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Fishermen's Knowledge in the Academic Salon – How Jean-André Peyssonnel's Studies of "Marine Products" at the Coasts of Barbary and Guadeloupe Influenced Debates on the True Nature of Coral in Eighteenth-Century Europe

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Introduction

This contribution has the objective to reconstruct the history of the debate on the true nature of coral in the eighteenth century. Is it a stony structure, a plant or an animal life form? This apparently simple problem mobilized the most brilliant minds of Europe throughout the Age of Enlightenment. I will try to identify the main elements of the discussion and outline the framework within which the reasoning expressed by the protagonists has evolved. Exploration has been a crucial element in the process of knowledge production with regard to the nature of coral. The key-player of my study – the French physician Jean-André Peyssonnel – organized research missions at sea where he studied coral with the help of fishermen. I think a case study of this exploration-based scientific work fits in the frame of this Symposium, as it illustrates tensions between local practices and cosmopolitan discourses in the eighteenth century. It is my aim to show how the observation of living coral during an expedition to the coast of Barbary in 1724-1725 offered new insight that not only changed dramatically the course of the coral debate but also more generally reoriented scientific practices as well as methods of evaluation and scientific attribution in the field of natural history.

I will organize my presentation around the research activities of Jean-André Peyssonnel. Born in the city of Marseilles on June 19, 1694 and deceased on the island of Guadeloupe on December 24, 1759, this physician and explorer-naturalist always remained on the sidelines of the history of scienceⁱ. Although he is universally recognized for having demonstrated the animal nature of coral his writings are still very much ignoredⁱⁱ.

This is in itself rather strange because Peyssonnel left us many dissertations and a voluminous correspondence. An analysis of these documents allows us to give a new dimension to the debate on the nature of coral. This material raises many questions: on the extent and nature of the transmission of certain ideas in the field of the natural history of the sea; on the importance of observations made at sea in combination with chemical experiments carried out in the laboratory; on the contribution of scientific exploration in overseas local settings to the development of a new understanding of marine life; on the circulation of knowledge in Europe and the colonial world; on the interaction between royal power and the world of learning; and finally on tensions between field observers and "scientific authorities" working in centers of learning.

Sources of an almost forgotten career in science

The lack of interest on the part of historians for Peyssonnel's case can be explained by the fact that he did not publish a lot. We found some pamphlets on medicine dating from the beginning of his careerⁱⁱⁱ. Peyssonnel had to wait until the end of his life before some of his papers appeared in the *Philosophical Transactions* of the *Royal Society*. Among these contributions we find a summary of his work on coral. This

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text was first published in English (1751-1752)^{iv}, as the French version appeared not earlier than 1756 in a book edited by the author in Paris^v.

Peyssonnel lived in a time when the battle between manuscripts and printed material was not yet won by the printing press. It is certain that throughout his life he maintained the habit of sending around copies of his manuscripts. Thus we can identify several manuscripts which describe his research on coral. They find their origin in a kind of mother text that has been constantly improved and expanded over time. The principal sources are MS 1035-1036 at the *Muséum National d'Histoire Naturelle* in Paris and Add. MS 4219 at the *British Library* in London^{vi}. There is also a series of letters which Peyssonnel addressed to Jean-Paul Bignon, a key administrator within the French state-controlled science complex. These letters give an account of the expedition Peyssonnel made in 1724-1725 to the Regencies of Tunis and Algiers^{vii}.

However, many sources remain to be explored. A survey carried out in more than twenty archives and libraries located in Paris, London, Rouen, Angers, Bordeaux, Marseilles, Aix-en-Provence, Avignon and Montpellier has allowed me to identify already 205 documents relating to Peyssonnel's life and work. Among these pieces I found 31 unedited autograph papers or dissertations. We must add 56 autograph letters. At present the transcription of these documents forms a corpus of about 300 pages but the work is far from finished.

Practical knowledge versus the erudition of the “Ancients” and the “Moderns”

Jean-André Peyssonnel was born in an environment where science was considered an integral part of everyday life. His father, the physician Charles Peyssonnel, was himself a prolific writer on natural philosophy^{viii}. Through his teachings Jean-André became interested in natural history. During his time at the College of the Oratory in Marseilles his interest in science was further stimulated and he continued his studies at the University of Aix-en-Provence where he obtained the degree of Doctor of Medicine^{ix}. In the years 1719-1721, the period of the great plague in Marseilles, Jean-André Peyssonnel began to work as a physician but he was already interested in the natural history of the sea. In fact as a young man he had seen a part of the world, as he had traveled in the French West Indies, Saint Domingue, Puerto Rico, the Mississippi Delta and Egypt (1710-1714). These voyages had accustomed him to life at sea, but more importantly they stimulated him to develop the right mentality for observation. They made him understand the importance of keeping “une tranquillité d'esprit” – which was not always easy in a small boat of a fisherman^x. Upon his return in Marseilles, he was ready for making observations. With the sea at walking distance he started doing research on “marine products” such as coral, sponges and algae. The local community of fishermen was important for assembling practical insight in marine life. From the very beginning Peyssonnel was aware of the usefulness of the knowledge they had accumulated.

But of course an educated man such as Peyssonnel also consulted sources which were of a more intellectual nature. He first sought information on “marine products” in the works of Pietro Andrea Mattioli (1501-1577), Jacques Daléchamps (1513-1588), Carolus Clusius (1526-1609), Ferrante Imperato (fl. 1550-1625), the brothers Jean (1541-1612) and Gaspard (1560-1624) Bauhin. He drew the conclusion that the authors had “a slight knowledge of marine plants”. He hoped to find more in the work of Joseph Pitton de Tournefort (1656-1708) but although this scientist had travelled the Levant Peyssonnel was disappointed by him. Then he turned to Pliny the Elder (23-79), Albertus Magnus (ca. 1193-1280) and Ulisse Aldrovandi (1522-1605). He sifted the *Museum Wormianum*, the catalog of the cabinet of curiosities of the Danish collector Ole Worm (1588-1655), but he found nothing that could satisfy him^{xi}.

When reading the “Ancients” and the “Moderns” he discovered that they had focused mainly on coral. For the “Ancients” coral was a stony structure. Theophrastus (372 BC-288 BC) mentions it in *De lapidibus* (38), Dioscorides (ca. 40-ca. 90) in *De materia medica* (V, 121). It is often described as a sea plant that hardens into stone when pulled from the sea, a coagulation created as a result of contact with air. Ovid (43 BC-17 AD) in his *Metamorphoses* (IV, 741-752) tells the story of the transformation of algae into coral when Perseus laid down on a beach the decapitated head of Medusa. Pliny the Elder (23-79) in his *Naturalis Historia* (XXXII, 11, 21-24) describes coral as a stony structure that in the form of amulets protects against danger, and he also emphasizes the medicinal qualities.

After his first readings Peyssonnel made the plan of examining all what had been “told” about this “plant” both by the “Ancients” and by more recent authors, in order to gather all this knowledge into one dissertation. He was convinced that this approach could serve him to better understand the nature of other “products of the sea”. He noted that after Pliny the Elder “others have only repeated what he has

said”. He confessed however that more accurate observations had been made by authors such as Nicolas Claude Fabri de Peiresc (1580-1637), Father Georges Fournier (1595-1652), Willem Piso (1611-1678), Robert Boyle (1627-1691), and Paolo Boccone (1633-1704)^{xii}.

Indeed, it was by reading these authors that Peyssonnel understood the importance of studying coral at sea and hence the necessity of organizing expeditions. Contrary to most contemporary naturalists these men had studied coral in its natural habitat. It was thought that coral was soft in water and that it hardened when pulled out of the water, but observations at sea proved this idea to be incorrect. Peyssonnel knew the example of Jean-Baptiste de Nicolay who in 1553, at a time when he was the “intendant” or head of a French consortium of coral fishers working at the coast of North Africa wanted to verify this assumption on the basis of direct observations, helped by young boys who dived for fresh coral branches. The travels made by Peiresc in 1625 convinced Peyssonnel of the necessity of working at sea. Due to his excursions in the Mediterranean, this scholar had been able to analyze the liquid inside living coral, thus helping him to develop theories on the reproduction of coral as he considered the liquid to contain seed. Peyssonnel was also impressed by the fact-finding missions organized by the hydrographic expert Georges Fournier in the Mediterranean, as well as by the travels of the Dutchman Willem Piso who had studied coral when exploring the coasts of Brazil. He understood that Boyle’s writings on the subject were based on material sent in by his correspondents from East India, Madagascar, and other distant countries^{xiii}. Very important examples to Peyssonnel were the expeditions carried out by the Italian Paolo Boccone who had made observations at sea near Malta and Sicily while working closely together with local fishermen.

Observations at sea – experiments in the laboratory

With the discovery of “coral flowers” in 1706 by the Italian naturalist and explorer Luigi Ferdinando Marsigli (1680-1730) science really set a step forward. Naturalists thought that they finally had evidence that coral was of botanical origin. The novelty introduced by this “virtuoso” was the systematic study of coral in a “living” state^{xiv}. Marsigli traveled to the Provence and accompanied coral fishers offshore on numerous occasions. When the coral branches came out of the water he deposited them in a bowl filled with sea water in order to make them survive. Returned to his working place in Cassis, he observed them under the microscope, and then he subjected them to all sorts of experiments. Finally, he presented his observations and the results of his analysis to colleagues in Montpellier and Paris, who published them in the series of dissertations of their respective academies or in the *Journal des Sçavans*.

Peyssonnel followed exactly the same track. From 1719 onward he participated in coral fishing near Marseilles^{xv}. This was the start of his research in this area. His place of residence facilitated the exchange of views with men of the sea who informed him on various species of “marine products”, on their names and their qualities. A new world opened before his eyes when the fishermen pulled living coral out of the sea. Surprised that no one had ever talked about its variety of forms and structures, he took the resolution to make a complete study of what he called “the botany of the sea”. Inspired by Marsigli, Peyssonnel kept coral alive in a bowl. This allowed him to investigate “coral flowers”. At first he shared the opinion that coral is of botanical origin. He communicated his results in the same way as Marsigli did. In 1723, he presented to the *Société Royale des Sciences* of Montpellier “the botanical observations I have on coral, on its milk, and on its flowers”^{xvi}. The same year Peyssonnel turned to the *Académie Royale des Sciences* in Paris, where he was in contact with Antoine de Jussieu^{xvii}. It needs to be said that Peyssonnel added to his writings – just as Marsigli had done – detailed accounts on the life of fishermen, including descriptions of the instruments they used in the Mediterranean, for example the “Cross of Saint Andrew” and the “Salabre”.

This was the time when observation in the field of natural history was systematized, with a more repetitive routine that came to complement experimentation. This was also the period when chemistry was in full transformation. Marsigli had already applied chemical analysis to “products of the sea” in order to understand the nature of their substances. Especially the “juice” or “milk” of coral fascinated this researcher. Peyssonnel was influenced by Marsigli’s practice and also turned to chemical experiments. Reading the book of Johann Ludwig Gans (fl. 1630) *Corallorum historia* [...] (Frankfurt, 1630) Peyssonnel was stimulated to continue research in this direction. By means of distillation he thought he had found “the [...] principles ordinary to plants”^{xviii}. He sent the results back to the Academy in Paris. As soon as he could leave Marseilles he traveled to Paris where the Company received him on July 8, 1723^{xix}. One month

later, the chemist Etienne-François Geoffroy appointed Peyssonnel as his correspondent^{xx}. Peyssonnel used the title “corresponding member of the Academy” everywhere he could.

The importance of travel and the circulation of knowledge

Peyssonnel went to Paris to present his work to scholars but he also wanted to create for himself a job. He requested the Court to create a chair of naval medicine at Marseilles, and of course he also asked to be appointed in this position, but in the end his efforts were to no avail^{xxi}. Perhaps stimulated by Bignon, who was Peyssonnel’s “protector”, he prepared a “scientific” expedition to North Africa. The goal was to visit the coast of Barbary and to collect flowers and seeds of plants. It must be emphasized that it was not a trip “by Order of the King”, but a voyage facilitated by the French authorities. In May 1724 Peyssonnel arrived in Tunis where he began to write letters dealing with several subjects: geography, history, the customs of the country, antiquities, nature. He visited the coast as well as the interior, where he got the help of various intermediaries: fishermen, guides, consuls, merchants, local authorities. The letters in which he described some of his findings and which were addressed to Bignon circulated: Bignon forwarded them to Antoine de Jussieu, Guillaume Delisle, etc.^{xxii}. We need to add that the botanists Antoine de Jussieu and Pierre Chirac also received botanical specimens, part of which ended up in the *Jardin du Roi*. Unfortunately for Peyssonnel Secretary of State Maurepas did not want to give him financial help to continue his research. His argument was that Peyssonnel had left without a direct order of the King^{xxiii}. Nonetheless, the naturalist continued his work for a while.

At the Academy the scholarly merits of Peyssonnel became the subject of a debate. On July 21, 1725, the pensioners and associates chose Bernard de Jussieu and Jean-André Peyssonnel to be proposed to the King to fill the vacant position of assistant botanist^{xxiv}. But the authorities were somewhat embarrassed by the financial position of Peyssonnel, and thus the King gave this place to Bernard de Jussieu^{xxv}.

Meanwhile Peyssonnel had started new research activities at sea near La Calle. In February 1725 he participated in coral fishing expeditions near Bastion de France, which allowed him to observe coral in its living state. But now he had to draw the conclusion that coral was “produced” by “insects”. He again found “coral flowers” but as he made time for a careful observation he was now sure to observe the “nettle” inside which he held responsible for the formation of the stony skeleton. “Experiments” gave him proof of the animal nature of the organism: “I made coral bloom in vases filled with sea water and observed that what we believe to be the flower of this so-called plant is in reality an insect similar to a small nettle [...] this insect thrives in water and closes in air or when I poured acid liquors on it or [when] I touched [it] with the hand, which is common to fish and to testaceous insects of a slobbery and vermicular nature...”^{xxvi}.

With his voyage to North Africa Jean-André Peyssonnel was able to solve the riddle of the true nature of coral, but due to a lack of resources he had to return to France. Here financial problems continued to plague him. In addition he would face opposition by the *Académie Royale des Sciences*.

Power and authority

For a naturalist’s career under the Old Regime the system of patronage and protection was essential. This is why Peyssonnel was placed under the protection of Bignon who has brought him into contact both with the ministerial power of Maurepas and the scientific authority of the *Académie Royale des Sciences*. But commitments were not always stable. As noted above, the Secretary of State had first facilitated the voyage to Africa but then withdrew financial support. The *Académie* appreciated Peyssonnel’s research but faced with his views on the nature of coral soon changed its position.

After his return, Peyssonnel had incorporated the results of his research into new writings. As usual he communicated them to Bignon in the form of dissertations, explaining his belief that coral is a form of animal life. Bignon forwarded the dissertations to Antoine de Jussieu to assess them more thoroughly. In a response sent directly to Peyssonnel on March 11, 1726, Antoine de Jussieu showed his doubts^{xxvii}. Around June 1726 Peyssonnel’s dissertations were in the hands of René Antoine Ferchault de Réaumur, an extremely influential member of the *Académie*. He refused to accept Peyssonnel’s views. He answered: “I agree with you that so far nobody has dared to look at coral [...] as the work of insects; one

can not dispute the novelty and singularity of this idea, but naturally I confess that I find it hardly possible to establish this in the general manner as you have done, [...] to me corals never seem to be built by nettles [...] in any way as you accept to let them work, I have already verbally communicated to the Academy some of the difficulties that I find, and perhaps I will give them in writing, I do not believe that with regard to coral there is another system to withhold than the one I once talked you about; that only their bark is a proper plant, and that this plant makes a stony material that forms the stem necessary to support it; thus I see all the difficulties on the lack of organization in coral disappear”^{xxviii}. Réaumur wrote his own dissertation about the subject and presented it to his colleagues in August 1727. It was entitled *Observations Sur la formation du Corail, & des autres productions appelées Plantes pierreuses*^{xxix}. Here he severely criticized Peyssonnel’s opinions. To him and the *Académie* coral remained in the plant kingdom.

Rehabilitation

His scientific reputation weakened, kept at a distance by royal power and without a real job Peyssonnel had to seek his chances elsewhere. On December 19, 1726 he was granted the position of Royal Physician on the island of Guadeloupe^{xxx}. There he received letters only from time to time, and due to the isolation he started to live in oblivion. However, Peyssonnel remained active: he investigated the whole island and travelled around the French West Indies, which resulted in a series of studies on various subjects: leprosy, volcanology, climatology, botany, and of course, the marine life in the Caribbean.

In Europe, the practice of science evolved, and after many years the attitude towards Peyssonnel’s work began to change. In the summer of 1741 Bernard de Jussieu (1699-1777) conducted research on polyps during an exploratory mission to the coast of Normandy. On November 14 he offered the *Académie* a dissertation on the “animal nature” of some “marine products”^{xxxi}. Indeed, it was the first step towards a rehabilitation of Peyssonnel. In 1742 Réaumur published the sixth volume of his *Mémoires pour servir à l’histoire des insectes*. He corrected his opinion on the nature of coral due to new observations of living polyps carried out by the Swiss Abraham Trembley (1710-1784) in a sweet water pond near The Hague^{xxxii}. Finally, the findings of Peyssonnel based on exploratory knowledge were accepted by scientific authorities. With Buffon (1707-1788) they were spread all over the scientific world. Indeed, in 1749, Buffon included a section “Sur les Coquilles & les autres Productions de la mer, qu’on trouve dans l’intérieur de la terre” in his *Histoire naturelle, générale et particulière, avec la description du Cabinet du Roy*. He confirmed that Peyssonnel had been the first to discover the animal nature of coral^{xxxiii}.

Unfortunately Peyssonnel’s own texts were not circulating anymore, but that would change quickly. Being aware of the interest shown for his work but clearly feeling not at ease with the world of learning in France, Peyssonnel sent in 1751 a manuscript to the *Royal Society* in which he discussed his views on coral. He explained that he felt that in France “some lovers of natural history usurp my work and my discoveries [...]”^{xxxiv}. On May 7, 1752 a résumé of Peyssonnel’s manuscript prepared in English by William Watson was presented to the Fellows^{xxxv}. They decided to publish it in the *Philosophical Transactions*. In the coming years a dozen papers written by Peyssonnel were published in the same series. Most were just short English abstracts of much longer French dissertations that still remain unpublished.

In 1755 Peyssonnel decided to undertake a long voyage to France. He wanted to settle some family affairs but he took the opportunity to restore his scientific fame. He renewed contacts with scholars in Paris and London and made an appearance in several academies in the provinces. Accepted as a Fellow of the *Royal Society* he also became a corresponding member of the academies of Rouen, Lyon, Angers, La Rochelle and Bordeaux. January 28, 1756 must have been an important day in Peyssonnel’s life as he was invited to give a lecture before the members of the *Académie Royale des Sciences* in Paris...^{xxxvi}

Final remarks

We may conclude that the observation-based knowledge produced by Peyssonnel through interaction with local fishermen can be brought back to a story about the circulation of knowledge in academic circles. In each local context this knowledge received new appraisals, sometimes ending up in disputes and confrontations between scholars as the examples of the *Académie Royale des Sciences* and the *Royal Society* showed. Peyssonnel’s case reaffirms that knowledge production through exploration is

primarily a localized process. As knowledge was transformed, translated, revised and retranslated, it was either enriched with new meanings, or eroded by the separation from the original environment.

Peyssonnel returned to Guadeloupe in 1756. He died three years later. Probably he was quite satisfied that his ideas had finally received the blessing of scholars in Europe. Nevertheless one has to admit that however Peyssonnel was rehabilitated, his work was already in the course of being outdated by research carried out by a new generation of naturalists who incorporated the knowledge on coral in a wider context, taking as a basis the binomial classification system designed by Linnaeus. This systematic approach is reflected in the work of John Ellis^{xxxvii} and Daniel Solander^{xxxviii} in London and in that of Peter Simon Pallas^{xxxix} in St. Petersburg. These researchers laid the foundations of a more “global” approach that would lead to the famous study on the structure and distribution of coral reefs conducted by Charles Darwin in 1832-1836 (and published in 1842)^{xl}. Again, specialized knowledge of sea-life which was locally gathered through the interaction between naturalists, coral fishers and other anonymous experts of the sea in the course of exploratory missions would be of crucial importance. Ellis had been a royal agent at the coast of Florida, Solander had travelled the seas with Cook and Banks, Pallas had made expeditions to the farthest coasts of an emerging Russian empire, while Darwin studied coral *in situ* while travelling around the world with the *Beagle* expedition.

END NOTES

ⁱ For the main genealogical data concerning the Peyssonnel family see: LA CHENAYE-DESBOIS, *Dictionnaire de la noblesse*, Paris, 1776², Vol. 9, 284-286; ARTEFEUIL, *Histoire héroïque et universelle de la noblesse de Provence*, Avignon, 1786, Vol.3, Supplement, 251-258; C.-F. ACHARD, *Histoire des hommes illustres de la Provence, ancienne et moderne*, Marseille, 1787, 2nd part, 81-86; A. RAMPAL, “Notes généalogiques sur la famille Peyssonnel”, *Congrès des Sociétés savantes de Provence. Marseille (31 juillet-2 août 1906). Comptes-rendus et mémoires*, Aix-en-Provence-Marseille, 1907, 101-104; A. RAMPAL, “Une famille marseillaise de consuls en Levant”, *Compte rendu des Travaux du Congrès colonial de Marseille*, 1908, Vol. 1, 157-162; F. REYNAUD, “Trois berceaux de l’Académie de Marseille: les demeures des familles Peyssonnel et de Porrade (XVIe-XVIIIe s.)”, *Marseille*, 1988, n° 152, 22-34; P. GUIRAL & F. REYNAUD, *Les Marseillais dans l’histoire*, Privat, 1988, 193-194; H. VOILLAUME, “Un Marseillais aux Antilles: Jean-André de Peyssonnel”, *G.H.C. Bulletin*, July-August 1989, 49-51; A. MÉZIN, *Les consuls de France au Siècle des Lumières (1715-1792)*, Paris, 1997, 487-490.

ⁱⁱ Of particular importance are the following studies: D. BRAHIMI, *Voyageurs français du XVIIIe siècle en Barbarie*, Lille-Paris, 1976; E.-T. HAMY, “Peyssonnel et Antoine de Jussieu”, *Bulletin de géographie historique et descriptive*, 1907, 341-345; A. LACROIX, “Notice historique sur les membres et correspondants de l’Académie des Sciences ayant travaillé dans les colonies françaises de la Guyane et des Antilles de la fin du XVIIIe siècle au début du XIXe”, *Mémoires de l’Académie des Sciences de l’Institut de France*, 61, Second Series, 1934, 1-100; L. PLANTEFOL, “Peyssonnel, Jean-André”, *Dictionary of Scientific Biography*, Vol. 10, 1974, 568-569; J. THÉODORIDES, “A propos de Jean-André Peyssonnel (1694-1759)”, *Dix-huitième siècle*, 9, 1977, 489-490.

ⁱⁱⁱ *Dissertation sur les opinions anciennes et modernes touchant la peste*, Marseille, [1721]; *La Contagion de la Peste expliquée et les moyens de s’en préserver. Où l’on explique comment la Peste se communique, les moyens de se préserver de sa contagion en servant les pestiférés & en vaquant dans une ville empestée. Contenant ce qu’on doit observer dans un Royaume & dans une ville, lorsque ses voisins sont atteints de la peste, & lors même qu’on en est affligé. Les moyens de désinfecter une ville & une maison empestée: & la manière de traiter & nourrir les enfans au lait, délaissés par leurs meres morte en tems de contagion. Par le Sr***. Docteur en Médecine*, Marseille, 1722; *Essay de physique, ou Conjectures fondées sur quelques observations qui peuvent conduire à la connoissance et à l’explication des courans de la mer Méditerranée par le Sr Peyssonnel...*, *Imprimées par ordre de MM. les Echevins & Députez de la Chambre de commerce de la ville de Marseille*, Marseille, 1726.

^{iv} “An Account of a manuscript treatise, presented to the Royal Society, intituled *Traité du corail contenant les nouvelles decouvertes, qu’on a fait sur le corail, les pores, madrepores, scharras, litophitons, eponges, et autres corps et productions, pour servir à l’histoire naturelle de la mer; that is to say, A Treatise upon Coral, and Several other Productions furnish’d by the Sea, in order to illustrate the natural History thereof, by the Sieur Peyssonnel, M.D. Correspondent of the Royal Acad. of Sciences of Paris, of that of Montpellier, and of that of Belles Lettres at Marseilles; Physician-Botanist, appointed by His Most Christian Majesty in the Island of Guadelupe, and heretofore sent by the King to the Coasts of Barbary for Discoveries in Natural History. Extracted and translated from the French by Mr. William Watson, F.R.S.*”, *Philosophical Transactions*, Vol. 47, 1751-1752, 445-469.

^v *Traduction d’un article des Transactions philosophiques sur le corail. Projet proposé à l’Académie de Marseille pour l’établissement d’un Prix pour une Dissertation sur l’Histoire Naturelle de la Mer, avec la réponse de l’Académie, & une Lettre sur cette réponse. Diverses observations Sur les courans de la Mer, faites en différens endroits*, London [Paris], 1756.

^{vi} One has to mention: P. FLOURENS, “Analyse d’un ouvrage manuscrit intitulé: *Traité du corail, contenant les nouvelles decouvertes qu’on a faites sur le corail, les pores, madrepores, escharas, litophitons, éponges et autres corps et productions que la mer fournit, pour servir à l’histoire naturelle de la mer: par le sieur de Peyssonnel, écuyer*,

docteur en médecine, correspondant des académies des sciences de Paris et de Montpellier et de celle des belles-lettres de Marseille, médecin-botaniste entretenu par sa majesté dans l'île Guadeloupe, ci-devant envoyé par le roi aux côtes de la Barbarie pour les recherches de l'histoire naturelle”, *Annales des sciences naturelles*, Second Series, 9, 1838, 334-351; P. FLOURENS, “Traité du corail, contenant les nouvelles découvertes qu'on a faites sur le corail, les pores, madrépores, escharas, litophytons, éponges et autres corps et productions que la mer fournit, pour servir à l'histoire naturelle de la mer: par le sieur de Peyssonnel, écuyer, docteur en médecine, correspondant des Académies des Sciences de Paris et de Montpellier et de celle des Belles-Lettres de Marseille, médecin-botaniste entretenu par Sa Majesté dans l'île Guadeloupe, ci-devant envoyé par le Roi aux Côtes de la Barbarie pour les recherches de l'histoire naturelle (ouvrage manuscrit)”, *Journal des Savants*, 1838, 108-122; A. MCCONNELL, “The Flowers of Coral – Some Unpublished Conflicts From Montpellier and Paris During the Early 18th Century”, *History and Philosophy of the Life Sciences*, 12, 1990, 51-66.

vii See the editions: A.J.C.A. DUREAU DE LA MALLE, *Peyssonnel et Desfontaines. Voyages dans les régences de Tunis et d'Alger*, Paris, 1838; J.-A. PEYSSONNEL, *Voyage dans les régences de Tunis et d'Alger, Présentation et notes de Lucette Valensi*, Paris, 1987 (Collection La Découverte, 72); J.-A. PEYSSONNEL, *Voyage dans les régences de Tunis et d'Alger, Présentation et notes de Lucette Valensi*, Paris, 2001 (Collection [Re]découverte. Littérature et voyages).

viii Some works: *Idée de la physique mécanique de M. Peyssonnel medecin de Marseille*, s.l., s.d.; *Histoire de la machine du Monde*, Marseille, 1704; *Lettres de l'auteur de la physique mécanique*, Marseille, 1705.

ix Only a few printed dissertations have been preserved. Two are to be found in the British Library in London, 1179.d.1.(3.) and 1180.c.3.(3.). These pieces come from the collection of Hans Sloan. They have been transmitted to him by John Thomas Woolhouse (1666-1734) who has worked in Paris between ca. 1700 and ca. 1730.

x London, British Library, MS 4219, p. 4.

xi Paris, Muséum National d'Histoire Naturelle, Bibliothèque Centrale, MS 1260, Préface, fols 1r-2v.

xii *Ibidem*.

xiii London, British Museum, MS 4219, pp. 9-11.

xiv On Marsigli, see: J. STOYE, *Marsigli's Europe, 1680-1730: The Life and Times of Luigi Ferdinando Marsigli, Soldier and Virtuoso*, New Haven-London, 1994; M. DEACON, “Luigi Fernando Marsigli: scientific ‘virtuoso’ and investigator extraordinaire”, *Ocean Challenge*, 11, 2001, n° 1, 28-30; M. PINAULT-SØRENSEN, “Le comte Luigi Ferdinando Marsigli, le Danubius Pannonico-mysicus et l'Encyclopédie”, in: *Cultivateur de son jardin, Mélanges offerts à Monsieur le Professeur Imre Vörös*, Budapest, 2006, 189-206; F. RODOLICO, “Marsili (or Marsigli), Luigi Ferdinando”, *Dictionary of Scientific Biography*, 9, 1974, 135-136; A. MCCONNELL, “The Flowers of Coral – Some Unpublished Conflicts From Montpellier and Paris During the Early 18th Century”, *History and Philosophy of the Life Sciences*, 12, 1990, 51-66. Other studies by this author: J. CARPINE-LANCRE & A. MCCONNELL, “Le Comte L.F. Marsigli et la Société royale des sciences de Montpellier”, *Actes, 110^e Congrès national des sociétés savantes*, Montpellier, 1985, 1, 33-44; A. MCCONNELL, “L.F. Marsigli's Voyage to London and Holland, 1721-1722”, *Notes and Records of the Royal Society of London*, 41, October 1986, n°1, 39-76; A. MCCONNELL, “L.F. Marsigli's Visit to London in 1721, and His Report on the Royal Society”, *Notes and Records of the Royal Society of London*, 47, n° 2, July 1993, 179-204.

xv London, British Library, Add. MS 4219, 40-42.

xvi Montpellier, MCA Emile Zola, MS 52, n°95, Jean-André Peyssonnel to the Société Royale des Sciences de Montpellier.

xvii Paris, Archives de l'Académie des Sciences, Procès verbaux des séances de l'Académie Royale des Sciences, 1723, séance de samedi 20 mars, fol. 52v.

xviii Paris, Muséum National d'Histoire Naturelle, Bibliothèque Centrale, MS 1260, fols 2v-3r.

xix Paris, Archives de l'Académie des Sciences, Procès verbaux des séances de l'Académie Royale des Sciences, 1723, séance du mercredi 28 juillet, fol. 229r.

xx Paris, Archives de l'Académie des Sciences, Procès-verbaux des séances de l'Académie Royale des Sciences, 1723, séance du samedi 21 août, fol. 243r.

xxi A. RAMPAL, *Art. cit.*, 1907, p. 324.

xxii Paris, Archives de l'Académie des Sciences, personal file Jean-André Peyssonnel, autographs, Bignon to Antoine de Jussieu, L'île Belle, 20 September 1724.

xxiii Paris, Archives Nationales, Marine, B⁷, 122, 1725, fols 288v-289r.

xxiv Paris, Archives de l'Académie Royale des Sciences, Procès-verbaux des séances de l'Académie Royale des Sciences de l'année 1725, séance du samedi 21 juillet 1725, fol. 167v.

xxv Paris, Archives de l'Académie Royale des Sciences, Procès-verbaux des séances de l'année, séance de mercredi 1^{er} août 1725, fol. 179r.

xxvi London, British Library, Add. MS 4219, p. 70.

xxvii The original is probably lost. This letter is quoted in a manuscript preserved in London, British Library, Add. MS 4219, p. 89.

xxviii Réaumur to Peyssonnel, 2 June 1726. The original is probably lost. This letter is quoted in a manuscript preserved in London, British Library, Add. MS 4219, 87-89.

xxix Paris, Archives de l'Académie des Sciences, procès-verbaux des séances de l'Académie Royale des Sciences, séances de mercredi 30 juillet 1727, de mercredi 6 août 1727 et de samedi 9 août 1727, fols. 270r, 279v-287v.;

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xxxvi *Philosophical Transactions*, 47, 1751-1752, 445-469. The manuscript of Watson’s abstract can be found in London, Archives of the Royal Society, L&P II, 296.

xxxvii Paris, Archives de l’Académie Royale des Sciences, Procès-verbaux des séances de l’Académie Royale des Sciences pour l’année 1756, séance de mercredi 28 janvier 1756, p. 47.

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