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**Revealing the Invisible: a comparative analysis of the
underwater heritage management in the Mediterranean context**

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Chapter 1: Introduction and Methodology

1.1. Introduction to the topic

The aim of this research is to identify problems and contradictions pertaining to the management of underwater archaeological heritage in the Mediterranean area by means of a methodology borrowed from the study of the sociology of culture. My intention has been to develop a comparative study, by analyzing the state of affairs in three different Mediterranean countries, France, Italy, and Spain, focusing on particular case studies (Baia and Gaiola Underwater Parks in the Bay of Naples and the island of Sicily for Italy; the Bay of Marseille and Arles, for France; Cartagena and Catalonia for Spain), considering in my analysis all the stakeholders involved in the production of the underwater heritage, as well as the public to whom the heritage has to be transmitted, and the specific historical and institutional contexts for each of the three countries. In this Chapter the theoretical framework, the structure and the methodology of the research will be presented.

1.1.1 What is underwater heritage and short history of underwater archaeology

To describe what underwater heritage is, we have to share the definition given by Forrest who noticed that "underwater cultural heritage is an environmentally confined category of "cultural heritage""¹. Therefore, what emerges is that, the main difference between underwater cultural heritage and cultural heritage in general, is not given by a particular meaning or value, but only by the fact that underwater heritage has been partially or totally, periodically or continuously lying underwater (which means both under the sea or bodies of internal waters). Therefore, in this work, underwater cultural heritage will be intended as the heritage found on the seabed or below the surface of the sea and bodies of internal waters, and that, for this reason is subject to particular technical problems regarding its conservation, study and dissemination to the public².

¹Forrest C.J.S. 2002. "Defining 'underwater cultural heritage'". In *The International Journal of Nautical Archaeology* vol.31 nr.1. Academic Press, Dorchester (UK); pp. 3-6.

²Beltrame C. 2012. *Archeologia marittima del Mediterraneo - Navi, merci e porti dall' antichità all' età moderna*. Carrocci editore, Roma; pp. 17-23.

The reasons why we can have archaeological objects lying underwater may be due to different reasons; however, as was already recognized by Goggin in 1960³, we can group the archaeological heritage that we can find both in internal waters and in the sea into sizeable categories:

- discarded objects: there are many cases of isolated objects recovered at the bottom of the sea or of internal waters; the isolated objects can be works of art or objects related to daily life. They may be connected to structures or wrecks that have not been recovered or studied, or they may happen to be at the bottom of the sea or of internal waters by sheer chance, or because of the existence of underwater garbage dumps. Sometimes these archaeological findings are open to interpretation, since they are not related to a specific archaeological context.

- structures: because of different geological and volcanic phenomena, coastlines or the banks of internal water, may be affected by subsidence phenomena causing the deformation and often the engulfment of the surrounding land. The result is often that ancient settlements are submerged and so lie underwater. This can be the case of ancient ports, like the one of Cesarea in Israel⁴, or entire city quarters like the case of Alexandria in Egypt⁵. These sunken settlements can give us the same kind of information as an archaeological site on land; they can also be interesting indicators for calculating the variation in sea and river bank levels throughout the centuries.

- wreck sites: these are the sites where wrecks⁶ (all kinds of vessels, or airplanes) are found underwater as the result of some dramatic event.

³ Goggin J.M. 1960. "Underwater Archaeology. Its Nature and Limitations". In *American Antiquity* vol.25 no.3; pp. 351-353. Goggin actually includes another category, which are "shrines or places of offering and interments", where he refers to bodies of water into which in different eras and for different reasons different kinds of materials were thrown by man for ceremonial reasons. We did not include this category, because, as Goggin recognizes in the case of discarded objects, also here often, the archaeological context is not clear.

⁴ Black E. 1995. "Israel - maritime archaeology in Israel and the protection of underwater sites and wrecks". In AA.VV.. *100 sites historiques d'intérêt commun méditerranéen - protection du patrimoine archéologique sous-marin en méditerranée - document techniques V*. A.M.P.H.I. Atelier du Patrimoine, Marseille; pp. 67-77.

⁵ Empereur J.Y. 1998. *Alexandria rediscovered*. British Museum Press, London.

⁶ The processes of formation of underwater archaeological sites with shipwrecks are various and they depend on the nature of the heritage itself and on the natural environment. Here it is possible to find an overview: Stewart D.J. 1999. "Formation

A wreck site, however, is not just the place where the remains of a sunken ship (or airplane) are found, but also the cargoes, equipment or even everyday objects used on board, that may be found around or within the wrecks, all of which can give a great deal of information not only on the vessel or airplane, but also on the moment when the dramatic event happened. As it happens with any other archaeological finding, the time period in which the underwater findings have to be included in order to be defined as heritage depends on the different national legislations and international conventions.

In the end, what emerges from this generalization is that underwater it is possible to find all kinds of ancient objects or sites, so perhaps, now it will be more understandable why we will consider, as Gianfrotta and Pomey already did in 1981⁷, underwater archaeology simply as archaeology that has to operate in the water (both the sea and internal waters) environment. It is important to make this clarification, in order not to confuse underwater archaeology with another discipline to which it is sometimes connected, that is maritime archaeology. In fact, as explained by Bass⁸, maritime archaeology is the discipline that is aimed at the study of the maritime cultures and the history of the interaction between people and the sea, also with different branches like coastal archaeology (which studies, for examples, the settlements that used to exist along a coastline), and nautical archaeology (which studies the archaeology of the ships and everything that is connected to them, like ports and harbors). Of course, it may happen that the objects of the study of maritime archaeology are found under the water surface, but this is not necessarily the case⁹. After this clarification, it would be important to trace a short history of underwater archaeology as a discipline and to understand the technical problems related to underwater archaeology.

processes affecting submerged archaeological sites: an overview". In *Geoarchaeology volume 14 issue 6*; pp. 565-587.

⁷ Gianfrotta P.A. & Pomey P. 1981. *Archeologia Subacquea - storie, tecniche, scoperte e relitti*. Mondadori ed. Milano; p. 7.

⁸ Bass G. 2011. "The Development of Maritime Archaeology". In Catsambis A., Ford B., Hamilton D.L.. *The Oxford Handbook of Maritime Archaeology*. Oxford University Press, New York; pp. 3-4.

⁹ Muckelero K. 1978. *Maritime Archaeology*. Cambridge University Press; p. 8.

In fact, the underwater world has always attracted human curiosity, and, moreover, for a matter of practical reasons it has always been necessary to have people going underwater; it is for this reason that already in the ancient Greek and Roman worlds ancient sources describe the activities of men, like the Roman *urinatores*, that dived in apnea whether to support military actions or to recover cargoes that fell out of the ships¹⁰. Then, throughout the centuries we have many attempts to create apparatuses that allowed divers to stay underwater without holding their breath, but they all had one important limitation that the diver was not free to move around, because a constant connection with the surface was needed¹¹. Therefore, for the beginning of the underwater archaeology the turning point came in the 1940s, when two French men, Jacques-Yves Cousteau and Emil Gagnan invented a system, the Self Contained Underwater Breathing Apparatus (SCUBA) diving system¹², which allowed divers to go underwater with a complete freedom of movement and without the need to be connected to the surface. Nevertheless, even before the invention of the SCUBA diving system, there was an awareness of the presence of ancient objects on the seabed, due especially to the activities of fishermen who, accidentally, brought to the surface antiquities caught up in their fishing nets¹³, or because of the activities of the sponge and coral divers, like in Antikythera, between Greece and Crete, where in 1900 sponge fishermen found an ancient ship's cargo consisting of marble and bronze statuary. In this case, instead of looting the site, the sailors alerted the Greek authorities, that under the direction of Georges Byzantinos, organized a mission to recover the

¹⁰ Foret A. & Borelli J. 2007. *Une Histoire de la Plongée et des sports subaquatiques*. Fédération Française d'Études et des Sports Sous-marines, Subaqua ed.; pp. 23-25.

¹¹ Foret A. & Borelli J. 2007. *Une Histoire de la Plongée et des sports subaquatiques*. Fédération Française d'Études et des Sports Sous-marines, Subaqua ed.; pp. 26-56.

¹² Bass G. 2011. "The Development of Maritime Archaeology". In Catsambis A., Ford B., Hamilton D.L. *The Oxford Handbook of Maritime Archaeology*. Oxford University Press, New York; p. 5.

¹³ This became particularly true, at least in the Mediterranean, from the 1920s, when fishermen started to use in a more intensive way trawling fishing techniques, that brought from to the surface many objects lying on the seabed. L. Ambrogia N. 1961 "Lo Stato attuale dell'archeologia sottomarina in Italia". In AA.VV. *Attes du 2e Congrès International d'Archéologie Sous-Marine, Albenga 1958*. Institut International D'Études Ligures, Musée Bicknell, Bordighera; p. 13.

material¹⁴. However, despite the awareness of the existence of antiquities on the seabed, and the development of diving techniques, for a long time the recovery of underwater antiquities, as it happened also for on land archaeology, was not carried out by scholars or archaeologists, but simply by divers who accidentally found ancient objects¹⁵.

In the 1950s, Nino Lamboglia in Italy and Fernand Benoit in France, were the first archaeologists to guide underwater missions aimed at the study of underwater archaeological contexts and the recovery of underwater archaeological objects, both understanding the incredible potential of the underwater deposits; unfortunately neither Lamboglia nor Benoit were SCUBA divers and they did not have archaeologist divers in their teams, so for the study of the contexts they had to rely on the descriptions of the volunteer SCUBA divers; their work, therefore had technical and scientific limits, although they made considerable headway towards the development of underwater archaeology as a scientific discipline¹⁶. So, in the 1960s, when SCUBA diving started to become a more popular activity, the main problem for the scientific development of the discipline seemed to be that archaeologists lacked the expertise to work underwater and consequently they were prevented from undertaking underwater archaeological missions that were delegated to unprofessional and volunteer divers. It is for this reason that, as Bass reports, the anthropology professor John Goggin in 1959 stated that "it is easier to teach diving to an archaeologist than archaeology to a diver"¹⁷, proposing that underwater archaeological campaigns performed by non professional archaeologists be interrupted. In this situation, in the 1960s, thanks to the support of the Pennsylvania Museum, at a time when underwater archaeology was still much more an adventurous hobby than a scientific discipline, the

¹⁴ Barstad J.F. 2002. "Underwater Archaeology in the 20th Century - Filling the Gaps". In Ruppé C. & Barstad J.F. (eds.) 2002. *International Handbook of Underwater Archaeology*. Kluwer Academic/Plenum Publishers, New York; pp. 3-4.

¹⁵ Frost H. 1963. *Under the Mediterranean - Marine Antiquities*. Routledge and Kegan Paul Ltd., London; pp. 16-18.

¹⁶ Gianfrotta P.A. & Pomey P. 1981. *Archeologia Subacquea - storie, tecniche, scoperte e relitti*. Mondadori ed. Milano; pp. 11-12.

¹⁷ Bass G. 2011. "The Development of Maritime Archaeology". In Catsambis A., Ford B., Hamilton D.L.. *The Oxford Handbook of Maritime Archaeology*. Oxford University Press, New York; p. 6.

American archaeologist George Bass was the first to operate directly underwater, working on a Bronze Age shipwreck in Cape Gelidonya, in Turkey¹⁸. The mission was a turning point in the history of the discipline since, not only was it the first time that an archaeologist operated underwater, but also this was the first systematic study not only of the cargo of a ship, but of the shipwreck itself and of the general archaeological context. After the experience of Bass, underwater archaeological missions led by professional archaeologists increased all over the world and in different archaeological contexts, with some sensational discoveries that helped in attracting attention to the activities of underwater archaeologists and to the potential of underwater archaeological research, like the exceptional *Mary Rose* project that, after the discovery in 1971, in 1982 led to the complete recovery of a 1510 vessel from the UK waters and its subsequent display in Portsmouth¹⁹.

The growing interest within the scientific community for the possibilities opened by the underwater archaeological research was confirmed also by the organization of the first International Conference on Underwater Archaeology, which was organized in 1955 in Cannes (France) by a French group of SCUBA divers (Club Alpin Sous Marin)²⁰, and followed by other three meetings, two in the Mediterranean and one in the USA, and by the creation, in 1959 of the Council of Underwater Archaeology²¹.

At the same time, with the growing interest in the discipline some issues started to emerge which had to be solved (and partially still have to be solved). First of all technical problems related to the possibilities of operating underwater, like how to increase the time that a SCUBA

¹⁸ Bass G., Throckmorton P., Du Plat Taylor J., Hennessy H., Shulman A.R., Buchholz H.G. 1967. "Cape Gelidonya. A Bronze Age Shipwreck". *Transactions of the American Philosophical Society*, vol. 57 no.8; pp. 1-177.

¹⁹ <http://www.maryrose.org/>. Last retrieved on 02/02/2015. Marsden P. 2003. "Sealed by Time: the Loss and Recovery of the *Mary Rose* - volume 1 of the series; Archaeology of the *Mary Rose*". In *International Journal of Nautical Archaeology* 32.2; pp. 262-282.

²⁰ Gianfrotta P.A. & Pomey P. 1981. *Archeologia Subacquea - storie, tecniche, scoperte e relitti*. Mondadori ed. Milano; p. 12.

²¹ Delgado J.P. 2000. "Underwater Archaeology at the Dawn of the 21st Century". In *Historical Archaeology* vol.30, no.4; p. 9.

diver could spend underwater and the depth that could be reached²². The technical problems were gradually solved, and, of course the technological challenges change according to the different time periods; nowadays, in fact we have reached such a technological level that the main issues are connected to the possibilities of studying deep water (a depth on more than 50 meters) underwater archeological remains²³. Other important technical problems are related to the heritage preservation both *in situ* and out of the water. In fact, it has been acknowledged that underwater archaeological objects often remain preserved in a reasonable condition because of the creation of a delicate equilibrium between the object itself and the surrounding environment helped by the lack of oxygen that has a beneficial effect on the preservation of objects made of delicate materials, as for example wood²⁴. Consequently, once that an object is removed from the seabed it immediately starts a process of deterioration, and of course, different solutions have to be found according to the material composition, its antiquity, its context of finding and the place where it will be preserved²⁵. At the same time, underwater archaeological diggings, exactly as inland archaeology, are intrusive and destructive processes that alter the equilibrium that allowed the preservation of an archaeological site. Therefore, in most cases, and it can also happen in terrestrial sites, once that an underwater archaeological mission has completed its work, it is necessary to find solutions to protect the site,

²² In 1958, the Italian archaeologist Nino Lamboglia describes that SCUBA divers could reach a maximum depth of 20 meters and spend underwater a maximum of 20 minutes underwater (Lamboglia N. 1961 "Lo Stato attuale dell'archeologia sottomarina in Italia". In AA.VV.. *Actes du 2e Congrès International d'Archéologie Sous-Marine, Albenga 1958*. Institut International D'Études Ligures, Musée Bicknell, Bordighera; pp. 12-17).

²³To have a review of the technological development concerning deepwater archaeology, see Søreide F. 2011. *Ships from the Depth - Deepwater Archaeology*. Texas A&M University Press.

²⁴ Maarleveld T.J. 2014. "Underwater sites in archaeological conservation and preservation". In C. Smith (ed.) *Encyclopedia of Global Archaeology*. Springer, New York; pp. 7420-7421.

²⁵ For a general overview of the treatment of the objects found under the water see (more specifically in salty environment) Pearson C. 1987. *Conservation of Marine Archaeological Objects*. Butterworths Ltd.

not only from the environmental deterioration processes, but also from the human impact²⁶.

Nevertheless, because of the fast development of underwater archaeological practices, due to the activities of many underwater archaeological missions, the scientific community immediately recognized that during underwater archaeological campaigns it was necessary to apply the same scientific standards and the same criteria that were and are used in the on land archaeological operations²⁷. However, many non-archaeologist divers approached the discipline and carried out underwater archaeological excavations. As Honor Frost stated, at the beginning this was something not only useful, but necessary, since to work on an underwater site a high level of expertise in SCUBA diving is essential²⁸. Nevertheless, since the discipline is still quite young, it has always been necessary to underline that to recover antiquities from the seabed or from a lake or a river bed, it is necessary to be a trained archaeologist, and that the removal of the ancient objects from their context of finding can create more damage than benefits²⁹. This, of course, is something which is true also for archaeology on land, but it seems that divers, even though they have no intention of creating any damage, bring back an "archaeological souvenir" from their underwater excursions, in most cases, simply because they do not perceive that removing objects from their underwater context is damage. Probably, this is due to the recent development of the discipline that perhaps is not yet seen as archaeology by the general public, and this may be also due to how underwater archaeology has been described by the media, for whom underwater archaeology has

²⁶ This article gives a good synthesis of how to preserve one of the most studied and delicate underwater archaeological contexts, which are the shipwrecks: Davidde B. 2004. "Methods and Strategies for the Conservation and Museum Display *In Situ* Underwater Cultural Heritage". In *Archeologia Marittima Mediterranea -An International Journal on Underwater Archaeology* vol. 1; pp. 136-150.

²⁷ Bass G. 2011. "The Development of Maritime Archaeology". In Catsambis A., Ford B., Hamilton D.L.. *The Oxford Handbook of Maritime Archaeology*. Oxford University Press, New York; p. 7.

²⁸ Frost H. 1963. *Under the Mediterranean - Marine Antiquities*. Routledge and Kegan Paul Ltd., London; pp. xi-xii.

²⁹ Dean M., Ferrari B., Oxley I., Redknap M., Watson K. 1992. (edited by). *Archaeology Underwater. The NAS Guide to Principle and Practice*. Nautical Archaeological Society, London; p. 21.

been, since its birth, attractive. The risk is that often underwater archaeologists are not represented as archaeologists, but more as people concerned with technical problems to be solved in order to be able to work in the water environment, without leaving space for cultural and historical interpretations³⁰. In fact, already Nino Lamboglia, pioneer of Mediterranean Underwater Archaeology, warned about the risk of the spectacularization of the discipline, emphasizing the risk of reducing the scientific aspects to the desire to impress the people³¹. Nevertheless, it is also important to point out, that one of the obstacles which should be faced in order to limit the activities of treasure hunters and avocational archaeologists, is to have appropriate and adequate institutions, at both a national and international level, that take care of the underwater heritage, and, therefore, there is the need for trained professionals. The lack of an adequate number of professional academically trained underwater archaeologists, not only in theory, but also in practice, is still limit for the development of the discipline, but specific academic courses have been instituted only recently³².

We acknowledge that pillaging is a problem also for land archaeology; however, in the case of underwater archaeology the situation is even more drastic because it is easier to hide an activity in the sea, and because at international level there is no regulation that could limit the activity of the treasure hunters, which is related to the problem of establishing who is the owner of something that is found in the sea (the situation is, in this case, easier for the internal waters). In fact, this misinterpretation of the discipline has led to the activity of many explorers, that autonomously and without appropriate training, go to study underwater archaeological sites, or even worst to pillage them. It can also happen, as has also been highlighted by the media, that some

³⁰ Sperry J.A.2008. " 'Giant Strides' in Documentaries, 'Ascents' in archaeology: Nautical Archaeology's Relationship with and Place within Popular Culture". In *The International Journal of Nautical Archaeology* volume 38 nr. 2; p. 345.

³¹ Pietraggi R. 2007. "Nino Lamboglia: l'archeologia subacquea e la burocrazia: luci ed ombre di un rapporto tormentato. In *Archeologia Marittima Mediterranea - An International Journal on Underwater Archaeology* 4 ; pp. 37-39.

³² Maarleveld T. & Auer J. 2008. "Teaching Marine Archaeology: a Practical Approach?". In Radić Rossi I., Gasparri A., Pydyn A. (eds.) *Proceedings of the 13th Annual Meeting of the European Association of Archaeologists (Zadar, Croatia, 18-23 September 2007)*. Croatian Archaeological Society, Zagreb; pp. 105-110.

diving centers advertise excursions in places where there is the presence of underwater ancient ruins that can be easily exploited³³. The activity of these independent explorers easily turns into a real treasure hunt. In fact, with the rapid development of technologies like SCUBA diving and sonar, the underwater sites became much more accessible³⁴. Moreover, when we refer to treasure hunters who look for underwater remains, we also to private companies which legally operate in places where the underwater heritage is not under any kind of legal protection, that may be either international waters or national waters of countries that allow treasure hunter activities, looking for precious ancient objects to be found for commercial exploitation and which, during their research completely destroy any archaeological context³⁵. The possibilities of these private companies to operate openly and legally, is, once again, also due to the misinterpretation of underwater archaeology. Treasure hunters very often present themselves as the savers of underwater heritage, and the great attention they receive from the media, of course has an impact on how the discipline is perceived by the public³⁶. The first challenge regarding underwater heritage protection is convincing society that underwater remains deserve protection and study as much as on land remains; moreover it is necessary to overcome the clichés and the myth of romantic underwater treasure hunters and make people understand that this is not the right or constructive way to approach heritage conservation³⁷. The risks regarding heritage in general, both on land and underwater, are many. The main difference regarding on land and underwater heritage, is that it is easier to discover and denounce illicit actions

³³ http://www.theguardian.com/world/2009/jan/30/greek-shipwrecks-scuba-diving-ban?CMP=share_btn_fb. Last retrieved on 02/01/2015.

³⁴ Hutchinson G. 1996. "Threats to underwater cultural heritage. The problems of unprotected archaeological and historic sites, wrecks and objects found at sea". In *Marine Policy vol. 20, no. 4*; pp. 287-290.

³⁵ Bass G. 2011. "The Development of Maritime Archaeology". In Catsambis A., Ford B., Hamilton D.L.. *The Oxford Handbook of Maritime Archaeology*. Oxford University Press, New York; pp. 11-14.

³⁶ Maarlveld T.J. 2011 "Ethics, Underwater Cultural Heritage and International Law". In Catsambis A., Ford B., Hamilton D.L.. *The Oxford Handbook of Maritime Archaeology*. Oxford University Press, New York; p. 931.

³⁷ Greiner R. 2006. "Introduction: Mankind, and at times Nature, are the true risks to Underwater Cultural Heritage". In Greiner R., Nutley D., Cochran I.. *Underwater Heritage at Risk. Managing Natural and Human Impact*. ICOMOS; Paris; p. x.

against heritage that occur on land; what happens underwater normally remains unknown³⁸.

In general, the increase in accessibility of the underwater sites has brought to the attention of the scientific community and of the policy makers the problem on how to establish the right to claim ownership of archaeological objects found underwater. Just to give an example, until 1995 in Portugal it was possible to legally trade archaeological objects found on shipwrecks or on the seabed³⁹. The main issue with ownership attribution for underwater heritage was related to the internationally recognized Law of Salvage, which dates back to the pre-Christian area, and according to which, the person that finds a wreck in the sea, can claim a reward for having saved its cargo⁴⁰. In the case when a ship is abandoned or has no owner, the Law of Finds was internationally recognized, following the principle that who finds the wreck can claim ownership over its abandoned cargo⁴¹.

Another problem was related to the ownership attribution in cases of accidental underwater heritage discovery. A clear example caused by this legislative loophole is the well-known case of the recovery of the Melqart (a Phoenician god) of Sciacca, in the Sicily canal. Briefly, in 1955 a small Phoenician statue was found and recovered in Sicilian waters by some fishermen from Sciacca (Sicily); the 38 cm high statue was kept in a stockroom in Sciacca for a short period of time, after which it was sold and then shown to an expert. This is how the local Superintendence⁴² found out about the statue, and the case went to court in order to decide on rightful possession. The claimants were: the Sciacca municipality, to which the buyer had donated the statue, the

³⁸*Ibidem*; p. x.

³⁹ Dellaporta K. 2011. "Le Rejet de l'Exploitation Commerciale par la Convention de 2001 et l'incitation à la Coopération International". In AA.VV. *UNESCO Scientific Colloquium on factors Impacting Underwater Cultural Heritage - UNESCO regional Meeting on the Protection of the Underwater Cultural Heritage*. Conference Book 13-15/12/2011, Royal Library of Belgium, Brussels; pp.31-33

⁴⁰ Wilder M.A. 2000. "Application of Salvage Law and the Law of Finds to Sunken Shipwrecks Discoveries". In *67 Defense Counsel Journal*; pp. 92-93.

⁴¹*Ibidem*; pp. 92-97.

⁴² The Superintendences are Italian local bodies that depend directly on the *Ministero dei beni e delle attività culturali e del turismo* (Ministry of the cultural activities and goods and of tourism) and have a direct control on the territorial heritage: D'Agostino B. 1984. "Italy". In Cleere H. (edited by) *Approaches to the Archaeological Heritage*; pp. 76-78.

Italian Ministry of Public Education⁴³, the owner of the boat who found the statue, and the buyer's heirs. In the end, the statue was declared to be State property, since a fishing boat flying the Italian flag has to be considered Italian territory⁴⁴. Nonetheless, the episode highlighted the urgent need for precise legislation specific to underwater heritage.

It is immediately understandable that the findings of underwater archaeological heritage, and particularly in the case of finding of ancient shipwrecks, especially for those countries that did not have any kind of regulations for protecting the underwater archaeological heritage located in their territorial waters⁴⁵, can generate problems. In this perspective, the 1982 United Nations Convention on the Law of the Sea (UNCLOS)⁴⁶ was really important. This law regulates the rights and responsibilities of Countries in the use of the sea, establishing also the areas over which each State has sovereignty. As regards underwater cultural heritage, the UNCLOS Convention was important because it states that:

Art. 149: All objects of an archaeological and historical nature found in the Area⁴⁷ shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin;

Art. 303:

1. States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose.

⁴³In 1963, at the beginning of the trial the MiBACT had not been instituted yet.

⁴⁴ Scovazzi T. 2009. "L'approche Régionale à la Protection du Patrimoine Culturel Sous-Marin: le Cas de la Méditerranée". In *Annuaire Française de Droit Internationale LV*; pp. 577-599.

⁴⁵ Stainforth M., Hunter J., Jateff E. 2009. "International Approaches to Underwater Cultural Heritage". In Harris J.W. (ed.) *Maritime Law Issue, Challenges and Implications*. Nova Science Publisher; p. 3.

⁴⁶ http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf. Last retrieved on 02/02/2015.

⁴⁷ The Area to which the article refers is the seabed outside any National waters. Gioia A. 2004. "La Convenzione UNESCO del 2 novembre 2001 sulla protezione del patrimonio culturale marino". In Maniscalco (a cura di) *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; p.28.

2. In order to control traffic in such objects, the coastal State may, in applying article 33⁴⁸, presume that their removal from the seabed in the zone referred to in that article without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article.

3. Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty, or laws and practices with respect to cultural exchanges.

4. This article is without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature.

So, the UNCLOS Convention, although it was not focused on heritage protection, with these two articles recognized that there is a difference between an abandoned shipwreck and valuable archaeological remains, but, it does not give any indications as to what has to be considered as heritage and what does not, or what action the States should undertake to protect the heritage; and in this sense it does not prevent the application of the Law of Finds or of the Law of Salvage⁴⁹. But, at least, the UNCLOS Convention represented a first step towards the discussion on the need to set rules for protecting the underwater heritage⁵⁰. The limits of the UNCLOS Convention, especially regarding the protection of those wrecks located in International waters, were unmistakable clear when in 1985 the wreck of the *Titanic* was found

⁴⁸ Article 33 establishes that each State can decide to apply its sovereignty on specific issues on a contiguous zone of a maximum of 24 nautical miles from the Territorial waters. Gioia A. 2004. "La Convenzione UNESCO del 2 novembre 2001 sulla protezione del patrimonio culturale marino". In Maniscalco (a cura di) *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; p.28.

⁴⁹ Gioia A. 2004. "La Convenzione UNESCO del 2 novembre 2001 sulla protezione del patrimonio culturale marino". In Maniscalco (a cura di). *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; pp. 28-30.

⁵⁰ Stainforth M., Hunter J., Jateff E. 2009. "International Approaches to Underwater Cultural Heritage". In Harris J.W. (ed.) *Maritime Law Issue, Challenges and Implications*. Nova Science Publisher; p. 4.

and it was immediately clear to the international community, that there was no way to protect it from treasure hunters⁵¹.

Finally, one issue related to underwater archaeology, is the possibility to transmit to the public what is found on the bottom of the sea or of internal waters. In fact, if the problem of professional or avocational treasure hunters is universally recognized as one of the main threats to the protection of underwater heritage, it is true that the first step is to inform people on how to behave when they see underwater heritage *in situ*⁵², especially if we think of the divers' community as the only possible public for underwater heritage, but then there is the challenge of understanding how to transmit the discoveries related to the underwater archaeology also to those people who are not familiar with the water environment and to a wider section of the population. In fact, underwater heritage is by definition invisible because located under the water surface, and in many cases, like in the case of structures, it is not possible to remove archaeological objects from the water, in some other cases it is possible but extremely costly. Moreover, when the heritage is left *in situ*, there is the problem of ensuring that it is safeguarded against pillaging and damage⁵³. The problems related to the transmission of the underwater heritage to the public are the main concern of this work.

What comes out from this overview is that, as also recognized by George Bass⁵⁴, pioneer of the discipline, after the technological development that allowed accurate underwater archaeological investigations, three challenges remained to be faced by underwater archaeologists and policy makers: the attribution of the ownership of underwater findings (especially in the case of shipwrecks); the

⁵¹ Hutchinson G. 1996. "Threats to underwater cultural heritage. The problems of unprotected archaeological and historic sites, wrecks and objects found at sea". In *Marine Policy* vol. 20, no. 4; p. 287.

⁵² Scott-Ireton D.A. 2006. "Florida's Underwater Archaeological Preserves: Preservation through Education". In Greiner R., Nutley D., Cochran I.. *Underwater Heritage at Risk. Managing Natural and Human Impact*. ICOMOS; pp. 5-7.

⁵³ On the possibility of disseminate to the public underwater heritage *in situ*, see Khakzad S. & Van Balen K. 2012. "Complications and Effectiveness of *In Situ* Preservation Methods for Underwater Cultural Heritage Sites". In *Conservation and Management of Archaeological Sites*, vol. 14; pp. 469-478.

⁵⁴ Bass G. 2004. "Preface". In Maniscalco F. (a cura di). *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; pp. 9-10.

recognition of underwater archeology as a scientific discipline and not as treasure hunting; and the accessibility and transmission to the public of the underwater heritage.

1.1.2 The 2001 UNESCO Convention and other International agreements

In order to face the problems that we raised in the previous paragraph, several international initiatives started to set rules aimed at the protection of underwater heritage, also before the 1982 UNCLOS Convention.

In fact, in 1978 at European level the so called Roper Report was redacted, that included a draft for the redaction of a convention on underwater heritage⁵⁵. The report recognized the growing interest in underwater sports and activities as well as a growing interest in underwater archaeological practices, and it recognized as the main threats to underwater heritage the pillaging of the sites, as well the misinterpretation of underwater archaeology as treasure hunting⁵⁶. Moreover, it was recognized that underwater archaeological excavations are expensive and, that they should not be undertaken unless there are all the technical requirements to compile documentation on the underwater site according to international standards⁵⁷. Then the Report pushed for the realization of an European Chart for the protection of the Underwater Heritage, and pushed the European States to create an internal legislative system to protect this heritage⁵⁸. Finally, the report recommended that all that have been lying on the seabed (or the beds of internal waters) for over 100 years should be considered underwater heritage, that Salvage and Finds Laws should not be applied to the underwater heritage, and that the

⁵⁵ Vlad Borrelli L. 1995. "Italie - la situation de l'archeologie sous-marin en Italie". In AA.VV.. *100 sites historiques d'interet commun mediterraneen - protection du patrimoine archeologique sous-marin en mediterranee - document techniques V*. A.M.P.H.I. Atelier du Patrimoine, Marseille; p. 47.

⁵⁶ Dromgoole S. 2013. *Underwater Cultural Heritage and International Law*. Cambridge Studies in International and Comparative Law, Cambridge University Press, Cambridge; pp. 37-38.

⁵⁷*Ibidem*; pp. 37-38

⁵⁸ Vedovato G. 1995. "La tutela del patrimonio archeologico subacqueo" In Vedovato G. & Vlad Borrelli L.(eds.). *La Tutela del Patrimonio Archeologico Subacqueo*. Istituto Poligrafico e Zecca dello Stato, Roma; p. 9.

National jurisdiction on underwater heritage should extend 200 nautical miles from the National coastline⁵⁹.

Then, as we have already described, the 1982 UNCLOS Convention arrived, which, as we said, opened to establish international rules regarding underwater heritage. In 1985, again in Europe, the Draft European Convention on the Protection of the Underwater Heritage was redacted, showing a growing interest and level of awareness at international level to decide on international rules⁶⁰. However, the Draft was not approved by the Committee of Ministries; therefore the Convention was never realized or applied⁶¹. Nevertheless, when in 1992 the European Convention on the Protection of the Archaeological Heritage was revised, it was made clear that the Convention also applied to the heritage lying underwater⁶². In fact, article 1.3 stated that:

"The archaeological heritage shall include structures, constructions, groups of buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or under water"⁶³.

In 1991, on an Australian initiative, within the ICOMOS, an International Scientific Committee devoted to the protection of Underwater Heritage was created (ICUCH), which, in 1996 produced the ICOMOS charter on the Protection and the Management of the Underwater Cultural Heritage (UCH), that served as a starting point for the 2001 UNESCO Convention⁶⁴. The birth of the commission was

⁵⁹ Dromgoole S. 2013. *Underwater Cultural Heritage and International Law*. Cambridge Studies in International and Comparative Law, Cambridge University Press, Cambridge; pp. 38-39.

⁶⁰ Attard D. 1999. "The International Regime for the Protection of Archaeological and Historical Objects found at Sea: a Mediterranean Perspective. In *Journal of Mediterranean Studies. History, Culture and Society in the Mediterranean World* volume 9 number 1; pp. 120-121.

⁶¹ Strati A. 1999. *Draft Convention on the Protection of Underwater Cultural Heritage*. <http://unesdoc.unesco.org/images/0011/001159/115994eo.pdf>; p. 1

⁶² Forrest C.J.S. 2002. "Defining 'underwater cultural heritage'". In *The International Journal of Nautical Archaeology* vol.31 nr.1; p. 7.

⁶³ <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm> . Last retrieved on 02/02/2015.

⁶⁴Petzet M. 2006 "Foreword". In Greiner R., Nutley D., Cochran I. *Underwater Heritage at Risk. Managing Natural and Human Impact*. ICOMOS; p. vii.

due to the discovery and consequent exploitation of the *Titanic* wreck; in fact, this discovery raised direct attention to the fact that wrecks that were once inaccessible could easily be reached by treasure hunters⁶⁵.

In 1997, during its 29th session, the UNESCO General Conference recognized the need to set international rules to protect underwater heritage; therefore the work for drafting and redacting a Convention on this topic started⁶⁶. On 2 November 2001 the UNESCO Convention on the Protection of Underwater Cultural Heritage (from now on the 2001 UNESCO Convention) was adopted with 88 votes in favor, 4 against and 15 abstentions⁶⁷.

First of all, the 2001 UNESCO Convention defines what has to be understood as underwater cultural heritage⁶⁸:

1. (a) "Underwater cultural heritage" means all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years such as:

(i) sites, structures, artefacts and human remains, together with their archaeological and natural context;

(ii) vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context; and

(iii) objects of prehistoric character.

(b) Pipelines and cables placed on the seabed shall not be considered as underwater cultural heritage.

(c) Installations other than pipelines and cables, placed on the seabed and still in use, shall not be considered as underwater cultural heritage.

⁶⁵ Greiner R. 2006. "Introduction: Mankind, and at times Nature, are the true risks to Underwater Cultural Heritage". In Greiner R., Nutley D., Cochran I. *Underwater Heritage at Risk. Managing Natural and Human Impact*. ICOMOS; Paris; p. xviii .

⁶⁶ <http://unesdoc.unesco.org/images/0018/001894/189450E.pdf> . Last retrieved on 02/02/2015.

⁶⁷ <http://unesdoc.unesco.org/images/0018/001894/189450E.pdf> . Last retrieved on 02/02/2015.

⁶⁸ <http://unesdoc.unesco.org/images/0012/001260/126065e.pdf> . Last retrieved on 02/02/2015.

What immediately emerges is that, as we have already observed, the only difference between the underwater cultural heritage and cultural heritage in general, is not due to a particular meaning or value, but only to the fact that underwater heritage has been partially or totally, periodically or continuously lying underwater (which means both seas and internal waters) for at least 100 years. Therefore, since the only difference between underwater heritage and on land cultural heritage is the context of finding, the need to set a specific Convention to protect the underwater heritage is explained in the premise of the 2001 UNESCO Convention. In fact, the premise to the 2001 UNESCO Convention states that it acknowledges "the importance of underwater cultural heritage as an integral part of the cultural heritage of humanity and a particularly important element in the history of peoples, nations, and their relations with each other concerning their common heritage"⁶⁹. At the same time, it recognizes that there is a growing interest in this heritage which is threatened by both inappropriate activities directed at it and by pillaging for commercial exploitation, and that the general public has the right to enjoy it *in situ*, where it should be preserved unless studied, but only following high technical and scientific standards⁷⁰.

Basically, in this premise we find all the issues that we underlined in the previous paragraph, and the 2001 UNESCO Convention aimed at finding solutions to them. In fact, with article 2 the Convention establishes that protection of the underwater heritage has to be pursued through international cooperation and with national laws, explicating the principles that the Convention follows, in order to preserve the heritage "for the benefits of humanity"⁷¹. Attached to the Convention there are also "Rules concerning activities directed at underwater cultural heritage", which have to be considered as a part of the Convention and which explicate the principles of the Convention, setting practical and ethical standards for those dealing with

⁶⁹ <http://unesdoc.unesco.org/images/0012/001260/126065e.pdf> . Last retrieved on 02/02/2015.

⁷⁰ <http://unesdoc.unesco.org/images/0012/001260/126065e.pdf> . Last retrieved on 02/02/2015.

⁷¹ art. 2.3 .

underwater cultural heritage⁷². In particular, the Convention, with article 2.5 establishes that "the preservation *in situ* of underwater heritage shall be considered as the first option before allowing or engaging in any activities directed at this heritage", and that if the heritage is not left *in situ* it has to be appropriately managed and preserved⁷³. Rule 1 is linked to these two principles explaining that "the protection of underwater cultural heritage through *in situ* preservation shall be considered as the first option. Accordingly, activities directed at underwater cultural heritage shall be authorized in a manner consistent with the protection of that heritage and subject to that requirement may be authorized for the purpose of making a significant contribution to protection or knowledge or enhancement of underwater cultural heritage". These articles and rules are particularly important, because, as has been noticed⁷⁴, they deny the common stereotype according to which the best way to protect underwater heritage is to remove it from the water, and creating an obstacle to the activity of treasure hunters, also because the Convention explicitly pronounced itself against the commercial exploitation of underwater heritage⁷⁵.

However, the principle of leaving underwater archaeological heritage *in situ* may seem a contradiction with the practice of archaeology itself, for which, one method of investigation is the archaeological excavation. But the UNESCO principle does not have to be misinterpreted as if *in situ* conservation were the only option⁷⁶. In fact, the Rule specifies that this is only the first option, and other activities can be carried out if authorized by a competent authority. This is another important point, which is connected with Article 22 of the Convention⁷⁷, and which is

⁷² Maarleveld T., Guérin U., Egger B. (eds.) 2013. *Manual for activities directed at Underwater Cultural Heritage - Guidelines to the Annex of the UNESCO 2001 Convention*. UNESCO, Paris; p. 15.

⁷³ Art. 2.6 "Recovered underwater cultural heritage shall be deposited, conserved and managed in a manner that ensures its long-term preservation".

⁷⁴ Carducci G. 2002. "New Developments in the Law of the Sea: the UNESCO Convention on the Protection of the Underwater Cultural Heritage". In *The American Journal of International Law* vol. 96, no. 2; p. 424.

⁷⁵ Art. 7 "Underwater cultural heritage shall not be commercially exploited".

⁷⁶ Maarleveld T. 2011. "Open Letter to Dr. Sean Kingsley Wreck Watch International regarding his questionnaire on *in situ* preservation". In *Journal of Maritime Archaeology* 6; pp. 107-111.

⁷⁷ Ar.22 1. In order to ensure the proper implementation of this Convention, States Parties shall establish competent authorities or reinforce the existing ones where appropriate, with

related to the authority that public institutions have over underwater heritage, since underwater heritage is of public domain and interest⁷⁸. This does not mean that excavating an underwater archaeological site is something that can never be done, but before authorizing underwater archaeological excavations, the competent authorities have to be sure that the operations will be carried out according to appropriate scientific research standards, producing an adequate documentation of the site and not losing the information related to the archaeological context⁷⁹. This is related to the fact that archaeological excavation is a destructive and non-replicable practice, which can be expensive and, if not carried out with high scientific standards, can destroy more information than it can provide⁸⁰.

Of course, in order to make it possible to have archaeological missions directed at the underwater heritage carried out in conformity with standards, the Convention, with article 21⁸¹ also suggests that the international community should provide the means to train professionals able to deal with the underwater cultural heritage satisfactorily.

At the same time, according to article 10.2 "Responsible non-intrusive access to observe or document *in situ* underwater cultural heritage shall be encouraged to create public awareness, appreciation, and protection of the heritage except where such access is incompatible with its protection and management". Moreover, Article 20 adds that "each

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. 2. States Parties shall communicate to the Director - General the names and the addresses of their competent authorities relating to underwater cultural heritage.

⁷⁸ Maarleveld T., Guérin U., Egger B. (eds.) 2013. *Manual for activities directed at Underwater Cultural Heritage - Guidelines to the Annex of the UNESCO 2001 Convention*. UNESCO, Paris; p. 21.

⁷⁹*Ibidem*; pp. 20-28.

⁸⁰ See also Rule 4 "Activities directed at underwater cultural heritage must use non-destructive techniques and survey methods in preference to recovery of objects. If excavation or recovery is necessary for the purpose of scientific studies or for the ultimate protection of the underwater cultural heritage, the methods and techniques used must be as non destructive as possible and contribute to the preservation of the remains".

⁸¹ Article 21 "States Parties shall cooperate in the provision of training in underwater archaeology, in techniques for the conservation of underwater cultural heritage and, on agreed terms in the transfer of technology related to underwater cultural heritage".

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 the Convention". These articles are also explicated by Rule 7 which states that "public access to *in situ* underwater cultural heritage shall be promoted, except where such access is incompatible with protection and management". These articles and rules are based on the principle that the heritage is protected for the benefit of humanity and therefore it should be transmitted to the public, since continuous awareness raising on the importance of underwater heritage could lead to greater respect for the heritage and thus, perhaps, encourage the public to take a firm stand against the pillaging and illegal commercial exploitation of the heritage⁸². Nevertheless, these articles and rules open the debate on the balance to be found between preservation and accessibility. In fact, in the previous paragraph we tried to describe how easy it can be to damage the underwater heritage *in situ*, and how, the divers' communities can easily pillage the heritage set in an environment, as is the sea where it is difficult for the competent authorities to monitor what is happening. Different solutions can be found to try to reach this balance, that can be either to entrust private bodies with taking tourists to visit an underwater sites, or to designate specific protected areas, or to protect the sites in a way that they can be seen but not impacted by the visitors⁸³. Nevertheless, as can be understood from Article 20, public awareness can be created also without taking people to visit underwater sites preserved *in situ*. The solutions are many, but they need to be evaluated according to the specific situations and the specific contexts of each site.

Another important article is article 4, which states that "Any activity relating to underwater cultural heritage to which this Convention applies shall not be subject to the law of salvage or law of finds, unless it:

- (a) is authorized by the competent authorities, and
- (b) is in full conformity with this Convention, and

⁸² Maarleveld T., Guérin U., Egger B. (eds.) 2013. *Manual for activities directed at Underwater Cultural Heritage - Guidelines to the Annex of the UNESCO 2001 Convention*. UNESCO, Paris; pp. 49-52.

⁸³*Ibidem*; pp. 49-56.

(c) ensures that any recovery of the underwater cultural heritage achieves its maximum protection.

Which, basically, reinforces what is generically stated by the UNCLOS Convention. Moreover, article 9⁸⁴ establishes that States Parties have to communicate to the UNESCO General Director (who will inform the other State Parties) whether the underwater cultural heritage is found in the exclusive economic zone or on the continental shelf; moreover if one of the States Parties has a National interest in the find, it will have the right to participate in the decisions regarding the actions directed at the protection of that find.

The 2001 UNESCO Convention seems to have addressed the key issues that concerned the underwater heritage, setting rules and directives that can offer a solution to prevent the threats to which underwater heritage was exposed. This was openly recognized, in fact, also by those Countries that participated to the vote for approving the Convention and decided not to ratify it, but declared that they would respect the Rules and the directives contained in the Annex to the Convention⁸⁵. However, the Convention was applied only in 2009 after the required number of States had ratified it. Some of the Countries that did not ratify the Convention, like the UK and the USA, were concerned about the uncertain relationship between the Convention and the Salvage Law, the problems with commercial exploitation and the treatment of State vessels and warships whose legal status, according to them is not clarified by the Convention⁸⁶. The UK, moreover, was concerned about the definition of underwater heritage as everything that has been underwater at least 100 years; in fact, in the British tradition only the remains of something that has a specific historical or cultural significance, or to which is recognized a special value, is labeled as "heritage", therefore the definition given by the

⁸⁴ Art. 9 <http://unesdoc.unesco.org/images/0012/001260/126065e.pdf> . Last retrieved on 02/02/2015.

⁸⁵ Maarleveld T. 2008. "How and Why will Underwater Cultural Heritage benefits from the 2001 Convention?". In *Museum International* vol. 60, issue 4; pp. 60-61.

⁸⁶ Droogmole S. 2004. "The UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001: a particular common law perspective". In Maniscalco (a cura di) *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; pp. 46-51.

UNESCO Convention was considered too broad⁸⁷. These problems still have to find a solution, since neither the USA nor the UK, have signed the Convention; nevertheless, the general principles of the Convention are shared⁸⁸.

The role of the Convention was to set rules, which, as described, had to respond to the threats to which the underwater heritage is exposed. Some of the challenges still have not been met, and there is still no answer as to whether improvements have been made to solve them.

1.1.3 Aim of the study and its theoretical framework

The 2001 UNESCO Convention regards the protection of the underwater heritage; but so far we have used both the terms "cultural" and "archaeological" heritage. At this point it will be useful to make a distinction and to explain what message these two different terms convey. In fact, "cultural heritage" is a wider term which relates to something like objects, monuments or works of art inherited from the past, which are specific to a community or a society, and to which a given society attributes a "cultural" value⁸⁹. The idea of national heritage derives from the French Revolution with the process of the nationalization of the property of the king which gradually became public⁹⁰; by a process that was also political and administrative, the newborn French idea of national cultural heritage turned a typically private and individual concept, heritage, into a collective idea⁹¹. However, cultural heritage, in general, as recognized by Le Boulanger, "is not the transcription of the past, but a selection to which we give a value"⁹². "Cultural" is the value that we give to the heritage, and we can

⁸⁷*Ibidem*; pp. 46-51.

⁸⁸ Varmer O. Gray J. Alberg D. 2010. "United States: Responses to the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage". In *Journal of Maritime Archaeology* 5; pp. 129-141.

⁸⁹ Throsby D. 2010. *The Economics of Cultural Policy*. Cambridge University Press, Cambridge; p. 106.

⁹⁰ Vecco M. 2010. "A definition of cultural heritage: from the tangible to the intangible". In *Journal of Cultural Heritage* 11; p. 321.

⁹¹ This process is described with more details in Poulot D. 2007. "La nascita dell'idea di *patrimoine* in Francia tra Rivoluzione, Impero e Restaurazione". In Maria Luisa Catoni (ed.) *Il patrimonio culturale in Francia*. Electa, Roma; pp. 23-66.

⁹² "Le patrimoine n'est pas la transcription du passé, mais une sélection de traces auxquelles nous donnons une valeur". Translation of the author. Le Boulanger J.M. 2013 "La Question de la Patrimonialisation des Traces Sous-Marines". In Cérino C., L'Hour M.,

include in the term heritage a great variety of concepts, ideas and objects⁹³. This means that heritage is not something given, that exists by itself, but it is an achievement. As was recognized by Smith, " 'heritage' is therefore ultimately a cultural practice involved in the construction and regulation of a range of values and understandings"⁹⁴. Archaeological remains would be simply objects from the past, but Western society recognizes a value to them (e.g. historical, identity, symbolic) that turns them into everyone's "heritage".

In this sense archaeological heritage is part of the wider category of cultural heritage, where as archaeological we refer to the Carman definition, according to which archaeology is "the material remains of the human past, from the most ancient to the most recent. It focuses on material remains, which means those with some physical presence in the world...material remains are not limited here to buried objects and features but include also standing monuments and buildings of all types"⁹⁵. As already stated, the only difference between the underwater archaeological heritage and the archeological heritage is that the first one is located below the water surface⁹⁶.

As recognized by Willems, in the European academic and political world, generally speaking, there is a clear difference between archaeological and other types of heritage⁹⁷. Therefore, referring to the European so-called Valletta Convention we may want to define archaeological heritage as "all the remains and objects and any other traces of mankind from past epochs:

Rieth E. (sous la direction). *Archéologie Sous-Marine - Pratiques, Patrimoine, Médiation*. Presses Universitaires de Rennes, Rennes; p. 11.

⁹³For a definition of intangible cultural heritage, see the official UNESCO definition: http://www.unesco.org/services/documentation/archives/multimedia/?id_page=13&PHPSESSID=cdf1c1b605ebc498950fa399d2ed8658 . Last retrieved on 02/02/2015.

⁹⁴Smith L. 2006. *Uses of Heritage*. Routledge, London and New York; p. 11.

⁹⁵ Carman J. 2002. *Archaeology and Heritage: an Introduction*. ; Continuum, London and New York; p. viii.

⁹⁶ Forrest C.J.S. 2002. "Defining 'underwater cultural heritage'". In *The International Journal of Nautical Archaeology vol.31 nr.1*; pp. 3-6.

⁹⁷ Willems W.J.H. 2010."Laws, Language, and Learning. Managing Archaeological Heritage Resource in Europe". Mauch Messenger P. & Smith G.S. (eds.). *Cultural Heritage Management. A Global Perspective*. University Press of Florida: p. 212.

"Art. 1.2 (i) the preservation and study of which help to retrace the history of mankind and its relation with the natural environment; (ii) for which excavations or discoveries or other methods of research into mankind and the related environment are the main source of information; and....shall include structure, constructions, groups of buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or underwater"⁹⁸. Therefore, archaeological heritage is material cultural heritage from an undefined past, which is investigated and studied with a methodology, like digging, that is typical of archaeological investigations and helps in defining the discipline. In this work we prefer to refer to the Valletta definition, rather than to the 2001 UNESCO Convention one, for two main reasons: the first one is the lack of a temporal limit, which in the 2001 UNESCO Convention (art. 1) is 100 years. This is relevant because not for all countries is time an appropriate limit to define what is heritage and what is not. Secondly, the so-called Valletta Convention's definition does not make a distinction between archaeological heritage on land and underwater, which is fundamental for the reasons that we expressed in the previous paragraph. Therefore, we could state that archaeological heritage (of which underwater heritage is part) is a sector of cultural heritage, which has a broader meaning. However, having clarified what we mean by both terms, in this work we will use both the "archaeological heritage" and the wider "heritage", specifying that the object of this work is the underwater archeological heritage.

Once that we have established that the field of interest of this work is underwater archaeological heritage, and having specified what we mean by this, it is now the moment to explicate what the aim of the work is.

As we mentioned, this research focuses on the analysis of underwater archaeological heritage management. Therefore, this study could be inserted in the frame of the wider field of archaeological heritage management studies. Archeological heritage management can be considered as "the conduct of archaeology in the service of the public and as a public service, as a part of environmental conservation, the

⁹⁸ <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm> . Last retrieved on 02/02/2015.

preservation of ancient remains their care and maintenance"⁹⁹. Heritage management, can be considered as part of the discipline that in the USA context would be defined as cultural resource management¹⁰⁰; however, we prefer the European term "heritage", instead of "resource", because as Willems recognized, heritage refers to something "which is a concern for society at large [and] it is also a political and legal term"¹⁰¹; moreover, we will analyze case studies from the European context, therefore to use European terminology seems more appropriate. However, leaving terminology aside, what is important to underline is that archaeological heritage management as a discipline, does not mean only to consider how the archaeological heritage is protected, but also, what is considered as archaeological heritage and how the heritage is interpreted in the wider public discourse.

In fact, it has been acknowledged, especially from the 1960s, that archaeology as a practice and archaeological heritage as a product of that practice, has a political role, since it contributes in shaping the knowledge of the past and its meaning for the present¹⁰², and moreover, what is recognized as heritage is not something objective, valid in all the cultural contexts, but something to which a particular society attributes a particular meaning¹⁰³. In this perspective, for archaeological heritage management it is important to analyze not only how the heritage is preserved, but also why scholars are interested in a specific time period, how the heritage is exposed in museums to create a narrative on the past, and how, at both national and international levels, laws are created to protect the heritage. The aim is, as expressed by Carman, to understand what the role of archaeological practices in

⁹⁹ Carman J. 2000. "Theorising a Realm of Practice: introducing archaeological heritage management as a research field". In *International Journal of Heritage Studies* 6:4; pp. 303-304.

¹⁰⁰ Fowler D.D. 1982. "Cultural Resource Management". In Fowler D.D. *Advances in Archaeological Method and Theory*, vol.5; Springer; pp. 1-50.

¹⁰¹ Willems W.J.H. 2010. "Laws, Language, and Learning. Managing Archaeological Heritage Resource in Europe". Mauch Messenger P. & Smith G.S. (eds.). *Cultural Heritage Management. A Global Perspective*. University Press of Florida: p. 2012.

¹⁰² Smith L. 2004. *Archaeological Theory and Politics of Cultural Heritage*. Routledge, London and New York; pp. 1-2.

¹⁰³ Smith L. 2006. *Uses of Heritage*. Routledge, London and New York; p. 299.

society is, why we need to preserve objects or sites from the past, by whom the decisions are taken, and what aim¹⁰⁴.

This archaeological heritage management perspective is at the basis of this work, which, therefore, is partially aimed at looking at what is nowadays considered, apart from official definitions, but rather in practice, underwater heritage and how this heritage is shaped and transmitted to the society by the scholars and the public and private institutions dealing with it, starting from the theoretical premise that, as we stated, cultural heritage in general is not something given. Secondly, the intention is to identify all the actors that both at a private and at a public level have an interest and a role in the construction of the underwater heritage.

The interest in these kinds of studies and the approach to archaeological heritage, that is rooted in the idea that we cannot consider the meaning of archaeological heritage as something universally shared, owes a lot to the debate on the archaeological practices opened in the 1980s by the Contextual or Interpretative approach in archaeology. The basis of this approach is the awareness, brought by the 1960s, that the interpretation of the past has an influence on how we shape the present and is in its turn shaped by the present. The reaction to this awareness was expressed by the so-called New Archaeology, founded on the article by Lewis R. Binford *Archaeology as Anthropology*¹⁰⁵, which focused on the need for more determinist rather than descriptive approaches to archaeology that were aligned more with scientific anthropology rather than with historical disciplines¹⁰⁶. In the 1980s, especially in the UK, there was a reaction to Binford's New Archaeology that was considered an unnecessarily restrictive way of interpreting archaeology whose aim was the theorization of universal laws which would explain the changes in archaeological cultures, such as ecological adaptation as an explanation for the emergence of complex societies. This reaction is

¹⁰⁴ Carman J. 2000. "Theorising a Realm of Practice: introducing archaeological heritage management as a research field". In *International Journal of Heritage Studies* 6:4; pp. 303-308.

¹⁰⁵ Binford L. R. 1962. "Archaeology as Anthropology". In *American Antiquity* vol. 28, no. 2; pp. 217-225.

¹⁰⁶ Trigger B. 1989. *A History of Archaeological Thought*. Cambridge University Press; pp. 289-328.

now known as Contextual or Interpretative Archaeology¹⁰⁷, which has reconciled archaeology with the historical disciplines, and revising the role of the interpreter, that is the archaeologist, due to the need for greater awareness and perception in transmitting the past into present. Therefore, in "reading the past", archaeologists always have to bear in mind that the material culture does not simply reflect society, and the agency of those who interpret the past (the archaeologists) also has an influence on the meaning we attribute to the past¹⁰⁸. Moreover, since the meaning of archaeological heritage is not objective in all cultural and social contexts, the aim of Interpretative Archaeology is to make the subjectivity explicit; as Hodder says Interpretative Archaeology "involves the archaeologist acting as interpreter between past and present, between different perspectives on the past, and between the specific and the general"¹⁰⁹. In this sense, archaeological theories have developed along the lines of other social sciences that questioned about the likelihood of ever interpreting cultural phenomena from a genuinely objective standpoint, and that consequently tried to develop new models of interpretation such as the emic-etic distinction theorized by Kenneth Pike¹¹⁰.

This "cultural relativism" applied to archaeology, certainly also influenced archaeological heritage management studies, since it is the theoretical framework for the understanding of what role archaeology has in society, and opened the debate on how the heritage is transmitted to the public¹¹¹, trying to make explicit the narrative and the messages that are transmitted with the heritage¹¹², which is something that is also at the base of this research.

¹⁰⁷ Hodder I. 1991. "Interpretative Archaeology and Its Role". In *American Antiquity* vol.56, no.1; pp. 7-18. And Hodder I. & Hutson S. 2003. *Reading the Past*. Cambridge University Press, Cambridge.

¹⁰⁸ *Ibidem*; pp. 7-19.

¹⁰⁹ Hodder I. 1991. "Interpretative Archaeology and Its Role". In *American Antiquity* vol.56, no.1; p. 15.

¹¹⁰ See Headland T.N., Pike K.L. & Harrim M. (eds.). 1990. *Emics and etics: The insider/outsider debate*. *Frontiers of anthropology* v.7. Sage Publications, Newbury Park.

¹¹¹ Carman J. 2000. "Theorising a Realm of Practice: introducing archaeological heritage management as a research field". In *International Journal of Heritage Studies* 6:4; pp. 303-308.

¹¹² Shanks M. & Tilley C. 1992. *Re-Constructing Archaeology. Theory and Practice*. Routledge, London and New York; pp. 68-99.

However, given this theoretical background, the main aim of this work is to answer the question of how the underwater heritage is perceived by society and whether it is perceived at all. Therefore, this study is aimed at understanding not only how the underwater heritage is transmitted to the general public, where as "the general public" we mean the wider society of ordinary citizens who are not necessarily expert in archaeology or history. But it is also aimed at understanding how the general public perceives this heritage, whether or not it places value on the heritage, and if so, what value. In this sense, this study could be also regarded as part of the Public Archaeology current which "studies the process and the outcomes whereby the discipline of archaeology becomes part of a wider public culture, where contestation and dissonance are inevitable"¹¹³. In fact, Public Archaeology does not mean archaeology managed by the state, also because, at least in the countries that will be examined in this study "there is no such thing as private archaeology"¹¹⁴, since the archaeological heritage, from the authorization to conduct studies, to the decision on the ownership of the finds is regulated by the State. On the contrary, it means "archaeology of the public", and in this sense the discipline is aimed at understanding the perception of archaeology and the archeological heritage in the wider society¹¹⁵. This kind of approach had a great success especially in the Anglo-Saxon world regarding works and community-based projects aimed at the inclusion of cultural minorities in the management of their cultural heritage and re-appropriation of their past, like native American communities¹¹⁶. However, this does not mean that the same approach cannot be applied to different social and cultural contexts.

In fact, these kinds of studies are important nowadays for different reasons. First of all, as has been highlighted, today archaeologists and heritage professionals are aware of the instrumental use that can be

¹¹³ Merriman N. 2004. "Introduction: diversity and dissonance in public archaeology" In Merriman N. (edited by). *Public Archaeology*. Routledge, London and New York; p.5.

¹¹⁴ McGimsey C.R. 1972. *Public Archaeology*. Seminar Press, New York; p.5.

¹¹⁵ Schadla-Hall T. 2006. "Public Archaeology in the Twenty-First Century". In Layton R., Shennan S., Stone P. (edited by). *A Future for Archaeology*. UCL Press, London; pp. 80-81.

¹¹⁶ Schackel P. A. 2004. "Introduction. Working with Communities. Heritage Development and Applied Archaeology". In Schackel P.A. & Chambers E.J. *Places in Mind. Public Archaeology as Applied Anthropology*. Routledge, London & New York; pp. 1-6.

made of the archaeological heritage in order to manipulate the past, therefore, "if we do not examine archaeology in a wider context we shall never be able to influence the way in which our data and information are used" ¹¹⁷. Therefore, looking at the public of archaeology may be useful first of all for archaeologists themselves, also, we could add, to avoid the risk of a too auto-referential discipline.

Secondly, in the previous paragraph we briefly mentioned how the idea of heritage was born at the end of the XVIII century as something that belongs to the nation and has to be shared by society. In the XX century this idea developed to become an expression of the heritage of humankind, which is definite by the UNESCO World Heritage Convention¹¹⁸. Nevertheless, we said that heritage is something which is not objective¹¹⁹ and it is the duty of academia and public institutions to establish what heritage is and what is not¹²⁰; therefore if we said that it is important to understand who are the stakeholders that establish what has to be considered as heritage in a given society, we think it is also important to understand if this heritage is perceived as such by the society.

Another point is that currently, society's involvement in heritage management is becoming increasingly more frequent. In many European countries¹²¹, there are many NGOs, associations, groups of citizens who value their heritage and spontaneously organize events and initiatives to encourage ordinary people to engage with the heritage of their neighborhoods, cities, or countries, sometimes either in support of public initiatives, or because they feel that the State is not doing enough to protect the heritage.¹²² For this reason, we would like

¹¹⁷ Schadla-Hall T. 2006. "Public Archaeology in the Twenty-First Century". In Layton R., Shennan S., Stone P. (edited by). *A Future for Archaeology*. UCL Press, London; p. 81.

¹¹⁸ <http://whc.unesco.org/en/conventiontext/> . Last retrieved on 02/02/2015.

¹¹⁹ Smith L. 2006. *Uses of Heritage*. Routledge, London and New York.

¹²⁰ Martí A. N. 2012. "Excavation, Exhibition, Conservation or Reservation: Technical Criteria for a Decision Making Process". In Sullivan S. & Mackay R. (edited by). *Archaeological Sites: Conservation and Management*. Getty Publications, Los Angeles; pp. 275-276.

¹²¹ We focus on Europe, since Europe is one of the geographical limitation of this research.

¹²² To see some examples see in UK: <http://www.dailymail.co.uk/news/article-2451614/English-Heritage-calls-volunteer-jobs-save-countrys-precious-buildings.html> . Last retrieved on 02/02/2015 and in Poland: <http://www.jewish-heritage->

to analyze in more detail who are the people that feel the necessity to occupy themselves with archaeological heritage, why people decide to group together to protect the heritage, and what the relation between these people and public institutions dealing with archaeological heritage is.

Furthermore, we know that nowadays, the places where heritage is accessible to the public, like museums, archaeological sites and parks, are increasingly more often asked to demonstrate how successful they are with the public, in order to justify their existence. This is due to the fact that, we may like it or not, heritage consumption has become even more related to the tourism industry and considered as a touristic attraction¹²³. In some cases, the enhancement of heritage for cultural tourism is also seen as a possibility to develop sustainable tourism for the local communities¹²⁴. For this reason, we would like to understand, to what extent the particular heritage we want to analyze can be considered in touristic terms.

Finally, the attention given to the interpretation and the perception that society has of the underwater heritage is of interest to us also because of the attention that has been drawn to this point by the 2001 UNESCO Convention that, as we mentioned, with article 10 stresses the importance of making the heritage known and accessible.

We could sum up the aim of this research by saying that we will analyze how the underwater archaeological heritage is managed, understanding what underwater archaeological heritage is, considering all the stakeholders involved in the construction of the heritage, in its dissemination to the public, and, finally to understand how this heritage is perceived, if it is perceived, by society.

However, before moving to the explanation of how we are going to carry out this analysis, we would like to describe why we decided to focus precisely on underwater archaeological heritage. In fact, we

europe.eu/2013/09/08/jewish-cemetery-clean-ups-in-poland/%E2%80%9D . Last retrieved on 02/02/2015.

¹²³ The phenomenon of transformation of the archaeological heritage in a market's commodity, has been analyzed in the volume: Rowan Y. & Baram U. (edited by) 2004. *Marketing Heritage. Archaeology and the Consumption of the Past*. Altamira Press.

¹²⁴ This idea has been also fostered by UNESCO, see: <http://whc.unesco.org/en/sustainabledevelopment/> . Last retrieved on 02/02/2015.

already mentioned that underwater archaeological heritage, in the end, is simply archaeological heritage, therefore it should be regarded as the rest of the archaeological heritage. However, we decided to focus the analysis on archaeological heritage which is found underwater.

The first reason is that, because of its underwater position and of the recent development of underwater archaeology as a scientific discipline, underwater archaeological heritage brings to the fore more openly and clearly some threats that concern archaeological heritage in general, like how to solve the issue between accessibility and preservation, how to avoid the pillaging of the heritage¹²⁵, how to make local communities aware of the existence of archaeological sites. We are, in fact, aware that many of these issues also regard archaeological heritage on land, at least in the Mediterranean area, which is our area of interest. In fact, the same threats that we identify with underwater archaeological heritage have been recognized as a danger to the Mediterranean archaeological heritage in general¹²⁶. The 2000 ICOMOS Report on Monuments and Sites in Danger¹²⁷ identified as the main threats to monuments and archaeological sites maintenance deficiency, economic and social changes, insufficient conservation standards and tourism-related issues¹²⁸. Moreover, describing the situation of the archaeological heritage in great detail, the report recognizes that looting as well as the lack of adequate maintenance are two serious risks to the preservation of archaeological heritage¹²⁹. The damage caused by tourists in on land sites, can be easily compared to the

¹²⁵ About the problem of the pillaging of the archaeological heritage in general, see: Brodie N. & Renfrew C. 2005. "Looting and the World's Archaeological Heritage: the inadequate response". In *Annual Review of Anthropology* vol. 34; pp. 343-361.

¹²⁶ See Palumbo G. 2000. "Threats and Challenges to the Archaeological Heritage in the Mediterranean". In Teutonico J.M. & Palumbo G. (edited by). *Management Planning for Archaeological Sites. An International Workshop Organized by the Getty Conservation Institute and Loyola Marymount University. 19-22 May 2000. Corinth, Greece*. The Getty Conservation Institute, Los Angeles; pp. 3-12.

¹²⁷ ICOMOS 2000. *Heritage at Risk: ICOMOS World Report 2000 on Monuments and Sites in Danger*. See: http://www.international.icomos.org/risk/world_report/2000/riskindex_eng.htm. Last retrieved on 29/06/2015.

¹²⁸ http://www.international.icomos.org/risk/world_report/2000/trends_eng.htm. Last retrieved on 29/06/2015.

¹²⁹ http://www.international.icomos.org/risk/world_report/2000/trends_eng.htm. Last retrieved on 29/06/2015.

damage caused by SCUBA divers to underwater sites. An example is Volubilis in Morocco, where as Palumbo states "tourists often climb walls to take better pictures of the mosaics floors"¹³⁰ or Pompeii where the pressure of the great number of tourists was recognized by UNESCO as one of causes of the deterioration of the site¹³¹. At the same time, looting is also a problem for on land archaeological sites worldwide¹³² just as it is in the Mediterranean context¹³³. However, these threats are more explicit with regard to underwater archaeology, simply because underwater heritage is not immediately accessible to everyone; therefore, it is more difficult to control what happens under the water and to prevent illicit actions. This was, for example also recognized in the already mentioned ICOMOS report¹³⁴, which stated that the development of new technologies allows treasure hunters to operate underwater, where there are fewer possibilities of control. For this reason we decided that analyzing how underwater archaeological heritage is transmitted to the public might be particularly interesting, especially, since the discipline is young, and the professionals in the field state that ordinary citizens, for the time being at least, do have some problems in recognizing what lies under water as heritage¹³⁵.

¹³⁰ Palumbo G. 2000. "Threats and Challenges to the Archaeological Heritage in the Mediterranean". In Teutonico J.M. & Palumbo G. (edited by). *Management Planning for Archaeological Sites. An International Workshop Organized by the Getty Conservation Institute and Loyola Marymount University. 19-22 May 2000. Corinth, Greece*. The Getty Conservation Institute, Los Angeles; p. 6.

¹³¹ UNESCO 2011. *Report on the Mission to the Archaeological Areas of Pompeii, Herculaneum and Torre Annunziata (C289)*. See: <http://whc.unesco.org/en/soc/354>. Last retrieved on 29/06/2015.

¹³² Brodie N. & Renfrew C. 2005. "Looting and the World's Archaeological Heritage: the Inadequate Response". In *Annual Review of Anthropology vol. 34*; pp. 343-361.

¹³³ Palumbo G. 2000. "Threats and Challenges to the Archaeological Heritage in the Mediterranean". In Teutonico J.M. & Palumbo G. (edited by). *Management Planning for Archaeological Sites. An International Workshop Organized by the Getty Conservation Institute and Loyola Marymount University. 19-22 May 2000. Corinth, Greece*. The Getty Conservation Institute, Los Angeles; p. 7.

¹³⁴ ICOMOS 2000. *Heritage at Risk: ICOMOS World Report 2000 on Monuments and Sites in Danger*. See: http://www.international.icomos.org/risk/world_report/2000/riskindex_eng.htm. Last retrieved on 29/06/2015.

¹³⁵ Greiner R. 2006. "Introduction: Mankind, and at times Nature, are the true risks to Underwater Cultural Heritage". In Greiner R., Nutley D., Cochran I.. *Underwater Heritage at Risk. Managing Natural and Human Impact*. ICOMOS; Paris; p. x.

We said that archaeological heritage (both on land and underwater), as defined by the Valletta Convention, and with which we agree, are "all remains and objects and any other traces of mankind from past epochs"¹³⁶, and have to be protected "as a resource of the collective ... memory and as an instrument for historical and scientific study"¹³⁷. This means that archaeological heritage does not necessarily consist of aesthetically pleasing objects or sites that can generate in the public an aesthetic experience involving our senses, as described by Proust¹³⁸. With the exception of particularly impressive archaeological sites, like, for example Pompeii where a Roman town was almost perfectly preserved because of the eruption of the volcano Vesuvius, archaeological heritage is often groups of ruins that can be difficult to interpret by non expert eyes, for example when we have sites in which only the base of the walls is preserved. At the same time, the objects that archaeological excavations reveal are often simple objects from everyday life, like rough ceramic vessels, that do not necessarily have a meaning or make an impact on those people who go to see them. In these cases visitors cannot rely only on their senses to understand that they are looking at cultural heritage. In the case of difficult to interpret archaeological sites, the visitors need to be guided by the historical information on the context, and the objects need to be arranged in museums were, as described by Shanks and Tilley, "[they] are assembled and presented, ordered to make a particular sense to the viewing visitor. Artifacts are mobilized in an aesthetic system...to create meanings"¹³⁹. Therefore, when presenting archaeological heritage to the public it is fundamental to generate interest and to make it recognizable as "heritage", as something valuable, and this can be achieved in different ways, like presenting archaeological objects as works of art, as in the case of beautiful ancient Greek vessels, or by creating a narrative around them, like using the archaeological sites to explain the urban

¹³⁶ Art. 1.2. <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm> . Last retrieved on 02/02/2015.

¹³⁷ Art. 1.1. <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm> . Last retrieved on 02/02/2015.

¹³⁸ For a description of Proust's aesthetic and the importance of the human sense for the appreciation of art see: Epstein R. 2004. "Consciousness, art, and the brain: Lessons from Marcel Proust". In *Consciousness and Cognition* vol. 13, issue 2; pp. 213-240.

¹³⁹ Shanks M. & Tilley C. 1992. *Re-Constructing Archaeology: Theory and Practice*. Routledge, London and New York; p. 68.

development of a site¹⁴⁰. This is true for both on land and underwater archaeological heritage.

In fact people do not necessarily appreciate archaeological heritage just because they can access it, as has been demonstrated by the many acts of vandalism, negligence and looting that are recorded in archaeological sites worldwide¹⁴¹. Regarding this aspect we would like to add a personal memory of the archaeological campaigns carried out as a student around Italy, when we often happened to hear the local inhabitants saying that the archaeologists working in fields were "arms stolen to agriculture", demonstrating how people were not able to understand or accept the meaning and the function of the archaeologists' work. As we mentioned before, the problem of communicating archaeology to the public is at the base of this work, following the Public Archaeology perspective. But it is exactly for the same reason that we focused on the underwater heritage. In fact, if there is a problem in communicating to people what is accessible and visible, it is even more difficult in the case of the heritage that is under the surface of the water. In the case, of underwater archaeology, not only do people need an expert to understand what that heritage is, they need experts to know that the heritage exists.

In fact, we said that in many cases archaeological heritage cannot generate an aesthetic pleasure in the observer when it is made of simply everyday life objects from the past or by difficult to interpret ruins. But this is not always the case. Sometimes archaeological objects are beautiful objects from the past that can generate in us the same aesthetic experience of any other work of art¹⁴². In some other cases the archaeological ruins together with the natural environment can have a strong evocative power, since also the landscape, intended as a mix of

¹⁴⁰ *Ibidem*; pp. 73-74.

¹⁴¹ Palumbo G. 2000. "Threats and Challenges to the Archaeological Heritage in the Mediterranean". In Teutonico J.M. & Palumbo G. (edited by). *Management Planning for Archaeological Sites. An International Workshop Organized by the Getty Conservation Institute and Loyola Marymount University. 19-22 May 2000. Corinth, Greece*. The Getty Conservation Institute, Los Angeles; pp. 7-8.

¹⁴² See again: Epstein R. 2004. "Consciousness, art, and the brain: Lessons from Marcel Proust". In *Consciousness and Cognition vol. 13, issue 2*; pp. 213-240. This article explains the aesthetics of Proust and also the relations that may be between the pleasure generated by our senses as an aesthetic experience and neurosciences.

natural and human elements¹⁴³, can be perceived in an emotional way¹⁴⁴. As a matter of fact, the concept of landscape is a modern (Western) cultural construct that starts to be barely introduced only during the Renaissance to be then developed during the Romanticism, as something connected with art and the perception of the beauty¹⁴⁵. Underwater archeological heritage, also when has an aesthetic value, can be perceived only by a small portion of population. In this sense, it means that even when it has an aesthetic value, underwater heritage is not perceivable by people, therefore cannot be appreciated and consequentially valued.

In this sense, all the problems related to the lack of awareness of the existence of the heritage and its importance, like the looting, vandalism and irresponsible visitor behavior, that we mentioned, are even more evident in the case of an inaccessible, invisible and therefore unknown heritage that lies in the water. Moreover, as we will describe in this work, in some cases, in order to protect the underwater heritage, exactly as happens for the on land heritage, restrictions and limitations are imposed on people, as provided for by the 2001 UNESCO Convention¹⁴⁶; but at this point, it is easy to imagine that people may have problems in understanding and respecting rules directed at protecting archaeological heritage that they cannot see and perceive. For this reason, we believe, to analyze different possibilities of making this invisible heritage exist for the public and to understand what the reaction of the public is, can offer much food for thought regarding the communication of archaeological heritage to the public in general, whether it is located on land or underwater.

¹⁴³ The concept of landscape would need a deeper explanation. However, for its definition for its definition it is possible to refer to the European Landscape Convention, Florence 20.X.2000. Chapter I - General Provisions; Article 1 - definitions, which defines landscape as something *perceived* by people, which means it is something that does not exist for itself.

¹⁴⁴ On the aesthetic appreciation of the landscape, and of the environment in general see: Brady, E. 2003 "Aesthetics of the natural Environment". Edinburgh University Press.

¹⁴⁵ Brady, E. 2003 "Aesthetics of the natural Environment". Edinburgh University Press; chapter 2 and 3.

¹⁴⁶ Art. 5 of the Convention: "Each State Party shall use the best practicable means at its disposal to prevent or mitigate any adverse effect that might arise from activities under its jurisdiction incidentally affecting underwater cultural heritage"

Finally, we mentioned and described that the study of underwater archaeology is relatively recent. Therefore, especially regarding the aspects we want to analyze and the specific countries we want to consider, there is still a lack of literature. Many works have been published on the legislative issues pertaining to the 2001 UNESCO Convention and the legislative debate regarding underwater heritage protection¹⁴⁷. At the same time, we have quite a respectable amount of literature on the technical issues regarding the conservation of the underwater archaeological heritage (among whom Hamilton, 1999; Flatman, 2009; Khakzad & Van Balen 2012; and Gregory, 2012) as well as manuals dealing with the techniques used to investigate underwater sites (among whom Muckeleroy, 1978; Gianfrotta & Pomey, 1981; the 1992 NAS Guide to Principle and Practice; the 2001 UNESCO Manual for Activities directed at Underwater Cultural Heritage), as well as comprehensive encyclopedia volumes like the 2001 *International Handbook of Underwater Archaeology* edited by C. Ruppé and J. Barstad. Nevertheless, the studies regarding the management of underwater heritage are few. In 2002 Anthony Firth wrote a book¹⁴⁸ on the analysis of the management of underwater archaeology and the control of the past, but this work is concentrated mainly on the Northern Europe and on the professional and public institution side of the heritage. At the same time, *Out of the Blue*, edited by Jameson and Scott-Ireton¹⁴⁹ collects a wide range of works related to the interpretation of underwater archaeological heritage, site preservation and dissemination to the public; however, the works focuses mainly on the USA context, with a few examples from Australia and Japan, and once again with more attention on the professionals and private and public institutions dealing with the heritage. Of course there are many papers describing single case studies and which may be collected in *Miscellanea or Conferences' Acts*¹⁵⁰, but most of them do no relate to a wider general

¹⁴⁷ One of the last and most complete work is Dromgoole S. 2013. *Underwater Heritage and International Law*. Cambridge Studies in International and Comparative Law, Cambridge University Press, Cambridge.

¹⁴⁸ Firth A. 2002. *Managing Archaeology Underwater : a theoretical, historical and comparative perspective on society and its submerged past*. Archaeopress, Oxford.

¹⁴⁹ Jameson J.H. Jr & Scott-Ireton D.A. 2007. *Out of the Blue. Public Interpretation of Maritime Cultural Resource Management* . Springer.

¹⁵⁰ Some examples for the Mediterranean context are AA.VV.1995. *100 sites historiques d'interet commun mediterraneen - protection du patrimoine archeologique sous-marin en*

context, or they look at just one part of the stakeholders involved in the process of development of underwater heritage. For this reason we think it may be useful to approach the problems pertaining to the management of the underwater archaeological heritage, looking at all the stakeholders involved and in a multinational perspective. In particular, this work also aims to suggest that perhaps heritage management studies in the field of underwater archaeology in the Mediterranean area could be approached from a multinational perspective. Of course, the ultimate aim of this work is to offer a detailed analysis that can be used by policy makers at both local, national and international level, in order to develop strategies and activities directed at the management of the underwater archaeological heritage and at archaeological heritage in general.

1.2 Structure and methodology

After having discussed the aim of this research, we will now move to the explanation of the methodology and the structure of the work.

1.2.1 Methodology

In order to fulfill the above mentioned aims, we decided to develop an analysis at a multinational level, focusing on the Mediterranean context. Therefore, the analysis of the different managements of the underwater archaeological heritage will be divided into sections corresponding to the examined countries, developing a comparison of the management systems. The analysis and the comparison will regard three countries from the Mediterranean context: France, Italy, and Spain. In fact, many aspects regarding the management of the archaeological heritage in general and of the underwater archaeological heritage in particular, are closely related to specific national and local contexts, like national (or in some cases also regional) legislation, different social contexts and the different typology of the objects that are considered heritage. This is an important aspect for deciding to use comparison as an analytical tool, because the intention of this work is to offer an analysis that can be used as an instrument by policy makers, and, as the 2001 UNESCO Convention has demonstrated, the debate on the practices to be adopted by the management of the underwater

heritage takes place at international level. Moreover, we have to acknowledge that in a more globalized world, the cultural heritage debate in general has moved onto an international level¹⁵¹, as also demonstrated by the UNESCO idea of world heritage¹⁵²; we may accept this perspective or not, but we should bear it in mind, especially, if we consider that the three selected countries are all members of the European Union; therefore, although we know that each European Union State Party is responsible for its own cultural policies, there are resolutions and activities aimed at the definition of a European idea of cultural heritage, in which archaeological heritage is included¹⁵³, as demonstrated also by the already mentioned so called Valletta Convention¹⁵⁴.

On the other hand, we decided to limit the comparison to only three countries, since, because of the limited time given for the research, it would have been hard to extend the research to more countries and include all the facts and aspects of the situation maintaining the same level of detail in the analysis. In fact, the choice of too many countries could have led to excessively broad generalizations, where, peculiarities due to the specificities of the context would not have been considered. However, despite the decision to approach the analysis in a comparative way, it is now important to describe and explain how the analysis will be conducted.

To analyze all the stakeholders involved in the underwater heritage management, we used a methodology borrowed from the sociology of culture, which allows us to analyze underwater archaeological heritage as a cultural object, where by cultural object we refer to Griswold's definition, according to which a cultural object is "a shared significance embodied in form"¹⁵⁵, meaning it is something in which a given society or social group recognizes a significance. Therefore, we decided to

¹⁵¹ Arzipe L. 2000. "Cultural Heritage and Globalization". In AA.VV. *Values and Heritage Conservation. Research Report*. The Getty Conservation Institute, Los Angeles; pp. 32-37.

¹⁵² <http://whc.unesco.org/en/conventiontext/> . Last retrieved on 02/02/2015.

¹⁵³ <http://epthinktank.eu/2014/12/16/cultural-heritage-policy-in-the-european-union/> . Last retrieved on 02/02/2015.

¹⁵⁴ <http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm> . Last retrieved on 02/02/2015.

¹⁵⁵ Griswold W. 1987. "A Methodological Framework for the Sociology of Culture". In *Sociological Methodology* 14; p. 4.

describe what this object is and to analyze how it interacts with the social world.

In order to do this we will apply the Cultural Diamond¹⁵⁶ to our analysis. Specifically, this tool makes it possible to analyze all the relations between a cultural object, and the society that produced it. The society in this case is divided into the social world, or the context, the creators and the receivers. The cultural diamond will be used as a description schema because it brings to the fore the interdependency of the different actors in creating a cultural object (Figure 1), instead of giving an analysis based on cause-effect between social context and cultural object, that could exclude some of the stakeholders involved in the policy making process. As Griswold pointed out "the cultural diamond is an accounting device intended to encourage a fuller understanding of any cultural object's relationship to the social world. It does not say what the relationship between any of the points should be, only that there is a relationship. Moreover, the texture of that relationship lies as much in the links as in the four points"¹⁵⁷.

We have already described what we mean by cultural object and in this case it is be the underwater archaeological heritage; by "context" we mean the legislative framework, the history of the underwater archaeology in the specific country, the cultural policies that have an effect on the underwater heritage, as well as the policies directed at the water environment in general, and the way in which the archaeological heritage is managed as a whole.

¹⁵⁶ Griswold W. 2004. *Cultures and Society in a Changing World*. Pine Forge Press; pp. 14-17.

¹⁵⁷ *Ibidem*; p. 16.

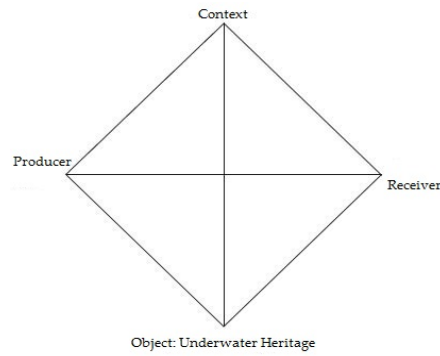


Figure 1 The Cultural Diamond

By "producers" we mean all the private and public bodies involved in the study, research, conservation, and the dissemination to the public of the underwater archaeological heritage, and we will describe how each stakeholder influences the understanding of the underwater archaeological heritage or its transmission to the public. Finally, by "receivers" we refer to all the people to whom the heritage is transmitted; these can be the ordinary citizens, local communities, and the accidental visitors finding themselves in the location by chance, or visitors who consciously choose to visit the archaeological sites. In the case of the receivers, we will try to analyze how the general society reacts to and interacts with the underwater archaeological heritage and to evaluate the level of accessibility of the heritage by evaluating its success in terms of the public. The understanding of how the underwater heritage interacts and is perceived by the society will be measured in a qualitative way, analyzing how the four points of the Cultural Diamond interact with one another. So, for example we will look at how a public institution did its best to advertise and open to the public an underwater archaeological site, and at the same time we will try to understand if the same site won popular acclaim. We will use the Cultural Diamond not as an interpretative method, but as a descriptive model that will help us to identify all the aspects concerning underwater archaeological heritage.

Then, in order to analyze the efficacy of the underwater heritage as a cultural object we will use another means. First of all it is important to

say that the efficacy of the underwater archaeological heritage will be evaluated in a qualitative way, and by efficacy we mean the impact that the heritage has on society. This basically means to understand whether people are generally aware of the existence of this heritage, if they feel it has some kind of value and if they justify the efforts made by the public or private bodies to protect it and study it. We do not think that the only criterion for judging the value of heritage in general is to evaluate its success with the public, but at the same time we recognize that heritage policies are increasingly driven by public opinion which attributes a great deal of attention to the success in terms of public museums and archaeological sites¹⁵⁸. Moreover, we described that most of the threats to the underwater archaeological heritage are due to human impact¹⁵⁹, and we think that the creation of awareness in the general public of the existence of this heritage, and the gradual perception and cognition of its value, is the first step towards its preservation, and this is another reason why we think it is important to evaluate the impact of this heritage on society. Finally, in analyzing countries where archaeology is mainly administered by public institutions, which therefore should act in the public interest¹⁶⁰, we think it is important to understand whether or not the public sector is able to convey the recognized value of the archaeological heritage to the public. However, we acknowledge that "public" is quite a wide definition, which includes many different actors, with different interests¹⁶¹; therefore we underline that by "public" or "receivers" we mean all the people that are not professionals in the field of archaeology and that are not directly involved in the management of the underwater archaeological heritage.

Therefore, in order to evaluate the impact that the underwater archaeological heritage has on society we will use another tool borrowed from the sociology of culture, which are the Schudson's five

¹⁵⁸ Rowan Y. & Baram U. (edited by) 2004. *Marketing Heritage. Archaeology and the Consumption of the Past*. Altamira Press.

¹⁵⁹ Scott-Ireton D.A. 2006. "Florida's Underwater Archaeological Preserves: Preservation through Education". In Greiner R., Nutley D., Cochran I.. *Underwater Heritage at Risk. Managing Natural and Human Impact*. ICOMOS; pp. 5-7.

¹⁶⁰ Merriman N. 2004. "Introduction. Diversity and Dissonance in Public Archaeology". In Merriman N. (edited by). *Public Archaeology*. Routledge, London and New York; pp. 1-2.

¹⁶¹ *Ibidem*; pp. 1-4.

dimensions used to evaluate the impact of a cultural object on society. In a 1989 article on *Theory and Society* Micheal Schudson¹⁶² faces the problem of how to estimate the efficacy of a cultural object, taking a position midway between theories that state that culture and cultural objects are directly influenced and formed by superstructures, and theories that assume that culture is a toolkit¹⁶³ of ideals to be used according to the different social contexts. But Schudson, using mass-media as a case study, without destroying the previous theories of culture, wants to understand why cultural objects, equally created by a superstructure and equally available in the tool kit, work in different ways. Basically, he wants to understand why cultural objects can have a different impact on the "public". In order to reach his goal Schudson suggests that five dimensions (retrievability, rhetorical force, resonance, institutional retention and resolution) should be applied to the cultural object which could help in understanding whether or not a cultural symbol or object works. Applying the Schudson dimensions to the underwater archaeological heritage could be particularly useful in order to evaluate heritage efficacy from the sociological point of view. In his analysis Schudson was using mass media as a case study; therefore we will slightly adapt Schudson's dimensions because we will refer to a material cultural object in our analysis.

More in detail:

- "Retrievability", Schudson defines retrievability as the capacity of a cultural object to reach the people and to be available for them¹⁶⁴; therefore this dimension could help us to analyze whether or not the underwater archaeological heritage is accessible to society and to what extent. This dimension is particular important, since underwater archaeological heritage, because of the peculiar context where it is found, is by definition not accessible for most people.

- "Rhetorical force" Schudson is referring to the degree of power of a cultural object and its capacity for making the audience find it

¹⁶² Schudson M. 1989. "How Culture Works? Perspectives from Media Studies on the Efficacy of Symbols". In *Theory and Society* vol. 18 no.2; pp. 153-180.

¹⁶³ See Swidler A. 1986. "Culture in Action: Symbols and Strategies". In *American Sociological Review* vol. 51 no.2; pp. 273-286.

¹⁶⁴ Schudson M. 1989. "How Culture Works? Perspectives from Media Studies on the Efficacy of Symbols". In *Theory and Society* vol.18 no.2; pp.159-164.

memorable¹⁶⁵. The point Schudson makes is that, even though many cultural objects may be retrievable, not all of them have the same efficacy, because they do not necessarily have the same rhetorical force, which means not the same capacity for capturing and stimulating people's imagination. This category would help to understand in what rhetorical discourse on the past the underwater archaeological heritage is included by the producers, and if the rhetoric is perceived by the receivers.

- "Resonance", is the relevance a cultural object has to the life of the audience and how it affects the audience¹⁶⁶. This category will be used to understand if underwater archaeological heritage is considered relevant by the public, meaning if, for example, they justify and agree on the efforts made or on the money spent by public institutions to study or protect the underwater archaeological heritage.

- "Institutional retention" refers to the capacity of a cultural object to interpenetrate with institutions and become institutionalized (meaning, for instance, in the educational system or in any other sectors of the social system). This, according to Schudson, means that there are sanctions (for disregarding instructions and rules¹⁶⁷. Of course, since we are dealing with a cultural object that is managed by public institutions, the institutional retention will always be present; however, this category will help us to understand and analyze how different public stakeholders interact with one another in the management of the underwater archaeological heritage.

- "Resolution" refers to the capacity of a cultural object to directly influence audience action¹⁶⁸. This last category will help us to understand if the policies regarding underwater archaeological heritage have an effect on how people act in respect to the archaeological heritage, for example understanding the frequency of illicit actions directed at the underwater archaeological heritage.

The usefulness of applying Schudson's five dimensions to the analysis is also that they help in developing a deeper understanding of what

¹⁶⁵*Ibidem*; pp. 164-167.

¹⁶⁶*Ibidem*; pp. 167-170.

¹⁶⁷*Ibidem*; pp. 170-171.

¹⁶⁸*Ibidem*; pp. 171-174.

makes cultural objects (in our case underwater archaeological heritage) powerful. In fact, we already stated that archaeological heritage is not something given, but is a cultural and social construct¹⁶⁹. As we explained, in the construction of archaeological heritage as a cultural construct, archaeologists play a fundamental role, but then "heritage", in the Western world, is made a value recognized by society also by its institutionalization, which means by the creation of institutions for the purpose of discovering, selecting, study and protecting the archaeological heritage. Nevertheless, this does not necessarily mean that archaeological remains are received as "heritage" by all sections of society, and especially by the general public that has no direct interest in it. In fact, Schudson clearly states that "no cultural objects work with everyone"¹⁷⁰, meaning that the values embodied in a cultural object do not necessarily reach all the segments of society and in the same way. Therefore, the combination of the Schudson dimensions and the Cultural Diamond analysis will be important in order to understand whether the construction of underwater archaeological remains as cultural objects is something that remains only at the producer level or is also transmitted and perceived by society as "heritage".

Therefore, for each one of the case studies it will be analyzed how the four points of the Cultural Diamond interact with one another, and how they work in terms of the five Schudson dimensions. After having developed this kind of analysis, a final comparison will be made. The final comparison will be carried out considering, first of all the general context in the three chosen countries and comparing how the general contexts have influenced the underwater archaeological management system. Then the different impacts that the underwater archaeological heritage has on society, extrapolated from each case study analysis, will be confronted and compared, in order to identify which case (if any) is to be considered efficient and why.

We have to spend a few words to explain what we mean by saying that we will try to understand which case study can be considered efficient. We will consider three criteria for efficacy, on the basis of which we will develop the final comparison:

¹⁶⁹ Smith L. 2006. *Uses of Heritage*. Routledge, London and New York; pp. 11-43.

¹⁷⁰ Schudson M. 1989. "How Culture Works? Perspectives from Media Studies on the Efficacy of Symbols". In *Theory and Society* vol.18 no.2; p. 159.

1- development of underwater archaeology as a scientific discipline in a specific context (e.g. existence of studies and private or public research institutions dealing with underwater archaeological heritage, professionals involved in the study of the heritage, use of adequate scientific tools to conduct the studies);

2- *in situ* preservation (e.g. different examples of musealization presented by the case studies)

3- impact of society (e.g. level of involvement of local communities in the protection of sites, awareness and knowledge of the existence of the heritage, number of visitors).

We will try to highlight the causes and the reasons why each case turns out to be partially or totally efficient or inefficient, and at the end we will conclude extrapolating from the analysis some generalizations and final considerations.

1.2.2 Thesis structure and choice of the case studies

In order to better understand how the analysis will be carried out it is necessary to explain how the thesis will be structured.

In fact, as we said, we will develop the analysis in three Mediterranean countries, which are Italy, France and Spain. Therefore, there will be three chapters, one for each of the considered countries. Each of the three chapters will start with a general description of the national context, which will include how underwater archaeology developed in the country and by which laws it is regulated. Then, for each of the three countries two case studies will be selected and analyzed. Each case study will be analyzed following the Cultural Diamond scheme: description of the object, description of the context (in this case it will be the specific local context), producers and receivers. Then for each of the case studies, using Schudson's five dimensions, the interaction with the four points of the Cultural Diamond will be analyzed. Finally, a fourth chapter will be devoted to the comparison. Therefore in the fourth Chapter, as we explained, first of all we will compare the three national general contexts, and then we will compare the six case studies considering the results of the analysis conducted in the three core chapters. Finally, after the comparison, some generalizations extrapolated from the case studies will be made, as well as some final considerations.

In fact, we decided to conduct the analysis based on case studies, because we are convinced that each site or museum management is linked to specific locally related dynamics that it is important to take into account. Therefore, if the aim is to make some generalizations regarding the management of the underwater archaeological heritage, it is necessary to be aware of the dynamics that are replicable in any context, and of those that are context related. Nevertheless, it is necessary to explain how the countries and the different case studies that are the objects of the analysis have been selected.

First of all, for reasons that we already mentioned, we decided to develop a multinational comparison, therefore the first selection was to choose the general context, which is the Mediterranean context. The decision to limit the choice of the countries to the Mediterranean borders is due to different reasons. First of all, the Mediterranean Sea has been throughout the centuries an important crossroads, and the means which allowed the cultures and the people living in the regions bordering this sea to communicate and interact¹⁷¹. Therefore, it is possible to find ancient Phoenician or Greek shipwrecks, as well as Roman ports all along the Mediterranean coastline; briefly, since the Mediterranean countries share a lot of their history, their material heritage shares similar characteristics. Therefore it will be interesting to see how this Mediterranean heritage is studied, preserved and transmitted in the different contexts. Furthermore, although the relationship with the sea changes according to the cultural context, there are certainly points of similarity among the areas looking out onto the *Mare Nostrum*. In fact, especially along the northern part of the Mediterranean, mainly during the summer, people practice a lot of activities, like recreational SCUBA diving or sailing, that can have an impact on the underwater archaeological heritage; therefore it would be interesting to see how in the different cases the relation with the heritage which comes from underwater changes, despite the similar environment. Moreover, a similar environment also means similar working conditions for the archaeologists, and the favourable climatic conditions of the Mediterranean are probably part of the reason why underwater archaeology as a discipline was born in the Mediterranean,

¹⁷¹For the role of cultural crossroad played by the Mediterranean Sea see Braudel F. (sous la direction) 1985. *La Méditerranée. L'espace et l'histoire*. Flammarion.

which consequently, is the region where it has been practiced for the longest period, and this was another reason for choosing this context. Of course the selection of the Mediterranean context immediately excluded the possibility of selecting countries like the UK and USA that, despite their important role in the development of the discipline, are completely outside the geographical limit.

For the above reasons, therefore, our choice was France, Italy and Spain. First of all, we have to say that we excluded North Africa and the Middle East, since here the analysis of the heritage management and the relation between heritage and society touches extremely interesting topics, like colonialism and post-colonialism¹⁷² that in a detailed analysis should be taken into account, but, in an analysis performed at multinational level, would probably draw the attention to these topics and make the comparison more problematic. At the same time, the idea of focusing specifically on the North African or Middle East Context, was rejected because the beginning of this research corresponded with the period of unrest that in many countries, like Egypt that also has relevant underwater archaeological heritage, followed the so-called Arab spring, therefore the uncertainty on the possibility of visiting the countries for the necessary fieldwork of gathering all the information and the data, led to the choice of the Northern Mediterranean as area of interest.

At that point the first choice was immediately France, since it can be considered a pioneer country in the development of the discipline. In fact, as we described, underwater archaeology was born thanks to the invention by Cousteau of the SCUBA diving system, and still nowadays the French institution DRASSM plays an important role at international level in its development. But in the first years of underwater archaeology, the development of the discipline, thanks to the role of the Italian archaeologist Nino Lamboglia¹⁷³, ran parallel in France and in Italy, therefore it seemed interesting to analyze both countries. At this stage, the choice of Spain was due both to the

¹⁷² Regarding these themes and their relation with heritage see Meskell L. 1998 (edited by). *Archaeology under Fire . Nationalism, politics and heritage in the Eastern Mediterranean and Middle East*. Rutledge, London and New York.

¹⁷³ Pietraggi R. 2007. "Nino Lamboglia: l'archeologia subacquea e la burocrazia; luci ed ombre di un rapporto tormentato". In *Archeologia Marittima Mediterranea - An International Journal of Underwater Archaeology* 4; pp. 37-43.

geographical proximity with the other two selected countries, that made us think that it would be interesting to limit the research in geographical terms, as well as to the fact that Spain shared with France and Italy the role of pioneering country in the discipline. Therefore, we decided to select three countries where underwater archaeology had a relatively long tradition. In fact, it is not due to chance that the choice of the three case studies corresponds to the first three countries where the International Conferences on Underwater Archaeology were held: France (1955 Cannes), Italy (1958 Albenga) and Spain (1961 Barcelona)¹⁷⁴. For this reason, for example, Portugal and Croatia¹⁷⁵ were not included in the research, since although they developed interesting initiatives for the management of underwater archaeology, they have a more recent history in this field. On the other hand, Greece could have been another interesting case, because of its important underwater archaeological heritage, which is protected by law and specifically mentioned in the Greek law on antiquities¹⁷⁶. However, only in 2014, too late for this work, two underwater archaeological sites were about to open to the public¹⁷⁷, and the work to open the museum of underwater archaeology in the Piraeus port of Athens did not start until 2013¹⁷⁸. For this reason, we decided it would have been a pity to analyze Greece, without the possibility of including the analysis of the public of these case studies that are in the project stage. Briefly, once the selection was limited to the Northern Mediterranean, two criteria were used for further selection, geographic proximity and a long tradition of research in this discipline, where, of course, the second aspect has an impact on the first (it is no coincidence that the discipline developed first in the two countries bordering Mediterranean France, where the discipline was born). However, this does not mean that in

¹⁷⁴ Gianfrotta P.A. & Pomey P. 1981. *Archeologia Subacquea - storie, tecniche, scoperte e relitti*. Mondadori ed. Milano; p. 12.

¹⁷⁵ For example, for Croatia, look at Mesić J. 2004. "Protezione del patrimonio culturale subacqueo in Croazia". In Maniscalco F. (a cura di). *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; pp. 243-248.

¹⁷⁶ Dellaporta K. 2004. "Tutela legale e gestione del patrimonio archeologico subacqueo in Grecia". In Maniscalco F. (a cura di). *Tutela, Conservazione e Valorizzazione del Patrimonio Culturale Subacqueo*. Massa Editore, Napoli; pp. 65-73.

¹⁷⁷ <http://www.wanderlust.co.uk/magazine/news/greece-to-open-archaeological-diving-parks>. Last retrieved on 02/02/2015.

¹⁷⁸ <http://archaeologynewsnetwork.blogspot.it/2015/06/greek-museum-of-underwater-antiquities.html#.VY18lfmqqko>. Last retrieved on 26/06/2015.

the future the same kind of analysis could not be enriched by a comparison with other Mediterranean countries, in order to expand the analysis.

At this point it will be necessary to explain which case studies were selected for each country and why. As regards the selection of the case studies we need to mention that we chose case studies that can be considered as relevant at national level and as international models. In fact, we also looked at the possibility of selecting varied approaches to the presentation and transmission to the public of the underwater archaeological heritage.

Therefore for France the first case to be selected was that of the underwater archaeological heritage of the Bay of Marseille. In this instance, we have to consider the underwater archaeological heritage of the entire urban area, since there is not just one particular place where this heritage is presented, but it is showed in different places and cultural institutions of the city. The choice of Marseille was almost obligatory, since this is the hometown of underwater archaeology, the city where Cousteau conducted the first underwater archaeological investigations. Therefore, it was interesting to see how the discipline had developed in this place and how the underwater archaeological heritage is perceived in the city where it was first born. Since France, as will be described, in regard to the management of the underwater archaeological heritage in the marine environment has a really centralized system, and therefore the policies, at least at governmental level are really similar, we chose Arles and its Departmental Museum of Ancient Arles as a second case study. In fact this second case study allowed us to look at a branch of underwater archaeology which has not yet been significantly developed in the Mediterranean context, which is the underwater archaeological heritage lying in rivers, since in the Departmental Museum of Ancient Arles archaeological remains found in the river Rhone are exposed. This case is quite unique, and that was the main reason for its selection.

As regards Italy, the first choice was the Bay of Naples, where we have a good example of *in situ* musealization of archaeological underwater heritage consisting of Roman ruins. Of particular interest is the tool that was created for the protection of the marine environment which is a

Marine Protected Area¹⁷⁹, and that in the Bay of Naples has been used to protect the underwater archaeological heritage. This case will be longer than the others since a system of twin Marine Protected Areas was created, the two Protected Areas are two separate Parks, but it made no sense to analyze only one of them, since they are supposed to work as an integrated system. Therefore, the Bay of Naples was selected since it offers a good opportunity to understand whether underwater parks can be efficient tools for protecting and transmit to the public underwater heritage. The second case study is the underwater archaeological heritage of the Sicilian region where an interesting network of underwater archaeological itineraries to be visited *in situ* has been implemented thanks to the inclusion of private bodies in the management system. Therefore, both Naples and Sicily represent two examples of the musealization of underwater heritage *in situ*; in the case of Naples with the musealization of structures, and in the case of Sicily with the musealization of movable objects.

For Spain, the first case to be chosen was the National Museum of Underwater Archaeology of Cartagena, since it is the only case in the Mediterranean context of a National Museum completely devoted to the transmission of underwater archaeological heritage, from antiquity to modern times; moreover, the case of the of the National Museum of Cartagena will also focus attention on the ownership of heritage, since this museum has recently exposed the remains of a shipwrecks and of the cargo it was carrying, investigated far from the Spanish territorial waters by an American treasure hunters company¹⁸⁰. The second case study is the underwater archaeological heritage of the Catalonia region, which with the Catalonian Centre for Underwater Archaeology is the first Region in Spain to take care of its underwater heritage, developing a diversified system of transmission to the public, collaborating with private bodies and mixing integrating *in situ* musealization, with events and musealization on land.

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<http://www.protectplanetoocean.org/collections/introduction/introbox/mpas/introduction-item.html> . Last retrieved on 02/02/2015.

¹⁸⁰ O'Donnell H. & De Estrada D. 2013. *El litigio por el pecio de la fragata "Mercedes". Razones históricas de España*. Real Academia de la Historia, Madrid.

As is clear, the dimensions of the six case studies are not homogeneous (we have a system of twin underwater parks, cities and Regions). The reason for this choice is related to the management system of the underwater heritage in the different countries and regions. In fact, in all the case studies we selected, underwater heritage is accessible because of the presence of museums, visitor centres or other culture promoting institutions that allow visits to the sites or museum. To be more precise, in some cases, like Sicily and Catalonia, the analysis is focused on an entire Region because there is an administrative body dealing with underwater archaeology, that operates on the territory and whose activities on the territory (which is, however, relatively small and has a uniform context since we refer to Regions and not to countries) are interconnected. In another case, for example Marseille, our case study is a city because, again, there is a considerable number of interconnected activities that, although managed by various public institutions, are an intrinsic part of that particular urban area. In three other case studies, which are Naples, Arles and Cartagena, more than focusing on three urban areas, we focused on specific culture promoting institutions (like underwater parks and museums); this is due to the fact that the selected institutions represent the only means for the promotion of the underwater heritage on the territory. Therefore, in the selection of the case studies, we looked more for territorial coherence than the geographical extension of the selected area.

As can be understood from this description, the six case studies are quite different from one another, therefore the aim is to show the complexity and the different solutions related to the management of underwater archaeological heritage, by illustrating cases that make explicit internationally shared problems, national problems, and local context and specific site related threats.

1.2.3 Sources

In order to develop this analysis, many different sources have been used. Since the aim of the research was to analyze as much in detail as possible the underwater heritage management in each one of the three selected countries, we looked at all the possible sources of information, from literature on the topic, to newspaper and interviews, trying to combine them in a harmonious way and trying to construct a coherent narrative for each one of the selected case studies.

First of all, for the reconstruction of the National context, we looked at the literature covering the topic of the history of underwater archaeology in each one of the selected countries. Particularly useful were the proceedings of the first international conferences on underwater archaeology¹⁸¹, as these official records reproduced the speeches made by the pioneers and inventors of the discipline verbatim, and just as useful were the handbooks on underwater archaeology which traced the history of the discipline¹⁸². In order to reconstruct each national context, we also looked directly at the evolution of the national, or in some areas regional legislation directed at the protection of the archaeological heritage in general, and of underwater archaeological heritage in particular. This was done by looking at both the literature on the topic and at the national or regional laws and codes regarding archaeological heritage in general and the underwater heritage in particular.

To continue with the analysis of the context, it was also really useful to look at each Country's or region's national or regional statistics on the number of visitors to the cultural attractions, in order to estimate on the success in terms of the public of the archaeological heritage in general, so as to have a parameter for evaluating the success or failure of the underwater archaeological heritage policies in attracting the public; at the same time, to reconstruct the cultural policies of the specific local context, despite the literature, that for some of the cases was not particularly rich, not only the access to public and private institution websites was useful, but also the news spread by the media about cultural policies in a specific context, with, obviously particular attention to those directed at archaeological heritage.

As regards the description of the object, that is of the underwater archaeological heritage, we used two main sources, which are literature and direct observation. In fact, literature (scientific papers, monographs, exhibitions and museums catalogues) was fundamental in order to give accurate and reliable information about the

¹⁸¹ See AA.VV. 1961. *Actes du 2e Congrès International d'Archéologie Sous-Marin, Albenga 1958*. Institut National d'Études Ligures, Musée Bicknell, Bordighera. And AA.VV. 1971. *Actes du 3ème Congrès International d'Archéologie Sous-Marin, Barcelone 1961*. Institut National d'Études Ligures, Musée Bicknell, Bordighera.

¹⁸² Gianfrotta P.A. & Pomey P. 1981. *Archeologia Subacquea - storie, tecniche, scoperte e relitti*. Mondadori ed. Milano.

archaeological heritage and the historical information connected to it. At the same time direct observation was fundamental in order to give a description on how the archaeological objects are displayed in the museums or how the visits aimed at the public are organized in archaeological sites. Therefore, most of the mentioned sites and museums have been personally visited, with the exception of a part of the Sicilian underwater itineraries and two submerged amphorae sites in the Bay of Marseille. In these cases, for the description we relied on information given by the manager authorities of the sites, or on official descriptions available on the manager authorities websites or in literature.

Certainly, the two most complicated aspects to reconstruct were the producers and the receivers; in fact for both there was a lack of literature for the chosen case studies. Starting with the producers, we have to remember that the intention was to analyze in as much detail as possible all the stakeholders involved in the underwater heritage creation process. Therefore it was necessary to trace the history of the private and public actors dealing with the heritage and to understand in what kind of activity directed at the heritage they are engaged. In the case of some of the public institutions, like the French DRASSM, and the Departmental Museum of Ancient Arles, the Sicilian Superintendence of the Sea or the National Museum of Underwater Archaeology of Cartagena and the Catalanian Center for Underwater Archaeology in Spain tracing the history was reasonably straightforward, since we are referring to important public institutions whose history is traceable through literature, official documents and official websites. However, the same is not true for all the public institutions. In fact, for example, although the Marine Protected Areas of the Bay of Naples have a relatively short history, there is little information on the different development phases and on the institutions; of course there are official documents, but access has to be officially authorized by the Manager Authority, which does not always happen or it takes a very long time. Moreover, as will be described, there are also many private bodies involved in the management of the underwater archaeological heritage, and also in this case we do not have any help from literature. Therefore, in these cases we used two main tools for the reconstruction of the history of these institutions, which are interviews and internet.

The interviews were organized in an unstructured way, with people working for a specific institution or with a direct personal involvement in the management of the underwater archaeological heritage; the interviewed people were always informed that their declaration could be quoted and used in this work. The interviews were not recorded, but notes were taken. The interviewed people were generally asked to describe their own (or of their organization or institution) role and involvement in the management of the underwater archaeological heritage. People were asked to explain the aim of their organization or institution, the activities that they carry out in order to fulfill their mission and the threats that they recognize, ideas and projects that they want to implement, criticism of the system of management of the underwater archaeological heritage. These are the main points that were covered during the interviews, and all the interviewed people were asked to answer. However, most the interviews with the producers were all quite informal, set up like conversations during which people were asked to express their view or perspective on underwater archaeological heritage management, based on their experience. The interviews have not been reported in their entirety, and some of them were not used at all. They have been used as a source of information, therefore the information obtained from interviews has been integrated into the general narrative and quoted, when the origin of an information was an interview. It is also important to mention that the producers of the six case studies are very different in terms of the means they have at their disposal (regarding both human and economic resources) and we consider it important to underline these differences, especially for the final comparison. However, not all the interviewed producers were available to give detailed information regarding their economic resources, therefore these aspects were mentioned only when possible and in a limited way.

Different sources were also used for the analysis of the public reaction to heritage. In fact, the data available varied according to the different case studies, nevertheless, we did our best to make the analysis and evaluation of the information relevant to each case study as coherent as possible, providing the same amount of detail. First of all, for all the sites and museums that we analyzed we looked at the data on the number of visitors to sites where the underwater archaeological heritage is exhibited; most of these data were available thanks to the

help of the different manager authorities that shared their information on the visitor flow to the sites. Obviously, in order to evaluate the visitors' level of appreciation of underwater heritage, to look at the number of visitors was not enough, therefore in most of the case studies interviews with the visitors were conducted. Visitors were interviewed in the Marine Protected Areas of Baia and Gaiola for the case studies of Naples, in the History Museum and in the Museum of the Roman Docks for the Marseille case study, in the National Museum of Underwater Archaeology in the Cartagena case study, and in the Archaeological Museum of Gerona for the Catalonia case. When visitors to museums and sites were interviewed, unstructured interviews were also carried out, focusing on the people's general impression of their visit to the museum or site. People were left free to speak and express their opinion on what they had seen, but at each site or museum we also made sure that the visitors were asked the following questions¹⁸³:

- What was your general impression of the visit?
- What would you like to improve or change in the visited site or museum?
- Were you aware of the existence of underwater archaeological heritage in that particular place?

Obviously, in each site where interviews were conducted, people also spontaneously and openly expressed their impression of various aspects of the site in general (e.g. amenities or organization) which was coherent with the aim of the research, and the observation made were recorded and used in the description of the case study. For each site the attempt was to reach a relevant portion of visitors (of course in relation to the total number of visitors to the site), but of course, not the same number of interviews was carried out in all the sites, and this was both due to time constraints and to the difference in the number of visitors to the different case studies. However, in all the cases the interviews were recorded in more than one day¹⁸⁴, trying to balance the interviews

¹⁸³ In this case we will list only the questions that were asked in all the sites, in order to explain the methodology used to extrapolate the needed information. Then, case by case, when the whole context is clear, more details will be given.

¹⁸⁴ The number of days per site will be specified in each case study.

between working days and weekends or holidays. The people to be interviewed were randomly selected, therefore, for each day a target of number of people to be interviewed was set, and every visitor was asked to participate in the research. As can be imagined, a lot of people did not want to participate, therefore the only criteria used for the selection was the availability of people to answer the questions.

As explained, not in all of the analyzed sites was it possible to conduct direct interviews with the visitors, particularly in the case of an underwater archaeological site in Catalonia, in two underwater archaeological sites in Marseille and in several underwater archaeological sites in Sicily. In regard to this aspect it is important to know that in all of these underwater sites there were few visitors per day, therefore to reach a significant sample, it would have been necessary to dedicate more than a couple of weeks to each site. Moreover, visitors go to these sites mostly only during the summer, when there are favorable climatic conditions; for this reason, since the fieldwork took place in 2014, it would have been impossible in only one summer to interview a significant number of visitors in each site. Therefore, it was also necessary to use other means to evaluate the level of appreciation of the visitors.

In the case of the underwater site of Aiguablava, in Catalonia, the organizers of the guided tours to the site were very helpful and gave all their support, allowing a questionnaire to be submitted to each visitor. In other sites, when there was not this support, guides and other people dealing with the visitors were interviewed, in order to try to estimate the level of the public's appreciation of the sites and the risks of transmitting the existence of underwater archaeological heritage to the public. For example, in the case of the Departmental Museum of Ancient Arles where it was not possible to spend the necessary time to conduct the desirable number of interviews with the public, also studies conducted by the Departmental Museum of Ancient Arles staff were used. In all the other places described in the cases, direct interviews to the visitors to museums and sites were conducted.

Finally, a valid tool was also the analysis of the social media. In fact, for all the sites and museums that are registered on the social media, a wide range of comments left by the visitors was available. This was

true especially for the sites and museums registered on Tripadvisor¹⁸⁵, where people left their comments and opinions on what they have visited in order to recommend it or not to other people.

Another tool that was used gain an understanding of the public of the underwater heritage, was to carry out very short interviews with people in the street in crowded places located near an underwater archaeological site or a museum where the heritage from underwater is exhibited. This kind of interview was conducted, for all the six case studies, to people in Naples, Palermo, Marseille, Arles, Cartagena and Gerona. In this case the interview was extremely simple; people were just asked whether or not they had ever heard of the existence of underwater archaeological heritage. Then a simple "yes" or no" was recorded as the answer, unless people spontaneously added some other information. Also in this case the aim was to interview as many people as possible, having an average of 300 people per city; and also in this case the only criteria for selection was the availability of people to answer. However, we are aware that, especially in densely populated cities like Marseille, Naples, and Palermo these interviews cannot be considered as statistically relevant samples; nevertheless, they were interesting experiments that could confirm or not the data from other sources.

As in the analysis of the object, also in the analysis of the public direct observation was used as a tool for gathering information. For example, while waiting for visitors to arrive at the museum or site to begin the interviews, we would watch closely if people passing by some attraction to do with underwater archaeological heritage ignored it or gave it some attention, or once inside the museum or the site if there was a part of the museum or site where people spent more time than in any other part.

What emerges out from this overview is that different means have been used to gather information. Naples was the logistic base for the fieldwork, where great support was given by the staff of the two underwater parks object of the study. During 2014 several trips were organized to Sicily, where it was spent the whole August 2014. From January to April 2014, thanks to the possibility of being received as a

¹⁸⁵ <http://www.tripadvisor.com/>

visiting PhD research student at the University of Aix-Marseille, it was possible to conduct fieldwork in France, based in Marseille, but with the possibility of organizing several field trips to the nearby city of Arles. From Marseille it was also possible to organize a two-weeks period of fieldwork in Gerona, then between May and July 2014 some time was spent between Cartagena and Gerona. Collecting information in the field, through interviews and direct observation was the fundamental tool for developing the research that has lately been amplified with data from official statistics, literature and the web. All the collected data are presented together trying to build a coherent narrative.

To conclude we would like just to mention that probably, the biggest obstacle was to reconstruct the history of some public institutions or organizations, especially in Italy. This is probably due to a lack of attention to the history of the institutions in some contexts, which we believe is a pity, since it is incredible how much information there is and how many things it is possible to understand about the archaeological heritage management, only by looking at the history of the institutions dealing with it.

Chapter 5: Analysis and conclusion

In the introductory chapter we stated that the aim of this work was to analyze the management of the underwater archaeological heritage, in order to examine, by means of a comparative study, different possibilities of transmitting this otherwise invisible heritage to the public and, especially, how this heritage is perceived and received by the general public. In order to do that, we examined six case studies, two from each of the three countries, using as a descriptive model the Cultural Diamond¹¹⁴⁶; we also used Schudson's five dimensions¹¹⁴⁷ to evaluate the efficacy of the policies to transmit the underwater archaeological heritage to the general public. Therefore, in order to complete our analyses, in this final chapter we will compare the results of the analysis of the six case studies.

5.1 The general context and the cultural object

Before moving to the comparison of the efficacy of the six case studies, it will be important to point out the main differences that emerge from the description of the general context of each one of the six case studies. As mentioned above, the six cases studies were from three different countries and, in order to better understand the analyses, it is necessary to point out the main differences regarding the general situation of the underwater archaeological heritage management in the three different countries.

5.1.1 The general context

The six case studies we analyzed in this work came from France, Italy and Spain, and each case study is influenced by its general national context. Therefore, we decided to summarize the most important aspects regarding the management of underwater archaeology in each one of the three countries:

1) General French context: France has a long tradition in the field of underwater archaeology since it is the country where the SCUBA diving techniques were developed¹¹⁴⁸, and in this country the

¹¹⁴⁶ Griswold W. 2004. *Cultures and Society in a changing world*. Pine Forge Press; pp. 14-17.

¹¹⁴⁷ Schudson M. 1989. "How Culture Works? Perspectives from Media Studies on the Efficacy of Symbols". In *Theory and Society* vol. 18 no.2; pp. 153-180.

¹¹⁴⁸ Bass G. 2011. "The development of maritime archaeology". In Catsambis A., Ford B., Hamilton D.L. 2011. *The Oxford Handbook of Maritime Archaeology*; Oxford University Press, New York; p.5.

management of underwater archaeological heritage became highly centralized with the creation of a specific public institution, the DRASSM¹¹⁴⁹, active at national level and involved in the fields of preservation and management of the underwater archaeological heritage, but also in the field of research; the DRASSM is also supported by many private bodies and other national institutions in the accomplishment of its tasks. Nevertheless, if in the past amateurs too could carry out underwater archaeological campaigns, at present this possibility has been considerably limited¹¹⁵⁰. Nevertheless, in France there are many institutions, private and public, which collaborate with the DRASSM; in particular, most of the dissemination activities related to underwater archaeological heritage are delegated to other bodies, that are often public owned, like museums. The possibility of becoming an underwater archaeologist is clearly established by the law¹¹⁵¹, and the DRASSM, thanks to the support of universities and research centers, is also involved in the organization of training schools for underwater archaeologists¹¹⁵².

2) General Italian context: also Italy has a long tradition in the field of underwater archaeology, where the discipline was born at the same time as in France. The administration of the underwater heritage is the responsibility of the Ministry of Culture, which has a technical division for underwater archaeology¹¹⁵³ whose task is to coordinate the activities on the territory performed by the local branches of the Ministry, that are the Superintendences¹¹⁵⁴. Nevertheless, not all the Superintendences have trained personnel to undertake underwater archaeological campaigns; the situation is different in Sicily, which has

¹¹⁴⁹ <http://www.culture.gouv.fr/fr/archeosm/archeosom/drasn.htm>. Last retrieved on 28/05/2015.

¹¹⁵⁰ See the decree that regulate the activity of underwater archaeologists.

<http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000023413027&dateTexte=&categorieLien=id>. Last retrieved on 04/11/2014.

¹¹⁵¹ <http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000023413027&dateTexte=&categorieLien=id>. Last retrieved on 04/11/2014.

¹¹⁵² <http://amidex.univ-amu.fr/en/momarch>. Last retrieved on 04/11/2014.

¹¹⁵³ <http://www.archeologia.beniculturali.it/index.php?it/151/archeologia-subacquea>. Last retrieved on 28/05/2015.

¹¹⁵⁴ D'Agostino B. 1984. "Italy". In Cleere H. (edited by). *Approaches to the Archaeological Heritage*; pp. 76-78.

autonomy in the management of its heritage¹¹⁵⁵. The different regional Superintendences are involved in research projects, regarding especially the carrying out of census of the heritage, with the collaboration of many other Italian Institutions¹¹⁵⁶. As regards the musealization of the heritage and its dissemination to the public, private bodies and local associations working on the territory make valuable contribution. However, there is no clear regulation regarding the licenses necessary for working underwater and there is a lack of training courses.

3) General Spanish context: in Spain underwater archaeology developed a little later than in the other two countries, and especially thanks to the activities of amateur archaeologists. Because of the considerable degree of autonomy that Spanish Regions enjoy in the administration of heritage in general, each Spanish Autonomous Community is in charge of its own underwater archaeological heritage¹¹⁵⁷. This means that there are Regions, like Catalonia¹¹⁵⁸, that have very active research centers that study, carry out research and disseminate the underwater heritage, and Regions where such center do not exist. Moreover, the different regional centers do not collaborate one with one another. Regions that have centers devoted to underwater archaeology, also have centers to train new personnel. Also in the case of Spain private bodies collaborate, especially in the dissemination activities related to the transmission of the underwater heritage to the public, and, in order to work as underwater archaeologists only a recreational SCUBA diving license is required to archaeologists.

This short summary was needed in order to highlight the main features regarding the management of the underwater archaeological heritage in the six case studies. The main difference regards not only underwater archaeological heritage, but the management of the

¹¹⁵⁵<http://www.regione.sicilia.it/bbcaa/dirbenicult/normativa/NormativaNazionale/DPR30agosto1975n637.htm> . Last retrieved on 24/10/2014.

¹¹⁵⁶http://www.archeomar.it/archeomar/index.php?option=com_content&view=article&id=2&Itemid=2&lang=it. Last retrieved on 28/05/2015.

¹¹⁵⁷ Aznar Gómez M. J. 2006. *La Protección Internacional del Patrimonio Cultural Subacuático - con referencia al caso de España*. Tirant Lo Blanch, Valencia; pp. 422-424.

¹¹⁵⁸ <http://www.mac.cat/esl/Sedes/CASC/Yacimientos-subacuaticos-de-Catalunya>. Last retrieved on 28/05/2015.

heritage in general. In fact, France has a really State-centered system¹¹⁵⁹, nevertheless there is a high level of collaboration with all the other, national or local, public authorities; therefore the administration of the French underwater heritage is quite homogenous¹¹⁶⁰. Completely opposite is the situation of Spain, where each Region has its independence regarding the management of its heritage¹¹⁶¹. As we mentioned, this situation causes noticeable discrepancy between the development of underwater archaeology in the different Regions. Italy lies somewhere in between France and Spain. In fact, in Italy, as in France, it is the Ministry of Culture that is in charge of most of the activities regarding archaeological heritage in general, although the Ministry acts on the territory through its Superintendencies, that, as we mentioned, do not necessarily have trained staff to take care of the underwater archaeological heritage. Therefore, in Italy, as in Spain we have a high level of discrepancy between one region and another

The differences between the three countries' underwater heritage administration systems are therefore necessarily linked with their tradition and the heritage administration systems in general; however, the history of the discipline, that we reconstructed, also shed some light on the general interest for the topic in the three countries. We described, in fact, that in France the early interest for underwater archaeology, developed also thanks to a close collaboration with Italy and which early on was translated into the creation of a centralized public institution devoted to the preservation and the management of the underwater archaeological heritage¹¹⁶². On the other hand, in Italy, the development of underwater archaeology was linked to the person

¹¹⁵⁹ Schnapp A. 1984. "France". In Cleere H. (edited by). *Approaches to the Archaeological Heritage*; pp. 48-53.

¹¹⁶⁰ It is also true that there is a discrepancy between, for example, the underwater archaeological campaign undertook in the Mediterranean France and in the Atlantic France, but this is due especially to environmental conditions, since it is easier to work in the Mediterranean.

¹¹⁶¹ See article 149 1,28:

http://noticias.juridicas.com/base_datos/Admin/constitucion.t8.html#a149. Last retrieved on 08/03/2015.

¹¹⁶² Gianfrotta P.A. & Pomey P. 1981. *Archeologia Subacquea - storia, tecniche, scoperte e relitti*. Mondadori ed., Milano; pp. 37-38.

of Nino Lamboglia and his *Istituto*¹¹⁶³. However, when Lamboglia died, Italy still did not have an institutional organization devoted to underwater archaeology, and for a long time the discipline developed thanks to the initiative of self-organized groups of archaeologists¹¹⁶⁴. On the other hand, in Spain, the discipline developed more slowly, and in different ways in the different Regions; in Spain, more so than in the other two countries, the work of the volunteers and non-professional archaeologists was fundamental for the development of the discipline¹¹⁶⁵. From this brief summary it is therefore clear that France, at institutional level, showed the earliest interest in the discipline, which, surely, encouraged its development.

Moreover, another sign of the France early interest for the protection of its underwater archaeological heritage is also the fact that France issued in 1989¹¹⁶⁶, much earlier than the 2001 UNESCO Convention on the Protection of the Underwater Heritage, national laws directed specifically at the protection of this heritage. Whereas, in Italy, we have to wait 2009, after the ratification of the 2001 UNESCO Convention, for a specific mention to the underwater archaeological heritage¹¹⁶⁷; and Spain the situation is more complicated, once again, because of the differences between the Regions¹¹⁶⁸.

Finally, it is important to underline one point the three countries have in common. In fact, in all the three countries archaeological heritage in general is managed and owned by public institutions. However, there is the need for the collaboration of private bodies, like associations and

¹¹⁶³ L'Hour M. 2012. *De L'Archéonaute à l'André Malraux - portraits intimes et histoires secrètes de l'archéologie des mondes engloutis*. ACTES SUD/DRASSM, Arles; pp. 117-119.

¹¹⁶⁴ Pietraggi R. 2007. "Nino Lamboglia: l'archeologia subacquea e la burocrazia; luci ed ombre di un rapporto tormentato". In *Archeologia Maritima Mediterranea - An International Journal of Underwater Archaeology* 4; pp.37-43.

¹¹⁶⁵ AA.VV. 1988. *La Arqueología Subacuática en España*. Dirección General de Bellas Artes y Archivos, Ministerio de Cultura, Museo Nacional de Arqueología Marítima - Centro Nacional de Investigaciones Arqueológicas Submarinas, Madrid.

¹¹⁶⁶http://www.legifrance.gouv.fr/jopdf/common/jo_pdf.jsp?numJO=0&dateJO=19891205&numTexte=&pageDebut=15033&pageFin=. Last retrieved on 04/11/2014.

¹¹⁶⁷

http://www.beniculturali.it/mibac/multimedia/MiBAC/documents/1258042437729_unesco_GU_1.pdf. Last retrieved on 24/10/2014.

¹¹⁶⁸ Cibecchini F. 2013. "L'Archeologie Sous-Marine en Italie et en Espagne, Trente Ans après Nino Lamboglia". In C. Cérino, M. L'Hour & E. Rieth (sous la direction); pp. 77-93.

SCUBA diving federations or clubs that support the public institutions in the dissemination of the underwater heritage to the public whenever it is accessible *in situ*. According to the case study, the involvement of the privates varies, but the need for their support is a common trend.

5.1.2 The cultural object

Before moving to the comparison of the degree of efficacy of the transmission of the underwater archaeological heritage to the public, we would like to spend a few words on the cultural object. In particular, we would like to create a summary chart, in order to make it easier to follow the final comparison. In fact, all the six case studies represent different ways of communicating the underwater heritage to the public, which is the cultural object which connects the different cases.

France	Marseille	Shipwrecks and movable objects	On land + <i>in situ</i> itineraries
	Arles	Shipwrecks and movable objects	On land
Italy	Baia and Gaiola Underwater Parks in the Bay of Naples	Immovable structures and movable objects	<i>In situ</i> itineraries
	Sicily	Shipwrecks and movable objects	<i>In situ</i> itineraries
Spain	Catalonia	Immovable structures shipwrecks and movable objects	On land + <i>in situ</i> itineraries
	Cartagena	Shipwrecks and movable objects	On land

Chart 31 Summary of the case studies

Chart 31 simply shows, for each one of the case studies, where the underwater archaeological heritage is visible to the public, on land or *in situ*. As the chart shows, the cases are quite balanced, since we have two cases where the heritage is visible only *in situ*, two cases where it is visible only on land, and two cases where we have both solutions.

It is also important that, in the three countries, remains from all the different time period are considered underwater heritage. This was reflected in both the Spanish cases, while both in France and in Italy, at

least in the considered case studies, more attention was given to the classical, pre-Middle-Ages, times.

At this point, we have to compare the results of the analysis of the efficacy of the six different case studies.

5.2 Comparison of the Schudson's dimensions

As we stated in the introductory chapter, the aim of this work was to analyze the different approaches to underwater archaeological heritage management in the Mediterranean, through the analysis of various case studies. In these analyses it was crucial to take into account how the heritage is transmitted to and perceived by the general public. In order to do that, each case was analyzed using the five Schudson dimensions to evaluate the efficacy of a cultural object in terms of the public. Therefore, now we will compare the results of these analyses, applying, once again Schudson's dimensions as parameters.

5.2.1 Retrievability

In the introductory chapter, we defined Retrievability as the capacity of a cultural object to reach the people and to be available for them. In applying this parameter to underwater archaeological heritage, we tried to understand how, in the different cases, the underwater archaeological heritage was made accessible to the public, whether on land or *in situ*. This dimension is particularly relevant, since underwater archaeological heritage is, by definition, located under the water surface, and for this reason invisible to the majority of the population. Moreover, we have described that to recover the underwater heritage from its context can be extremely complicated and costly, and at the same time, when it is left *in situ*, access has to be forbidden to assure its preservation¹¹⁶⁹. However, the six case studies offered different solutions to making underwater archaeological heritage accessible, and we will now summarize their strengths and their weaknesses.

As regards Italy, the case of the twin Underwater Parks of Baia and Gaiola in the Bay of Naples represents an interesting example of the *in situ* musealization of immovable underwater archaeological heritage by

¹¹⁶⁹ Maarleveld T.J. 2014. "Underwater sites in archaeological conservation and preservation". In C. Smith (ed.). *Encyclopedia of Global Archaeology*. Springer, New York; pp. 7420-7427.

the institution of two strictly regulated marine parks. Although in these cases the heritage remains technically invisible at first sight, because underwater, the main problems of retrievability are caused by the general context. In fact, more than the public institutions in charge of the Underwater Parks, the private bodies involved in the promotion of the heritage (local associations and diving centers) found as many solutions as possible to make the heritage accessible, like glass-bottom boat tours. Here the problems are created by the lack of interaction with the nearby on land sites. Regarding this point, the situation is better in Gaiola than in Baia, were, paradoxically, there are many more sites of interest, whereas in Gaiola, a local association is trying to interconnect where possible the marine and the on land heritage. Moreover, in Baia there is also a museum where the archaeological heritage coming from the seabed could be visible, but, as we described, the part of the museum containing those remains is closed. Accessibility is made even worse by the fact that the sites are difficult to reach by public transportation. The lack of visibility seems to be confirmed by the local population's low level of awareness of the existence of the Parks; however, the efforts of the private bodies (which seem greater than the efforts of the institutions) to make the park visible, seem to be rewarded by, despite all the problems, an increase in the number of visitors.

The situation of the Sicilian itineraries is very similar, although, in the case of Sicily, the heritage remains more invisible, since most of the itineraries are accessible only by SCUBA divers and are located at a considerable depth. This may be one of the reasons why we registered, also in this case, a low level of awareness of the existence of the heritage. In this case, the public institution responsible for the itineraries, the Sea Superintendence, spares no efforts in advertising its underwater heritage; however, the promotion of the itineraries to the public is left to the diving centers, which are not always interested in promoting them; this is one of the reasons why, together with the different levels of attractiveness of the itineraries, some of them are successful and some are not. Moreover, also in the case of Sicily, a lack of collaboration between on land and marine sites has been registered, also due to the lack of promotion of the on land sites.

As for France, we started with the case of Marseille, where we have both *in situ* and on land displays of the underwater archaeological heritage, which mainly consists of shipwrecks. The *in situ* sites are, however, artificially reconstructed, because the archaeological remains originally lay at a very considerable depth. In this case, the heritage remains mostly inaccessible for one simple reason; in fact, the itineraries created for visitors are not advertised at all by the diving centers in charge of them, since they are considered unattractive. The state of affairs regarding museums is rather different. In fact, in two museums of the city it is possible to admire the underwater archaeological heritage of Marseille. It is true that the survey on how aware the local people are that this heritage exists carried out in the street did not give positive results, but it is also true that, especially the case of the Marseille History Museum proved to be an important tool for the promotion of the underwater archaeological heritage. The same is not true the same for the Museum of the Roman Docks, where the underwater heritage is easily accessible, but this Museum cannot be considered retrievable since it is not advertised and many of its visitors considered its museographic style as outdated. Then there is the Cosquer Cave, which is completely inaccessible to the visitors. In this case, the efforts made to publicize the site are still too few to consider it retrievable. However, the most important fact that emerged from the analysis of the case of Marseille is that the underwater heritage is made available to the public by the collaboration of many public institutions, who also collaborate with private bodies in taking care of the underwater heritage.

The second case regarding France is Arles, which is probably the most successful, in terms of retrievability, of the six cases. In fact, in Arles, almost everyone that was interviewed declared that they were aware of the existence of the underwater archaeological heritage, despite the fact that this heritage was originally located in a very unpleasant and inaccessible environment, like the bed of a very polluted river. Nevertheless, the Departmental Archaeological Museum of Arles, in collaboration with many other national and local public and private institutions, made a huge communicative effort, also involving the media, to allow as many people as possible access and acquaint themselves with the underwater archaeological heritage of Arles.

As regards Spain, also in Catalonia, apparently people are not really aware of the existence of their underwater archaeological heritage. It is true, that in this case there are not many possibilities to access this heritage. In fact, the exhibition in the Archaeological Museum of Gerona, which represented an occasion for the wider public to discover underwater archaeological heritage, was only temporary. Moreover, several attempts have been carried out to make accessible also the underwater heritage *in situ*, but, unfortunately a good equilibrium between preservation and accessibility of the underwater sites still has to be found. The visit to shipwrecks organized by private bodies in collaboration with public institutions gave positive results, but it is also true that these excursions are limited to small groups of people.

On the other hand, the case of Cartagena is really good in retrievability. In fact, here, as in Arles, people demonstrated they were aware of the existence of the heritage, also thanks to important media campaigns. It is true that in the case of Cartagena we are talking about an on land museum, which is by definition easily accessible, but it is also true that efforts have been made to make the museum even more accessible by, for example, repositioning it in a more visible and reachable part of the city. As regards the *in situ* heritage, at the moment a local association is doing its utmost to make it accessible, but it is too early to evaluate the success of its activities.

Retrievability may seem the biggest obstacle for the promotion to the general public of the underwater archaeological heritage, invisible by definition. Nevertheless, the six case studies showed us that there are many different, and sometimes also simple, solutions to engage people with the underwater archaeological heritage by making it accessible. It is true that the most successful cases are two on land museums, those of Arles and Cartagena, and it is also true that an on land museum is by definition more accessible than an underwater site. However, it seems quite clear that the problems of retrievability of the underwater archaeological sites are not related to their underwater locations. In fact, they were either unappealing sites (like the French fields of amphorae), or underwater sites where there are also "invisible" on land sites (like in the Bay of Naples and in Sicily). By "invisible" on land sites, we refer to those sites that very few people visit, because of lack of promotion and connection. Therefore, as we mentioned, the problem

of those underwater sites seems to be not their lack or retrievability, but that they are located in non retrievable contexts. In fact, the Roman Docks Museum of Marseille, clearly showed how also an on land site can lack retrievability. At the same time, the case of Arles clearly shows how the underwater heritage was successfully made accessible to the citizens of Arles even when it was still located on the polluted and unwelcoming Rhone riverbed. The success of the initiatives organized by the Departmental Museum of Ancient Arles to motivate the citizens participate in the underwater archaeological campaigns demonstrates how the success in terms of the retrievability of the underwater archaeological heritage, and of archaeological heritage in general, rests more on communication, promotion and dissemination activities organized by the manager authorities, rather than on the location of the heritage.

Finally, it is also important that part of the lack of retrievability of the heritage is due to the producers of the cultural objects, as it is shown by the Italian case studies. In fact, in the Bay of Naples it seems like the private bodies, without the necessary means and the necessary institutional support, take care of the underwater archaeological heritage; on the other hand in Sicily most of the private bodies involved do not seem to really have an interest in the promotion of the underwater sites. Both examples show that the lack of retrievability may also be caused by the lack of collaboration between the different bodies.

5.2.2 Rhetorical Force

In the first chapter we defined Rhetorical Force as the capacity of a cultural object of being memorable and the degree of power it has over the people. During the analysis of the different case studies, we looked at the rhetorical force as the narrative that is used by the producers to make the underwater archaeological heritage more interesting for the public. Generally speaking, underwater archaeological heritage in general could benefit from the fascinating idea of the past that comes out from the waters, from a submerged or unknown world. The aura and the intrinsic rhetorical force of the underwater heritage are probably demonstrated by the fact that most of the visitors to sites or museums that were interviewed stated that they would like to experience a visit to an underwater archaeological site preserved *in*

situ. In the case of the underwater archaeological heritage of Marseille the underwater archaeological heritage is included in the narration of the history of the city of Marseille, and together with the on land archeological heritage is used to support the rhetoric of "Marseille the most ancient city of France" and Marseille as a city that developed, thanks to its strong ties with the sea, as a maritime city. As we described, these catchphrases were intensely repeated during the cultural renewal that regarded Marseille because of the 2013 Marseille European Capital of Culture events, with the intention of giving importance to the antiquities and presenting them in a new light, those antiquities of the city that were abandoned for far too long. However, the rebirth of Marseille's antiquities seemed to function only in the case of the Marseille History Museum that with its modern tools and new approach to exhibiting ancient objects which narrate their own story make the historical aspect easy to follow and is appreciated by the visitors. The same does not apply to the Roman Docks Museum, to the Cosquer Cave, or to the re-immersed amphorae, which all seriously suffer due to the lack of retrievability.

The second case study in France, is the case of Arles, which is completely different. Here in the promotion of the heritage a great deal of rhetoric was used, rhetoric of the past that emerges from the waters of the river revealing important secrets. Moreover, all the archaeological campaigns in the Rhone river area were built, at the beginning, around the powerful image of the bust of Julius Caesar found in the waters of the river. The fact that the archaeological heritage was transmitted to the public using a powerful, fascinating and magnetic rhetoric, does not mean that the dissemination of the heritage was turned into a show or something less scientific; in fact, we described that in the museum where the remains from the Rhone are exhibited, everything is exposed with the aim of narrating the history of Arles and the surrounding areas; but, from the success of the activities of the museum that we described, it seems clear that the rhetoric that was used to advertise the underwater archaeological heritage, attracted a great deal of people.

As regards Italy, first of all there is the case of the two Underwater Parks. In the case of Baia, the narrative and the rhetoric used to promote the site is to describe it as the "underwater Pompeii", the

"submerged city", which certainly sounds fascinating and could bring to mind the idea of the mythical submerged city of Atlantis. This is something that could probably work, but since we described that the site lacks of retrievability because of its general context, this rhetoric could give better results in terms of the public; whereas, in the case of Gaiola, attention is more focused on the mix of archaeological and environmental heritage, presenting the site as unique because of its valuable environmental and archaeological features. In fact, the underwater structures of Gaiola do not speak for themselves as in the case of Baia, therefore, in this case it is a good idea to draw attention also to its environmental heritage. However, it is mainly a local association which is advertising the Park, therefore, although significant improvements have occurred in the last few years, the success achieved by the narration of the Park is limited to the field of action of a local organization.

In the case of Sicily, the Superintendence of the Sea, the main body involved in the dissemination of the underwater archaeological heritage, concentrates on the description of the sea as an environment particularly rich in history. The problem in this case is due to the fact that there is a discrepancy between the Superintendence of the Sea, which does its utmost to transmit this message, and most of the diving centers that are assigned to dealing directly with the public, and that do not advertise the archaeological itineraries (also because often the public does not find them interesting, as they are located in environmentally poor sites). Therefore, since the underwater heritage is not retrievable, the rhetoric of the Superintendence loses much of its efficacy.

As regards Spain, in Catalonia we said that there are not many opportunities to engage with the underwater archaeological heritage. Nevertheless, the case of the Gerona exhibition and of the projection of the documentary about the *Triunfante* shipwreck demonstrated that the presentation of the underwater heritage as the bearers of a story, and the presentation of everyday life in the past, is successful in reaching the people's imagination. In this sense, the rhetorical force that is expressed in this way is the power that lets people identify with the life of people that lived before them. To some extent, we may say that this is the rhetorical force of everyday life.

As regards the Cartagena ARQUA Museum, the situation is completely different. In fact, in this case the entire museum is designed to accommodate the rhetoric of the history that comes from the sea, as is clear also from its name. However, the event that in recent years made the museum widely known was the dissemination of the legal actions to obtain the cargo of the *Mercedes* shipwreck. In fact, this case was followed by the media and presented to the public as a case of national pride; the cargo is now exhibited in the museum making clear reference to the court cases, which impressed most of the visitors that were interviewed.

As we have seen from this summary of the analysis that we developed, the rhetorical force is very different in every case study, because, of course, in each site the producers try to draw attention to a particular characteristic of the cultural object, whether it is a museum or an underwater itinerary. What emerged from the interviews with the visitors is that the most appreciated sites are those where the narrative and the contents of the visit are clear. This is particularly true, because, perhaps with the exception of Baia and Arles, where beautiful mosaics and statues are visible, in all the other cases visitors can see underwater archaeological remains that do not have a particular aesthetic value. They are simple objects or structures that, without an explanation, would probably have no meaning for the general public. It is for this reason that the rhetorical force of the different cases is given by the ability of the producers to make the objects narrate a story. In fact, it is not surprising that the fields of amphorae in the sandy seabed of the French underwater itineraries and of some of the Sicilian itineraries were not considered attractive, simply because they could not communicate anything to the visitors, not even from the aesthetic point of view. At the same time, it is probably for the opposite reason that the visitors to Baia who, as emerged from the interviews, in some cases did not understand very much about the history of the place, were happy in any case. In fact, we described that some of the Baia visitors were not even able to tell what the site they visited was (they were not able to say if they visited a port or a dining room); however, they were satisfied with the visit because they had the unique experience of seeing a beautiful mosaic floor perfectly preserved on the seabed. Therefore, and this is probably true also for on land archaeology, we can summarize that when an archaeological site has an outstanding

evocative and aesthetic value, as Baia has, this is its rhetorical force, which speaks for itself. On the other hand, and this is true for many archaeological sites and objects, when the aesthetic value is not present, because in most of cases archaeological objects are everyday objects and not works of art, it is fundamental to make the objects tell a story, in a clear and explicative way. It is probably also the way a story is told that contributes to the success of the Arles case, where self-explicative and evocative archaeological remains were used to create an exhaustive and modern narration of the history of a city. The importance of a comprehensible narrative to build rhetorical force is even more evident in the case of the Cartagena ARQUA Museum; in fact, we described (and it was also the comment of some of the visitors) how in the museum more reconstructions, panels, interactive tools are exposed than real archaeological objects. Nevertheless, the visitors seemed to appreciate the experience of visiting the museum, because the majority of them felt that they had learned something and they had received the clearly communicated message.

Finally, the Gaiola case was the only one to present to the public the idea of seascape, and the importance of protecting cultural and environmental heritage together. This is a pity because the interviewed visitors seemed to have appreciated and received this message. In fact, if it is true that environmental concerns are widely shared by society¹¹⁷⁰, linking the need for the preservation of the environmental heritage with the need for preserving the historical heritage, by for example, promoting the idea of seascape, could give positive results in extending people's attention to underwater heritage. However, this would call for, again, reliable connections and very close collaboration between institutions dealing with historical/artistic heritage and environment¹¹⁷¹. Once again, this is also something true for the on land

¹¹⁷⁰ See, for example, this BBC survey, which demonstrates that the majority of people worldwide thinks global warming is caused by human activity and that strong action should be taken.
http://www.worldpublicopinion.org/pipa/pdf/sep07/BBCClimate_Sep07_rpt.pdf. Last retrieved on 24/04/2015.

¹¹⁷¹ For example, in the three analyzed countries, the environmental and historical heritage issues are responsibilities of separate institutions, and we saw how, in some of these cases institutional collaboration was missing also when the designated Ministry was the same.

heritage, whose preservation would certainly benefit from the promotion of the idea of a protected cultural landscape¹¹⁷².

5.2.3 Resonance

In the introduction we defined Resonance as the relevance that a cultural object has on the general public opinion, how it effects peoples' perception of the heritage in general and if, for example, it convinces them to justify the money spent by public authorities on efforts devoted to the archaeological heritage preservation.

In the case of Marseille, there is a distinction to be made between the amphorae itineraries and the two museums. In fact, in the case of the amphorae itineraries there is no relevance, as even the diving centers and the DRASSM acknowledging that the experiment of re-immersing amphorae on the seabed had to be better structured and implemented, because as it is, it cannot work. In the case of the museums, we mentioned that the Marseille History Museum has been extensively renovated in recent years, thanks to the investments made by the Marseille municipality. Nevertheless, the survey carried out in the street demonstrated that people have not heard of the museums yet, indicating little resonance. However, it is true that at the time of the interviews the Marseille History Museum had just re-opened and its visitors were enthusiastic, completely satisfied with the renovation operation. Therefore, it is predictable that by word of mouth the resonance of the museum will increase. The situation of the Roman Docks Museum is different, although the majority of the interviewed people have not heard about this museum either; moreover, many visitors were not completely satisfied with the visit. In fact, also the manager authorities of the museum themselves recognized that it not only need to be renovated but, in particular, modernized.

On the other hand, the case of Arles was really successful in terms of relevance. As we described, as in Marseille, also in Arles important investments have been made to enhance its heritage. In particular,

¹¹⁷² On the importance of the connection between cultural and environmental preservation and on the concept of cultural landscape see: Rössler M. 2007. "World Heritage cultural landscape: A UNESCO flagship programme 1992- 2006". In *Landscape Research vol. 33, issue 41*; pp. 333-353. And Mitchell N., Rössler M., Tricaud P.M. 2009 (eds). *World Heritage Cultural Landscapes. A Handbook for Conservation and Management*. Unesco, Paris.

these investments also regarded the underwater heritage, with the opening of a new wing of the Arles Departmental Museum and the recovery of the *Arles Rhône 3* wreck from the riverbed. However, the great success and participation of the Arles population in the activities of the museum and the great level of awareness of the existence of the museum and its heritage, made clear that the museum has a large consensus in Arles, which means, a great deal of relevance.

As regards Italy, the situation of the two Underwater Parks in the Bay of Naples, at first had a resonance, although not necessarily perceived as positive in the local communities, and especially in the fishing communities. In fact, the institution of the two Underwater Parks limited the fishermen's activities, since fishing restrictions were imposed in areas that were previously frequented by the fishermen. As we described, this was not perceived as positive. This is also particularly true in the case of Gaiola, where the disappointment caused by the restrictions imposed by the Underwater Park was clearly expressed by local communities. However, at the same time the institution of the two Underwater Parks created job opportunities for the local associations and the diving centers whose source of income are the visitors of the parks; therefore for this second group of stakeholders the relevance is positive, as surely it is for the many volunteers participating to the preservation activities of the two Underwater Parks, which demonstrates that the Underwater Parks are considered relevant not only by the people working there. At the same time, the surveys conducted in the streets of Naples demonstrated that the majority of the general public is still unaware of the existence of the two Underwater Parks.

In the case of Sicily, relevance is really low, with the few exceptions of the itineraries in Pantelleria. In fact, as we mentioned, some of the trails are not visited by anyone, and others have been completely abandoned. In some cases the complete lack of relevance is due to the fact that the itineraries are unappealing, as in the case of Mongerbino; in some others, to the fact that the diving centers involved in their management did not really take care of them, as in the case of Ustica. The result is that not many people know about them.

Regarding Spain, the situation is really different in the two case studies. In fact, in Catalonia, with the exception of the inhabitants of Rosas,

people did not seem to consider the underwater archaeological heritage as relevant. In the case of Rosas, the ordinary people that participated in the work of the CASC expressed enthusiasm for the topic of underwater archaeology, but it is also true that those were people who involved by the institutions in the protection of the heritage. In the case of the exhibition in Gerona, most of the visitors to the museum discovered the exhibition only by chance, confirming the general lack of awareness and interest in the underwater archaeological heritage. It is also true that many visitors changed their mind after having seen the exhibition.

On the contrary, the case of Cartagena seems to have a lot of resonance. First of all, most of the inhabitants of Cartagena knew about the museum. Moreover, most of the visitors were enthusiastic about the visit. Great appreciation was particularly expressed by the Spanish visitors (and by many of the foreigners) for the recovery of the *Mercedes* cargo by the Spanish Government. The visitors almost completely justified the efforts made by the Spanish Government, and many clearly expressed pride for how the story ended. Generally, people appreciated the entire museum collection.

This short summary showed that, also in this case, the situation is quite different from one case to another. Generally speaking, with the exception of Arles and Cartagena, the general public demonstrated that is not informed about the underwater archaeological heritage in general. This is not surprising, since, as we mentioned many times underwater heritage is by definition invisible to the public. However, this indifference is not only due to the "invisible" nature of the heritage, since we saw that people were not also unaware of museums that are focused not only on underwater archaeological heritage. This leads us to think that this indifference is probably related to the archaeological heritage in general, unless we are talking about great touristic attractions or places that are often in the media, like Pompeii or the Coliseum. In this panorama, Arles and Cartagena represent an exception. In the case of Cartagena, for sure, much of the success is due to the important media campaign related to the *Mercedes* cargo, demonstrating how much public attention heritage can have when it discussed by the media. It is also true that now the attention focused on the *Mercedes* seems to be more about the court case and the legislative

dispute than about historical value. At the same time, we also have to recognize that the ARQUA museum producers spared no effort in improving the resonance and the attractiveness of the museum, and surely these efforts are part of its success. The case of Arles represents the best possible example of how well thought out communication campaigns and the work with local communities can have good results in terms of heritage dissemination. This is true with archaeological heritage in general, but it is even more interesting in the case of Arles, because here, the Arles Departmental Museum staff was able to engage an entire community with archaeological heritage that was completely invisible to them, because lying on an extremely polluted riverbed.

5.2.4 Institutional Retention

In the introduction of this work we described Institutional Retention as the capacity of a cultural object to "intermingle with institutions" and itself becomes institutionalized. Since in all the three countries we took into consideration the fact that the archaeological heritage in general is managed by public institutions, we used this dimension to analyze how the different producers of the underwater archaeological heritage interact in each case study.

Starting with France, the first case study is the one of Marseille. As we described, in France in general, the management system of the underwater archaeological heritage is highly institutionalized. In fact, in France there is a state body, the DRASSM, instituted precisely with the aim of studying and preserving underwater archaeological heritage. In this case, institutional retention is really high, and, in the case of Marseille, there is the advantage that the DRASSM headquarters are based in Marseille. In fact, the DRASSM is responsible for every coastal area of France, but as we described, the fact that the headquarters are in Marseille, has helped the development of underwater archaeology in the city. However, since the DRASSM is a State institution, it has relations with other French institutions with which it collaborates. For example, part of the promotion of the underwater archaeological heritage is delegated to the museums on the territory that expose the archaeological objects for which the DRASSM is responsible, as in the case of the Marseille History Museum and of the Museum of the Roman Docks. At the same time, it also collaborates with other local bodies, as in the case of the Cosquer Cave. Moreover,

in the case of Marseille, we described how the DRASSM is part of an important municipal project aimed at the promotion of all the activities relative to the marine world that the city organizes. At the same time, it has realized many projects in collaboration with the Aix-Marseille University. The strong institutional retention and the close collaboration between different public bodies is probably the strongest point of the underwater heritage management in Marseille (and in France in general). The only case in which the DRASSM has the need to rely on private bodies for activities involving at the underwater archaeological heritage is in the case of the creation of underwater archaeological itineraries, like those of the submerged amphorae, since in the Marseille area there are no museums or archaeological parks whose staff has the professional competence to take visitors SCUBA diving.

Since, as we mentioned, the management of the underwater archaeological heritage in France is strongly centralized in one national institution, which is the DRASSM, what we described for Marseille is relatively true also for the case of Arles. In fact, also in the case of Arles the entire project of the musealization and research of underwater archaeological heritage was possible thanks to the collaboration between different public institutions. Also in the case of Arles the projects regarding the promotion of the underwater archaeological heritage are included in the larger project of the requalification of the city and its image.

The situation is different in the case of the two Underwater Parks in the Bay of Naples. In fact, it is true that the two parks were instituted by the Italian Ministry of the Environment and that their manager authority is the local branch of the Italian Ministry of Culture, the Superintendence for Archaeological Goods of Naples. However, it is also true that the contact with the public, the awareness campaigns and the dissemination activities have all been entirely delegated to local associations and diving centers. The manager authority's staff is almost never present in the two parks offices, but in other offices in the Superintendence headquarters. This would not necessarily be a problem, since the private bodies involved in the management of the Underwater Parks are hardworking and professional in organizing as many activities as possible, for example working a great deal with school children as well as carrying out research projects in the area.

However, they do not have the necessary means to carry out by themselves, for example, the activities of monitoring the area to prevent illegal actions, like fishery, that occur in the parks, although it is also true that the Italian Ministry of the Environment is now installing a video surveillance system in the Parks, realizing thus the largest monitoring project in the Southern Italian MPAs that we have described (but it is too early to evaluate the results of this project). However, there are two points pertinent to understanding the institutional retention: the first is that, as we described, in both the Underwater Parks local communities expressed their disappointment at the restrictions imposed by the institution of the parks. In both cases, all the complaints, which sometimes are also violent, are addressed to the associations working on the territory, and never to the manager authority, demonstrating that people do not perceive the manager authority as such, but they recognize the associations as the real managers of the Parks. The second point is that the biggest problem in retrievability for the two areas is due to the lack of public transport to reach the areas where the parks are located, and the lack of collaboration with other environmental and archaeological areas located near the parks, as well as the inexplicable inactivity of the Regional Park of the Phlegrean Fields, where both the Underwater Parks are located. All of this demonstrates a lack of collaboration between the various local institutions. The lack of attention to the underwater heritage on the territory due to the absence of the institutions responsible for it, is also demonstrated by the fact that, despite a rich presence of archaeological remains along the coastline of the Bay of Naples, there is no initiative regarding the archaeological remains that lie outside the two Underwater Parks borders.

As regards Sicily, we described that Sicily is a special Italian Region which has much more autonomy in the management of its cultural heritage. Therefore, it has a Superintendence of the Sea, a Regional public body modeled on the French DRASSM, but operating at Regional level, and which is the main point of reference for all the activities regarding underwater archaeological heritage in the Region; this also means that this institution has all the necessary means to develop underwater archaeological researches. As we described, the

Sicilian institutions collaborate frequently with many other institutions active on the Sicilian territory, like environmental parks, schools and universities. However, for the promotion to the public of the underwater heritage it relies for the most part on the local diving centers that have not always demonstrated interest in the diffusion of underwater archaeology. At the same time, the example of the Archaeological Museum of Lipari, in the Aeolian Islands where there is no reference to the underwater archaeological itineraries, despite the display of many archaeological objects coming from the underwater context, demonstrates that there is still not enough collaboration between institutions that are involved in and look after archaeological heritage.

In Spain, as in Italy, the situation differs in the two case studies. In fact, in Catalonia there is a high level of institutional retention. As in the case of Sicily, Catalonia as all the Spanish Regions has a great deal of autonomy in the management of its heritage in general. This is also reflected in the underwater archaeological heritage, for which the CASC, also in this case an institution modeled on the French DRASSM, was created. The CASC collaborates intensely with all the other Catalan institutions involved in the management of the Catalan archaeological heritage, like Archaeological Museums and Universities. It also tries to establish connections with other Spanish institutions, as in the case of the Alicante Archaeological Museum. The high level of institutional retention is also demonstrated by the success of the SOS Campaign that we described and that was exported to other Mediterranean countries. The success of this campaign is related to the real contact with the territory and the collaboration with other institutions, like the port authorities. Also the CASC as in all the other case studies where we presented cases of *in situ* musealization, relies on private bodies for the realization of underwater itineraries, but, as we described, this is a field in which the CASC is still experimenting.

The case of Cartagena, to some extent has a strong institutional retention. In fact, also the ARQUA Museum is a public National institution. Moreover, there are important relations between the Museum and the central state, as we saw in the case of the *Mercedes* cargo. Nevertheless, since it is a National museum operating in a city where all the other institutions dealing with the heritage are managed

by local institutions, it is a little disconnected from its territory. At the same time, it is also important to remember that the Museum works as a Regional service for the Murcia Autonomous Community, but, in truth at the moment there are not many activities carried out on the territory, but when they are, they are carried out by the AdARQUA association, which is connected to the Museum, but works as a private body.

It is clear that in all the six case studies there is a considerable level of institutional retention, since in the three countries we analyzed the archaeological heritage is public owned and managed by the state. However, the situation varies considerably from one case to another. The main difference is given by the existence or not of specific institutions created expressly for the management of the underwater archaeological heritage and active on the territory. Not surprisingly, the case of France is eloquent. In fact, in France there is a long tradition of a state run, centralized management system as far as the heritage is concerned ¹¹⁷³. The institution of the DRASSM is the clearest demonstration of this tradition; a national center responsible for the underwater archaeological heritage of the entire French territory, equipped with all the necessary means to carry out research in the sea and to preserve the materials, working in collaboration with other French institutions. This system has proved to be so efficient that it was used as a model for the creation of the Regional services in Catalonia and in Sicily, where, in respect to the French DRASSM, these institutions also have the advantage of being responsible for smaller territories that, theoretically, should be easier to monitor. The situation is different in the case of the rest of Italy and Spain. In fact, for example, despite the significant work carried out by the ARQUA Museum, we saw that the museum is not really acting as a Regional Service for underwater archaeology, and that many Spanish Regions do not have such a center at all. This discrepancy is obviously a consequence of the autonomy that each Spanish Region has in the management of the heritage in general. As regards Italy¹¹⁷⁴, it is true that also in the Italian

¹¹⁷³ Leniaud J.M. 2007. "Patrimonio, decentramento e urbanistica". In M.L. Catoni (a cura di) *Il patrimonio culturale in Francia*. Electa, Milano; pp. 171-179.

¹¹⁷⁴ We remember here that Sicily is an Italian Region with a great deal of autonomy in the management of its heritage in general, and therefore its system for the management

system the heritage is managed in a centralized way, by the Ministry of Culture, which then acts on the territory through the local Superintendences¹¹⁷⁵, but as we mentioned many times, the local Superintendences are not adequately equipped for all the activities necessary to look after the underwater heritage; moreover, although it exists in the central Ministry in Rome there is a department devoted to underwater archaeology¹¹⁷⁶, which however is not a real centre compared with the DRASSM, but only a coordination center. Therefore, it is not a coincidence that the two Italian Underwater Parks and the case of Cartagena, where the institutions are not yet active on the territory, are also the cases where private bodies and especially no profit associations play a major role in the intense activity of promotion campaigns, and in conducting research on the underwater archaeological heritage, trying very hard with their work to compensate for the institution's lack of activity. However, this cannot be a satisfactory solution since no profit organizations in most of the cases do not have the means to carry out all the work necessary to fill the gap created by the institutions', unless they rely on volunteers work.

At this point it is also important to make clear that, although in all the six case studies the underwater heritage is managed by Public institutions, there is also a consistent difference in terms of economic investment and available economic and human resources in the various cases. We mentioned in the introductory chapter that, because some of the different stakeholders were disinclined to make available data on the economic resources of the different analyzed cases, it was not possible to develop an accurate and detailed comparison based on the economic investments dedicated to the management of the underwater heritage in the different case studies. However, it is evident by simply visiting the sites and the museums that institutions like the DRASSM, the Departmental Museum of Arles and the Cartagena ARQUA Museum invest significantly means, especially in terms of human

of the underwater archaeological heritage is different from the rest of Italy. See. Chapter II

¹¹⁷⁵ D'Agostino B. 1984. "Italy". In Cleere H. (edited by). *Approaches to the Archaeological Heritage*; pp. 73-81.

¹¹⁷⁶<http://www.archeologia.beniculturali.it/index.php?it/151/archeologia-subacquea>. Last retrieved on 28/05/2015.

resources. The same is not true, for example for the CASC which has a very limited number of employees or for the two Underwater Parks. Since in all the six case studies we are talking of Public institutions, the availability of more significant means testifies to a greater interest of the State and of the local Public bodies in investing in the management and the promotion of the underwater archaeological heritage, as in the case of the DRASSM or of the ARQUA Museum. It is also true that in some cases, although there may be an interest in the promotion of the underwater archaeological heritage, there is still often, at a high institutional level, a lack of information on the topic. This is, for example, the case of Italy, as demonstrated by a recent Bill, 20/02/2014 no. 2119 (that still has to be debated)¹¹⁷⁷. The premise of this Bill is that since the presence of modern wrecks underwater is a positive factor for the development of SCUBA diving tourism, and for the creation of a flourishing underwater environment, it would be a good idea to sink redundant Military Navy ships. This proposal sounds excessive as this kind of operation would be expensive, and probably it would be more practical to take care of the numerous wrecks already lying on the Italian seabed; therefore, what we can immediately presume is that the people that presented this Bill are not aware of the rich Italian underwater heritage.

Finally, a common element in all the cases is the collaboration of private bodies, like diving centers, in the promotion of the underwater archaeological heritage. This is necessary to attract and bring visitors to underwater itineraries where the underwater heritage is preserved *in situ*, since to take people on SCUBA diving excursions, specific competences are needed. Moreover, the diving centers can be important points of reference, since, because of their work, they can be the first bodies to notice if the underwater heritage is at risk. However, diving centers are private bodies that rely on the income from the excursions that they organize to survive, therefore, they will not be interested in promoting something that they consider their clients will not find appealing. Therefore, from the analysis of the cases we described, it would probably be a good practice to determine how

¹¹⁷⁷ <http://parlamento17.openpolis.it/atto/documento/id/45242> . Last retrieved on 24/10/2014.

involved these private bodies feel before creating underwater itineraries.

5.2.5 Resolution

We describe Resolution as the capacity of a cultural object to directly influence audience action. This category was used to understand if the policies regarding underwater archaeological heritage have an effect on how people act when in the presence of underwater archaeological heritage.

In the case of Marseille, we saw that most of the people access the underwater archaeological heritage through the museums, which should make people aware of the importance of heritage. However, we cannot assume that just because people visit museums they will understand the importance of not damaging or pillaging an archaeological site, whether it is on land or under the water. We know that the museum guides, especially in the Roman Docks Museum where most of the heritage coming from underwater is displayed, focus attention on the issue of pillaging, but it is also true that most people visit the museum without a guide. To some extent, although it is accessible only to a very limited number of people, the underwater archaeological itinerary of Niolon can generate resolution in its visitors. In fact we mentioned that the site with the re-immersed amphorae is used by diving centers to train new divers who are also trained to respect the underwater heritage; we can imagine that those people who learn to SCUBA dive on that site have better chances of becoming responsible divers.

The situation is different in the case of Arles. In fact, in this case the inhabitants of Arles participated in the activities promoting the city's underwater archaeological heritage in great numbers. Also in this case, there is no data to demonstrate that after the experience with the *Arles-Rhône 3* project people behave more respectfully toward archaeological heritage in general; nevertheless, there is the hope, expressed by the museum staff, that the high level of participation in the activities of the museum is a sign of the citizens' sense of pride in their heritage and history.

As regards Italy, in the case of the Underwater Parks of the Bay of Naples resolution is still quite low. In fact, we described that there is

still quite a high level of illicit actions that are carried out against the two parks' heritage. In some cases these are due to people's displeasure at the restrictions imposed by the institution of the parks, whereas in some other cases they are due to the complete lack of awareness not only that the parks exist, but the area is now protected. It is true that there are many activities carried out in the two parks to try to change the current situation, as demonstrated by the positive answers of the people that participated in the visits, but, especially in the cases of parks located in such populated and frequented places, it takes time for people to accept changes in an area with which they are familiar.

In the case of Sicily, we also do not have enough data to affirm that people's attitude towards the underwater archaeological heritage has changed. What we can affirm is that, since the 1950s in some places like Cala Gadir in Pantelleria and the Aeolian Islands, the registered cases of pillaging of the underwater heritage have decreased, demonstrating that the institutions' increased control of the heritage, as well as the greater attention the State focuses on the heritage, at least in some places, discourages the activity of treasure hunters.

As regards Spain, in Catalonia, the only itinerary for which we can affirm that there is resolution is the visit to the shipwrecks organized by the FECDAS. In fact, the people that answered to the surveys on those visits affirmed that the experience stimulated their interest in the issue of underwater archaeology and in history in general. The same is true for the *Deltobre I* exhibition, which introduced many people to the world of underwater archaeology. Nevertheless, we have no evidence to demonstrate that these cases really changed people's behavior. On the other hand, it is true that the unsuccess of the attempts to create underwater itineraries *in situ* demonstrated that it takes time to generate awareness in people on the behavior towards heritage.

Finally there is the case of the ARQUA Museum in Cartagena, where an effort was made to enlighten people on the correct procedure to follow if they should ever come across ancient artefacts underwater, explaining also the Spanish and international rules. Therefore, even if we cannot know what the results in terms of people's actions are, we can say the museum certainly does its best to inform. Moreover, the great impact of the *Mercedes* cargo history and the great deal of

attention that the Museum gave to it is probably a warning for treasure hunters.

The main problem that was regularly raised since the beginning of the development of the SCUBA diving techniques is the pillaging of underwater archaeological heritage, which, by most of the SCUBA divers was not perceived as heritage, but as something that anyone could collect. Both National and International regulations limited the problem, but, as the Spanish case has showed, pillaging is still considered a serious problem. In this sense it is not the heritage itself that can change people's behavior, but the awareness campaigns organized by the producers. Therefore, in terms of resolution, we can say that, with the exception of the ARQUA Museum, all the other cases are still lacking resolution. This is not due to the fact that the different promotion activities directed at the underwater archaeological heritage are not effective, but that trying to change people's attitude towards underwater archaeological heritage, which is not a souvenir to take home, but an inheritance from the past, which gives the community some insight into its history, and should be treated with respect, is a long process which takes time; and all the cases that we examined represent relatively new activities designed to promote archaeological heritage.

However, we have to acknowledge that in all the sites and museums where people were interviewed, the majority stated that they are fascinated by the idea of visiting *in situ* underwater sites; at the same time most of the interviewed people were unaware of the existence of the underwater heritage before the visit to the site or the museum where they were interviewed. Therefore, although through the analysis of the case studies we saw that not all the sites and museums were appreciated by the public in the same way, people were fascinated by the idea of having the possibility to visit historical heritage lying below the water surface, and this, we can assume, was also a consequence of the visit they had made.

5.3 The case studies efficacy

At the beginning of this work, in the introduction we identified three main problems related to the management of the underwater archaeological heritage, which were the lack of professionals in the field and of regulation, the looting of the sites, and the fact that the

general public is unaware that this heritage exists. Through the Cultural Diamond, in each chapter we developed an analytical description of six case studies, and the analysis of the five Schudson dimensions helped us in identifying the weaknesses and the strengths of each one of the six case studies. Now, after the analysis and the comparison, we will try to evaluate the efficacy of the six case studies, considering how they help to solve the threats we indicated. We will consider three criteria for evaluating efficacy: the development of underwater heritage as a scientific discipline, the preservation of the underwater heritage, the success of *in situ* preservation experiences, and the impact on society.

5.3.1 The development of underwater archaeology as a scientific discipline

From the 1950s France, Italy and Spain contributed to the development of underwater archaeology as a scientific discipline, and, as we described, especially France and Italy played a significant role as the leading pioneer countries. Each one of the three countries ratified the 2001 UNESCO Convention and issued laws aimed at the protection of this heritage. However, because of the different national contexts, the situation in the three countries is now different. In fact we saw how France, with its centralized system, was quickly able to translate the interest in underwater archaeology into the creation of a specific institution: the DRASM¹¹⁷⁸. The rapid institutionalization of underwater archaeology allowed the realization of different activities, such as planned scientific research, realization of emergency archaeological campaigns, and a training system providing a thorough grounding in the skills necessary for underwater archaeology aimed at preparing new professionals. Due to its central institution devoted specifically to the management of the underwater archaeological heritage, in France there is a high level of collaboration between the different public institutions, like local museums and municipalities that have a role in the management of the underwater archaeological heritage. This was quite clear in both the case studies regarding France, where we saw that the DRASSM develops many projects on the

¹¹⁷⁸ In the chapter dedicated to France we saw how the DRASM was later transformed into the DRASSM, see: L'Hour M. 2013. "Le Patrimoine Sous-Marin Français: le Droit et les Devoirs". In Cérino C., L'Hour M., Rieth E. (sous la direction). *Archéologie Sous-Marine. Pratiques, Patrimoine, Médiation*. Presses Universitaires de Rennes, Rennes; pp. 33-41.

territory thanks to its collaboration with local institutions. As we described, the high level of institutionalization and collaboration between the different stakeholders is probably the main success of the French underwater archaeology management system.

Interestingly enough, the DRASM was created after looking closely at the Italian *Centro Sperimentale di Archeologia Sottomarina* created by Lamboglia, which was a vanguard institution for the development of the discipline¹¹⁷⁹. However, in contrast to what happened in France, Lamboglia's center was never turned into a permanent institution and did not survive its founder, with the result that after Lamboglia's death the Italian underwater archaeological world no longer had an institutional point of reference¹¹⁸⁰. The problem was partially solved only at the end of the 1980s with the creation of a National coordination center¹¹⁸¹ whose role is to support the work of the different local Superintendencies, where, with the exception of Sicily, there is not a specific sector devoted to underwater archaeology. The lack of a specific body devoted to underwater archaeology is clear from the complicated, considering how short it is, history of the two Underwater Parks in the Bay of Naples where in the space of only ten years the management system has changed several times, and whose history, for this reason, was so difficult to reconstruct; moreover there is any initiative related to the rich underwater archaeological heritage of the Bay of Naples located outside the Underwater Parks' borders. The situation is different in Sicily, where, because of the autonomy of the Region there is a Superintendence specifically devoted to the underwater heritage. In fact, as we described, in Sicily there is a significant number of research projects that the Superintendence of the Sea carries out and has carried out over the last few years, at the same

¹¹⁷⁹ L'Hour M. 2012. *De L'Archéonaute à l'André Malraux - portraits intimes et histoires secrètes de l'archéologie des mondes engloutis*. ACTES SUD/DRASSM, Arles; pp. 117-119.

¹¹⁸⁰ Pietraggi R. 2007. "Nino Lamboglia: l'archeologia subacquea e la burocrazia; luci ed ombre di un rapporto tormentato". In *Archeologia Marittima Mediterranea - An International Journal of Underwater Archaeology* 4 2007; pp. 37-43.

¹¹⁸¹ Moccheggiani Carpano C. 1988. "Il Ministero dei Beni Culturali e il Problema dell'Archeologia Subacquea". In AA.VV. *Dalla Battaglia delle Egadi per un'archeologia del Mediterraneo-Favignana 28 maggio 1985*. Il Mare Libreria Internazionale per Azienda Provinciale Turismo Trapani, Trapani; pp. 14-18.

time promoting courses aimed at the training of underwater archaeologists¹¹⁸².

The organization of training courses, as well as the establishment of precise rules for the practice of underwater archaeology is another factor that distinguishes France from Italy and that demonstrated the high regard France has for the discipline. As for Spain, as we mentioned many times, the situation is differs widely from one region to another. First of all the discipline in Spain developed a little later than in the other two countries, and when it did, it developed in a non uniform way. In fact, if most of what we said regarding France and Sicily also holds true for Catalonia, it does not for the Murcia Region. In fact, although in Cartagena there is a museum devoted specifically to the underwater heritage, the lack of a regional service consistently and actively involved in the study of the local underwater heritage is felt. The need for a more uniform system of managing the underwater heritage and for more collaboration between the different Spanish Regions, as well as for more courses for training competent personnel was also indicated by the mentioned "Green Paper, National Plan for the Protection of the Underwater Cultural Heritage"¹¹⁸³. On the other hand, is also true that Spain has made every effort to support the development of international rules directed at underwater heritage, as the *Mercedes* shipwreck cargo case demonstrated.

We stressed many times that underwater archaeology is simply archaeology performed in a different environment, therefore it may seem surprising that we are giving so much attention to the importance of specific institutions devoted to this heritage. The problem is that, as we described, in order to work as an archaeologist underwater, it is necessary to have technical skills (the simplest is a SCUBA diving license), and technical equipment, like boats. Among the six case studies, the Bay of Naples lacks in this perspective. Interestingly, it happens that private and no profit associations work to compensate for the absence of the institutions; the private organizations are made up of young professionals who collaborate with the private institutions, and

¹¹⁸² <http://www.regionesicilia.telpress.it/index.php>. Last retrieved on 30/06/2015.

¹¹⁸³ Working Group of the Technical Coordination Committee of the Historical Heritage Council. 2009. *Green Paper, National Plan for the Protection of the Underwater Cultural Heritage*. Ministerio de Cultura, Cartagena.

in Naples, thanks to the collaboration with the public institutions these organizations have the possibility of organizing guided tours or other activities which are a source of income, but at the same time, they are asked, especially in the case of the Naples Underwater Parks to carry out, as volunteers, the tasks that the public institution is not able to carry out. In fact, it is true that it is common practice to have volunteers supporting the activities of museums and other cultural institutions¹¹⁸⁴, but in the case of the two Naples parks we are referring to something different. In fact the two associations working in the Underwater Parks are responsible for monitoring the area to prevent illicit actions, work in the visitors centers and are still in the parks after working hours to continue their prevention and monitoring campaigns. Basically, they are not volunteers supporting the activities of the parks, they are professionals carrying out the activities of the parks as volunteers. Apparently, this is quite a common trend in Italy at the moment, as can be understood following the activities of the National Archaeologists Association¹¹⁸⁵, which regularly denounces the public institutions' use of volunteers for facing the problems caused by the lack of funding of the management system of the archaeological heritage¹¹⁸⁶. This is a problem that is not related only to the underwater heritage, but also to on land heritage, and recognized also by scholars¹¹⁸⁷. To some extends, the same happens in Cartagena for the promotion of the underwater archaeological heritage that is not directly connected to the ARQUA Museum and that is advertised, promoted and studied only thanks to the activity of the AdARQUA association.

¹¹⁸⁴ For an analysis of this phenomenon see: Orr N. 2006. "Museums Volunteering: Heritage as "Serious Leisure"". In *International Journal of Heritage Studies* vol.12, issue 2; pp. 194-210.

¹¹⁸⁵ *Associazione Nazionale Archeologi*. See: <http://www.archeologi.org/>. Last retrieved on 30/06/2015.

¹¹⁸⁶ See

<http://www.archeologi.org/images/documenti/ANA.Documento.programmatico.III.Congresso.2013.pdf>; p. 15 and <http://www.archeologi.org/press/ufficio-stampa-e-archivio.html>. Last retrieved on 30/06/2015.

¹¹⁸⁷ The Italian art historian Settis, in an 2013 interview described the huge work made by the 30000 associations of volunteers (4-5 million of citizens) that work for the safeguard of the Italian heritage and do what the State is not able to do, see: http://inchieste.repubblica.it/it/repubblica/rep-it/2013/09/29/news/intervista_settis_inchiesta_beni_culturali-67530337/. Last retrieved on 30/06/2015. See also: Settis S. 2002. *Italia S.p.a. L'assalto al patrimonio culturale*. Einaudi, Torino.

Completely different is the nature of the collaboration between the diving centers and the institutions dealing with underwater archaeological heritage. In fact, we described how in each of the three analyzed countries the SCUBA divers community played a fundamental role in the development of the discipline. Although the professionalization of underwater archaeology as a scientific discipline limited their role, the diving centers are still fundamental to the support they give the archaeologists, and especially for the dissemination of this heritage to the public. The involvement of this stakeholder is an element that is present in all the case studies where there is the musealization of underwater heritage *in situ*; this functioned particularly well in Catalonia, in the Naples Underwater Parks and in some Sicilian itineraries, where the diving centers decided to invest in the potential of underwater archeology as a new attraction for SCUBA divers.

Finally, we can say that it is true that in each of the three analyzed countries important steps have been taken towards the development of underwater archaeology as a scientific discipline. However, the best results have been achieved by France, Catalonia and Sicily, places where a process of complete institutionalization of the discipline was accomplished.

5.3.2 *in situ* preservation

As regards the different levels of preservation of the underwater heritage achieved in the six different cases, it is fundamental to start by saying that obviously there is an incomparable difference between those cases where the underwater heritage is presented to the public in museums and those cases where it is presented *in situ*. In fact, we mentioned many times the difficulties in controlling what happens under surface of the water. At the same time, when left *in situ* the heritage is inevitably accessible to a small part of the population. For us, it was important to dedicate more space to the *in situ* preservation because, when the heritage is left underwater is invisible for the people, and at the same time it more difficult to find solutions to make it accessible. It is when the underwater heritage is left *in situ* that its peculiar weaknesses, that distinguish it from on land archaeological heritage, are more evident. At the same time, through the interviews in museums and sites we demonstrated how the possibility to experience

to an underwater archaeological site seems to be fascinating for most of the people. In analyzing the five Schudson dimensions, we spent at length of the importance of retrievability for underwater archaeological heritage management, and we described in detail which one of the case studies was successful in this perspective. As we mentioned in the introduction, underwater heritage is invisible by definition, and identifying the different possibilities of making this heritage accessible to the public without risking its destruction is one of the main challenges pertaining to its management.

In some cases, and in particular in the two Naples Underwater Parks, the underwater heritage had necessarily to be left *in situ*, as in this case we are referring to underwater structures that cannot be removed from the seabed. On the contrary, in some other cases, for example Marseille, the conditions for creating underwater itineraries do not exist, especially because of the great depth at which the Marseille shipwrecks are located, but also because, as we described, on the seabed of the Marseille Bay there are mostly shipwrecks, and the sites are too delicate to think about allowing the public to visit the shipwrecks *in situ*. Nevertheless, the FECDAS guided tours of the shipwrecks during archaeological campaigns demonstrate that, even if only for small groups, also shipwrecks can sometimes be visited *in situ*. The case for which it was absolutely impossible to promote the underwater heritage *in situ* was Arles. In fact, as we described, the waters of the river Rhone are a very unpleasant environment. Nevertheless, during the archaeological campaigns the archaeologists and the Arles Museum's staff were able to let people experience the underwater heritage *in situ*. And again, the situation is completely different in Sicily, where a huge effort is made to realize underwater archaeological itineraries. However, we demonstrated that many of them were not successful, which indicates that even when it is possible, *in situ* preservation is not always the best solution in terms of transmission of the heritage to the public.

Regarding this aspect, it is true that 2001 UNESCO recommends *in situ* preservation (art. 2.5)¹¹⁸⁸, but only when it is not possible to carry out adequate underwater archaeological investigations. In fact, interpreting

¹¹⁸⁸ "The preservation *in situ* of underwater cultural heritage shall be considered as the first option before allowing or engaging in any activities directed at this heritage".

the UNESCO recommendation too rigidly would mean, for example, that it is impossible to realize what in fact was a success, the *Arles Rhône 3* project. At the same time, it is also true that most of the interviewed visitors to the different museum and sites declared that they would be more than happy to have the possibility of visiting an underwater archaeological site; therefore it is important to spread the word about cases of successful *in situ* musealization. Of course, as we saw from the description of the *in situ* musealization attempts in Catalonia, not all the sites are suitable for the realization of underwater itineraries, since it is important to guarantee the preservation of the heritage.

It is also true that, when the heritage is located at considerable depths, the access to conservation *in situ* remains limited to a small part of the population. According to the PADI¹¹⁸⁹ data¹¹⁹⁰ on the issuing of diving licenses initially we can see that, after years of noticeable increasing, in the last ten years the number of issued diving licenses was quite stable (Figure 12). This trend has been confirmed also by Frederic di Meglio¹¹⁹¹, president of the French Federation for Underwater Activities. We also have to consider that these data refer to the number of licensed divers, but we cannot be sure that afterwards they are all active divers. Moreover, we have to acknowledge that diving is an expensive activity (the minimum cost for one single dive is more or less 35 €, but it can be considerably more if the diver needs to rent the equipment). It is also true that divers are the segment of the population that, given their familiarity with the seabed, and because historically they have created considerable damage to the heritage by pillaging and removing it from the seabed, probably need to be made aware of the importance of preserving underwater heritage more urgently than the others.

Generally speaking, all of the cases show possibilities of making the underwater heritage accessible. The cases of Baia and Gaiola Underwater Parks, of the FECDAS itineraries, and of the Pantelleria

¹¹⁸⁹ PADI (Professional Association of Diving Instructors) is the world's leading SCUBA diver training association. <http://www.padi.com/scuba-diving/about-padi/>. Last retrieved on 07/07/2015

¹¹⁹⁰ https://www.padi.com/scuba/uploadedFiles/Scuba_--Do_not_use_this_folder_at_al/About_PADI/PADI_Statistics/2012%20WW%20Statistics.pdf. Last retrieved on 07/07/2015.

¹¹⁹¹ Frederic di Meglio was interviewed in March 2014.

itineraries in Sicily were successful in terms of visitors' appreciation. In fact, most of the people that were interviewed after the visit to these sites were satisfied with the experience. Moreover, the case of Arles showed how it is possible to win people's appreciation of and respect for the underwater heritage *in situ*, although they cannot go into the water. Therefore, it seems quite clear that the underwater location of the heritage is not necessarily a barrier to its accessibility, and especially the case of Arles, showed that the public's reaction can be highly appreciative. The problems that we observed in some of the case studies, and that we analyzed in the section on retrievability, are not related to the underwater heritage location rather to the lack of collaboration between institutions and to communication with the general public that we are going to analyze in the next section.

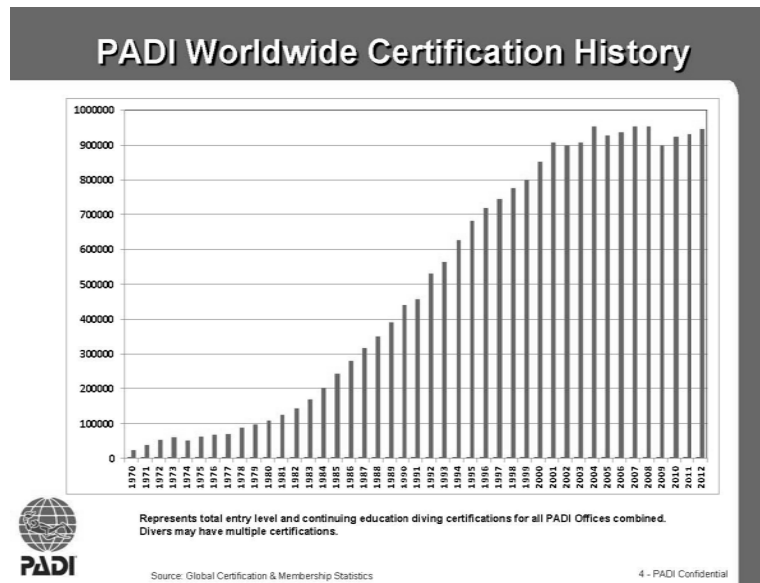


Figure 13 statistics on number of licensed divers¹¹⁹²

¹¹⁹² https://www.padi.com/scuba/uploadedFiles/Scuba_--Do_not_use_this_folder_at_al/About_PADI/PADI_Statistics/2012%20WW%20Statistics.pdf . Last retrieved on 07/07/2015.

5.3.3 Impact on society

This is probably the most important criteria for evaluating the efficacy of the case studies. In fact, in the introduction we explained that the main goal of this research was to understand how the underwater heritage is transmitted and how it is perceived by the society. To discuss the efficacy of the case study, of course, we will focus attention on some issues that emerged thanks to the analysis of the Schudson dimensions. At the beginning of this work we recognized two main problems in communicating the underwater heritage to the public. The first regards archaeological heritage in general, and it is the difficulty in giving a meaning and in interpreting objects or sites of the past that do not necessarily have an aesthetic value, and that may be difficult to interpret by non experts; the second is the invisible nature of the underwater heritage, which, lying beneath the surface of the water is invisible to most of the people, and therefore not perceivable and appreciated.

We used different criteria to evaluate the impact of the heritage on society. The first one was the survey conducted on people in the street. The result of this survey showed that only in two cases did people seem truly aware of the existence of the underwater heritage, and these were the cases of Arles and Cartagena. We do not believe that the great success of these cases is due only to the fact that they are both cases where the underwater heritage is presented in museums and not *in situ*. In fact, we have museums that were as unknown by the general public as the *in situ* sites that we presented. Moreover, in the case of Arles an important dissemination and communication campaign was carried out when the underwater heritage was still *in situ*; the activities carried out when the archaeological heritage was still on the very inaccessible riverbed proved to be extremely successful in terms of public, showing that the underwater location of the heritage is not necessarily a limit to its popularization. The cases of Arles and Cartagena tell us something about the impact of archaeological heritage on society in general. The case of Arles, in fact, is not only the result of an intense media campaign but, also of the great effort to involve the local community. In fact, the Departmental Museum of Arles involved the local community in the entire heritage "production" process, from

its recovery from the riverbed, to its musealization. In this way the museum was able to overcome the two most important difficulties that occur in the communication of the underwater archaeological heritage to the public. In fact, the inhabitants of Arles were involved throughout the whole recovery process of the Rhone underwater heritage, and although the work of the archaeologists was explained and shown to the citizens by the expert museum staff, most importantly they experienced at firsthand what the whole process involved. We said that this is something that, rightly, the museum does also for on land heritage. Then, the underwater heritage was also made visible, exposed and supplemented with a clear narrative that allows visitors to both appreciate the aesthetic quality of the heritage and to understand its meaning. The success of the museum was also demonstrated by the comments of the visitors and by the increase in the number of visitors.

The other extremely successful case was the one of Cartagena. In this case, a great role was played by the accessibility of the museum and the great visibility it has because of its position in the city. Also in this case the museum has the merit of making the underwater heritage both visible and understandable, thanks to a clear narrative. Nevertheless, we recognize that in this case, the success of the museum in terms of public awareness, was due to the huge media campaign launched to cover the *Mercedes* case. We described how, both the media and the museum display, focused attention more on the court case than on the historical heritage itself and, in fact, what was uppermost in the minds of the Spanish visitors who were interviewed, was the sense of pride that the story generated in the public. The power that society has in giving a new meaning, related to the present, to heritage, has been highly discussed¹¹⁹³; on this occasion the museum turned the exposition of the *Mercedes* cargo into a celebration of the Spanish government's victory over treasure hunters, and in fact the visitors, both Spanish and not, talking about the cargo focused their attention on the court case. Therefore, this operation can be considered extremely successful because it had a strong impact on the visitors, and generated public awareness on the importance of considering what lies underwater as

¹¹⁹³ For a short review of the meaning that society attributes to heritage and how this meaning is shaped by the present see: Ashworth G.J., Graham B., Tunbridge J. E. (edited by). 2007. *Pluralising Pasts: Heritage, Identity and Place in Multicultural Societies*. Pluto Press, London; pp. 2-4.

heritage and not as treasure. It is also true that the ARQUA Museum seemed to be sincerely appreciated for its interactive tools and reconstructions, and, as a few visitors noticed, we may argue whether in this museum the focus is really on ancient objects or is more an enjoyable entertainment center¹¹⁹⁴. Nevertheless, it would be unfair to claim that the ARQUA Museum does not have a social mission or a message for its public, since the entire museum is clearly founded on the idea of transmitting the message of how important it is to protect and respect the underwater heritage to know more about our history.

As emerges from the analysis of Schudson's dimensions, all the other cases have both successful and unsuccessful aspects in terms of impact on the public. They all had one problem in common: they were generally appreciated by the visitors, but unknown to the people who stopped to answer the survey question in the street. Of course, we mentioned many times that the surveys we carried out in the streets do not have a statistical value, but they are fair indicators of the general public's lack of interest in heritage. However, although the cases were very different from one another and both on land museums not devoted only to underwater heritage (as in the case of Marseille's museums) and underwater archaeological sites, they all seem to have something in common. The lack of awareness of the people in the street was probably due to problems relative to the invisibility of the heritage and poor communication, but not necessarily to the underwater condition of the heritage. Regarding this aspect, in fact, we have to mention that the two successful cases of Cartagena and Arles, are also those with the best, modern and updated websites, and the highest presence on social networks. For both the museums the information to the visitors is easy to find¹¹⁹⁵. We may argue whether or not the lack of

¹¹⁹⁴ About the changing role of museums in society, that are no longer only places that collect, protect and show objects see: Conn S. 2010. *Do Museums Still Need Objects?*. University of Pennsylvania Press, Philadelphia.

¹¹⁹⁵ Regarding this aspect, see the website of the ARQUA Museum: <http://museoarqua.mcu.es/>, and of the Departmental Museum of Arles: http://www.arles-antique.cg13.fr/mdaa_cg13/root/index.htm. Almost on the same level is site of the CASC is in the webpage of the Catalonia Archaeological Museum, but there is no mention of the information for visiting the underwater sites: <http://www.mac.cat/Seus/CASC>. Very old and only with the essential information are the website of the two museum in Marseille: <http://www.marseille.fr/siteculture/les-lieux-culturels/musees/le-musee-dhistoire-de-marseille/informations-pratiques> and

attention to the visitors is due to the fact that the manager authorities of all the analyzed sites and museums are public institutions that do not need visitors' entrance fees to survive, but then this should be the case also of the museums of Arles and Cartagena.

Another factor that we identified during the analysis is the high level of appreciation of those sites or museums which adopt a clear narrative approach to the presentation and where the entire and historical context of an object is explained. This was true for the Departmental Museum in Arles, for the ARQUA Museum in Cartagena, the *Deltebre I* exhibition and for the Marseille History Museum. It was also true for the visit to the shipwrecks in Catalonia and for the Gaiola underwater Park, where although the underwater archaeological heritage consists of simple walls, the visitors appreciated the rich explanations and the integration of the environmental with the historical aspects. In the case of Baia, on the contrary, also those people who did not understand much of the historical explanation were satisfied, because of the awe-inspiring experience of seeing, for example, beautifully decorated mosaics floors underwater. The old museographic display and the inability to reach people with a story was the main cause of the disappointment felt by the visitors to the Marseille's Roman Docks Museum. This allows us underline once again that, in order to be appreciated by the public, archaeological sites or museums need to have an evocative or aesthetic value (as in the case of Baia) or to communicate a clear narrative. The lack of both the aspects, as well as the fact that nothing is done to promote them explains why some of the underwater itineraries in Sicily and of the Marseille field of amphorae.

Finally, if we take into account the fact that underwater sites are not visited by all those people who do not feel comfortable in the water

http://www.marseille.fr/siteculture/jsp/site/Portal.jsp?page_id=56, while is almost impossible to find information on the submerged amphorae. The Sicilian Sea Superintendence website is quite old, but gives many information, although there are not the contacts for the visits to the underwater sites:
<http://www.regione.sicilia.it/beniculturali/archeologiasottomarina/>. Finally, as regards the two Naples MPAs, they both do not give all the necessary information for the visit, therefore it is necessary to look for other producers webpage (which created confusion), see: http://www.areamarinaprotettaibaia.eu/?page_id=1167, and http://www.areamarinaprotettagaiola.it/amp_gaiola_home.htm. All the websites were last retrieved on 07/07/2015.

environment, we recognized that some Sicilian itineraries, like those of Pantelleria and the two Naples Underwater Parks are quite successful in terms of public, considering that it is possible to visit them almost only in the summer. Moreover, all these cases have the disadvantage of being located in places that are disconnected from main centers and where there are no links with other touristic attractions. This demonstrates the potential of the musealization of the underwater heritage *in situ* in terms of public success. However, the failure of the CASC experiments in Catalonia, showed us that *in situ* musealization is not possible without constant monitoring. Just as happens in on land archaeological sites, when an underwater archaeological park or itinerary is created, it is necessary to impose restrictions on public access to the public, in order to guarantee the preservation of the heritage. However, both the Underwater Parks in Naples have showed that it is difficult to make people accept restrictions aimed at preserving something that they cannot perceive, as we mentioned many times, this is the most serious limit of underwater heritage. In the case of the two Underwater Parks the problem is easily identifiable, in fact no efforts to communicate with local communities was made before the institution of the parks, but only some years after that the restrictions were imposed. For this reason, it will take time to see the effects of the informative campaign on the population.

5.4 Final observations

We stated that the aim of this work was to analyze how the underwater archaeological heritage is managed, understanding what underwater archaeological heritage is, considering all the stakeholders involved in the construction of the heritage, in its dissemination to the public, and, finally to understand how this heritage is perceived, if it is perceived, by society. We tried to fulfill this aim by analyzing three different national contexts and six different case studies, related to the specific Mediterranean context. We have already explained the reasons for the selection of the countries and of the case studies, although we recognize that it may be interesting in the future to expand this analysis, including other Mediterranean examples. In fact, we stated that one of the reasons behind this research is to offer a tool for policy makers who will have to take decisions on the underwater heritage management. We described how underwater archaeology is still a relatively young discipline, and the 2001 UNESCO Convention

certainly raised interest in it and the possibilities of its *in situ* musealization, as is demonstrated by the gigantic project for the construction of an underwater museum in Alexandria in Egypt¹¹⁹⁶. In this perspective, we think that this work might be important for sharing good and bad practices, considering both strengths and weaknesses.

We explained that underwater archaeological heritage makes the problems pertaining to archaeological heritage in general more evident, since the presentation of the archaeological heritage to the public is fundamental to generating interest and to making it recognizable as "heritage", as something valuable, and this is true for both on land and underwater archaeological sites and objects. We recognized invisibility as one of the main issues to be addressed in order to transmit underwater heritage to the public. But if we think about it, all archaeological heritage is invisible by definition. In fact, one of the most complete archaeological methodology manuals says that "archaeology is partly the discovery of the treasure of the past, partly the meticulous work of the scientist analyst, partly the exercise of the creative imagination" ¹¹⁹⁷ . Besides the many techniques for surface and subsurface surveys that developed especially with the help of modern technologies, the excavation of a site still "retains its central role in fieldwork because it yields the most reliable evidence for the two main kinds of information archaeologists are interested in: (1) human activities at a particular period in the past and (2) changes in those activities from period to period"¹¹⁹⁸. Using a methodology as scientific as possible archaeology brings back to light witnesses from a covered past. In this sense all archaeological heritage is invisible by definition, not only underwater archaeological heritage. The main difference between underwater and on land sites is that, once an on land site is brought back to light, the heritage can be easily accessible to the general public, but this is not necessarily the case. In fact, for example, in the France chapter we mentioned the Lascaux Cave, an on land

¹¹⁹⁶ <http://www.unesco.org/new/en/culture/themes/underwater-cultural-heritage/museums-and-tourism/alexandria-museum-project/>. Last retrieved on 30/06/2015.

¹¹⁹⁷ Renfrew C. & Bahn P. 2000. *Archaeology: Theories Methods and Practice*. Thames & Hudson, London; p. 11.

¹¹⁹⁸*Ibidem*; p. 106.

prehistoric site that is inaccessible to the public because of preservation problems. Therefore, the problems we recognized in the presentation and management of underwater archaeological heritage, such as the need for adequate legislation, the training of competent personal, the creation of competent institutions and the collaboration between them, the need for efficient communication with the public, apply to archaeological heritage in general. The analysis of case studies pertaining to the underwater heritage just made the problems clearer because of the more difficult working conditions, and of the recent development, hence the novelty of underwater archaeology, as well as because of for the generally higher invisibility of underwater archaeological sites. The correspondence between underwater and on land archaeological heritage is demonstrated by the fact that the problems we recognized in a particular site or museum related with underwater archaeology, were generally reflected in the general and particular context in which the case study was located. Just to give an example, many of the problems that we recognized in the two Naples Underwater Parks also applied to all the Phlegrean Fields archaeological sites. Moreover many weaknesses we recognized were shared by both on land (e.g. the Marseille Roman Docks Museum) and underwater sites (e.g. the fields of re-immersed amphorae in Marseille). Therefore, we hope that the analysis we carried out can give the management not only of the underwater heritage, but also of the related on land heritage plenty food for thoughts. Nevertheless, we also have to recognize that for some of the case studies in part the problems were also related to the still incomplete process of the institutionalization of underwater archaeology as a discipline, the result of which is the lack of adequate institutions equal to the task of managing the heritage on the territory.

We stated that in this work particular attention would be given to the analysis of the public's perception and awareness of the underwater heritage. We stated that we considered it important to understand how the heritage is transmitted to the general public because, as has also been recognized by international bodies like UNESCO ¹¹⁹⁹ and

¹¹⁹⁹ The importance of education for heritage preservation is stated by article 27.1 of the UNESCO World Heritage Convention; "The State Parties to this Convention shall endeavor by all appropriate means, and in particular by education and information programmes, to strengthen appreciation and respect by their peoples of the cultural and

ICOM¹²⁰⁰, to educate people about the heritage is the first step for heritage preservation. Moreover, in the introduction we mentioned that in the three countries we analyzed "there is no such thing as private archaeology"¹²⁰¹, since archaeological heritage, from the authorization to conduct studies, to the decision on the ownership of the finds is regulated by the State. In this Public Archeology perspective¹²⁰² we mentioned in the introduction, archaeological heritage in general is considered a public owned asset that therefore is property of all the citizens. Transmission of heritage to the public is therefore, we believe, part of the role of archaeology, in order to justify to society "that public money is being spent wisely, appropriately, and that they are attempting to extend the benefits of that funding to a wider audience"¹²⁰³. Also this is true both for on land and underwater archaeology. However, the description of our cases, although in some more than in others, and with the exception of the museums of Arles and Cartagena, shows that an effort still has to be made by public institutions to reach the public. It is true that once people have contact with the heritage, both in sites and museums, they generally appreciate what they saw, but still we recorded high levels of complete lack of awareness regarding the existence of the heritage. Moreover, once again, with the exception of Arles and Cartagena, no one of the analyzed cases demonstrated to be a noticeable tourist attraction, in terms of visitor numbers. This was not demonstrated only by the surveys conducted in the streets, but also by the many people who answered that they had discovered a museum or an exhibition by chance. At the same time, we recognized that most of the people interviewed in the streets, with the exception of Arles and Cartagena,

natural heritage defined in Articles 1 and 2 of the Convention". See:

<http://whc.unesco.org/en/conventiontext/>. Last retrieved on 30/06/2015.

¹²⁰⁰ The transmission of heritage to the public and the educative mission are at the base of the ICOM's definition of museum: "a museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicated and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment". See:

<http://icom.museum/the-vision/museum-definition/>. Last retrieved on 30/06/2015.

¹²⁰¹ McGimsey C.R. 1972. *Public Archaeology*. Seminar Press, New York; p.5.

¹²⁰² Merriman N. 2004. "Introduction: diversity and dissonance in public archaeology" In Merriman N. (edited by). *Public Archaeology*. Routledge, London and New York; p.5.

¹²⁰³ Merriman N. 2002. "Archaeology, Heritage and Interpretation". In B. Cunliffe, W. Davies, and C. Renfrew (edited by). *Archaeology: The Widening Debate*; p. 546.

stated that they had no idea that in their city or region there is underwater archaeological heritage. We analyzed the main problems related to the single case studies that cause this lack of awareness in the public, but the general idea that emerged from this study is that, probably because of the relatively short existence of underwater archaeology as a scientific discipline, in most people's imagination the water is not a place where historical heritage is preserved. This was clear when people were asked whether they would be interested to visit an underwater archaeological site preserved *in situ*; in fact, most people were extremely surprised to learn that, for example, wood does not necessarily decay immediately in the water environment. Therefore, it seems that the majority of people simply do not know yet that underwater there can be history. Moreover, in the first chapter, describing the history of underwater archaeology, we underlined how much underwater heritage preservation is impacted by pillaging activities that still, as the *Mercedes* story taught us, are considered a serious threat by most of the underwater archaeological heritage producers. Nevertheless, many of the interviewed stakeholders stated that, according to their experience, many SCUBA divers pillage underwater sites simply because they are not aware that what they do is pillaging. We mentioned that this lack of awareness also applies to on land archaeology, but after the interviews with all the different stakeholders, what emerged was that in the collective imagination in the water the same rules and laws that apply on land do not apply and what lies on the sea or river bed belongs to those who find it. After all, as we described, this used to be accepted as common practice relatively recent times, and in many parts of the world it is still like this. Therefore, the success of the cases of Arles and Cartagena that is evident not only in terms of the number of visitors to the museums, but also in terms of the awareness of the people interviewed in the street, is partially due to the clear intention to change this collective imagination. In fact, not only are objects coming from the water or still in the water¹²⁰⁴ presented to the public, but the entire process is explained; people come to know what underwater archaeology is, how

¹²⁰⁴ It is important to state, once again, that in Arles the underwater heritage was advertised and promoted while still on the riverbed, therefore, as mentioned early, we do not think that the success of the case studies is only connected to the fact that now the underwater heritage is exhibited in an onland museum.

underwater archaeologists work and, moreover, what the result of their work is, which is presented as a clear story so that everyone can understand. Some of these elements were also present in other case studies, as in the case of the CASC visits organized with the FECDAS or in the *Deltebre I* exhibition; but it is true that the CASC does not have the same resources as the two notable museums of Arles and Cartagena have in order to communicate and promote the heritage to the public. Therefore, given that we mentioned from the very beginning that we have to acknowledge that cultural heritage is not something given and is a social construct, we have to be aware that the idea that what lies below the water surface can have the same social meaning as an archaeological object found on land, is also not a given concept; this means that institutions working with underwater heritage still have to work on this. As we already mentioned, the disregard for the public, which we registered in most of the cases, is easily perceivable by surfing the websites of the different institutions we mentioned. This seems to be a general tendency in the three analyzed countries, that we also noticed on the websites of the related on land sites. The general feeling is that, with two exceptions, the institutions dealing with underwater heritage are more focused on research and preservation, rather than on dissemination to the public. It is true that, for example, in Catalonia, there seems to be an effort to solve this problem. We will be interested in the future to understand if the tendency is shared also in other Mediterranean countries, compared with, for example, the Anglo-Saxon world, where Public Archaeology studies developed. Of course, the problem of communication to the public is relevant to archaeology in general, but in this case underwater archaeology makes the problems clearer, since without the communication of the heritage to the public, in most cases people could never know of its existence and, as we mentioned, a collective opinion that what lies under the water should be considered cultural heritage does not exist yet.

The problems pertaining to the communication to the public were particularly evident in the cases of *in situ* musealization. In fact, as we described for all the cases of *in situ* musealization the support of private bodies, whether they were non-profit associations or diving centers was necessary. First of all, as we mentioned the collaboration of the volunteers deserved serious thought on whether limits should be considered on their involvement in the management of the heritage as

volunteers should not carry out work that should be carried out by the institutions or by paid professionals, both on underwater and on land heritage. Moreover, some of the cases demonstrated that the institutions' lack of involvement and that of experts in heritage dissemination translated into the abandonment of those sites that were aesthetically less pleasing because no narrative had been built around them, telling the story of their past. This aspect made clear that the invisibility of the heritage due to its underwater location is, in some cases not the main issue to solve. With our case studies we suggested many solutions to make this invisible heritage visible (and we mentioned how, to some extent, all the archaeological heritage is invisible), but the problems are more related to how the past is narrated to the public and to the communication strategies of the institutions dealing with archaeological heritage in general. In fact, if we look at the two successful cases of Arles and Cartagena, we see that the dissemination activities were carried out by professionals in their field (especially the activities in Arles during which the *in situ* underwater heritage was presented to the public). The same was true for the FECDAS SCUBA diving excursions that were very much appreciated by the public. Nonetheless, most of the Sicilian itineraries or the re-immersed amphorae fields in the Marseille cases showed that sometimes diving centers are probably not the best means to transmit the underwater cultural heritage to the public. In fact, traditionally diving centers take visitors to admire the marine nature, but they are not trained or used to promoting underwater archaeological heritage, nor do they necessarily have the cultural background to carry out this task. Our assumption is, therefore, that the diving centers in some cases may lack the necessary expertise in the field of cultural heritage communication that would be necessary to increase the interest within the SCUBA divers community itself. In fact, the Gaiola Underwater Park case showed us that when the visitors are well informed and receive interesting information, even simple walls may become interesting. The case of the Baia Underwater Park is different because, as we mentioned there visitors are impressed by the beauty of what they see and therefore the narrative becomes less important. What we would suggest is that before involving diving centers in projects connected to underwater archaeological heritage they should be better

trained and they should receive all the necessary background information.

We have stressed the need to focus attention on the importance of creating an enthralling, believable narrative around the underwater heritage presentation to the public because, as we already mentioned, this seems to be the key element for the success in terms of public of the Arles and Cartagena museums. As we mentioned, the narrative of the museums does not regard only the objects, but the entire discipline of underwater archaeology; simply, the two museums do not take for granted that people know what underwater heritage is. Moreover, we have to acknowledge that people are not necessarily interested in the past, therefore it is not sufficient to say that an object is ancient in order to make it interesting or valuable to the general public. The cases of Arles and Cartagena, however, more than the others, were able to give underwater heritage a meaning. According to Geertz definition of culture, culture is "an historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and their attitudes toward life"¹²⁰⁵. In this sense, the museums of Arles and Cartagena achieve the goal of transforming the underwater heritage into a symbol with an intrinsic meaning, a powerful cultural object¹²⁰⁶. Therefore, the coins of the *Mercedes* become the symbol of Spain's winning a court case against the treasure hunters company that wanted to steal Spanish history, and the *Arles Rhône 3* shipwreck is the symbol of the hard work of the archaeologists carried out in the polluted river Rhone in order to give back to the inhabitants of Arles their history. Of course, also the information on the past (like river navigation in ancient times) is given by presenting the ancient objects, but the narrative somehow makes that history valuable to the people. Moreover, everything is comprehensible so visitors, even if they did not have any historical or archaeological background, were able to understand the history (which is true, for example, also for the *Deltbre I* exhibition). This is fundamental because, as we have already mentioned, the general

¹²⁰⁵ Geertz C. 1973. *The Interpretation of Cultures*. Basic Books, New York; p. 89.

¹²⁰⁶ Griswold W. 1987. "A Methodological Framework for the Sociology of Culture". In *Sociological Methodology* 14; p. 4.

public often has difficulty in interpreting archaeological objects. We could say that the real purpose of the act of revealing the invisible is not only to let people know about the underwater heritage, but also to give it a meaning, for example through a context and a story. This was partially done also by the Marseille History Museum that uses underwater heritage, together with other archaeological remains, to tell the history of the most ancient city of France, but still, maybe also because it had just re-opened, people seemed to be unaware of its existence and of the Marseille underwater heritage. This is relevant, because it makes it clear that also underwater heritage located *in situ* could be presented with the same power of the narrative and that, again, the success of the Arles and Cartagena museums is also to give meaning to the discipline of underwater archaeology, not only to the single object. Moreover, the underwater heritage preserved *in situ* surely has a particular aura for the general public, since almost everyone, also those who had never heard of it, stated that they would like to visit an underwater site; most probably this aura *in situ* underwater heritage has, could help in the construction of its social meaning. Quoting Geertz again, the two museums have been able to create a story (connected to underwater archaeological objects) people tell themselves and other people¹²⁰⁷, since the underwater objects are finally perceived by people as their cultural heritage.

The importance of creating a meaningful narrative around the heritage presentation is also related to the fact that, as was recognized by the Contextual Archaeology we discussed in the introduction, archaeological excavation and research is never a completely objective process, it is an interpretation process of an invisible past located underground (or under water)¹²⁰⁸. Therefore, as we mentioned also in the introduction, without a meaningful narrative, in most cases, the audience finds archaeological heritage meaningless¹²⁰⁹. As we have just

¹²⁰⁷ The quotation is to Geertz saying that the Balinese cockfighting is a story the Balinese tell themselves about themselves; see: Geertz C. 1972. "Deep Play: Notes on the Balinese Cockfighting". In *Daedalus vol. 101, no.1 Myth, Symbol, and Culture*; p. 26.

¹²⁰⁸ Regarding the interpretative process in archaeological excavations see: Hodder I. 1997. "'Always momentary, fluid and flexible': towards a reflexive excavation methodology". In *Antiquity vol. 71, issue 273*; pp. 691-700. See also: Tilley C. 1989. "Excavation as theatre". In *Antiquity vol. 63, issue 239*; pp. 275-280.

¹²⁰⁹ Shanks M. & Tilley C. 1992. *Re-Constructing Archaeology: Theory and Practice*. Routledge, London and New York; p. 68.

described, in some of the cases we analyzed, this was done in an explicit and intelligible way, while in others not. The result was either the complete abandonment of sites, or the heritage was aestheticized, as in the case of Baia, where the evocative power of the heritage impressed visitors more than its history. This is not necessarily a problem but, the impression is that in the case of Baia, when the analyzed site was beautiful and impressive, the interpretation of the archaeological objects was put aside. The risk in this case is to lose the importance of the work of the archaeologist and to not give value to it. It would be interesting to examine other cases, also in on land archaeological sites, to confirm if in the general public's perception that the aesthetic appreciation is always more powerful than the historical meaning.

In fact, as Tilley recognized "no archaeologist interprets for him or herself. Interpretation is a social activity for an individual, a group or an audience. Such an audience for whom both excavation and site reports are produced matter. There is something inherently unsatisfactory and elitist about the notion that excavations should be undertaken only to satisfy the specific research goals of archaeologists"¹²¹⁰. This thought is connected to the social role we give to archaeology, whose task is not only to discover the past, but also to communicate it to the general public, since the "product" of its research, the archaeological remains, is everyone's heritage. As we stated at the beginning of this work, archaeological heritage is never something objective, and, therefore, archaeologists should also have the role of making explicit their interpretation and the limits of their research¹²¹¹. In fact, the idea expressed by Tilley is at the base of many community-based archaeological projects that aim to involve local communities in the investigation and interpretation of the past. These projects are often carried out, by North European scholars, but also by scholars from USA and Australia, in post colonial contexts or in places where social conflict could be influenced by heritage management¹²¹². Nevertheless,

¹²¹⁰ Tilley C. 1989. "Excavation as theatre". In *Antiquity* vol. 63, issue 239; p. 280.

¹²¹¹ Smith L. 2006. *Uses of Heritage*. Routledge, London and New York; p. 299.

¹²¹² See for example: Moser S., Glazier D., Phillips J.E., Nasser el Nemr L. Saleh Mous M., Nasr Aiesh R., Richardson S., Conner A., Seymour M. 2002. "Transforming archaeology through practice: Strategies for collaborative archaeology and the Community Archaeology Project at Quseir, Egypt". In *World Archaeology* vol. 34, issue 2; pp. 220-248.

the case of the Departmental Museum of Ancient Arles, which to some extent is a community-based archaeological project, demonstrates how positive the results, in terms of heritage awareness and appreciation, can be if the local communities are involved in the discovery, study and dissemination of the heritage, when compared with other cases where such approaches are not experimented. Particularly, the Naples Underwater Parks case clearly showed us that it become really hard to preserve historical (or environmental) heritage, when public institutions completely exclude local communities from the process of "production" of the heritage. At the same time, the case of Arles demonstrates that community archaeological approaches can work, and give good results, not only for the management of the so-called "dissonant heritage"¹²¹³. The benefits of showing greater consideration for the public in the practice of archaeology, which was experimented in the UK already in the 1980s, can give positive results not only in economic terms (attraction of more visitors), but also in the general public's increased awareness that such heritage exists giving more value to the educative role of the historical heritage in society¹²¹⁴. But, although the importance of an educative approach in archaeology, as well as a more active role of archaeologists in society have been widely discussed in the last few years¹²¹⁵, our case studies demonstrate that there is still the need for determined efforts to put this theory into practice. Obviously, this process, for underwater archaeology, is even more difficult to realize in those contexts where the discipline has not been completely institutionalized.

As we mentioned in the introductory chapter, the idea of cultural heritage is a social construct, and this also applies to the underwater archaeological heritage. Thanks to the application of the Cultural

See also: Marshall Y. 2002. "What is Community Archaeology?". In *World Archaeology* vol. 34, issue 2; pp. 211-219.

¹²¹³ The definition of "dissonant heritage" was given by Ashworth & Tunbridge (1996) to refer to power-related issues that influence heritage management, see Ashworth G. & Tunbridge J. 1996. *Dissonant heritage: the management of the past as a resource in conflict*. Wiley ed., Chichester.

¹²¹⁴ Brunelli M. 2013. "Archeologi educatori. Attuali tendenze per un'archeologia educativa in Italia, tra *heritage education* e *public archaeology*". In *Il Capitale Culturale VII*; pp. 26-27.

¹²¹⁵ See Schadla Hall T. 1999. "Editorial: Public Archaeology". In *European Journal of Archaeology* 2 (2); pp. 147-156.

Diamond model, we showed clearly how underwater archaeological heritage is produced by the scientific community that discovers and studies it, and by the international and national institutions that, also through legislation, protect it and select it, turning it into everyone's heritage. For example, a selection process is the 100 years time limit expressed in the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. As we stated at the beginning, with the example of the people shouting at young archaeologists that they were "arms stolen from agriculture", the transformation of archaeological remains into everyone's heritage is not automatic. This was even clearer in our case studies. In fact, even if at different levels, all our case studies represented examples of institutionalized underwater cultural heritage, with different producers level like national and regional public institutions, whose work was sometimes also reinforced by private bodies that work as lower level producers trying to extend the value attributed to the underwater archaeological heritage from the producers to the general public. Nevertheless, this constructed heritage was not accepted by the wider society in most cases. This demonstrates how the lack of unity in the Cultural Diamond connection, which is the link between the producers and the receivers, makes the cultural object less powerful, and, returning to Schudson, it confirms that "no cultural objects work with everyone"¹²¹⁶. In the specific case of historical material remains, this is particularly relevant. In fact, these remains are turned into a cultural object that is defined as "heritage" by the producers; however the problems that we highlighted in this work showed how this heritage can remain ignored and "un-inherited" by society. We can sum up that, partially because of the lack of institutionalization of underwater archaeology as a scientific discipline in some contexts, and partially because the discipline is relatively young, the process of "heritagization"¹²¹⁷ of the underwater archaeological remains, at least in the three considered countries, still has to be completed.

¹²¹⁶Schudson M. 1989. "How Culture Works? Perspectives from Media Studies on the Efficacy of Symbols". In *Theory and Society* vol.18 no.2; p. 159.

¹²¹⁷ "Heritagization refers to the process by which heritage is constructed. This concept has been widely used among scholars in the south of Europe, by contrast with the invisibility of this term in English": Sánchez-Carretero C. (ed.). *Heritage, Pilgrimage and the Camino to Finisterre: Walking to the End of the World*. Springer, GeoJournal Library; p. 12.

Through this research we analyzed many different aspects pertaining to the management of archaeological heritage in general and of underwater heritage in particular. We tried to develop as detailed an analysis as possible using the Cultural Diamond and Schudson's dimensions. This work allowed us to recognize many problems pertaining to underwater heritage, but focusing attention also on the public that goes to visit the heritage as well as on the general and specific contexts of each case study, allowed us to examine management of the archaeological heritage in general, considering that the success of policies on heritage does not depend only on the number of visitors that go to a site or a museum. We finally recognized that in the construction process of the archaeological heritage and, especially its adoption by society which genuinely perceive it as everyone's heritage, the full institutionalization of the cultural heritage is fundamental, as well as the strong collaboration between the public and private, high level (e.g. national institutions) and low level (e.g. small local associations) producers. Finally, we also recognized the fundamental role played by the clear, accessible communication of information about the archaeological objects which engages the public achieved using a narrative approach to not only give the public a presentation, but also an interpretation of the archeological objects and sites.

We think that it may be interesting, in the future, to extend this analysis to other Mediterranean countries, as well as to North Europe, especially in order to identify which of the common problems that we recognized are typical of a geographical area. Considering archaeological heritage in general, we think it may be interesting to explore the study of Public Archaeology in the Mediterranean context in greater depth, for analyzing the role that archaeology in general has in society. This may be important especially in times of economical crisis when cuts are made to the public sector.

Finally, we would like to add a few last words on the underwater heritage in particular. In fact, we saw how in a relatively short space of time the discipline developed. However, some of the dangers that were underlined by the 2001 UNESCO Convention, as we demonstrated, still need to be solved. For this reason we think that sharing good or bad practices without hiding the problems, but analyzing the different cases

adopting an all-embracing approach to the analysis, and addressing every aspect of the situation may be fundamental for the future development of the discipline.