chairperson, UNESCO Meeting of States Parties to the 2001 Convention
Michel L’Hour, Chairperson, UNESCO Scientific and Technical Advisory Body

UNESCO Secretariat:
Lucas Simonds, Underwater Archaeologist

Members of the Advisory Body:
Michel L’Hour, Chairperson (France), Director of the Department of Underwater Archaeological Research (DRASSM) of the Ministry of Culture.
Augustus Babajide Ajibola, Vice-chairperson (Nigeria), Ministry of Culture of Nigeria, Deputy Director.
Annalisa Zarattini (Italy), Italian Ministry of Cultural Property and Activities.
Dolores Elkin (Argentina) National Institute of Anthropology, Professor at the University of Buenos Aires and the National University of the Central Province of Buenos Aires.
María Elena Barba Meinecke (Mexico), head of Underwater Archaeology in the Yucatan Peninsula and the Underwater Archeology Vicedirectorate, INAH.
Seyed Hossein Sadat Meidani (Islamic Republic of Iran), diplomat and legal expert in the Iranian Ministry of Foreign Affairs.
Constantin Chera (Romania), National History and Archaeology Museum Constanta, Head of the Department of Archaeology.
Ouafa Ben Slimane (Tunisia), underwater archaeologist at the Institut National du Patrimoine in Tunis.
Jasen Mesic (Croatia), State Secretary in the Ministry of Culture of the Republic of Croatia.
Vladas Zulkus (Lithuania), Rector of Klaipėda University.
Hugo Eliecer Bonilla Mendoza (Panama), director of the legal department of the Instituto Nacional de Cultura.
Ovidio Juan Ortega Pereyra (Cuba), head of the Archaeological Department of the Direction of Underwater Studies of Maritime Services.

Consulted Specialists:
Eric Rieth, Musée National de la Marine, France
Loïc Ménanteau, Universidad de Los Lagos, France/Chile
Kathleen Deagan, University of Florida, USA
Francisco Alves, Portugal
Marc-André Bernier, Parks Canada, Canada  
Christopher Dobbs, Mary-Rose Trust, UK  
Roger C. Smith, Ph.D., State Underwater Archaeologist, Bureau of Archaeological Research, USA  
Alexzandra Hildred, Curator of Ordnance, Mary Rose Trust, UK

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Antonio Jules, Vice – Délégué Départemental du Nord;  
Gluck Théophile, Député de Limonade.  
Renan Gonzal, Inspecteur – Responsible for the Coast Guard of Cap-Haïtien;  
Rody Attilus, Directeur Départemental Nord du Ministère de la Culture;  
Eddy Lubin, historian, research and heritage specialist;  
Harold Gaspard, President of l’ICOM-Haïti;  
Lewis A. Clorméus, Member of the Directorate of l’ICOM;  
Jean Claude Dicquemare and his collaborators, from l’Hôtel Cormier Plage.
**Curricula vitae**

**Xavier Nieto** has a Bachelor and PhD title in Prehistory and Ancient History and has since 1976 participated in or led about thirty campaigns of underwater archeology in Spain, Turkey, Italy, France and Morocco. After having been director of the Centro de Arqueología Subacuática of Cataluña, he became Director of the National Museum of Underwater Archaeology of Spain. After his recent retirement he is now dedicating himself to teaching underwater archaeology.

**Maksaens Denis** is Representative of the Bureau of Ethnology of Haiti, which is the responsible authority for archeology in Haiti. Mr. Denis, who produced the video and photographic coverage of the mission, is film and exhibition producer as well as video artist. He has participated in many international events including the Biennale of Venice.

**Kenrick Demesvar** holds a PhD in Anthropology and Heritage from Laval University in Quebec, Canada and a Masters in Memory and Heritage from the State University of Haiti (UEH). He is currently an advisor at the Technical Office of the Minister of Culture of Haiti for activities related to tangible and intangible cultural heritage. He works closely with ISPAN, BNE, MUPANAH as well as the National Theatre, on issues in related to heritage.

**Tatiana Villegas Zamora** is Culture Specialist at the UNESCO Haiti office. Tatiana has a Master’s Degree in Archaeology from the Sorbonne University in Paris and trained as an underwater archaeologist. Before joining UNESCO she worked in the development of underwater cultural heritage protection in Latin America and the Caribbean particularly in the field of capacity building and awareness raising.

**Khalil E. Karam** serves as the Ambassador of Lebanon to UNESCO and was promoted to the rank of officer in the French Légion d’Honneur in 2009. He has an extensive experience in UNESCO committees, the UNESCO executive board, and the Lebanese National Commission. He is the Chairperson of the 2001 Convention on the Protection of the Underwater Cultural Heritage’s Meeting of States Parties.

**Michel L’Hour** is the president of the UNESCO Scientific and Technical Advisory Body. Michel L’Hour is also general curator for underwater archeology, Academician of the Marine Academy, and Director of the Department of Underwater Archaeological Research (DRASSM) of the Ministry of Culture of France. He has directed numerous major archaeological underwater excavations both in France and abroad.

**Ulrike Guerin** is responsible for the underwater cultural heritage programme and the Secretariat of the 2001 Convention at UNESCO in Paris. As such she oversees the organization of the Meetings of States Parties, intergovernmental meetings and UNESCO operational projects, from trainings and exhibitions to scientific assistance missions. She is a lawyer by training.
**Consulted Experts**

**Eric Rieth** is a nautical archaeologist and professional diver who has been directing underwater excavation of wrecks since 1971. He is currently Director of research at the National Centre of Scientific Research of France (CNRS). He teaches nautical archaeology at the Institute of Art History and Archaeology of the Sorbonne University (Paris 1). He is also head of the nautical archaeology department of the National Maritime Museum, Paris, France.

**Loic Menanteau** is Doctor in Geography and, after having been laboratory director of Géolittomer at the university of Nantes, France, he is now researcher at the CNRS Laboratorio Geolittomer/LETG in Nantes and works in Chili. He is author of the *Atlas cotier du Nord Est d’Haiti*.

**Kathleen Deagan** is Distinguished Research Curator at the Florida Museum of Natural History, and adjunct Professor of Anthropology, History and Latin American Studies at the University of Florida. She has conducted fieldwork in St. Augustine since 1972 and in the Caribbean since 1979.

**Francisco Alves** has led numerous underwater archaeological excavations and researches and was for many years the head of the underwater archaeology in Portugal, before he retired. He has an extensive experience with Iberian shipwreck archaeology.

**Marc André Bernier** is the Chief of the Parks Canada’s Underwater Archaeology Service since 2008. He completed a B.A. in Classical Studies and an M.A. in Greek Archaeology, both at the University of Ottawa. With the Underwater Archaeology Service since 1990, he has worked on and directed many shipwreck projects in Canada and abroad.

**Christopher Dobbs** is an underwater archaeologist who worked first in the excavation of the Mary Rose in 1982. He is now Head of Interpretation at the Mary Rose Trust.

**Roger C. Smith** is State Underwater Archaeologist in the Bureau of Archaeological Research in Florida (USA). He has extensive experience with the research of Spanish shipwrecks found off Florida.

**Alexzandra Hildred** is Curator of Ordnance at the Mary Rose Trust, UK. The Mary Rose is a 16th century shipwreck in which many pieces of period artillery were discovered.